



Update B



Distribution Flexibility Services Procurement Statement 2026-27

April 2026

Northern Powergrid

Distribution Flexibility Services

Procurement Statement 2026-27

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Executive Summary

The procurement plans set out in this document build on our activities in 2025/26 and take account of feedback from Flexibility Services Providers. We published our [Flexibility Strategy](#) in February 2026 to provide opportunities for stakeholders to respond to our plans.

Our use of flexibility services is driven by our network needs. We will procure flexibility services for reinforcement deferral, where it represents the most economical and efficient alternative to traditional network investment. As we move towards the next 5-year regulatory period, ED3, we will increasingly use flexibility services to mitigate emerging constraints and to optimise the phasing of strategic investment in network reinforcement, enabling more efficient delivery programmes and reducing the risk of customer disruption.

In the short term our network has good demand headroom, mainly due to deindustrialization. As such the number of primary sites currently requiring intervention is limited but as we reach the end of the decade our needs will increase significantly. We also expect an increasing need to use flexibility to address constraints on the secondary network.

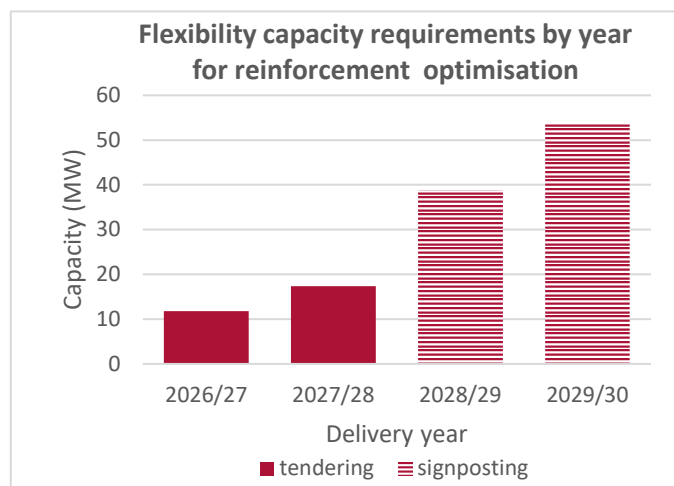
We are introducing our new flexibility product, FlexAdvance¹, a variant of the standard Scheduled Utilisation (SU) product. FlexAdvance provides an up-front payment that is used to develop additional flexibility capacity, and a claw-back mechanism ensures accountability and cost-effectiveness.

We will extend our use of flexibility services to include managing the operational risk associated with planned outages.

The total flexibility capacity requirements that we will be taking to market for delivery in 2026/27 and in 2027/28 are as follows:

Use Case	Capacity required (MW)		Number of locations
	2026/27	2027/28	
Planned outage risk management			
Primary network	27.0	11.0	6
Optimisation of network reinforcement			
Primary network	11.0	17.4	10
Secondary network	0.8	-	13
Total	38.8	28.4	29

We are also signposting potential requirements for flexibility services for reinforcement optimisation across a total of 24 locations on our primary network. We forecast those requirements as up to 39MW in 2028/29 and 54MW 2029/30.



In 2025/26 we ran a long-term Summer tender and also introduced more frequent procurement, with scheduling and dispatch happening closer to real-time when network conditions are better known. This took the form of monthly, month-ahead tenders during the Autumn and Winter, and procurement of the Scheduled Availability + Operational Utilisation (SAOU) product with week-ahead dispatch. This dual approach supports varied Flexibility Service Providers' (FSPs) preferences - some favour tenders closer to real-time, while others prefer longer-term contracts for better planning and stability.

We will continue this dual approach in 2026/27, balancing flexibility with longer-term certainty. We will run longer-term procurement mainly via a Summer tender, and nearer to real-time procurement through monthly month-ahead tenders during the Autumn and Winter. We will be procuring both the FlexAdvance and the week-ahead variant of the SAOU product² for use on our primary network and the SU product for use on our secondary network.

For managing the risk associated with planned outages, we will procure the 15 mins variant of the SAOU product², primarily through the April tender with additional tenders if required.

Our "[Artificial Forecasting](#)" Strategic Innovation Fund (SIF) project is developing artificial intelligence methods to improve short-term load forecasting. This new tool will be rolled out into our business-as-usual dispatch operations

¹ Procurement of FlexAdvance is subject to approval of the requested derogation from Flexibility Market Rules on standard products.

² Ongoing procurement of the 15 minutes and week-ahead variants of the SAOU product is subject to approval of the change proposal

to update the Flexibility Market Rule on the allowed variants of the SAOU standard product. For our SAOU tendering activities that will take place before the proposal is decided, we have sought a derogation to cover these variants while the change request is under consideration.

for the Autumn/Winter of 2026/27, enabling us to dispatch flexibility services with a higher degree confidence and precision.

The choice of procurement timescales and the range of products should enable a wide range of participants to engage effectively, strengthening the overall success of our flexibility procurement. We expect this to help drive greater participation, particularly at low voltage levels.

Using flexibility in this more dynamic way requires coordination with the National Energy System Operator (NESO). We share operational data to provide better visibility across the transmission system and our distribution system in order to improve operational control. The Flexibility Market Rule on Primacy ensures that our contracting approach allows FSPs maximum freedom to participate in multiple markets. We continue to develop and enhance operational data sharing with NESO.

Our procurement plans for the year are a progression along our development roadmap for flexibility that integrates flexibility services with network flexibility and other forms of customer flexibility such as flexible connections. Our experience of monthly tenders and week-ahead dispatch in 2025/26 will support our wider and longer-term flexibility strategy. We are also exploring how we can use flexibility services to assist in freeing up network capacity for new connections.

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1 Introduction

About us



Northern Powergrid is the company responsible for the electricity distribution network that powers everyday life for 8 million customers across 3.9 million homes and businesses in the North East, Yorkshire and northern Lincolnshire. These regions are served by our two licence areas - Northern Powergrid Northeast and Northern Powergrid Yorkshire.

Our electricity network spans around 25,000 square kilometres and consists of 96,000 kilometres of overhead power lines and underground cables and more than 63,000 substations, including:

- 122 large substations (42 grid supply points and 80 bulk supply points).
- 552 primary substations.
- 63,134 secondary substations.

By distributing the electricity that powers daily lives, Northern Powergrid plays a crucial role in society and contributes to economic growth in the communities that it serves.

Recognising the evolving demands in electricity usage and sustainable energy practices in line with net zero emission targets, Northern Powergrid is developing our region's electricity distribution network to meet the current and future demands of a decarbonised region.



8m
people served



3.9m
homes and businesses



25,000
km² of network

Our approach to flexibility

At Northern Powergrid we are committed to using flexibility as a solution on our network where it is efficient to do so. This includes connecting new customers to our network on a flexible basis, using flexibility services to manage load on our network and, increasingly, operating our network in a more flexible way to move load.

Flexibility is a critical enabler to decarbonising our energy system and meet the government's target of Clean Power 2030. Flexibility has a key role in balancing the energy system at an overall level, matching demand to the supply of renewable energy. However, there is also a large role for flexibility on our distribution network – helping us meet electricity user's needs in the most efficient way and helping us to manage the pipeline of reinforcement works.

In line with our [approach to flexibility](#), in developing and operating our network we seek to use flexibility where efficient. This includes using network flexibility – options such as switching to maximise the use of existing capacity of our network – and customer flexibility options – flexibility services and flexible connections.

Flexibility services in 2026/27

This Distribution Flexibility Services Procurement Statement focusses on one particular element of flexibility: flexibility services. It sets out the flexibility services we are seeking to procure in 2026/27 and provides details of;

- Our requirements for flexibility services
- How we will procure these services
- Stakeholder engagement plans to communicate the opportunities for participation to a wide audience
- Signposts to our other key network data publications that inform our plans

2 Flexibility services requirements

Flexibility services requirements for optimising our reinforcement programme

We regularly forecast load and assess network capacity needs to identify when and where load driven constraints are expected on our network; this then informs our requirements for flexibility services for optimising our network reinforcement programme. Our requirements for flexibility services are limited to the areas of our network that are demand constrained. We expect that as load increases through the adoption of low carbon technologies we will have a greater requirement for flexibility services the late 2020's and early 2030's.

Our **Long Term Development Statement** (LTDS) provides forecasts on a 1-to-5-year horizon. Our **Network Development Plan** (NDP) covers the 1-to-10-year horizon. The NDP includes the Network Development Report that provides information on key projects set for delivery in the next ten years, including new infrastructure to be installed, flexibility services to be deployed and locations where we need these services. Additionally, our NDP suite of documents includes the Network Headroom Report (NHR) which provides demand and generation headroom capacities up to 2050. Stakeholders can use these reports to understand our coming flexibility requirements.

We have a need for flexibility services to address thermal constraints and allow us to optimise the timing of reinforcement at both primary and secondary substations. We will seek active power services in these demand-constrained locations so the flexibility could be provided through any of: generation turn up, demand turn down, or battery discharge.

Our requirements for flexibility services to manage the anticipated load growth are revised on regular basis to ensure the efficient application of flexibility services on our network. This process is described in section 4. The majority of those requirements are to support the primary network, and those total requirements are set out in Table 1.

For those delivery years where we are signposting capacity requirements but not yet tendering for flexibility services, we are not at the point of tendering for those services. These potential future requirements are signposted via our **Open Data Portal**. We will also make this same information available via Piclo to help potential FSPs to map their assets against these requirements.

Table 1- Future load driven capacity requirements by year and license area, for high voltage zones (MW)

	Tendering 2026/27		Potential future requirements	
	2026/27	2027/28	2028/29	2029/30
Northeast	3.9	5.7	16.6	25.1
Yorkshire	7.1	11.7	22.2	28.7
Total	11.0	17.4	38.8	53.8

Flexibility services requirements to support planned outages

We review the outages that are planned as part of our construction schemes. For each outage we assess the risk that supply to customers might be interrupted and identify those where flexibility services could help reduce that risk. Flexibility Services is just one of a suite of risk mitigation tools that are used to help manage outage related risks. We use demand forecasts to identify the periods of operational risk associated with each outage and to specify the requirements for flexibility services that we would dispatch if required.

For most of the outage-related services we will be procuring in 2026/27, the requirement is for active power services through any of: generation turn up, demand turn down, or battery discharge. However, there are two outage locations where the requirement is for generation turn up or battery discharge which is due to network specific constraints.

Table 2 - Capacity requirements to support planned outages by year and license area, for high voltage zones (MW)

	Tendering 2026/27	
	2026/27	2027/28
Northeast	27.0	11.0
Yorkshire		
Total	27.0	11.0

Flexibility services capacity requirements to take to market in 2026/27

As part of optimising our programme of network reinforcement, we will tender for services at up to 10 primary substations (HV zones) for up to two years of service delivery i.e. for 2026/27 and 2027/28, as set out in Table 4. For four of these locations the requirements are dependent upon planned new connections. If those connections are delayed or cancelled, the flexibility services capacity required will be reduced or avoided altogether.

The forecasts for flexibility requirements to support the programme of secondary substation reinforcement are less certain and the times to deliver a reinforcement project are shorter, so we will tender for services for delivery in 2026/27 only and at 13 distribution substations i.e. LV zones (Table 6)

We will tender in April 2026 for up to 27MW of services to support planned outages at six locations (Table 7). Later in the year we may run additional tender(s) for services for additional planned outages if required.

The requirements presented here are anticipated and subject to revision. The capacity, service windows, budget and/or ceiling prices will be confirmed in advance of each tender.

Flexibility products

The **industry-standard flexibility products**, how we use these and their features are summarised in Table 8. In addition we use the FlexAdvance product that we have developed ourselves. The choice of product and further details such as how far ahead we are procuring creates what are known as sub-markets within our market for flexibility services. The sub-markets we intend to operate in 2026-27 are set out in Figure 2 on page 16.

We have raised a change proposal **FLX CP003** to increase the number of variants of the Scheduled Availability + Operational Utilisation (SAOU) product. Currently, the SAOU standard product only allows day-ahead dispatch. The proposal is to have four variants of the SAOU product to ensure alignment with the dispatch options for the Variable Availability + Operational Utilisation (VAOU) product: 2 minutes ahead, 15 minutes ahead, day-ahead, or week-ahead. We expect the change proposal to be decided on by June 2026 which is after our first tender for services for outage support, and before our July tender for services to optimise the timing of our reinforcement programme. We have therefore submitted a derogation that would allow us to procure SAOU with 15 mins dispatch in our April tender for services for outage support. This regularises our use of this product variant while the change proposal is in-flight.

Subject to the change proposal being agreed, we intend to procure SAOU with week ahead dispatch for the reinforcement optimisation use case. Should this not be approved, we will instead procure the week

ahead variant of the VAOU product. In this case we would not take advantage of the opportunity to refine availability after trade. Effectively we would operate it as if it was SAOU_WA, with the availability set at point of trade and utilisation set at week ahead. Our aim is to increase the attractiveness of participating in our market by reducing some of the revenue uncertainty for FSPs.

Throughout this document, we will set out our procurement plans on the assumption that the change proposal is approved.

For the use of flexibility services to optimise reinforcement, we will procure the Scheduled Utilisation product in all our tenders for LV zones (i.e. for services up to 400V to support secondary substations). For services in HV zones (i.e. for services up to 33kV to support primary substations) we will procure the SAOU product with week ahead dispatch.

In addition, we will procure 'FlexAdvance' a variant on the standard SU product. This product is designed to bring forward new flex capacity. We will tender HV requirements for reinforcement optimisation in a zone simultaneously via both FlexAdvance and SAOU_WA. The FlexAdvance product varies from the standard SU product in terms of its payment process – see Figure 1 for more information.

When using flexibility services to support planned outages, we will procure the SAOU product with dispatch at 15 minutes.

The flexibility products we intend to procure are summarised in table Table 3

Table 3 - Summary of flexibility products to be procured

Use case	Products
HV reinforcement optimisation	SAOU_WA FlexAdvance
LV reinforcement optimisation	SU
Managing planned outages	SAOU_15 mins

Figure 1 – FlexAdvance product introduction

What is FlexAdvance?

This product is borne out of a Northern Powergrid pilot project launched in 2025 in partnership with Eon Next: Empower Flex. This deployed domestic batteries and energy efficiency measures on a large scale across two constraint managed zones which had repeatedly fallen short of flexibility requirements at tender.

This product has been moved into our business-as-usual operations. It was well received when launched as part of our **2026 Flexibility Strategy**. We will procure this to enable development of new flexibility assets within our constraint managed zones.



How does FlexAdvance compare to the standard Scheduled Utilisation (SU) product?



Like the standard SU product, the service requirements are set at the point of trade award and payment based on utilisation only. There is no availability payment. The settlement calculation of payments due are as per the standard product.

The settlement process is different: we pay the flexibility services provider 80% of the forecast flexibility value in an upfront payment, at the point the assets are built. The remaining 20% will then be paid at the point of flexibility utilisation. There will be a reconciliation process that allows us to clawback payments in the event of under delivery.

When will we tender for FlexAdvance services?

We will tender for this product each month from July 2026 to March 2027. Along with their bid for FlexAdvance, the bidding FSP should submit their plan for developing the new flexible assets that will deliver the service.

While the pilot project focussed on supporting vulnerable customers by deploying batteries in their homes, we are open to other uses for the upfront funding available under FlexAdvance. We welcome inquiries for a range of technological solutions and across both the domestic and non-domestic market sectors.

Dispatch

Overall, a three-step approach has been established to govern the flexibility dispatch process:

- Identify Operational Requirements. Determine the specific operational needs based on system conditions and constraints.
- Apply Operational Decision-Making. Allocate identified requirements to Flexibility Service Providers (FSPs) through a structured decision-making process.
- Schedule Flexibility service. Issue dispatch instructions to FSPs to implement the scheduled flexibility services.

Our **Operational Decision-Making Framework** defines the principles for how we make planning and operational decisions to schedule and dispatch flexibility services. The dispatch principles are used to ensure actions taken on the network use the right solution to deliver the most efficient whole system outcome.

These dispatch principles will apply to the Scheduled Availability + Operational Utilisation (SAOU) product where we make dispatch decisions after trade award.

For the Scheduled Utilisation product, dispatch is determined at the point of contracting, so there are no subsequent dispatch decisions, and the required utilisation will be as per the contract.

In operational timeframes, dispatch principles inform the merit order, ranking the available flexibility services based on their cost and effectiveness, governing the use of available flexibility by the DSO or the NESO.

Our underlying principles are built on the **ENA Open Network projects Dispatch & Settlement Processes (March 2020)**. These principles establish a hierarchy of needs that can be applied in a range of circumstances across all voltage levels and within both licence areas of Northern Powergrid. We ensure that all dispatch decisions prioritise the safety of our personnel. This is a fundamental prerequisite before any operational decision-making is finalised.

We use the **PicloFlex** platform for dispatch and settlements, providing a single end to end platform for FSPs from commercial qualification and asset registration through bidding to dispatch and settlement. The exception to this is services for outage support where our dispatch will be within day, and these instructions will be issued by telephone.

To enhance efficiency, we work closely with Piclo Flex to streamline platform usage, reducing operational effort for both our internal teams and external flexibility providers. The platform is technology-agnostic, and supports multiple communication channels (e.g., API, email) enabling FSPs to receive dispatch instructions via their preferred channel.

Our "**Artificial Forecasting**" Strategic Innovation Fund (SIF) project is developing artificial intelligence methods to improve short-term load forecasting, which will enable us to optimise the use of flexible assets and existing network capacity. The prototype Artificial Forecasting tool delivered improved precision and understanding of the uncertainty of the forecasts used in 2025/26 to inform our week-ahead dispatch decisions. This new tool will be rolled out into our business-as-usual dispatch operations for the Autumn/Winter of 2026/27, enhancing our ability to use flexibility services in a more targeted way.

Resources

Our **Open Data Portal** provides a wealth of information on our distribution network and allows stakeholders to self-serve by accessing a range of published datasets that are reviewed and updated on a regular basis. This includes our LTDS, NDP, Distribution Network Options Assessment (DNOA) and other key network information.

The **feature page for Flexibility Services Providers** (FSPs) provides easy access to a range of datasets and resources relevant to these stakeholders. The portal also provides a route for stakeholders to make more bespoke data requests.

Table 4 – Reinforcement optimisation: anticipated high voltage zone requirements to be tendered in 2026/27

Use case		HV reinforcement optimisation						
Products		Scheduled Availability + Operational Utilisation (SAOU): variant week ahead dispatch and FlexAdvance						
Response type		Demand turn-down / generation turn-up (DTD/GTU)						
Submarkets		Submarkets 3 and 6 for SAOU and FlexAdvance for winter+1 ahead i.e. delivery in 2027/28 Submarkets 4 and 7 for SAOU and FlexAdvance for winter ahead i.e. delivery in 2026/27 Submarket 5 for SAOU for month ahead delivery in 2026/27						
Licence area	Location	Zone (Primary Substation or Bulk Supply Point)	Substation postcode	Maximum voltage for service	Capacity required 2026/27 (MW)	Capacity required 2027/28 (MW)	Seasonal need	
North East	Harrogate	Starbeck	HG2 7PT	11kV	2.667	3.435	Autumn/Winter	
North East	Stockton on Tees	Urlay Nook	TS16 0QB	11kV	1.241	1.988	Autumn/Winter	#
North East	Thirsk	Thirsk	YO7 4NH	11kV	-	0.280	Autumn/Winter	
Yorkshire	Castleford	Wellington Street	WF10 1NW	11kV	-	0.116	Autumn/Winter	#
Yorkshire	Doncaster	Thorne	DN8 4NA	11kV	0.930	2.189	Autumn/Winter	#
Yorkshire	Driffield	Kirkburn	YO25 9EH	11kV	0.716	2.684	Autumn/Winter	
Yorkshire	Leeds	Selby Road	LS15 0QE	11kV	0.141	0.714	Autumn/Winter	#
Yorkshire	Scunthorpe	Crowle	DN17 4BB	11kV	1.022	1.283	Autumn/Winter	
Yorkshire	Stocksbridge	Wheatacre Road	S36 2GQ	11kV	1.672	1.920	Autumn/Winter	
Yorkshire	Wetherby	Audby Lane	LS22 7SU	11kV	2.618	2.770	Autumn/Winter	
Total					11.006	17.378		

indicates requirements dependent upon connections

Table 5 - Reinforcement optimisation: potential future requirements for flexibility services for HV zones

Use case		HV reinforcement optimisation					
Response type		Demand turn-down / generation turn-up (DTD/GTU)					
Licence Area	Location	Zone (Primary Substation or Bulk Supply Point)	Substation postcode	Maximum voltage	2028/29 Capacity required (MW)	2029/30 Capacity required (MW)	
North East	Darlington	Darlington West	DL3 9QG	11kV		0.974	
North East	Harrogate	Starbeck	HG2 7PT	11kV	4.244	5.053	
North East	Middlesbrough	Faraday Street	TS1 4JG	11kV	2.016	2.793	
North East	Middlesbrough	Prissick	TS4 3SG	11kV		0.189	
North East	Ripon	Ripon	HG4 1QE	11kV	2.175	2.992	
North East	Seaham	Hawthorn Pit	SR7 9NX	20kV	2.103	3.589	
North East	Stockton on Tees	Millbank Lane	TS17 0AX	11kV	1.533	2.280	
North East	Stockton on Tees	Urlay Nook	TS16 0QB	11kV	2.837	3.672	#
North East	Thirsk	Thirsk	YO7 4NH	11kV	0.871	1.528	
North East	Whitley Bay	Monkseaton	NE25 9AF	11kV	0.317	0.952	
North East	York	Husthwaite 33/11kV	YO61 4PN	11kV	0.553	1.092	
Yorkshire	Castleford	Wellington Street	WF10 1NW	11kV	0.513	1.047	#
Yorkshire	Doncaster	Armthorpe	DN3 3DY	11kV	0.271	0.564	
Yorkshire	Doncaster	Thorne	DN8 4NA	11kV	3.164	3.808	#
Yorkshire	Doncaster	West End Lane	DN11 0PU	11kV	2.772	3.949	
Yorkshire	Driffield	Kirkburn	YO25 9EH	11kV	2.910	3.171	
Yorkshire	Grimsby	Scartho	DN33 3JL	11kV		0.349	
Yorkshire	Leeds	Rodley Lane	LS13 1LJ	11kV	0.530	1.026	
Yorkshire	Leeds	Selby Road	LS15 0QE	11kV	1.450	2.227	#
Yorkshire	Lincoln	Stow	LN1 2AJ	11kV	0.333	0.603	
Yorkshire	North Ferriby	Gibson Lane	HU14 3HH	11kV	3.603	4.541	
Yorkshire	Scunthorpe	Crowle	DN17 4BB	11kV	1.523	1.793	
Yorkshire	Stocksbridge	Wheatacre Road	S36 2GQ	11kV	2.171	2.407	
Yorkshire	Wetherby	Audby Lane	LS22 7SU	11kV	2.920	3.190	
Total					38.810	53.790	

indicates capacity requirement dependent upon connections

Table 6 - Reinforcement optimisation: anticipated low voltage zone requirements to be tendered in 2026/27

Use case		LV reinforcement optimisation				
Products		Scheduled Utilisation (SU)				
Response type		Demand turn-down / generation turn-up (DTD/GTU)				
Submarkets		Submarket 1 for SU for winter ahead delivery i.e. in 2026/27 Submarket 2 for SU for month ahead delivery in 2026/27				
Licence area	Location	Zone (Distribution Substation)	Substation postcode	Maximum voltage for service	Capacity required 2026/27 (MW)	Seasonal need
NE	Alnwick	Alnwick Fleece	NE66 1PR	415V	0.050	Autumn/Winter
NE	Beamish	Lime Street	DH9 7EJ	415V	0.075	Autumn/Winter
NE	Hartlepool	Chaucer Avenue	TS27 4NJ	415V	0.075	Autumn/Winter
NE	Hexham	Dene Avenue	NE46 1HJ	415V	0.040	Autumn/Winter
NE	Morpeth	Ulgham	NE61 3AR	415V	0.025	Autumn/Winter
NE	North Shields	Broadway Tynemouth	NE30 2LQ	415V	0.150	Autumn/Winter
NE	North Shields	Rowntree Way	NE29 6XX	415V	0.050	Autumn/Winter
NE	York	Kirbymoorside West	YO62 6JE	415V	0.050	Autumn/Winter
Y	Bradford	Thornbury Avenue 929	BD3 8HY	415V	0.050	Autumn/Winter
Y	Doncaster	Yarborough Terrace 44094	DN5 9SJ	415V	0.075	Autumn/Winter
Y	Leeds	Archery Road 2051	LS2 9AR	415V	0.025	Autumn/Winter
Y	Leeds	Royal Park Road 348	LS6 1JJ	415V	0.075	Autumn/Winter
Y	Wakefield	Batley Road 2243	WF3 1HT	415V	0.025	Autumn/Winter
Total					0.765	

Table 7 – Planned outages: anticipated high voltage zone requirements to be tendered in 2026/27

Use case		Supporting planned outages						
Products		Scheduled Availability + Operational Utilisation (SAOU): variant 15 mins dispatch						
Response type		Demand turn-down / generation turn-up (DTD/GTU) Except # means generation turn-up (GTU) only						
Submarkets		Submarket 8 for SAOU for delivery approx. 8 weeks ahead						
Licence area	Outage Location	Zone (Primary Substation)	Substation postcode	Maximum voltage for service	Capacity required 2026/27 (MW)	Capacity required 2027/28 (MW)	Seasonal need	
NE	Annfield BSP	Tanfield	DH9 9UY	11kV	5.0	-	May - Jul 2026	
NE	Spennymoor BSP	Brancepeth	DL15 0RN	22kV	1.0	-	Oct-Dec 2026	
NE	Spennymoor BSP	Fishburn	TS21 4BA	22kV	2.0	-	May 2026	
NE	Spennymoor BSP	Low Spennymoor	DL16 7RY	11kV	8.0	-	Sep-Oct 2026	#
NE	Spennymoor BSP	Skerneside	DL5 6JH	22kV	3.0	3.0	Jun 2026 Mar-Apr 2027	
NE	Spennymoor BSP	Toronto	DL14 7RN	22kV	8.0	8.0	Apr-May 2027	#
Total					27.0	11.0		

For Low Spennymoor and Toronto, the service must be generation turn-up due to network specific constraints at these locations.

Table 8 – How we are using the standard flexibility products

Flexibility product	The response we are buying	What we use it for in our tenders	Availability agreed	Utilisation agreed	Payment
Scheduled Utilisation (SU)	We agree a schedule of days/times in advance, and the provider is obliged to turn up/down as per the schedule	Optimising timing of reinforcement on the secondary network	-	At time of trade	Utilisation in £/MWh
Scheduled Availability + Operational Utilisation (SAOU)	We agree a capacity of turn-up/down to be made available for specified availability windows. Closer to the event we issue dispatch instructions to confirm the utilisation required and the provider is obliged to turn up/down according to the dispatch instruction.	Optimising timing of reinforcement on the primary network (dispatched week ahead) and to support planned outages (dispatched 15 min ahead)	At time of trade	2 min /15 min / day ahead / Week ahead ³	Availability in £/MW/h + Utilisation in £/MWh
Variable Availability + Operational Utilisation (VAOU)	We agree a capacity of turn-up/down to be made available as for specified availability windows. We can later refine the availability requirements. Closer to the event we issue dispatch instructions to confirm the utilisation required and the provider is obliged to turn up/down according to the dispatch instruction.	We are not planning to use this unless the SAOU change proposal FLX-CP003 is rejected.	At time of trade, refined week ahead	2 min /15 min / day ahead	Availability in £/MW/h + Utilisation in £/MWh
			At time of trade, refined month ahead	Week ahead	

³ Availability of the 2 mins, 15 mins and week ahead dispatch options for SAOU are subject to approval of change proposal FLX-CP003

Figure 2- the sub-markets of our flexibility market

	Sub-Market 1: LV SU Procuring winter ahead	Sub-Market 2: LV SU Procuring month ahead	Sub-Market 3: HV SAOU+WA Procuring winter+1 ahead	Sub-Market 4: HV SAOU+WA Procuring winter ahead	Sub-Market 5: HV SAOU+WA Procuring month ahead	Sub-Market 6: HV FlexAdvance Procuring winter+1 ahead	Sub-Market 7: HV FlexAdvance Procuring winter ahead	Sub-Market 8: HV SAOU+WA Procuring 8 weeks ahead
System Operator	SO: Northern Powergrid							
Flexibility Product	Scheduled Utilisation		Scheduled Availability + Operational Utilisation			Scheduled Utilisation		Scheduled Availability + Operational Utilisation
Flexibility Product Variant			Week Ahead			FlexAdvance Settlement & Verification		15 mins
Auction contract length	Month < x <= Year	Week < x <= Month	Month < x <= Year	Month < x <= Year	Week < x <= Month	Month < x <= Year	Month < x <= Year	Week < x <= Month
Direction of Service	DTD/GTU							
Zone	Reinforcement deferral LV CMZs		Reinforcement deferral HV CMZs					Planned outage HV CMZs

3 Tendering process

Objectivity and transparency

We ensure that our business-as-usual tendering processes are objective, transparent and market-based through:

- our procurement policies, processes and procedures to ensure that we comply with the **Utilities Contract Regulations (2016)**;
- advertising our tenders on the Piclo Flex market platform and through other channels such as our corporate website and **'Find-a-Tender'**;
- conducting competitive tenders on the Piclo Flex market platform;
- using the **Flexibility Market Rules (FMR)** managed by the Market Facilitator; and
- setting out the bid evaluation methodology in our Invitation to Tender (ITT) documents (see 'Assessing Bids for Flexibility Services' in section 5).

We occasionally procure flexibility services via a single tender action rather than a full competitive tender, for example when trialing a new approach. This enables us to quickly trial services and not burden a market with a tender for a nascent product offering. A recent use of this approach was the Empower Flex trial in 2025 for demand turn down via energy efficiency and generation turn-up via batteries. Following that successful trial, the 'FlexAdvance' product will be procured on a business-as-usual basis in 2026/27.

Our Flex-ENC Innovation project on using flexibility services to enable new connections is due to complete in mid-2026. Dependent on the outcomes and the opportunities, we may trial the use of flexibility services for this use case and would use a single tender action to deliver that trial.

Finally, we may use a single tender action to procure services where the requirements and connected customers mean that there is only one potential FSP.

Increasing ambition

Our ambition for our customers means that we explore opportunities to develop the market with the aim of moving from trials to subsequent business-as-usual competitive tendering. Our recent trials mean that we are bringing to market in 2026/27 for the first time new opportunities in the form of services for supporting planned outages and the use of an additional product: FlexAdvance.

We are currently trialing generation turn up flexibility services to reduce network risk in support of planned outages. Based on this experience, we intend to procure services to support the planned outages.

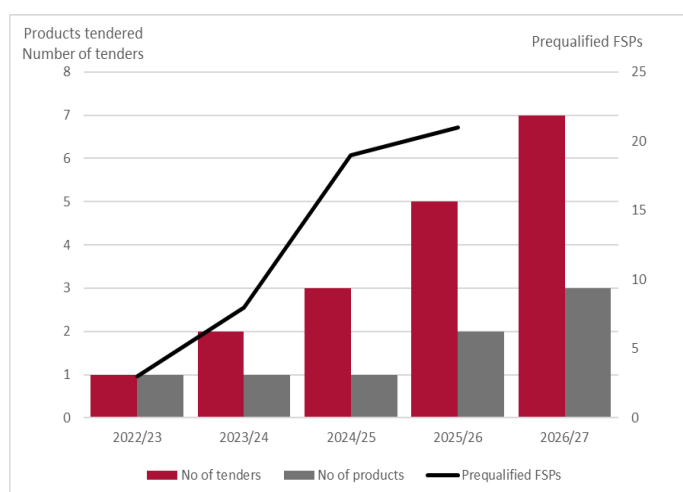
Following the successful 2025 Empower Flex project we will be introducing the 'FlexAdvance' product into

business-as-usual procurement in 2026/27. This product is designed to support FSPs investment in bringing additional flexible capacity to market. This increases to three the number of products we are procuring: SAOU, SU and Flex Advance. See Figure 1 on page 9 for more information on FlexAdvance.

As in 2025/26, we will run a tender in the Summer and a series of at least four monthly tenders throughout the winter, all for procuring services for reinforcement optimisation. In addition, we will run tenders for services to support planned outages, with the timing of these tenders depending on the plans for each outage. We expect at least two such additional tenders, bringing the total number of tender opportunities in the year to at least 7.

Figure 3 summarises how we have developed the market for flexibility services in terms of the number of different products procured, the number of tenders per year, and the number of Flexibility Service Providers (FSPs) prequalified to participate in our tenders.

Figure 3 – Market development



Ease of access to our markets is supported by our implementation of industry standards. This includes deploying the standard contract as an overarching contract under which multiple subsequent trade awards can be made, and our adoption of a single market platform, Piclo, for the end-to-end process from procurement through to dispatch and settlement.

However, we recognise that, as the flexibility market continues to develop, applying the standard terms rigidly may risk creating unnecessary barriers for certain providers. While the standard contract remains our default position, we are now open to considering proportionate and justified modifications where these are required to support participation, remove unintended blockers, or reflect the realities of emerging

business models. For our FlexAdvance product we will need to introduce specific service level terms to reflect upfront payments and related clawback mechanisms, but the underlying terms and conditions will remain aligned with the standard agreement to maintain clarity and consistency for providers across our flexibility services.

Pricing strategy

Our pricing strategy seeks to balance effective competition with developing liquidity in the flexibility market and delivering the cost efficiency benefit for customers. Not all tenders are resulting in competitive bidding yet, so at this stage of market development there is a benefit in disclosing available budget and guide prices.

The calculation of the annual budget for flexibility services is described in section 5 but can be summarised as follows:

- For reinforcement optimisation in HV zones: we use the Common Evaluation Methodology (CEM) tool to create a guide price based on deferring conventional works at that primary substation, using our most up to date estimate of the cost of those works.
- For reinforcement optimisation in LV zones: we set the guide price for LV zones on a site-by-site basis in order to truly reflect the value of flexibility at each location. We estimate the counterfactual cost of reinforcement at each secondary substation based on capacity needs forecast in 2050 and pricing a standard scheme to meet that capacity using Ofgem's Secondary Reinforcement Volume Driver unit costs.
- Risk management of planned outages: for each planned outage we carry out an outage specific risk assessment, calculate a budget for risk mitigation measures, and a Construction Outage Risk Mitigation Plan (CORMP) which may or may not include flexibility services. If flexibility services are considered an appropriate risk mitigation measure, the available budget is related to the value of

potential load lost and the probability of a second fault occurring during the planned outage.

For each zone where we are tendering for Scheduled Utilisation (SU) or FlexAdvance, we will set out a guide price which is the maximum utilisation price that we will pay for a service in that tender. The guide price in £/MWh is calculated by dividing the available budget by the MWh forecast to be required.

Where we are tendering for a product that has an availability component as well as a utilisation component SAOU or VAOU, bidders are free to determine the bid price for each component i.e. we do not require a certain split between availability price bid and utilisation price bid. For these products and for OU, we will set out the available budget, the anticipated dispatch rate (ADR) and a 'maximum effective price' (MEP).

The MEP sets a ceiling on what we will pay for the service and is calculated as

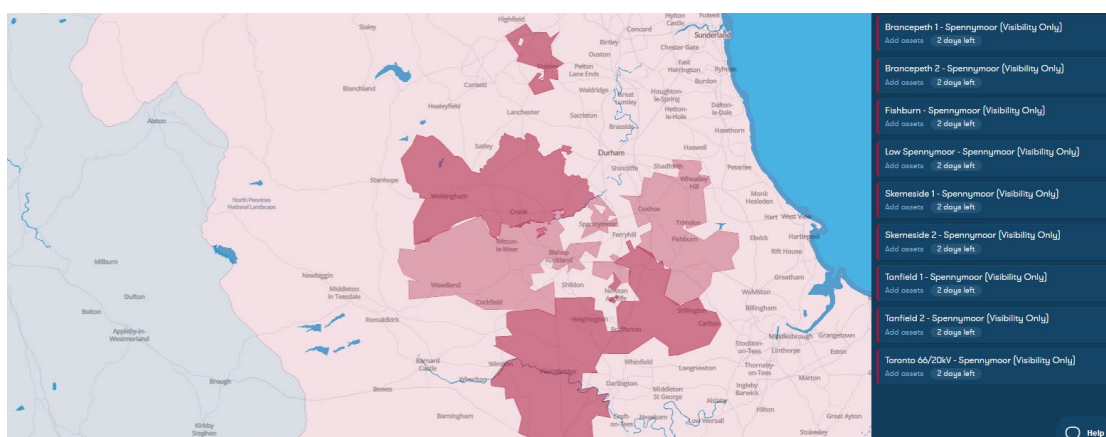
$$\text{MEP (£/MWh)} = \frac{\text{Available budget (£)}}{\text{Availability required (MWh)} + \text{Anticipated utilisation (MWh)}}$$

The anticipated utilisation in MWh is calculated as

$$\text{ADR} \times \text{Availability required (MWh)}$$

For each tender we provide a bid modelling tool to allow bidders to model utilisation price, availability price and bid capacity before submitting their bids. The modeller calculates the 'effective price' of a bid, taking into account the ADR as well as the bid's availability price and utilisation price. It calculates the potential revenue of a bid and compares the bid price to the maximum utilisation price (for SU or FlexAdvance) or to the maximum effective price (for other products). The tool covers all the competitions in the i.e. all products, all zones and all service periods.

Figure 4 - visibility only competitions on Picto, signposting our first tenders for planned outage support



Procurement process and contract award arrangements

The stages in the procurement process are shown in Figure 5.

Commercial prequalification is carried out on the Piclo Dynamic Procurement System (DPS). We recommend that potential FSPs submit their DPS application at least four weeks before they intend to bid in a competition. The application includes questions about compliance with Northern Powergrid's cyber security requirements.

As part of the prequalification process, the FSP will sign the standard contract for flexibility services. This acts as an overarching contract under which multiple subsequent trade awards can be made. The trade award notification will contain the relevant service and asset details and refer to the signed contract.

Our April tender for services for outage support and July tender for services for reinforcement optimisation has been preceded by a period of engagement and signposting during which the forthcoming tender requirements were presented on Piclo as 'visibility-only' competitions (

Figure 4). This will enable potential bidders to familiarise themselves with the locations and requirements in advance of the ITT publication and the full competitions going live on Piclo.

Bidders can structure their bids across each competition and across each zone in the following ways:

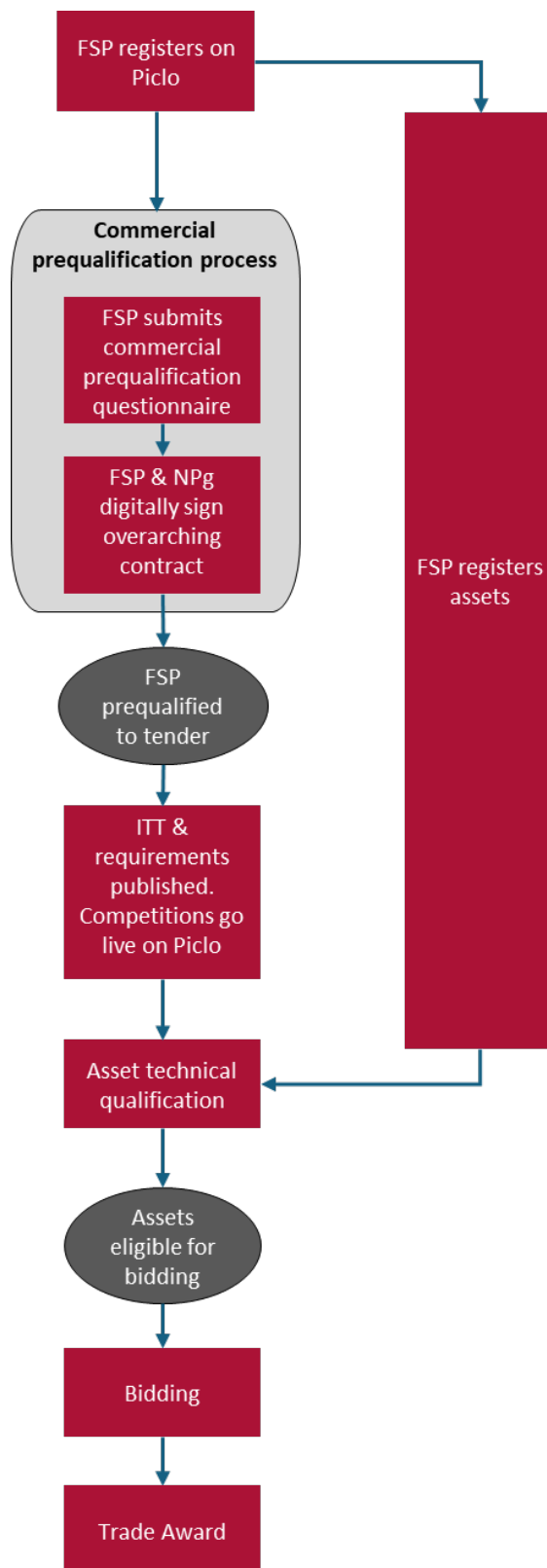
- Capacity – Bidders can offer the bid capacity at a single price or split the capacity into smaller volumes with different prices, providing that the capacity of each bid is at least 10kW.
- Service Windows – Bidders can bid for the full Service Window or use the 'maximum runtime' to limit the service hours to less than the full service window.

In accordance with [the Flexibility Market Rule on baselining methodologies](#), an FSP seeking to use a nominated baseline for the bid asset(s) should submit the nomination by the bid submission deadline during the tender process

Where an FSP has submitted a bid using planned assets, including for the FlexAdvance product, the FSP should submit a development plan along with their bid. We will consider this in assessing such bids.

For FSPs bidding for FlexAdvance only, we will carry out a credit check to ensure that their credit worthiness is appropriate for the level of upfront payment that would be made if their bid was accepted.

Figure 5 - the prequalification and trade process



Procurement Timetable

Our combination of short-term and long-term tender opportunities is designed to maximise participation by accommodating differing FSPs' preferences. Some favour the flexibility of tendering for shorter durations and closer to real-time, while others prefer the certainty and stability of tendering for longer durations further ahead. This approach ensures that a wider range of participants can engage effectively, strengthening the overall success of our flexibility procurement.

Our tender timetable is set out in Table 9. Should an additional urgent flexibility need arise outside this timetable, we may publish an additional invitation to tender.

Each tender will operate according to the indicative timetable set out in Table 10. We will communicate a firm timetable in advance of each tender.

The long-term tender in July will be preceded by an extended period of pre-ITT signposting during which the requirements of the upcoming tender will be available, including on the Pico platform as 'visibility-only' competitions.

Flexibility procurement activities will be announced on our Pico homepage, with onward links to the Pico platform and on the Find-a-Tender service.

Taking the requirements and products set out in Section 2 and the procurement timetable set out here defines the sub-markets within our flexibility market. These sub-markets are summarised in Figure 2 on page 16.

Table 9 - Tender timetable showing which flexibility submarkets will be procured in each tender

Use Case Zones Product For delivery in		Planned outage support		Network reinforcement optimisation					
		HV		HV		HV		LV	
		SAOU_15		SAOU_WA		FlexAdvance		SU	
		2026/27	2027/28	2026/27	2027/28	2026/27	2027/28	2026/27	2027/28
Service delivery dates in 2026/27 and in 2027/28									
When tender takes place	Apr-26	various	various						
	May-26								
	Jun-26								
	Jul-26			Autumn/Winter	Autumn/Winter	Autumn/Winter	Autumn/Winter	Autumn/Winter	Autumn/Winter
	Aug-26					Autumn/Winter	Autumn/Winter		
	Sep-26					Autumn/Winter	Autumn/Winter		
	Oct-26			Nov-26			Autumn/Winter	Nov-26	
	Nov-26			Dec-26			Autumn/Winter	Dec-26	
	Dec-26			Jan-27			Autumn/Winter	Jan-27	
	Jan-27			Feb-27			Autumn/Winter	Feb-27	
	Feb-27			Mar-27			Autumn/Winter	Mar-27	
	Mar-27						Autumn/Winter		

Table 10 - Indicative tender timetable

Tender activity	Approximate date in month
ITT and requirements published	1 st of each month
Bidding window	12 th of each month
Bid accepted/ rejected. Trade award notification issued	19 th of each month

4 Stakeholder engagement

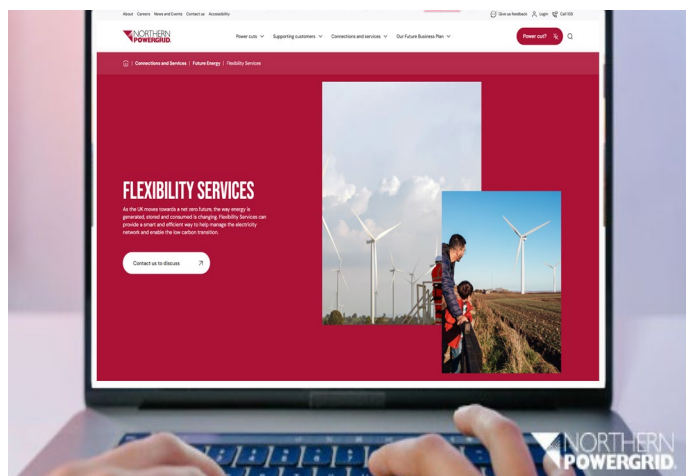
Providing our stakeholders with a broad and well-structured programme of engagement activities is essential to supporting the continued development of the flexibility market. We now develop a dedicated engagement plan each year, ensuring a clear framework for how we listen, collaborate and respond to stakeholder needs. Consistent and regular interaction remains fundamental to building trust and maintaining strong relationships.

We use a range of engagement approaches. Some activities focus on specific geographical areas where we are procuring flexibility services, while others are designed to reach a wider, more diverse audience. This helps us better understand emerging needs and opportunities and supports greater participation in our markets. Our ambition remains to grow flexibility markets across our region and enable more customers to take part. Through ongoing dialogue, we update stakeholders on future plans, upcoming flexibility competitions, key events and relevant opportunities.

As part of our approach to stakeholder engagement, we have planned a series of targeted activities which promote collaboration across the industry (see Table 11 on page 25). These activities aim to gather valuable insights and allow us to meet with a broad range of stakeholders.

In addition, there will be tender specific communications related to each tender.

Website



The **flexibility services webpage** will continue to act as our central hub, providing clear information on flexibility services, how stakeholders can get involved, and direct access to our market platforms. We will expand the range of documents and resources available on the site—including newsletters, reports, guides and webinars—to ensure stakeholders have easy access to the information they need. Throughout the year, we intend to grow this portfolio further to support increased participation in flexibility services.

Details of our upcoming events, along with recordings of past sessions, will remain available through our **stakeholder engagement portal**. This enables stakeholders to participate in real time or catch up at their convenience, improving accessibility and supporting inclusive communication. During the year, the ongoing development and refresh of the Northern Powergrid website will provide further opportunities to enhance and expand our flexibility services webpage, improving navigation, usability and access to key materials for all stakeholders.

Contact email

Stakeholders can contact us at flexibility@northernpowergrid.com. The account is manned by the Commercial Flexibility team for a prompt and expert response. We promote our email handle on all our social media posts, webinars, websites and documentation which allows our stakeholders to engage directly with us.

Industry engagement and in-person events

We recognise the importance of meeting our stakeholders in person to build strong and collaborative relationships. Throughout the year, we will continue to participate in and exhibit at key industry conferences and events, providing valuable opportunities for direct engagement and knowledge-sharing. Attending a wide range of events also enables us to strengthen connections across the sector and collaborate more closely with other Distribution Network Operators (DNOs) and the wider industry.



Duncan Oliphant, Head of Commercial Flexibility at Northern Powergrid

Newsletters

We will provide news updates that are informative and relevant and provide a wide range of information. The newsletter will be distributed regularly to our mailing list to keep our stakeholders informed. We recently launched our newsletter on LinkedIn, so it is more accessible and interactive for our stakeholders, and we do plan on making these news updates more regular. Before each tender a news update is sent to our mailing list, so they are aware of the competitions that have been launched and this will continue.

Planned engagement with NESO, other DNOs and IDNOs

We have planned a wide range of industry engagement activities planned to support further development, deployment and participation in flexibility services. This includes:

- Industry Conference engagement and presentations such as:
 - Distributed Energy Show
 - Utility Week Live
 - Energy Innovation Summit
- Innovation programme engagement
 - Strategic Innovation Fund participation, partnering and monitoring.
 - Network Innovation Competition (NIC) and Network Innovation Allowance (NIA) participation
 - Leading Community DSO NIC – unlocking smart local energy systems as a Flexibility Service enabler.
- Participation in Regulator Bilateral and Industry Forums such as the Power Responsive Challenge Group.

Webinars

We will organise webinars before each tender round to discuss the requirements and how to register, qualify and bid in the upcoming competitions. We also participate in webinars with the wider DSO team that are of interest to stakeholders. This also includes roundtables and stakeholder panels.

At the beginning of each year, we hold a webinar to discuss the strategy for the year ahead and keep stakeholders informed on any changes.

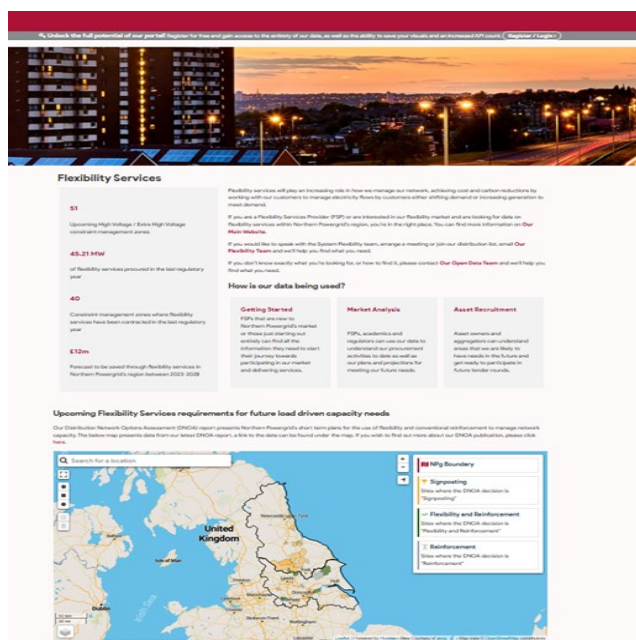
Consultations

We will carry out a series of consultations with our key stakeholders to ensure their input continues to inform the development of flexibility services. These consultations will include a mixture of online surveys, one-to-one interviews and virtual workshops, providing stakeholders with multiple ways to share feedback on different aspects of our initiatives. The insights gathered through this process will be used to refine our approach and ensure it remains aligned with stakeholder needs.

Open Data Portal

Our **Open Data Portal** will remain a key enabler of transparency and stakeholder self-service. It provides easy access to a wide range of regularly updated network datasets, supporting stakeholders in understanding our flexibility requirements and wider network development plans.

We will continue to expand the volume and granularity of data we publish, making more operational, planning and forecasting datasets available. This enhanced visibility will help stakeholders better identify opportunities to participate in flexibility services and integrate our data into their own planning processes. We will also use the portal to host additional resources, tools and guidance to support market entrants and improve data usability, ensuring the portal continues to evolve in line with stakeholder needs and industry expectations.



Social media and communications plan

We develop a communications plan which identifies activities and campaigns to run throughout the year. Campaigns run throughout each tender round to highlight the specific requirements and try to target potential FSPs. Some of the campaigns are launched on LinkedIn, and this is shared by the members of the Flexibility team to increase awareness. We will continue to work closely with our corporate communications team to develop our communications strategy and schedule activities.

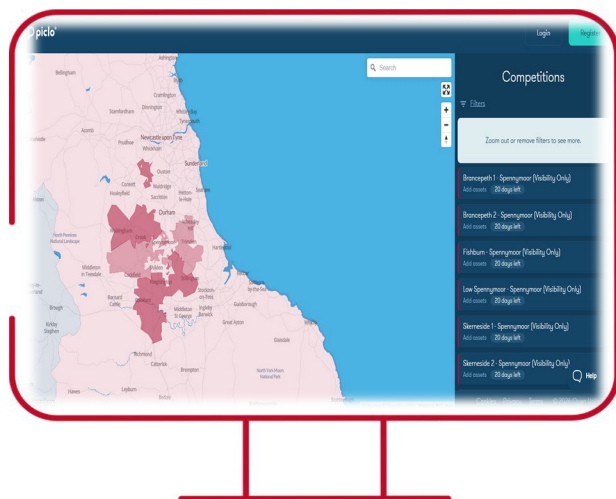
Targeted engagement

Bilateral engagement takes place throughout the year with both current and prospective FSPs. Activity naturally intensifies during tender rounds, when we increase outreach and provide more targeted support. To ensure stakeholders have the information they need, we will continue to run dedicated sessions such as workshops and surgery days focused on the details of upcoming tenders, including service requirements and key dates.

These sessions also provide valuable opportunities for stakeholders to ask questions and share feedback. In addition, Northern Powergrid host meetings with FSPs registered on the market platform to maximise the impact of engagement and streamline communication. Each FSP that registers with us is assigned a Northern Powergrid point-of-contact account manager, ensuring tailored support aligned to their individual needs.

Piclo

We will continue using our Piclo 'System Operator profile page' as a central channel for transparent communication with stakeholders. We will keep publishing status updates on the current tender opportunities and include timelines of the procurement activities. All of the documentation relating to the tender such as ITTS and guidance will be published on this profile page to ensure stakeholders have a single, accessible source of information throughout each tender round.



Establishing common rules for the procurement and use of flexibility services

As part of our commitment to industry collaboration, we work through the appointed **Market Facilitator, Elexon** with FSPs, NESO, other DNOs and IDNOs to establish and develop common Flexibility Market Rules (FMR) for the procurement and use of flexibility services. We participate in the **Flexibility Stakeholder Advisory Board** and all relevant Issue Groups and Change Groups.

We raised a change proposal **FLX CP003** to revise the standard product variants for the SAOU product. Currently, SAOU only allows day-ahead instructions. In contrast, VAOU allows instructions to be issued 2 minutes ahead, 15 minutes ahead, day-ahead, or week-ahead. The lack of dispatch options for SAOU means that where System Operators want to offer an availability and operational utilisation-based product, they're required to make greater use of VAOU, which offers a less balanced commercial position between FSP and SO. This may discourage some providers from participating in the market.

Our proposals are to expand the dispatch timing options to mirror those available for the VAOU product. This should provide greater revenue certainty for FSPs while at the same time allowing System Operators the ability to respond to updated forecasts and changing system conditions. The week-ahead dispatch variant for SAOU would enable us to dispatch on this timescale but with greater revenue certainty for FSPs compared to using VAOU.

An essential element of market access is simplicity for FSPs. Creation of a common Flexibility Market Asset Registration solution will enable visibility of flexible resources across markets and help with a more efficient and targeted procurement of flexibility. We are supportive of ongoing reforms in this area and are committed to leveraging industry standardisation wherever possible and appropriate.

Table 11 – Planned stakeholder engagement activities

	Planned Engagement	Details
April	Newsletter	Providing a news update to flexibility service stakeholders. This will include updates around the tender opportunities, key dates, upcoming engagement activities and any other relevant information
	1-2-1 Engagement	Engaging with FSPs to discuss the planned outage sites that were launched on Piclo
	Stakeholder Feedback Sessions	Specific engagement to capture stakeholder feedback after Winter delivery is complete to note any issues or improvements needed
	Flexibility Service Providers	A feature built on the website to showcase the different providers we have operating in our region
	UK Energy Research Centre	Supporting a UKRI Flexibility Market sandpit event
May	Utility Week Live & Flexibility Awards	Members of the DSO team will be attending and speaking at the event
	Power Responsive Summer Event	An annual event held in London
	1-2-1 Engagement	Engagement with stakeholders to discuss the upcoming tender opportunities that will be launched in the Summer
	Newsletter	Providing a news update to flexibility service stakeholders
June	Targeted Customer Engagement	Direct engagement with Local Authorities and Customers in potential constraint zones.
	Newsletter	Providing a news update to flexibility service stakeholders
	Publication of tender material	Material and guides published to support stakeholders with the upcoming tender opportunities
	SPEN Flex Summit	Annual event held in SPEN's region
July	How to Participate in Northern Powergrid's Summer Flexibility Competitions	Signposting the requirements for the upcoming long-term tender
	Competitions published on Piclo	Requirements published on Piclo for the long-term Summer tender
August	Newsletter	Providing news updates to flexibility service stakeholders
	Virtual Surgery Days	Virtual surgery days that will take place over several days throughout the month to discuss queries and issues with stakeholders
September	Energy Innovation Summit	Industry event held in Liverpool
	Publication of tender material	Materials and guides published to support stakeholders with the upcoming monthly tender opportunities
	How to Participate in Northern Powergrid's Monthly Tenders	Discussing the upcoming tender opportunities with providers and detailing the process and any information that may be useful
October	Briefing sent to mailing list	A news update to flexibility service stakeholders detailing the live tender opportunities
	Competitions published on Piclo	Launch of the Autumn/Winter series of monthly tenders

	Planned Engagement	Details
November	Briefing sent to mailing list	A news update to flexibility service stakeholders detailing the live tender opportunities
	Stakeholder Feedback Sessions	Capturing stakeholder feedback that can feed into the plan and strategy for 2027 and beyond
	Emex Conference	The net zero and energy managers exhibition London
	Utility Week Forum	Event held in London
December	Newsletter	Providing news updates to flexibility service stakeholders
	Briefing sent to mailing list	A news update to flexibility service stakeholders detailing the live tender opportunities
January	Flexibility Strategy Consultation	Issue our flexibility strategy to stakeholders to allow them to provide any comments or feedback before the final version is published
	Briefing sent to mailing list	A news update to flexibility service stakeholders detailing the live tender opportunities
February	Briefing sent to mailing list	A news update to flexibility service stakeholders detailing the live tender opportunities
	Flexibility Strategy Webinar	A webinar to discuss our flexibility strategy with stakeholders and provide any opportunity for any questions to be raised
March	Distributed Energy Show	Industry event held in Telford

* This does not include all our stakeholder engagement activities as there will be an increase in activities around each tender round. This is used as a working document and therefore activities are added throughout the year.

5 Detailed quantitative assessment

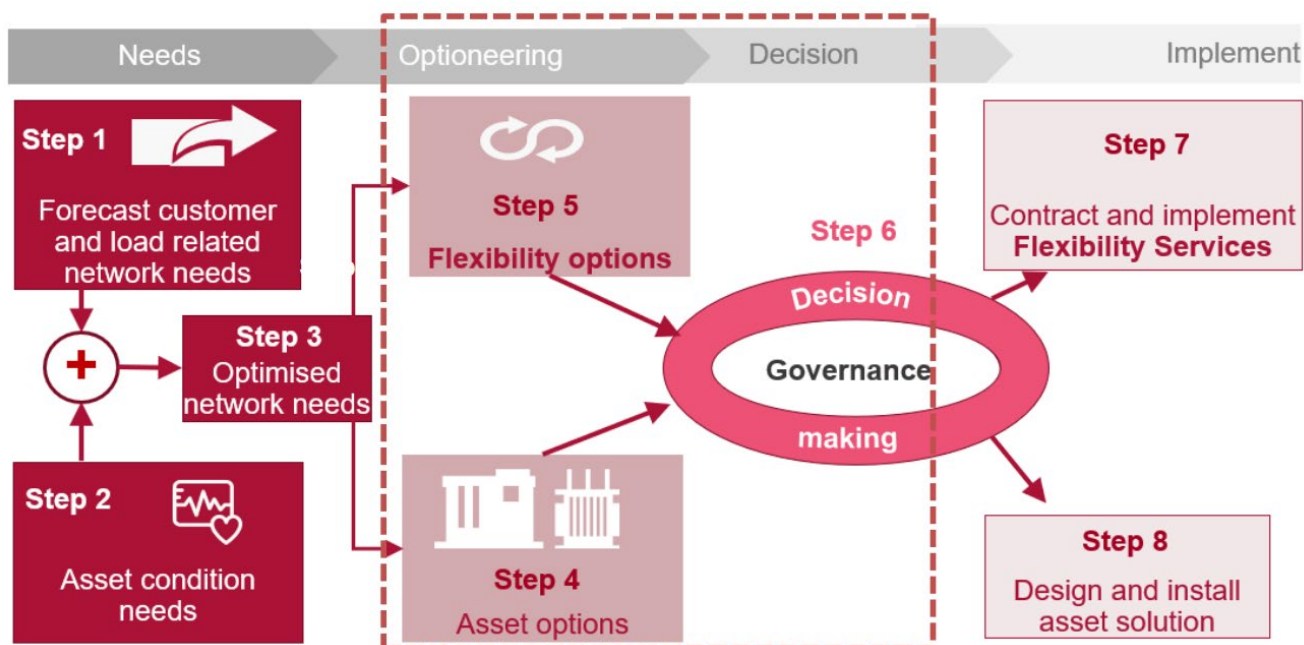
Flexibility services to optimise our programme of primary network reinforcement

The Distribution Networks Options Assessment (DNOA) process plays a vital role in determining the optimal network investments and/or use of flexibility services, to mitigate expected primary network constraints based on our DFES (Distribution Future Energy Scenarios) load growth forecast and network capacity assessments.

This allows us to inform and shape our network development plans for primary substations and for Bulk Supply Points (BSPs) and to specify the budget and requirements for flexibility services.

There are eight steps in our simplified network development process illustrated in Figure 6, which prioritises flexibility as the optimal means of enhancing network capacity in order to defer or avoid conventional network reinforcement. The DNOA process incorporates the optioneering and decision-making steps 4 to 6 shown in Figure 6.

Figure 6 - DNOA process steps within the end-to-end network development process



Step 1 - Load related network needs: Involves network capacity assessments to identify parts of our network that are or are expected to become over capacity – applying our DFES long-term projections and profiled accepted connections pipeline with confidence factors and diversity factors applied appropriately. We determine overloaded assets and future network needs by modelling system performance and comparing the current and future range of operation of our network assets with their capacities.

Step 2 - Asset condition needs: We evaluate the health of our assets based on the outcomes of asset condition assessments and anticipated deterioration to identify investment needs unrelated to load growth.

Step 3 - Optimised network needs: We consider other needs at overloaded sites together in order to identify areas where condition and load growth requirements overlap. Such synergies allow us to make investment efficiencies by combining the delivery of both non-load related investment from step 2 and load related reinforcement from step 1 at the same time.

Step 4 – Asset options: The geographic spread and projected capacity requirements across neighboring parts of our network means that there are normally a variety of engineering and smart solutions for resolving capacity constraints. For primary substation and BSP works, we analyse all options, develop detailed designs and cost estimates for these various network solutions, so we can compare their technical and economic merits to identify the optimal smart or conventional asset-based network solution.

Step 5 – Flexibility options. We evaluate Flexibility Service options by running procurement tenders to acquire services to either meet or reduce demand on our network. For primary substation and BSP works, the **Common Evaluation Methodology** (CEM) tool is used to calculate the maximum annual budget for the flexibility option based on the Net Present Value (NPV) of the counterfactual conventional asset network solution option (step 4). The magnitude, frequency and duration of the necessary Flexibility Service are derived from the analysis of half hourly power flow times series data.

Step 6 – Decision-making. We analyse technical and economic aspects of conventional network solutions and flexibility options to determine the most cost-effective approach that optimises benefits for customers and the network. We apply our Flexibility First approach to address the network constraint using a flexible solution until it is no longer viable, making market response a key factor in informing decisions.

Step 7 - Flexibility. If we decide that flexibility services are the most suitable way forward, we use the contracted Flexibility Service pricing from step 5 to set the budget for procuring flexibility services.

Step 8 – Smart or conventional reinforcement. If we decide that a conventional asset solution is the most suitable way forward, we will deploy the network solution, but normally only when the flexibility services solution is no longer viable.

These steps are covered in greater detail in the **DNOA methodology**.

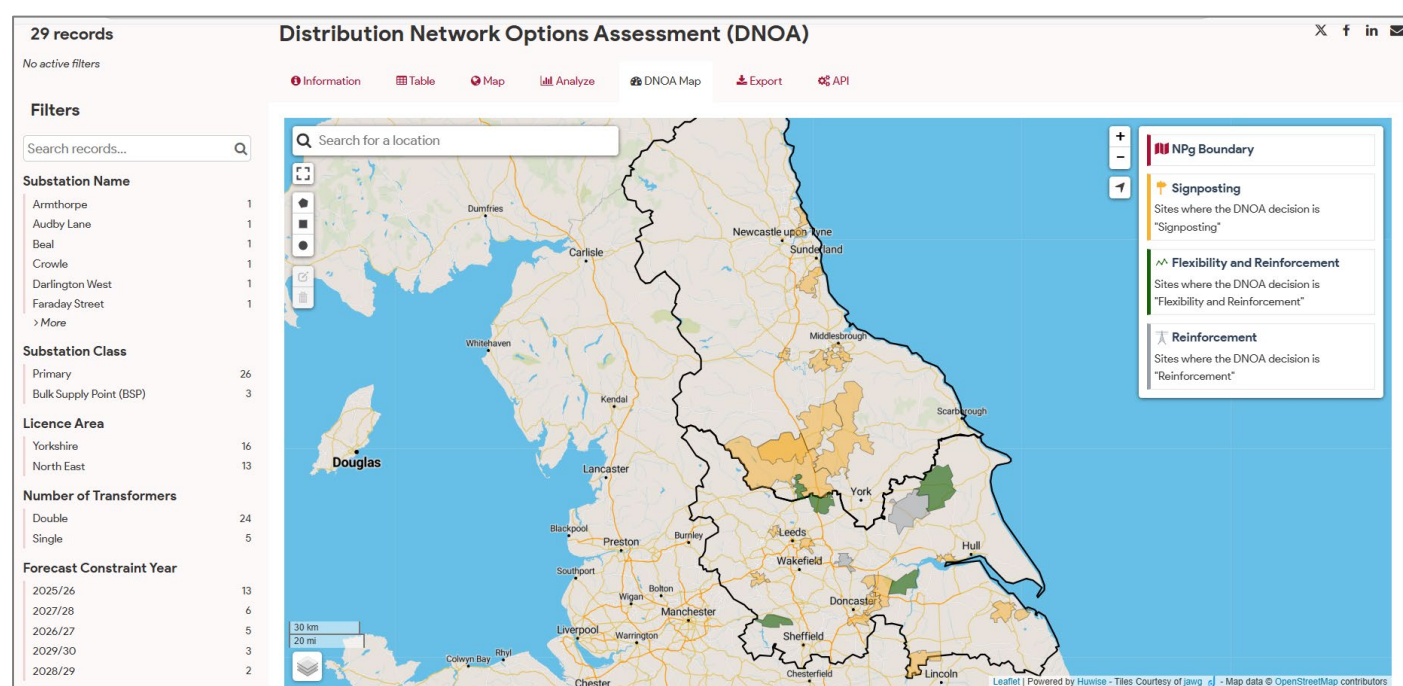
We publish a DNOA report at least twice per year, typically in April and October, which sets out our planned network interventions over the next 5 years for our whole network down to the primary substation level.

The latest DNOA data is presented via the Open Data Portal (Figure 7). This may supersede the data provided in this document.

Flexibility services to optimise our programme of secondary network reinforcement

We use LV monitoring to review loading on secondary substations. If the demand exceeds the transformer rating and there are no reinforcement works planned in the year ahead, we tender for flexibility services at that substation. We base the annual budget for flexibility services on our cost estimate for reinforcement works, using the standard cost per asset type and capacity as per Ofgem’s cost allowances for the RIIO-ED2 period (2023-2028).

Figure 7 - Presentation of DNOA data in our Open Data Portal



Flexibility services to support planned outages

We review the outages that are planned as part of our construction schemes and use our Construction Outage Risk Assessment (CORA) tool to quantify the risk associated with each outage and to inform the development of a Construction Outage Risk Mitigation Plan (CORMP).

For each outage we assess the risk that supply to customers might be interrupted and identify those where flexibility services could help reduce that risk. Flexibility Services is just one of a suite of risk mitigation tools that are used to help manage outage-related risks. We use demand forecasts to identify the periods of operational risk associated with each outage and to specify the requirements for flexibility services that we would dispatch if required.

The CORA tool considers technical factors: health indices; circuit characteristics such as length; network characteristics such as connected substations; and the probability of failure of the dependent circuit during the construction outage leading to an unplanned loss of supply. It considers financial factors i.e. the value of potential load lost.

The tool provides a financial budget which may be spent on mitigating construction outage risk. This is used in the development of a Construction Outage Risk Mitigation Plan (CORMP). Where flexibility services are considered an appropriate tool for risk reduction, this process establishes a budget for the flexibility services.

For the outage-related services we will be procuring in 2026/27, the requirement is for demand turn down (DTD) services or generation turn up (GTU) services.

Pricing strategies

The price that we are willing to pay per MWh of flexibility services at a location is determined by the available budget (less an amount for platform transaction fees) taking into account the expected MWh utilisation and, for the SAOU product, the availability MWh. See page 18 for more information. For reinforcement optimisation at primary substations, and at BSPs the budget for flexibility services in each zone is calculated on an annual basis in step 5 of the DNOA process.

Flexibility services also have an option value for pursuing an alternative to traditional reinforcement depending on how the decarbonisation pathway evolves and where constraints appear on the network, and this is another factor that we may take into account in our pricing strategies.

Assessing bids for flexibility services

We will assess compliant bids to establish whether the offer can form all, or part, of a cost-effective portfolio of flexibility services for the location. In each invitation to tender we will confirm the bid assessment methodology. In all of the tenders we have run, there have been no requests for clarification of the bid assessment methodology, indicating that it is well understood by stakeholders.

Our bid decisioning methodology takes account of the status of the assets being bid. An operational asset with a valid MPAN provided is 'category 1'. All other assets, are classed as 'category 2'. Either category of asset can be bid into a long-term tender, and our bid decisioning process prioritises bids made up of category 1 assets. Only category 1 assets may be bid into a short-term tender. This approach reflects that operational assets with confirmed connectivity (via MPAN check) offer increased certainty of delivery-readiness and connectivity, while also allowing category 2 assets to participate thus helping to open our market. The process for ranking and awarding bids is set out in Box 1.

In the July tender only, the seasonal flex requirements for HV zones will be published as parallel competitions for SAOU and for FlexAdvance. For each service window, we will prioritise acceptance of bids under the competition for SAOU. Where there are unmet requirements in a service window, we will then move on to acceptance of bids under the competition for FlexAdvance.

Further information

Links to core documents and/or methodologies used to support the decision-making process:

Distribution Future Energy Scenarios (DFES) forecasts help us to continue to support our 3.9 million customers' transition to net zero as they electrify their transport and heating and as they connect more renewable distributed generation. We model a range of uptake and electrical parameters out to the year 2050 that will allow our region to meet net zero targets, based on a number of different scenarios.

Long Term Development Statement (LTDS) provides data on our network infrastructure and planned works. It enables stakeholders to evaluate potential connections to the Northern Powergrid system by using our data in their own data modelling software.

Network Development Plan (NDP) provides information on future network developments as well as opportunities for new connections. The NDP empowers stakeholders to incorporate our network plans and flexibility services requirements into their planning processes, fostering collaboration and value creation for all involved parties.

Distribution Network Options Assessment (DNOA) report presents Northern Powergrid's plans for the use of flexibility and conventional reinforcement to manage network capacity during the RII0-ED2 price control period from 2023 to 2028. The DNOA methodology, report and dataset are all available via this link.

Operational Decision-Making Framework (ODMF) sets out the principles for how we make planning and operational decisions to schedule and dispatch flexibility services and operate flexible connections. It is intended for the use of existing and prospective participants in flexibility markets and users of flexible connections on our network.

Box 1 – Bid assessment

We evaluate bids establish that the offer can form all, or part, of a cost-effective portfolio of flexibility services for the location. We rank and award bids as follows:

Ranking of Bids

An operational asset with MPAN provided is a category 1 asset. All other assets are category 2 assets. Bids will be grouped into two categories according to the assets that would be deployed to provide the service:

Category #1 bid= All assets are category 1 assets

Category #2 bid = One or more of the assets are category 2 assets

Within each category, bids will then be ordered based on the following:

1. Lowest to highest price per MWh
2. Where two or more bids are the same price per MWh, on an earliest-to-latest bid submission basis

Awarding Bids

Bids will then be awarded in order from lowest price to highest price within Category #1 until the capacity requirements of the competition have been met. If insufficient capacity has been accepted to meet the capacity requirement, bids from Category #2 will be awarded in the same manner.

Northern Powergrid may reject a lower price bid and accept a higher price bid, if it results in lower overall costs of meeting the required capacity.

Note

For the Scheduled Utilisation and the Operational Utilisation product, 'price per MWh' means the Utilisation Price bid.

For the Scheduled Availability + Operational Utilisation (SAOU) product, 'price per MWh' means the effective price per bid (£/MWh). The effective price is used for the purposes of comparing bids. It takes account the Availability Price bid, the Utilisation Price bid and the anticipated dispatch rate. It is calculated per bid as follows:

Effective price of bid (£/MWh) =

$$\frac{[\text{Volume of availability bid (MWh)} * A (\text{£/MWh})] + [ADR * \text{Volume of availability bid (MWh)} * U (\text{£/MWh})]}{ADR * \text{Volume of availability bid (MWh)}}$$

Where

A = Availability Price bid

U = Utilisation Price bid

ADR = Anticipated dispatch rate (%)

The anticipated dispatch rates for the SAOU product will be specified in the Invitation to Tender documentation.

Dispatch decisions for the SAOU product will take account of the Utilisation Price, not the Availability Price.

Flexibility services documents and useful links

Northern Powergrid resource	Description
Flexibility Services webpage	Our main page on flexibility services with introductory information, the annual Distribution Flexibility Services Statements and Reports, newsletters and access to many other resources.
Flexibility Strategy (Feb 2026)	This document sets out how we currently use flexibility on our network and a roadmap for how we are developing this approach.
Flexibility First Policy	The policy setting out our commitment to employ flexibility solutions, and the core principles that underpin our decision-making frameworks.
Guide for Flexibility Service Providers	This guide explains what's required to contract with us and become a Flexibility Service Provider.
Flexibility Services Aggregators	To assist customers who would prefer to provide flexibility services via an aggregator, this is a list of aggregators operating in our region. This listing is provided for information only and does not represent an endorsement.
Open Data Portal – FSP page	A feature page on our Open Data Portal with relevant data for Flexibility Services Providers or other stakeholders interested in our flexibility market.
Piclo Flex	Our current market platform for running competitions for flexibility services
Piclo Energy	The Northern Powergrid profile on the Piclo Energy website with latest news on our procurement activities on the Piclo Flex platform
Operational Decision-Making Framework	Intended for the use of existing and prospective participants in flexibility markets and users of flexible connections on our network, this sets out the principles for how we make planning and operational decisions to schedule and dispatch flexibility services and operate flexible connections.
Industry resource	Description
Ofgem website	The energy regulator
Elexon website	The Market Facilitator for distributed flexibility

Glossary

BSP	Bulk Supply Point
CEM	Common Evaluation Methodology
DFES	Distribution Future Energy Scenarios
DNO	Distribution Network Operator
DNOA	Distribution Network Options Assessment
DSO	Distribution System Operator
DTD	Demand Turn Down
ED2	Electricity Distribution 2 (Price control period 2023-2028)
EHV	Extra High Voltage
ENA	Energy Networks Association
FSP	Flexibility Services Provider
GSP	Grid Supply Point
GTU	Generation Turn Up
HV	High voltage
IDNO	Independent Distribution Network Operator
ITT	Invitation to Tender
LTDS	Long Term Development Statement
LV	Low voltage
MPAN	Meter Point Administration Number
NDP	Network Development Plan
NESO	National Energy System Operator
NGET	National Grid Electricity Transmission
OU	The Operational Utilisation flexibility product
SAOU	The Scheduled Availability + Operational Utilisation flexibility product
SU	The Scheduled Utilisation flexibility product
TWG	Technical Working Group in the ENA Open Networks Programme
VAOU	The Variable Availability + Operational Utilisation flexibility product

