

# Flexibility Services

Ref: NPg24491

## Scope and Specification

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## 1. Introduction

We are dedicated to delivering a network and energy system that serves our region, in a safe, efficient and economical way and supports enabling decarbonisation for our customers and stakeholders. As such we are committed to the use of flexibility solutions instead of or to defer network reinforcement solutions wherever appropriate.

Flexibility solutions ensure the most efficient and economical outcome for our network customers. Our Flexibility First Policy<sup>1</sup> ensures we employ Flexibility Services, Flexible Connections and Network Flexibility over traditional Network reinforcement wherever we can demonstrate this is possible.

We are dedicated to enabling a local market for Flexibility Services by creating a level playing field for all flexibility service providers and supporting competition with network solutions, by promoting fair competition and demonstrating decision-making transparency.

As an indication of scale of the value of flexibility services, in the Distribution System Operator (DSO) strategy section of our ED2 business plan<sup>2</sup>, we project net benefits of up to £156 million could be delivered by avoiding traditional reinforcement costs over the course of 2023-28.

In this document we set out our specification for flexibility services in 2024/25 and 2025/26 for the network areas where interventions are needed to meet the needs of rising load growth.

In total, our needs are up to 1.5MW of flexibility services across 2 high voltage (HV) sites and 13 low voltage (LV) sites to defer or avoid network reinforcement, where it is economic and efficient to do so. We have no preference as to whether the service is delivered from dispatchable generation turn up, demand turn down or battery discharge.

## 2. Flexibility Services Overview

In our 'Distribution Flexibility Services Procurement Statement 2024/25'<sup>3</sup>, we set out:

- Detail on the flexibility requirements that we may tender for during the year 1 April 2024 to 31 March 2025;
- Detail on our tendering process and pricing strategy for flexibility procurement;
- How we plan to engage with stakeholders to further develop markets and capability for flexibility services; and
- An explanation of the detailed quantitative assessments we have undertaken to evaluate our existing and forecast network loading and where necessary our flexibility requirements.

We use the standard flexibility services products developed through the Open Networks project<sup>4</sup>.

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<sup>1</sup> <https://www.northernpowergrid.com/downloads/59658>

<sup>2</sup> Page 4 of [https://ed2plan.northernpowergrid.com/sites/default/files/document-library/DSO\\_strategy.pdf](https://ed2plan.northernpowergrid.com/sites/default/files/document-library/DSO_strategy.pdf)

<sup>3</sup> <https://www.northernpowergrid.com/downloads/12370>

<sup>4</sup> [ON Flexibility Products Review and Alignment \(Feb 2024\) – Energy Networks Association \(ENA\)](#)

### 3. Eligibility

In order to be eligible for participation, bidders must;

1. Pass the Dynamic Purchasing System (DPS) on Pico.
2. Register their assets on Pico. These assets must be qualified by Northern Powergrid for inclusion in a competition.

### 4. Testing

In order to satisfy Northern Powergrid that the Distributed Energy Resource (DER) is capable of providing the flexibility services to meet the 'Flexibility Needs' set in this document, following contract award the bidder may be required to prove the DER prior to the scheduled delivery period.

This consists of:-

1. Evidence that the DER has been built and energised and a connection agreement is in place, and that it meets all the service requirements set out in the Eligibility section above.
2. A proving test of the communications link as set out in the contract.

Northern Powergrid reserves the right to require testing as required, at its discretion.

This may include:-

- Site visits to verify/carry out testing to demonstrate that the bidder has the capacity and capability to meet the requirements of the contracted service, including being able to change the import/export of the DER from the point of notification to the commencement of the service window and maintain this to the end of the service window. The Provider will not be reimbursed for testing periods.
- Further tests of the API link, for example in the event of a change to the API system, or in the case of any API communication issues at either end

### 5. Operations

See Annex 1 to the service terms of the contract.

### 6. Payment Calculations

#### 6.1 Scheduled Utilisation

The utilisation payment is made based on a DER providing flexibility services as agreed at the point of contract.

Utilisation payments will be based on a utilisation fee in £/MWh set out in a contract between the provider and Northern Powergrid.

The maximum utilisation fee that Northern Powergrid will pay in any zone is set out in the tables in section 9 below.

**Note:** It is the Provider's responsibility to ensure that the DER can provide the services as agreed. Under no circumstances will Northern Powergrid take responsibility for loss of earnings that the DER may have earned if it were not in contract with Northern Powergrid.

For this flexibility product, there is no availability payment.

For more information see clause 5 of the service terms of the contract.

## **7. Baseline for Scheduled Utilisation Product**

### **7.1 Accepted Methodologies**

Northern Powergrid accepts the following baselining methodologies as standard:

#### **7.1.1 Reference Class – Domestic Households**

For DERs that comprise in part or in whole, a domestic household, unless the requirements set out in section 7.1.3 can be met, Northern Powergrid requires any portion of the baseline that is attributed to general domestic household load to be set based on our published reference baseline. The reference baseline is called “Northern Powergrid – Reference Class Baselines” and is available in the supporting documents here: [Profile — Northern Powergrid \(piclo.energy\)](#).

#### **7.1.2 Reference Class – Domestic EV Chargers**

For DERs that are Domestic EV Chargers, Northern Powergrid has produced an optional reference baseline which may be used by the bidder. The reference baseline is called “Northern Powergrid – Reference Class Baselines” and is available in the supporting documents here: [Profile — Northern Powergrid \(piclo.energy\)](#).

#### **7.1.3 Self-Nominated**

Northern Powergrid allows bidders to submit self-nominated baselines where any of the following criteria are met:

- The DER is a Domestic Household and the bidder can provide sufficient evidence to satisfy Northern Powergrid that our reference class baseline does not provide an appropriate baseline for their specific, submitted asset(s). An example of this could be half hourly smart meter data from the asset being included in the bid submission;
- The DER is a Domestic EV Charger and the bidder opts to provide a self-nominated baseline rather than use Northern Powergrid’s reference class baseline; or
- The DER is any other Asset Type not listed in Northern Powergrid’s Reference Class baselines, detailed above.

### **7.2 Submission of Baseline to Northern Powergrid**

Wherever possible, bidders should submit their baseline at point of bid submission. The format in which the baseline is submitted can be chosen by the bidder subject to meeting the following minimum standards:

- Where bidders propose to use Northern Powergrid’s reference class baselines, this should be clearly stated;
- Where bidders propose to use a self-nominated baseline, accompanying narrative to explain the proposed baseline must be provided with supporting evidence where appropriate;
- The submission must cover the full service period covered by the bid submission;
- Baseline data must be submitted for the full duration of the service window, even if the bid specifies a max runtime that is less than the full duration of the service window.

If the bidder is unable to submit a baseline at point of bid submission, Northern Powergrid will allow bidders to submit their baseline post-bid submission provided that the bidder:

- Includes supporting narrative in their bid submission as to why they have been unable to submit a baseline at point of bid submission, and when they expect to be able to provide the data; and
- The baseline is submitted to Northern Powergrid no later than 14 days prior to the first service period.

Bidders must upload the baseline and/or the supporting narrative via "the Piclo Flex Messaging Service - [support@picloflex.com](mailto:support@picloflex.com)" at point of bid submission.

### **7.3 Validation and Setting of Baseline**

Northern Powergrid will use the baseline submission to verify the capability of the DER to provide flexibility. We reserve the right to not accept a submitted baseline and require the bidder to use an alternative baseline which will be used to calculate the actual service delivered and payments due.

We will notify of the acceptance or rejection of their submitted baseline.

The baseline shall be set prior to the first service period. It may be reviewed and updated in the light of relevant material changes e.g. a change to the asset portfolio or new evidence such as actual meter readings.

### **8. Payment Terms**

See clause 5.4 of the service terms of the contract.

### **9. Flexibility Needs**

In this section we set out the flexibility services that we expect to tender for. The actual flexibility services that we will tender for will be signposted on the Piclo<sup>5</sup> platform.

#### **9.1 Scheduled Utilisation**

We are seeking to procure this product at some or all of the locations set out in **Table 1 Flexibility Needs High Voltage (HV)** and **Table 2 Flexibility Needs Low Voltage (LV)**, below. The flexibility could be provided through any of: generation turn up, demand turn down, or battery discharge. Flexibility can be provided by a single DER or by an aggregation of multiple DERs.

The table also sets out the likely capacity requirements and time windows for flexibility services

We are interested in receiving bids even if a bidder can deliver flexibility services for only part of the required capacity or for part of the time window at a location.

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<sup>5</sup> [Dashboard - Piclo Flex](#)

**Table 1 Flexibility Needs HV**

Flexibility Services to be provided by assets connected at or below 11kV

Location	Zone (Substation)	Postcode	Delivery year	Capacity required (MW)	Start Date (inclusive)	End Date (inclusive)	Days	Service Start Time	Service End Time	Utilisation ceiling price £/MWh
Scunthorpe	Crowle	DN17 4BB	2024/25	0.096	Sun 01-Dec-24	Fri 31-Jan-25	Mon to Sun	10:30	20:30	£141
			2025/26	0.191	Mon 01-Dec-25	Sat 31-Jan-26	Mon to Sun	17:00	21:00	£248
Harrogate	Starbeck	HG2 7PT	2024/25	0.500	Mon 25-Nov-24	Fri 13-Dec-24	Mon to Fri	16:30	19:00	£5,190
				0.500	Mon 06-Jan-25	Fri 24-Jan-25	Mon to Fri	16:30	19:00	£5,190
			2025/26	0.500	Mon 24-Nov-25	Fri 12-Dec-25	Mon to Fri	16:30	19:00	£5,190
				0.500	Mon 05-Jan-26	Fri 23-Jan-26	Mon to Fri	16:30	19:00	£5,190

**Table 2 Flexibility Needs LV**

Flexibility Services to be provided by assets connected at or below 415V

Location	Zone (Substation)	Postcode	Delivery year	Capacity required (MW)	Start Date (inclusive)	End Date (inclusive)	Days	Service Start Time	Service End Time	Utilisation ceiling price £/MWh
Alnwick	Alnwick Fleece	NE66 1PR	2024/25	0.050	Mon 13-Jan-25	Fri 17-Jan-25	Mon to Fri	09:00	16:00	£1,606
			2025/26	0.050	Mon 12-Jan-26	Fri 16-Jan-26	Mon to Fri	09:00	16:00	£1,606
Beamish	Lime Street	DH9 7EJ	2024/25	0.075	Mon 02-Dec-24	Sun 15-Dec-24	Mon to Sun	16:00	20:00	£134
					Mon 06-Jan-25	Sun 23-Feb-25	Mon to Sun	16:00	20:00	£134
			2025/26	0.075	Mon 01-Dec-25	Sun 14-Dec-25	Mon to Sun	16:00	20:00	£128
					Mon 05-Jan-26	Sun 22-Feb-26	Mon to Sun	16:00	20:00	£128
Bradford	Thornbury Avenue 929	BD3 8HY	2024/25	0.050	Mon 25-Nov-24	Sun 15-Dec-24	Mon to Sun	16:00	20:00	£383
					Mon 06-Jan-25	Sun 19-Jan-25	Mon to Sun	16:00	20:00	£383
			2025/26	0.050	Mon 24-Nov-25	Sun 14-Dec-25	Mon to Sun	16:00	20:00	£369
					Mon 05-Jan-26	Sun 18-Jan-26	Mon to Sun	16:00	20:00	£369
Doncaster	Yarborough Terrace 44094	DN5 9SJ	2024/25	0.075	Mon 02-Dec-24	Sun 15-Dec-24	Mon to Sun	16:00	20:00	£305
					Mon 06-Jan-25	Sun 19-Jan-25	Mon to Sun	16:00	20:00	£305
			2025/26	0.075	Mon 01-Dec-25	Sun 14-Dec-25	Mon to Sun	16:00	20:00	£288
					Mon 05-Jan-26	Sun 18-Jan-26	Mon to Sun	16:00	20:00	£288
Hartlepool	Chaucer Avenue	TS27 4NJ	2024/25	0.075	Mon 04-Nov-24	Sun 16-Mar-25	Mon to Sun	16:00	20:00	£83
			2025/26	0.075	Mon 03-Nov-25	Sun 15-Mar-26	Mon to Sun	16:00	20:00	£70
Hexham	Dene Avenue	NE46 1HJ	2024/25	0.050	Mon 02-Dec-24	Fri 13-Dec-24	Mon to Fri	08:00	11:30	£1,071
					Mon 13-Jan-25	Fri 17-Jan-25	Mon to Fri	08:00	11:30	£1,071
			2025/26	0.050	Mon 01-Dec-25	Fri 12-Dec-25	Mon to Fri	08:00	11:30	£1,071
					Mon 12-Jan-26	Fri 16-Jan-26	Mon to Fri	08:00	11:30	£1,071
Leeds	Archery Road 2051	LS2 9AR	2024/25	0.025	Mon 02-Dec-24	Fri 13-Dec-24	Mon to Fri	16:00	20:00	£1,874
					Mon 13-Jan-25	Fri 17-Jan-25	Mon to Fri	16:00	20:00	£1,874
			2025/26	0.025	Mon 01-Dec-25	Fri 12-Dec-25	Mon to Fri	16:00	20:00	£1,874
					Mon 12-Jan-26	Fri 16-Jan-26	Mon to Fri	16:00	20:00	£1,874
Leeds	Royal Park Road 348	LS6 1JJ	2024/25	0.075	Mon 02-Dec-24	Sun 15-Dec-24	Mon to Sun	16:00	20:00	£167
					Mon 20-Jan-25	Sun 02-Mar-25	Mon to Sun	16:00	20:00	£167
			2025/26	0.075	Mon 01-Dec-25	Sun 14-Dec-25	Mon to Sun	16:00	20:00	£167
					Mon 19-Jan-26	Sun 01-Mar-26	Mon to Sun	16:00	20:00	£167
Morpeth	Ulgham	NE61 3AR	2024/25	0.025	Mon 02-Dec-24	Fri 13-Dec-24	Mon to Fri	16:00	20:00	£1,405
			2025/26	0.025	Mon 01-Dec-25	Fri 12-Dec-25	Mon to Fri	16:00	20:00	£1,405
North Shields	Broadway Tynemouth	NE30 2LQ	2024/25	0.150	Mon 04-Nov-24	Sun 16-Mar-25	Mon to Sun	16:00	20:00	£41
			2025/26	0.150	Mon 03-Nov-25	Sun 15-Mar-26	Mon to Sun	16:00	20:00	£35
North Shields	Rowntree Way	NE29 6XX	2024/25	0.050	Mon 02-Dec-24	Sun 15-Dec-24	Mon to Sun	16:00	20:00	£401
					Mon 06-Jan-25	Sun 26-Jan-25	Mon to Sun	16:00	20:00	£401
			2025/26	0.050	Mon 01-Dec-25	Sun 14-Dec-25	Mon to Sun	16:00	20:00	£401
					Mon 05-Jan-26	Sun 25-Jan-26	Mon to Sun	16:00	20:00	£401
Wakefield	Batley Road 2243	WF3 1HT	2024/25	0.025	Mon 02-Dec-24	Fri 13-Dec-24	Mon to Fri	16:00	20:00	£1,874
					Mon 13-Jan-25	Fri 17-Jan-25	Mon to Fri	16:00	20:00	£1,874
			2025/26	0.025	Mon 01-Dec-25	Fri 12-Dec-25	Mon to Fri	16:00	20:00	£1,874
					Mon 12-Jan-26	Fri 16-Jan-26	Mon to Fri	16:00	20:00	£1,874
York	Kirbymoorside West	YO62 6JE	2024/25	0.050	Mon 02-Dec-24	Fri 13-Dec-24	Mon to Fri	16:00	20:00	£937
					Mon 13-Jan-25	Fri 17-Jan-25	Mon to Fri	16:00	20:00	£937
			2025/26	0.050	Mon 01-Dec-25	Fri 12-Dec-25	Mon to Fri	16:00	20:00	£937
					Mon 12-Jan-26	Fri 16-Jan-26	Mon to Fri	16:00	20:00	£937

## **10. Minimum DER Requirements**

In order to be eligible to provide flexibility services to Northern Powergrid, it is necessary that DERs are able to meet the technical standards that will ensure the DER can provide the level of service that is required.

1. The DER must be metered at a minimum frequency of half hourly.
2. Capacity available must be at least 10kW per zone (note this is capacity of the flexibility service from the DER, not the capacity of the DER). If the DER is an aggregation of sites, the minimum capacity requirement applies to the aggregate, not to the individual sites.
3. The metering point shall be at the boundary between the site on which the DER is located and the distribution network.

## **11. Contract Duration**

The contract is an enduring contract. The Service Terms to the contract specify the duration of the services to be provided which can be up to 24 months (two years) dependent on the service windows awarded. Service start dates set out in Tables in section 9 above.