

# FLEXIBILITY SERVICES

18 APRIL 2023



Scottish & Southern  
Electricity Networks



**Nisha Doshi**  
**Flexibility Markets Manager**



# AGENDA



WELCOME	PRESENTER
Housekeeping and introduction	Nisha Doshi
Why are we procuring Distributed Flexibility?	Nisha Doshi
South 2023 Tender Overview	
Flexibility Service Overview	Emily Smith
Flexibility Requirement	
Dispatch	Simon Lewis
Procurement Process and timelines	Susan Beveridge
Tender Assessment	
Price ceilings	Elizabeth Porter
Flexibility Service Standard Agreement	
Next Steps and Contacts	
THANK YOU AND CLOSE	



# HOUSE KEEPING

Please help us to manage this meeting effectively



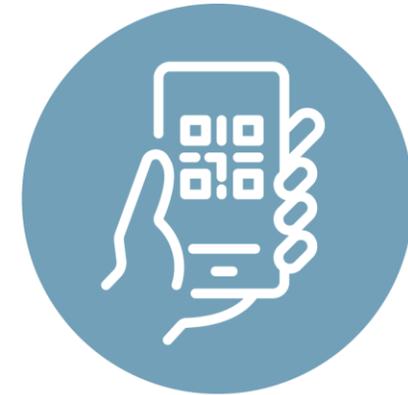
**Video/webcams off**



**Mics on mute**  
Please stay on mute  
unless you are asking  
a question



**Technical queries**  
If you have any  
technical questions  
let us know



**Slido**  
Post event evaluation  
at [www.slido.com](https://www.slido.com)  
Code:  
**#FST2023**



# OUR NETWORKS AT A GLANCE

Our electricity distribution network delivers power to over 3.9 million homes and businesses across the diverse and unique geographies of the north of Scotland and central southern England.

SHEPD: NORTHERN SCOTLAND

SEPD: CENTRAL SOUTHERN ENGLAND



Over **3.9 million** homes and businesses served by our networks



More than **783,000** vulnerable customers identified on our priority services register



Over **4,000** employees across the country



over **127,000km** of overhead lines and underground cables



**115,000** substations

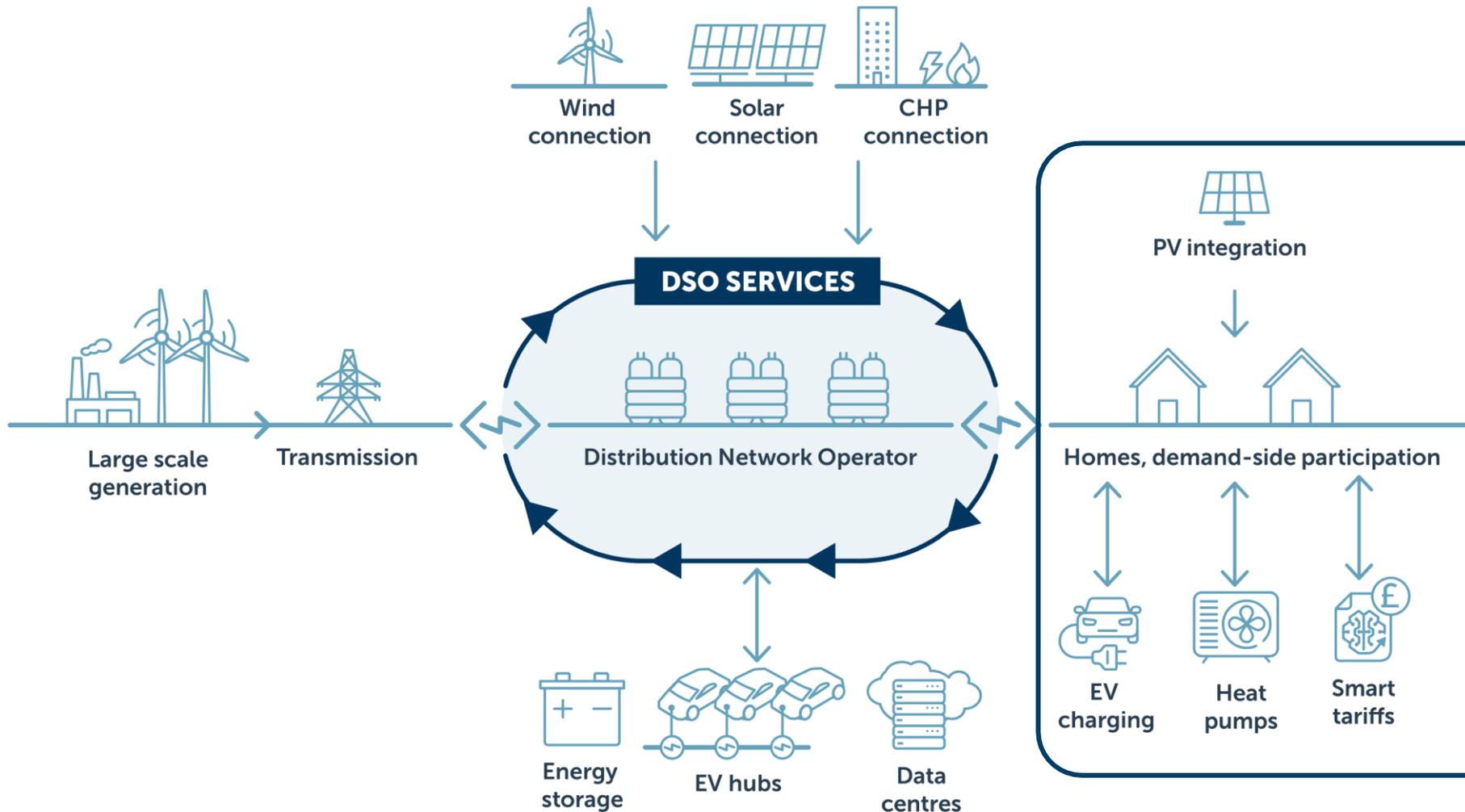


**460km** subsea cables powering island communities



# ELECTRICITY NETWORKS ARE THE KEY ENABLER OF NET ZERO

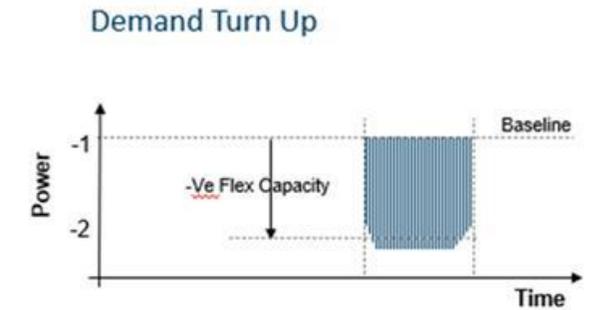
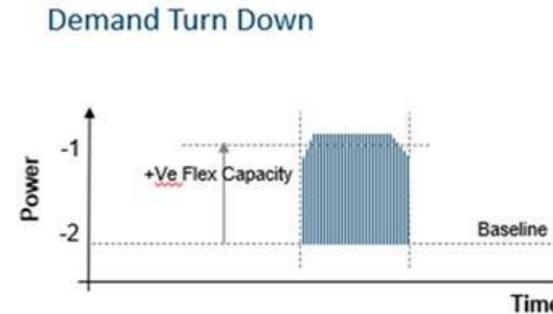
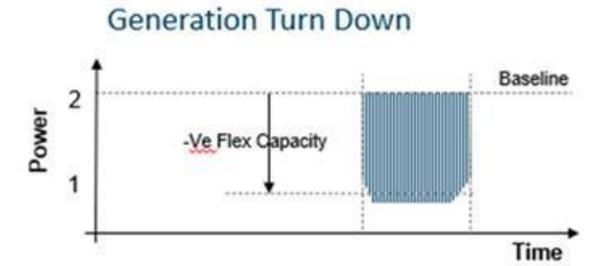
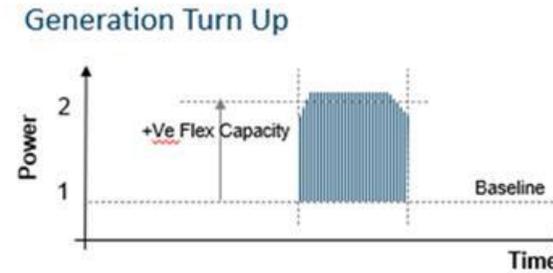
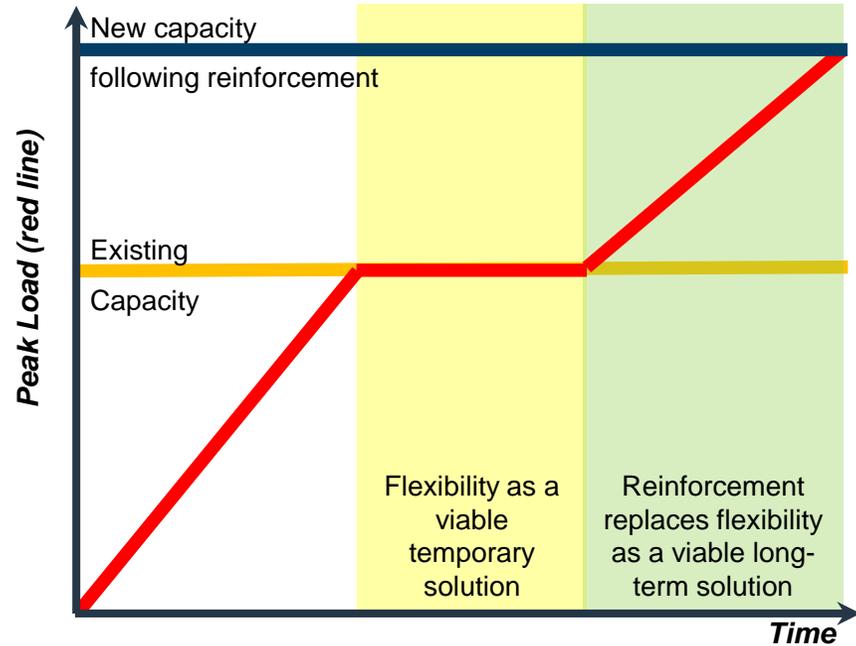
Networks enable local decarbonisation creating more flexible demand supplied by renewables and low carbon generation



Consumers will play a critical role in the future energy system but many will need support to participate and take advantage of the many opportunities it will bring



# WHY DO WE NEED FLEXIBILITY?



- Flexibility is procured in Constraint Managed Zones (CMZs)
- Providers must register on our procurement system
- The DSO tenders for a flexibility service by a request or bid
- Interested providers provide a response or offer
- This is evaluated by the DSO who can accept or reject the response.
- If it is accepted a contract is awarded to the flexibility provider

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**Have you previously participated in flexibility services, including ESO (Electricity System Operator) ancillary services?**

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**Where did you hear about today's webinar?**

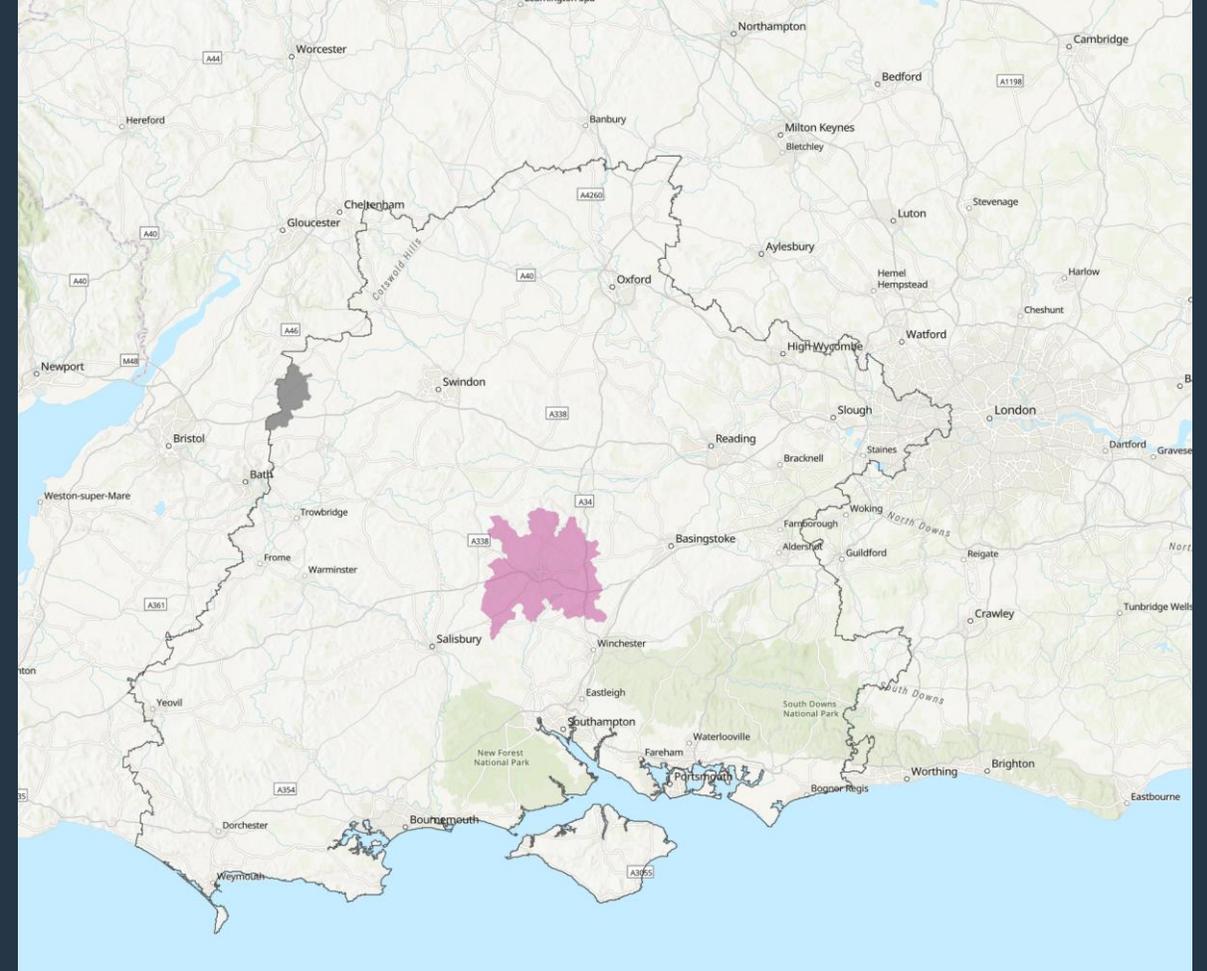
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# SOUTH 2023 TENDER OVERVIEW

- In 2022 we carried out a tender for Secure flexibility services in 16 CMZs across SEPD.
- We accepted 74 MW of capacity from this tender and will look to start using and dispatching these services in 2023.

**In May 2023 we are looking to procure Secure services in an existing CMZ (Alderton) and Dynamic and Restore services in a new CMZ (Andover).**





**Emily Smith**  
**Flexibility Market Analyst**



# FLEXIBILITY SERVICES

Aligned with Open Networks standard definitions

	Pre-Fault	Post Fault/Planned Work
Utilisation Payments	<b>Sustain</b> Defer/avoid reinforcement by peak lopping at times of high forecast load under normal running conditions.	<b>Restore</b> Required to support restoration activities following an unplanned power outage.
Availability and Utilisation Payments	<b>Secure</b> Defer/avoid reinforcement by peak lopping at times of high forecast load under First Circuit Outage conditions.	<b>Dynamic</b> Support for network restoration in cases of secondary faults occurring during planned works. OR Alternative to network reconfiguration/mobile generators for planned works.



# FLEXIBILITY SERVICES

## Descriptions and use cases

Service	Description	Use Cases	Payments
<b>Sustain</b>	The provider agrees, ahead of time, to either deliver a change in export or import (or apply a limit), at specific times.	Network forecasts indicate risk of the network going beyond capacity in normal conditions.	Utilisation or Fixed Income
<b>Secure</b>	The provider agrees, ahead of time, their availability to deliver a change in export or import at certain times known as service windows.  Based on refined forecasts closer to the event, SSEN Distribution may or may not instruct the use of the service.	Network forecasts indicate risk of the network going beyond capacity in N-1 fault conditions (i.e. where resilience is compromised)	Availability and Utilisation
<b>Dynamic</b>	The provider agrees, ahead of time, their availability to deliver a change in export or import at certain times known as service windows.  Depending on network conditions close to or during the service window, SSEN Distribution may or may not instruct the use of the service.	Planned works which would normally involve the risk of power outage or the use of diesel generation.  OR  Network forecasts indicate risk of the network going beyond capacity in N-2 fault conditions. (i.e. situations where power outages are likely).	Availability and Utilisation
<b>Restore</b>	SSEN Distribution instructs a provider in real-time to either remain off supply, reconnect with lower demand, or to reconnect generation to support faster restoration.	Restoration following unplanned power outages.	Utilisation



# MAY 2023 SEPD FLEXIBLE REQUIREMENTS

Zone Name	Services	Minimum Provider Capacity (MW)	Max Connection Voltage (kV)	Type of Response (GTU/DTD or GTD/DTU)	Longest Availability Windows	Capacity Required (MW)	Total Forecast Utilisation MWh	Start Year	End Year <sup>1</sup>
Alderton	Secure	0.05	33	GTU/DTD	17:30-19:00, Spring/Autumn	0.2	4.6	2023	2024
Andover	Dynamic and Restore	0.05	33	GTU/DTD	-	15	-	2023	2024

- Zone map and tender dates:
  - <https://www.ssen.co.uk/our-services/flexible-solutions/flexibility-services/flexibility-services-procurement/>
  - <https://www.flexiblepower.co.uk/scottish-and-southern-electricity-networks>
- Service Tender dates
  - <https://www.preceden.com/timelines/523803-flexibility-in-gb-timeline:>

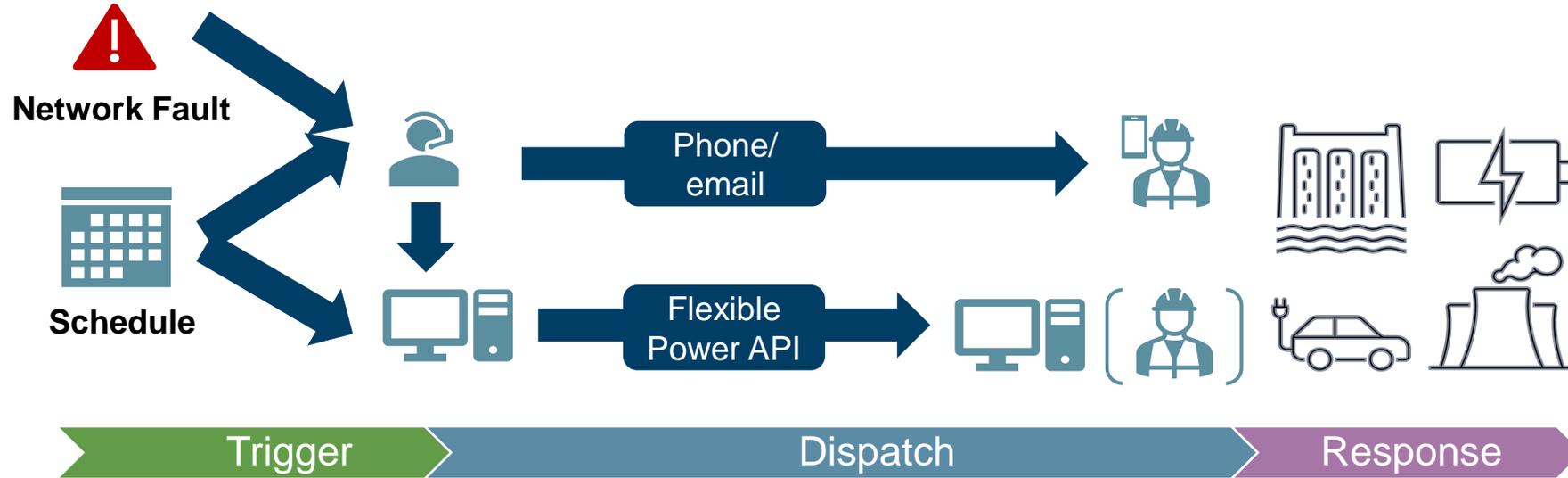


**Simon Lewis**

**Flexible Power Project Manager**



# DISPATCH



- We dispatch services manually (via phone call and email) or automatically (via Flexible Power API).
- The method of dispatch is agreed after contracts are awarded.
- API integration is not mandatory but is advantageous, in particular for settlement (metering) data.

Service	Availability Request Lead Time / Period Covered	Utilisation Request Lead time / Period Covered
Sustain	Not Applicable	1 month / 1 season
Secure	5 weeks / 1 month	3 days / 1 week
Dynamic (planned works)	At least 5 days (usually longer) / variable	At least 15 mins / 1 day
Restore	Not Applicable	At least 1 min / 1 day



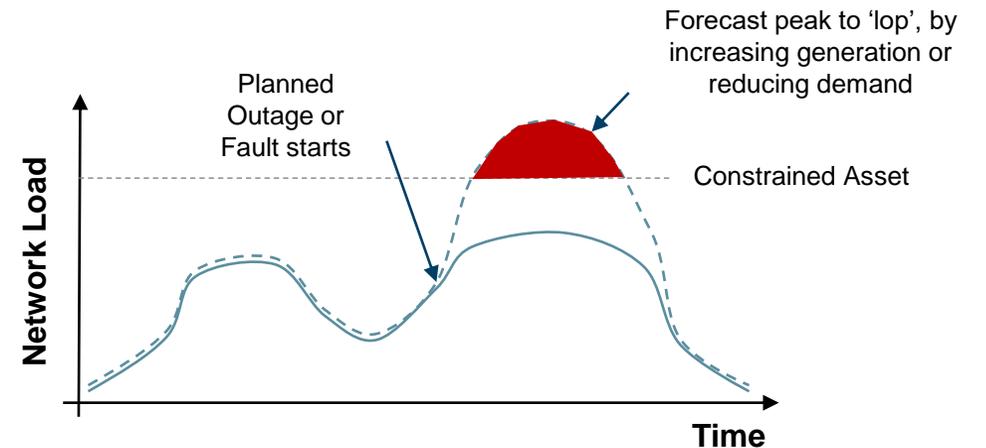
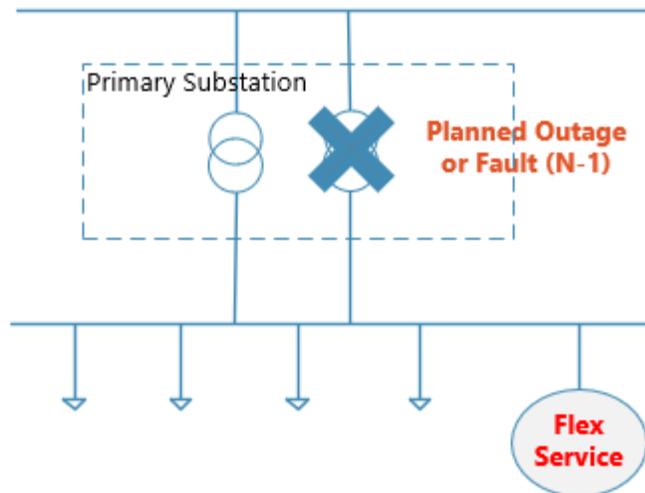
# SECURE SERVICE

Used to defer need for network reinforcement by increasing generation or reducing demand at times of high forecast demand, and when network resilience is reduced.

- Availability requirements published month ahead\*, based on worst case (zero distributed generation) network load forecast and assumed network status.
- Utilisation instructed week ahead, based on more realistic forecast.

\* If there is only one provider in a zone, availability may be requested from that provider a season or year ahead.

## Impact of N-1 outage on network load:



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**On a scale of 1-5, how well do you understand the Flexibility services we are procuring?**

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**Susan Beveridge**  
**Junior Category Manager**

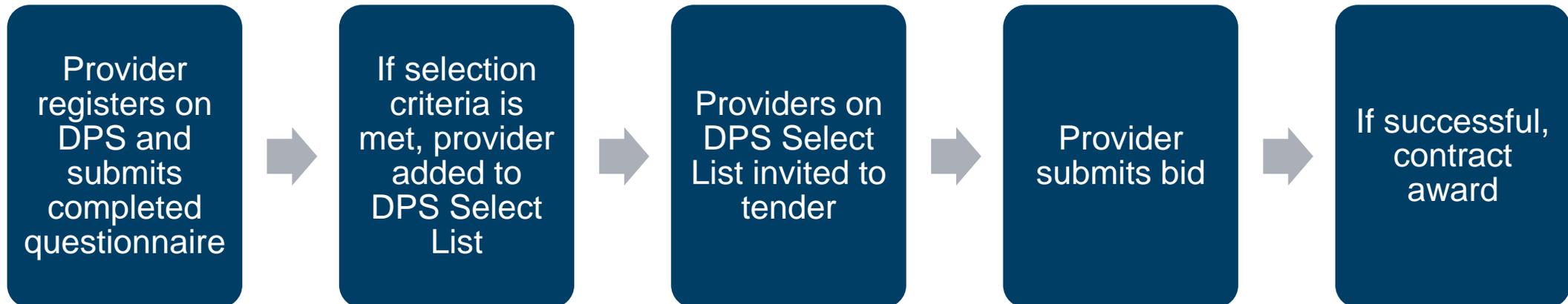


# PROCUREMENT PROCESS

## Pre-Qualification

- Prospective providers must register and pre-qualify on the Dynamic Purchasing System (DPS) in order to participate in tenders.
- Follow the link to the SEPD notice on our DPS platform to register and pre-qualify (South): <https://ssen.delta-esourcing.com/respond/4X98CZ76J8>

**Please register and submit the DPS questionnaire by 30 April. It only takes 10 mins! Registration guidance can be found on our website: [Flexibility Services Document Library – SSEN](#)**





# PROCUREMENT TIMELINES

## Pre-Qualification

- 30 April 2023

## Open Tender

- 10 May 2023

## Close Tender

- 9 June 2023

## Contracts Awarded

- From 24 July 2023 onwards

Requirements are published in multiple ways:

- Zone map and tender dates:
  - <https://www.ssen.co.uk/our-services/flexible-solutions/flexibility-services/flexibility-services-procurement/>
  - <https://www.flexiblepower.co.uk/scottish-and-southern-electricity-networks>
- Service Tender dates
  - <https://www.preceden.com/timelines/523803-flexibility-in-gb-timeline:>



# TENDER ASSESSMENT

As part of the tender evaluation process, quality and price:

$$\text{Total Score by Item} = (\text{Price Score} \times \text{Price Weighting}) + (\text{Quality Score} \times \text{Quality Weighting})$$

- The price weighting applied to the last tender is: 70%
- The quality weighting applied to the last tender is: 30%

The quality score will include the following criteria:

- Service requirement
- Service management
- Health, Safety & Environment
- Technical operation
- Information Security
- Commercial viability

	Blended rate	Quality Score	Price Score
	Secure		Secure
Potential Provider A	£190	80	57.89
Potential Provider B	£150	50	73.33
Potential Provider C	£110	70	100.00

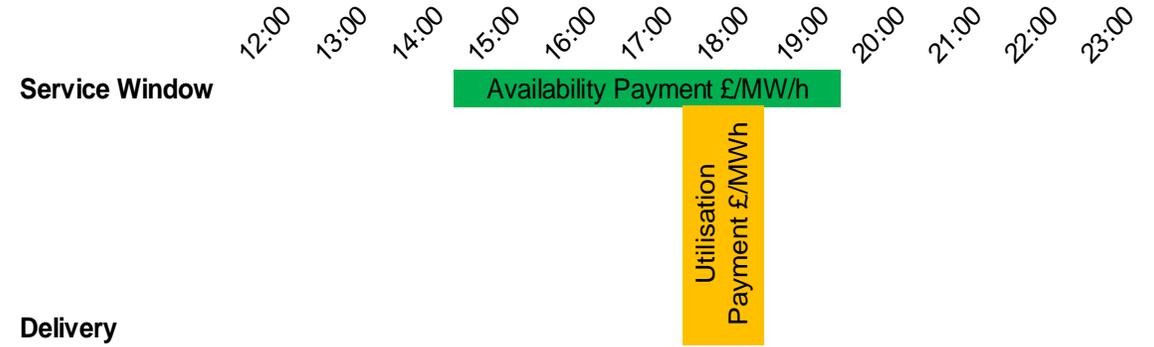


**Elizabeth Porter**  
**Flexibility Markets Analyst**



# CEILING PRICES

- Ceiling Prices are used to ensure there is a financial benefit for Flexibility over alternative approaches where there is not enough market liquidity for price competition.
- The ceiling prices are based on the alternative cost of:
  - Network Reinforcement,
  - Use of diesel generations
  - Customer Outages
- Two potential payment terms: Availability and Utilisation



Service	Availability Fee (£/MW/hr)	Utilisation Fee (£/MWh)
Sustain	N/A	No ceiling to date
Secure	£150	£200
Dynamic	£30	£325
Restore	N/A	£400

SSEN Ceiling Prices for May 2023 Tender



# FLEXIBILITY SERVICE STANDARD AGREEMENT

- We will using the updated ENA Standard Service Agreement 2.1 for the contracts agreed following the tender.
- Changes include provisions for Primacy rules
- Definition and amendments to clauses to take account of non-accessible sites
- There is a working draft of the updated agreement on our website ([Flexibility Services Document Library – SSEN](#)) and this will be updated for the May 2023 tender

**Flexibility Services Standard Agreement - Working Draft**  
Scottish and Southern Electricity Networks Distribution  
Working Draft April 2023

## Glossary and Interpretation

- 1. Introduction**

1.1 This Glossary of General Terms and Conditions and Rules of Interpretation shall apply to any document published or to be published by the Company which states (howsoever expressed) that it is governed by or subject to this Glossary of General Terms and Rules of Interpretation (see definition of Associated Document).

1.2 Any capitalised term used in this Glossary of General Terms and Conditions and Rules of Interpretation shall have the meaning given to it (if any) in Part 3 below.

1.3 The Company may update any of the General Terms and Conditions, Service Terms, Annexes and Forms and Templates and other Associated Documents from time to time by publication of an updated version of the relevant document on its website, and each such updated version shall be effective from the date shown on its front cover provided always that, except with the consent of the Provider in writing (which shall include by approved electronic means to the extent permitted by the Service Terms), any updated version shall not apply to any Agreement already in force at the time of publication.
- 2. Rules of Interpretation**

2.1 Unless the context otherwise requires:

  - 2.1.1 the singular includes the plural and vice versa;
  - 2.1.2 reference to a gender includes the other gender and the neuter;
  - 2.1.3 references to an act of Parliament, statutory provision or statutory instrument include a reference to that act of Parliament, statutory provision or statutory instrument as amended, extended or re-enacted from time to time and to any regulations made under it;
  - 2.1.4 words denoting persons shall include any individual, partnership, firm, company, corporation, joint venture, trust, association, organisation or other entity, in each case whether or not having separate legal personality; and
  - 2.1.5 references to a company shall include a corporation or other body corporate and body corporate shall have the meaning given in section 1173 of the Companies Act 2006.

2.2 A table of contents and headings are for convenience only and shall be ignored in construing the terms of the Agreement.

2.3 Any reference to the words "including", "include", "in particular" or any similar expression shall be construed as illustrative and shall not limit the sense of the words preceding those terms.

2.4 If a term or expression is defined within the Service Terms or Annexes relating to a particular service, the defined term or expression within the Service Terms or Annexes shall apply to the relevant service.

2.5 all references in an Associated Document to a particular paragraph or Annex shall be a reference to that paragraph or Annex in or to that Associated Document.
- 3. Glossary**

In the Agreement, unless superseded by additional terms placed within the Service Terms or Annexes or the context otherwise requires, the following expressions shall have the meaning set out below:

Flexibility Services Standard Agreement  
Version 2.1 Working Draft

2



# NEXT STEPS AND CONTACTS

1. Interested Providers must register on the SEPD DPS and submit the pre-qualification questionnaire before **30<sup>th</sup> April 2023**.
2. Invitation to Tender released to providers on the DPS Select List on **10<sup>th</sup> May 2023**. Information on the CMZ in the tender can be found here:
  - <https://www.ssen.co.uk/our-services/flexible-solutions/flexibility-services/flexibility-services-procurement/>
  - <https://www.flexiblepower.co.uk/scottish-and-southern-electricity-networks>
3. Participants submit bids from **10<sup>th</sup> May 2023** to **9<sup>th</sup> June 2023**
4. Evaluation and scoring responses - **June to July 2023**.
5. Contract award – **July 2023**.

For any questions regarding our procurement of Flexibility Services or the May 2023 tender please contact us at:  
[Flexibilityprocurement@sse.com](mailto:Flexibilityprocurement@sse.com)

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**How likely are you to participate in the tender?**

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**Is there any further information we can provide you?**

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THANK YOU



Scottish & Southern  
Electricity Networks