

# FLEXIBILITY SERVICES

17 APRIL 2023



Scottish & Southern  
Electricity Networks



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



# AGENDA

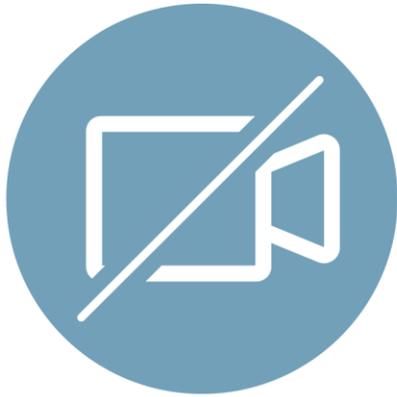


WELCOME	PRESENTER
Housekeeping and introduction	Nisha Doshi
Why are we procuring Distributed Flexibility?	Nisha Doshi
Scotland 2023 Tender Overview	
Flexibility Service Overview	Emily Smith
Flexibility Requirement	
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Procurement Process and timelines	Susan Beveridge
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THANK YOU AND CLOSE	



# HOUSE KEEPING

Please help us to manage this meeting effectively



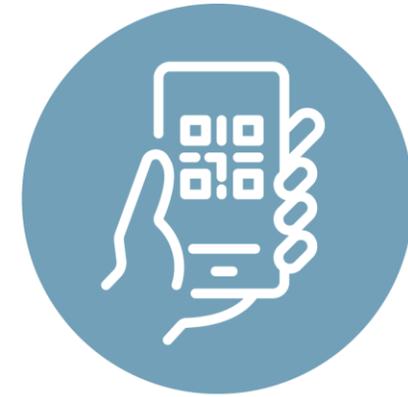
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**Mics on mute**  
Please stay on mute  
unless you are asking  
a question



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



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# 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

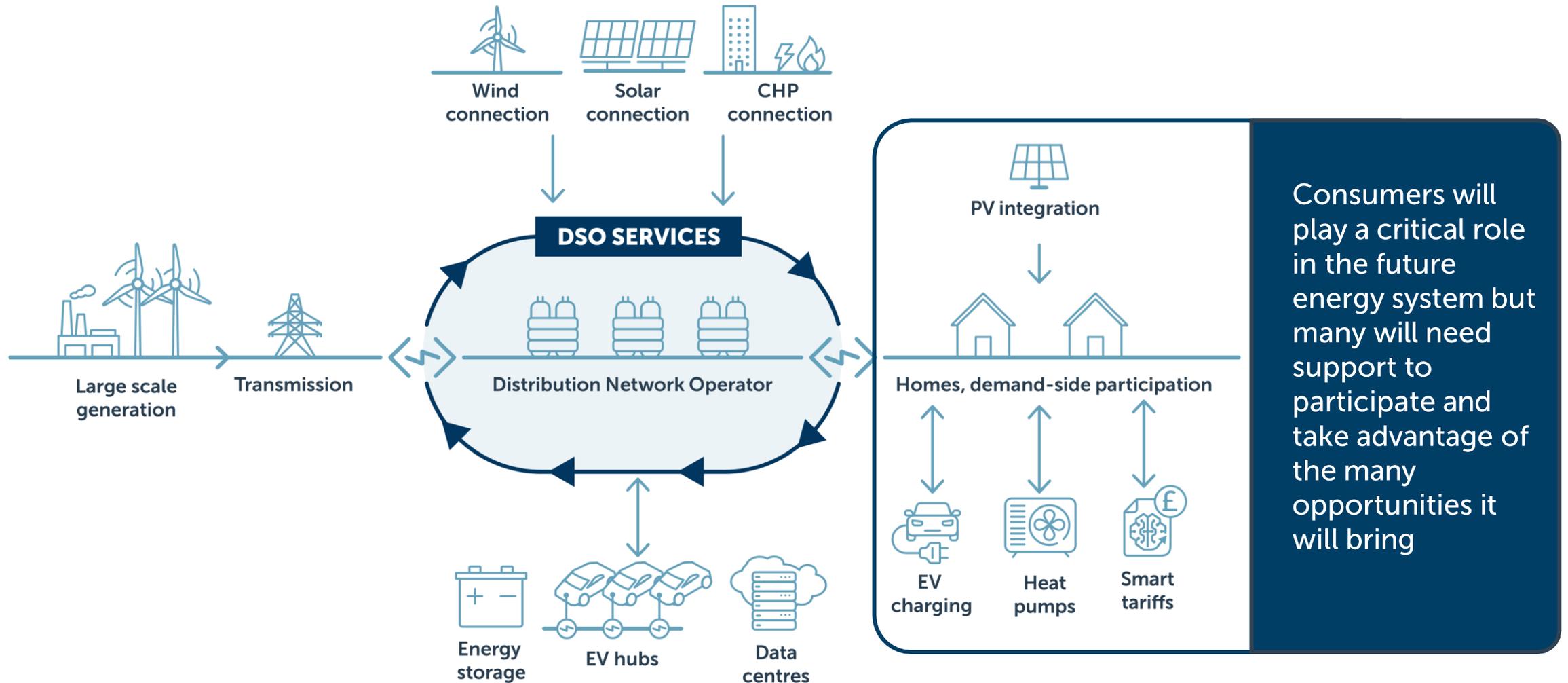


**460km** subsea cables powering island communities



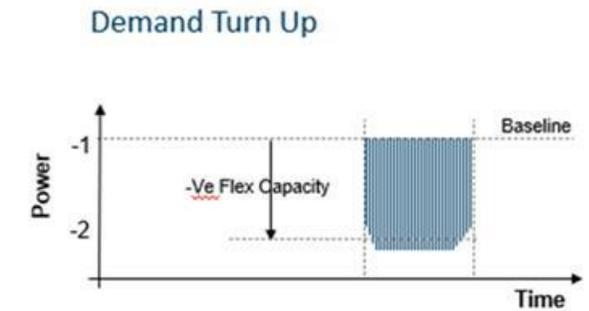
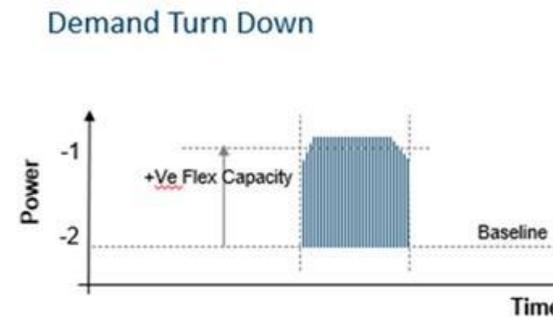
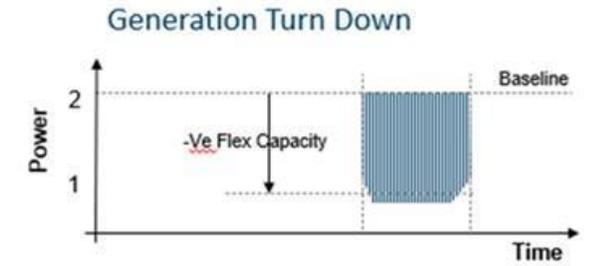
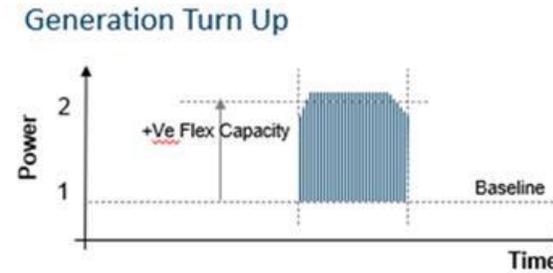
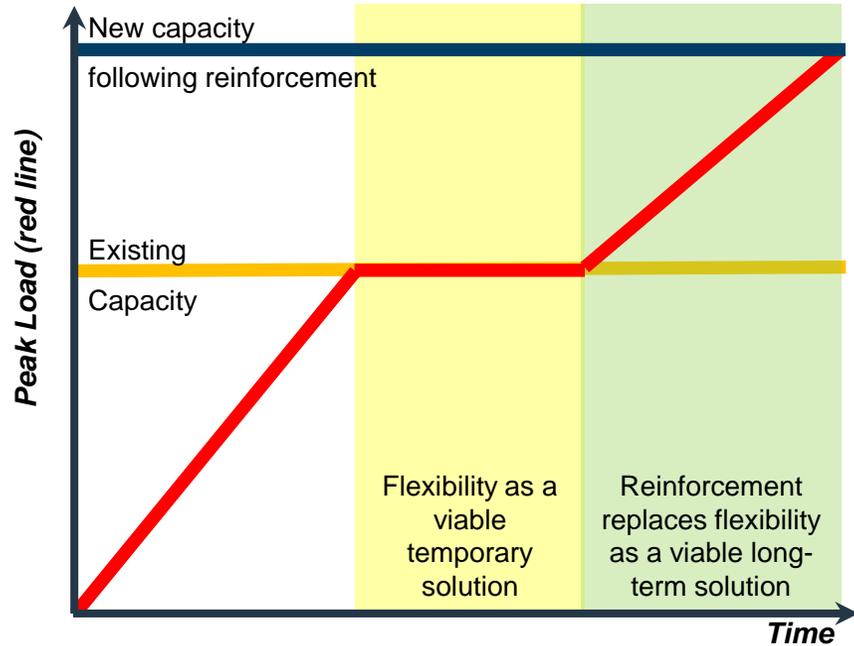
# ELECTRICITY NETWORKS ARE THE KEY ENABLER OF NET ZERO

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





# 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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**How did you hear about this tender webinar?**

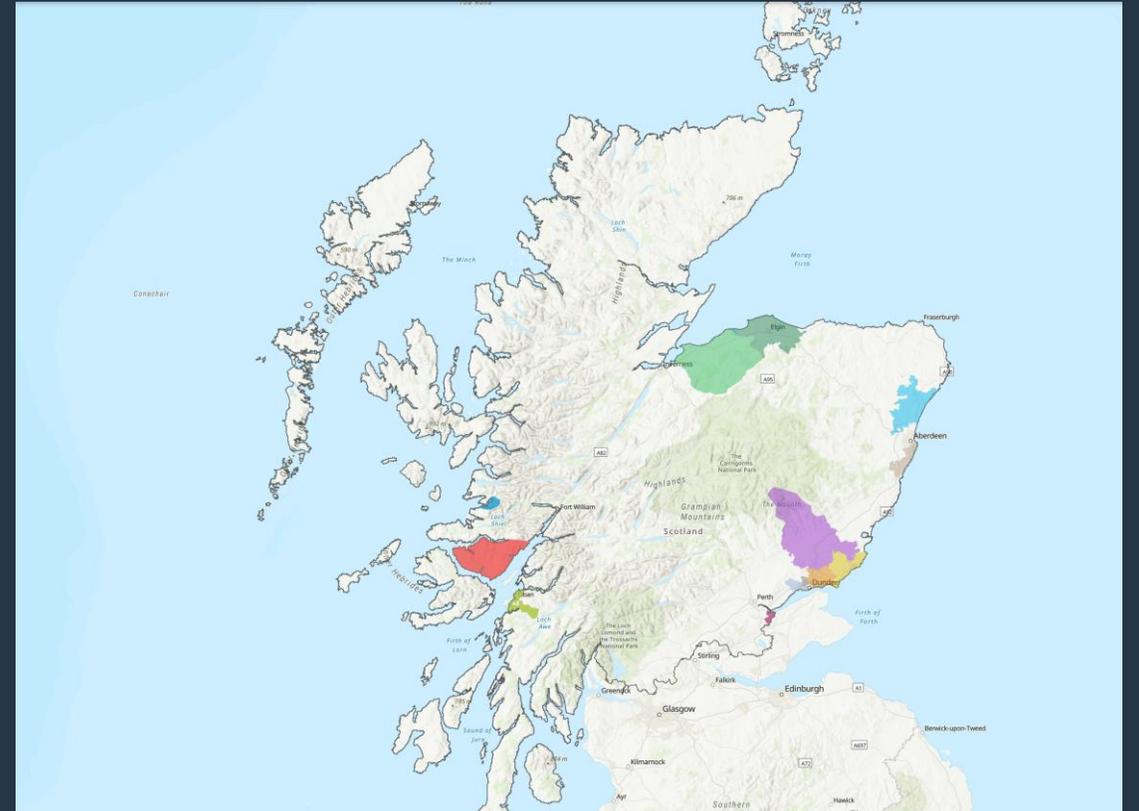
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# SCOTLAND 2023 TENDER OVERVIEW

- From past tenders we have ~ 340 MW of contracted flexibility services in North of Scotland. This is across Sustain, Secure, Dynamic and Restore.
- In 2022/23, we utilised 356 MWh of flexibility in the SHEPD licence area.
- This was mainly for the Sustain Service used to manage a constraint caused by over-generation (Logie Pert CMZ)
- Secure services were used in support of planned outages in Islay and Kimelford CMZs.

**In May 2023 we are looking to procure Dynamic and Restore services for 13 CMZs in the SHEPD licence area.**





**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 SHEPD FLEXIBLE REQUIREMENTS

Zone Name	Services	Minimum Provider Capacity (MW)	Max Connection Voltage (kV)	Type of Response (GTU/DTD or GTD/DTU)	Capacity Required (MW)	Start Year	End Year <sup>1</sup>
<b>Abernethy</b>	Dynamic and Restore	0.05	33	GTU/DTD	7	2023	2024
<b>Dyce</b>	Dynamic and Restore	0.05	33	GTU/DTD	6.5	2023	2024
<b>Elgin</b>	Dynamic and Restore	0.05	33	GTU/DTD	27	2023	2024
<b>Lunanhead</b>	Dynamic and Restore	0.05	33	GTU/DTD	25	2023	2024
<b>Lyndhurst</b>	Dynamic and Restore	0.05	33	GTU/DTD	7	2023	2024
<b>Milton of Craigie</b>	Dynamic and Restore	0.05	33	GTU/DTD	17	2023	2024
<b>Nairn</b>	Dynamic and Restore	0.05	33	GTU/DTD	10	2023	2024
<b>Oban</b>	Dynamic and Restore	0.05	11	GTU/DTD	>1	2023	2024
<b>Ardtornish</b>	Dynamic and Restore	0.05	33	GTU/DTD	>1	2023	2024
<b>Lochailort</b>	Dynamic and Restore	0.05	33	GTU/DTD	>1	2023	2024
<b>Redmoss</b>	Dynamic and Restore	0.05	33	GTU/DTD	>1	2023	2024
<b>Arbroath</b>	Dynamic and Restore	0.05	33	GTU/DTD	24	2023	2024
<b>Charleston</b>	Dynamic and Restore	0.05	33	GTU/DTD	>1	2023	2024



**Simon Lewis**

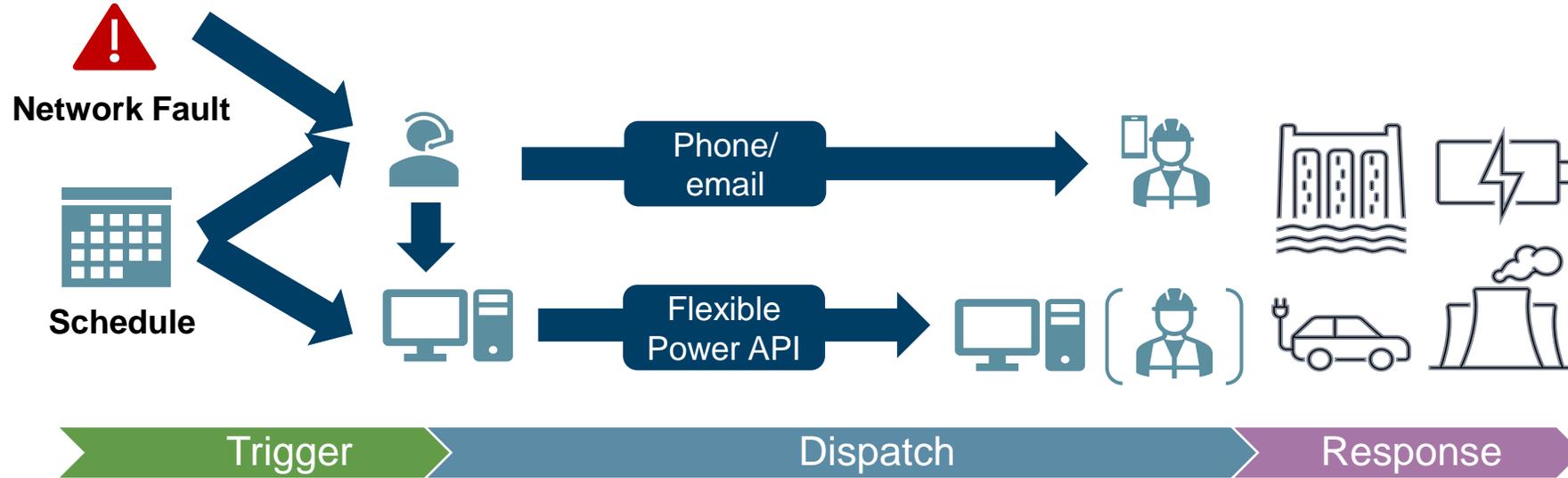
**Flexible Power Project Manager**



**Scottish & Southern**  
Electricity Networks



# 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 (forecast based)	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

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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**

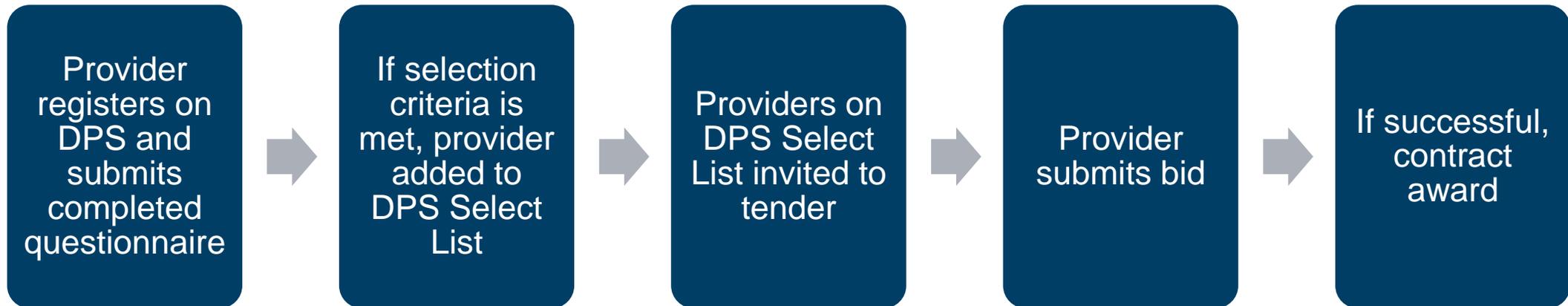


# PROCUREMENT PROCESS

## 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 SHEPD notice on our DPS platform to register and pre-qualify (North): <https://ssen.delta-esourcing.com/delta/respondToList.html?accessCode=63RU6G5499>

**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 will be evaluated:

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

- 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

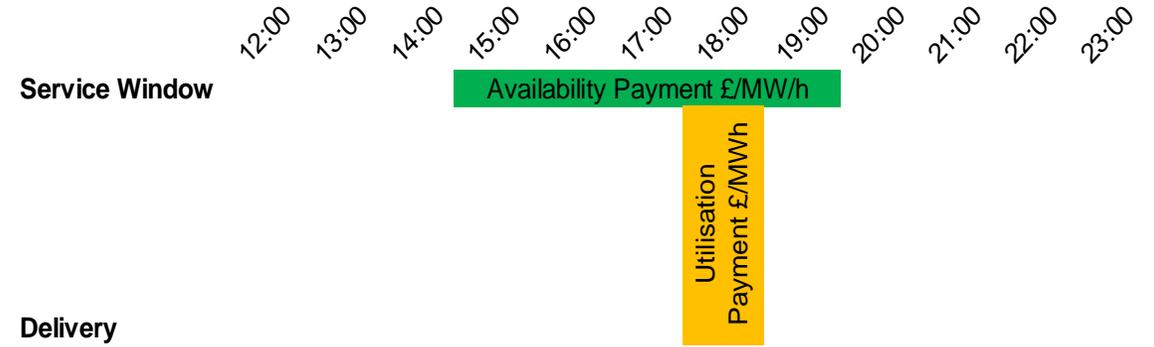


**Elizabeth Porter**  
**Flexibility Markets Analyst**



# 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



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



Example Document  
Subject to Amendment of Schedules at Tender Stage

DATE: 20[•]

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FLEXIBILITY SERVICES AGREEMENT

---

Between  
[COMPANY]  
(as the Company)  
and  
[PROVIDER]  
(as the Provider)

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Note: This Flexibility Services Agreement is intended to standardise the provision of Flexibility Services to Network operators. Please note that the project-specific details, timings and power requirements will



THIS AGREEMENT is made on 20[•]

**BETWEEN:**

(1) [•] LIMITED/PLC, a company incorporated in [England and Wales] [Scotland] (registered number [•]) whose registered office is at [•] (the "Company"); and

(2) [•] LIMITED/PLC, a company incorporated in [England and Wales] [Scotland] (registered number [•]) whose registered office is at [•] (the "Provider").

(together the "Parties" and each a "Party").

**RECITALS:**

(1) The Company, as owner and operator of the local Network, requires the provision of Flexibility Services (as hereinafter defined) to aid the management and operation of its Network. The Company wishes to contract with providers and/or operators of suitable assets for the provision of such Flexibility Services.

(2) The Provider is the owner and/or operator of assets, or has entered into arrangements for rights in respect of third party owned assets that have the capability to provide Flexibility Services and wishes to make available each Site for the provision of such Flexibility Services, for example through aggregated or individual assets. The Company will pay the Provider for these Flexibility Services in accordance with this Agreement.

(3) The Company wishes to appoint the Provider to provide the Flexibility Services and the Provider has agreed to provide the Flexibility Services to the Company, on and subject to the terms and conditions contained herein.

The Parties hereby confirm that this Flexibility Services Agreement including Schedules shall incorporate the Conditions of Contract (a copy of which is attached) (the "Conditions") and together the Flexibility Services Agreement and the Conditions shall be construed as one agreement (the "Agreement"). The priority of such documents shall be as set out below:

(1) this Flexibility Services Agreement and the Schedules attached; and

(2) the Conditions.

Terms used herein and not defined shall have the meaning given to them in the Conditions.

**PART 1 – Details of the Flexibility Provider and Special Conditions**

Provider	Provider's company number and registered office
[•]	[•]



# NEXT STEPS AND CONTACTS

1. Interested Providers must register on the SHEPD 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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**On a scale of 1-5 , how did you find today's webinar?**

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

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THANK YOU



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