



SHORT TERM FLEXIBILITY MARKETS

12TH JULY 2024

Webinar



Scottish & Southern
Electricity Networks

DSO Powering Change



ENGAGE WITH US

Ask questions throughout the session, give us feedback and stay engaged

You can do this by raising your hand, or putting a comment into the chat.



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



Technical queries
If you have any
technical questions
let us know

INTRODUCTION

Catherine Winning,
Flexibility Markets Manager



Scottish & Southern
Electricity Networks

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AGENDA

- 10:00 – 10:05 **Welcome, Introduction – Catherine Winning**
- 10:10 – 10:25 **Flexibility Products – Ronke Ajadi**
- 10:25 – 10:40 **Approach for Short-term bidding, rules and Process – Catherine Winning**
- 10:40 – 10:50 **Electron Connect Platform**
- 10:50 – 11:00 **Q&A**



SSEN DISTRIBUTION

WHO WE ARE

We're Scottish and Southern Electricity Networks Distribution. We look after the electricity cables that bring the power to your property and 3.9 million other homes and businesses across central southern England and the north of Scotland.

OUR DISTRIBUTION NETWORK AT A GLANCE

Over **3.9 million** homes and businesses across the north of Scotland and central southern England

More than **937,300** customers on our Priority Services Register

Over **128,000km** of overhead lines and underground cables

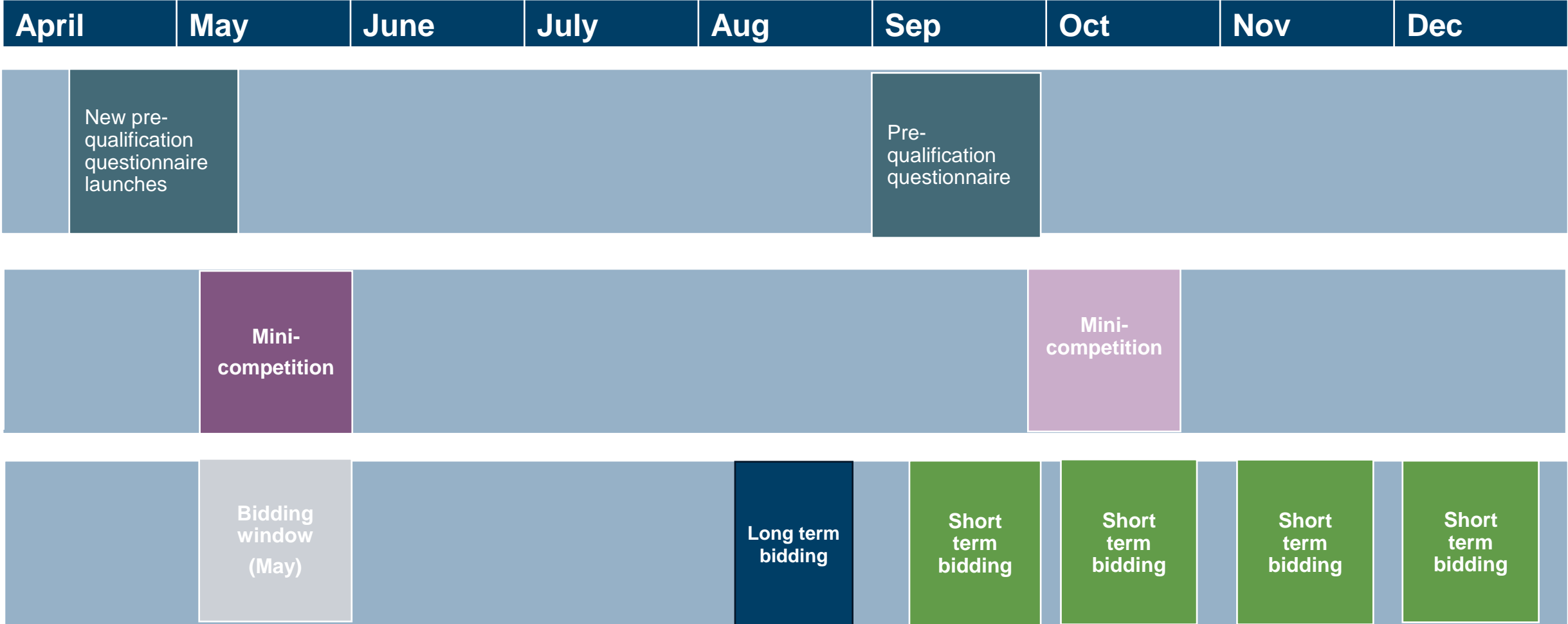
460km subsea cables powering island communities

Over **4,100** employees across the country





NEW PQQ, MINI-COMPETITION & BIDDING WINDOW TIMELINES





KEY DATES



	Deadline
Ready for Long term Bidding on Electron Connect	29 th July
August Long Term Bidding Round Starts	12 th August 2024
Ready for Short term Bidding on Electron Connect	19 th August 2024
August/ Sept short term Bidding Round Starts	2 nd September 2024

LONG-TERM & SHORT-TERM PRODUCTS OVERVIEW

 Ronke Ajadi,
Flexibility Agreements Manager




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FLEXIBILITY PRODUCTS

	Product	Description	Decision timescales	Payment
 Flexibility service products	Peak Reduction	This product seeks a reduction in peak power utilised over time. This response can manage peaks in demand.	<ul style="list-style-type: none">■ Utilisation Instruction: At Trade	Utilisation
	Scheduled Utilisation	In this product, the time that flexibility is delivered has been pre-agreed in advance with the provider.	<ul style="list-style-type: none">■ Utilisation Instruction: At Trade	Utilisation
	Operational Utilisation	This product allows for the use case where the amount of flexibility delivered is agreed nearer to real time.	<ul style="list-style-type: none">■ Utilisation Instruction: Real Time or Week Ahead	Utilisation
	Scheduled Availability + Operational Utilisation	This product procures, ahead of time, the ability of an FSP to deliver an agreed change following a network abnormality.	<ul style="list-style-type: none">■ Availability Refinement: Not allowed■ Utilisation Instruction: Real Time or Day Ahead	Availability + Utilisation
	Variable Availability + Operational Utilisation	This product allows for DNOs and the ESO to procure a level of contracted capacity, but then refine the requirements in terms of availability closer to the event.	<ul style="list-style-type: none">■ Availability Refinement: Week Ahead or Month Ahead■ Utilisation Instruction: Real Time or Day Ahead or Week Ahead	Availability + Utilisation



THE SERVICES WE WILL BE USING

Bidding Round Start Date	Product Short Name	Product Long Name	Payment	Availability Refinement Timescale	Utilisation Instruction Time Scale
12 th August	VAOU_WA	Variable Availability + Operational Utilisation - Week Ahead	Availability + Utilisation	Month Ahead	Week Ahead
2 nd September	SAOU_DA	Scheduled Availability + Operational Utilisation - Day Ahead	Availability + Utilisation	N/A	Day Ahead

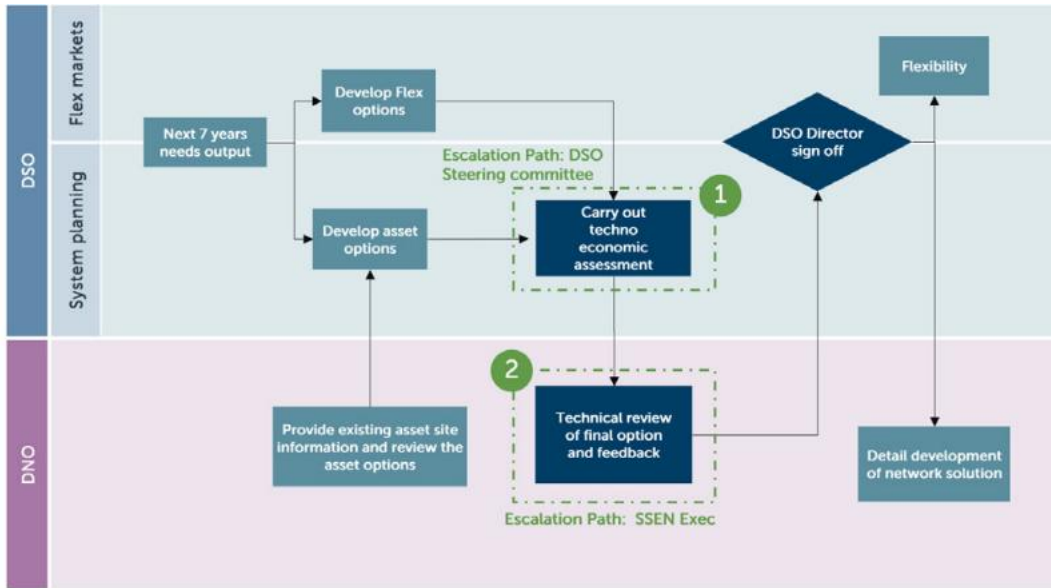
The 12th August is a Long-term bidding round, with the earliest service delivery from Spring 25

The 2nd September is a Short-term bidding round, with the service delivery for the month of October.



IDENTIFYING THE NEED FOR FLEXIBILITY

DNOA Methodology



DNOA Outcomes Example

Lytchett

Scheme description

- Lytchett Bulk Supply Point is in the Dorset local authority area – SSEN's SEPD licence area. Postcode(s): DT2, DT11, BH15, BH16, BH17, BH18, BH20, BH21.
- Demand load related and fault level related – thermal overloading of the 132/33kV transformers and fault level non-compliance for the 33kV circuit breakers.

Proposed option

- Procure flexibility solutions. This is followed by asset solution(s): 132/33kV transformer replacement, new gas insulated 33kV busbar and circuit breakers.
- Option uses flexibility to maintain network security. Asset solutions solve all first circuit outage long term compliance issues.
- Releases 30MVA of firm capacity at Lytchett Bulk Supply Point.

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

Indicative flexibility price (if available):

- Availability: TBC
- Utilisation: TBC

DNOA History

2023/24	2024/25	2025/26	2026/27	2027/28
Initial assessment				

Reinforcement timeline

- Reinforcement delivery for thermal constraint by the end of 2026/27 and for fault level constraint by the end of 2027/28.

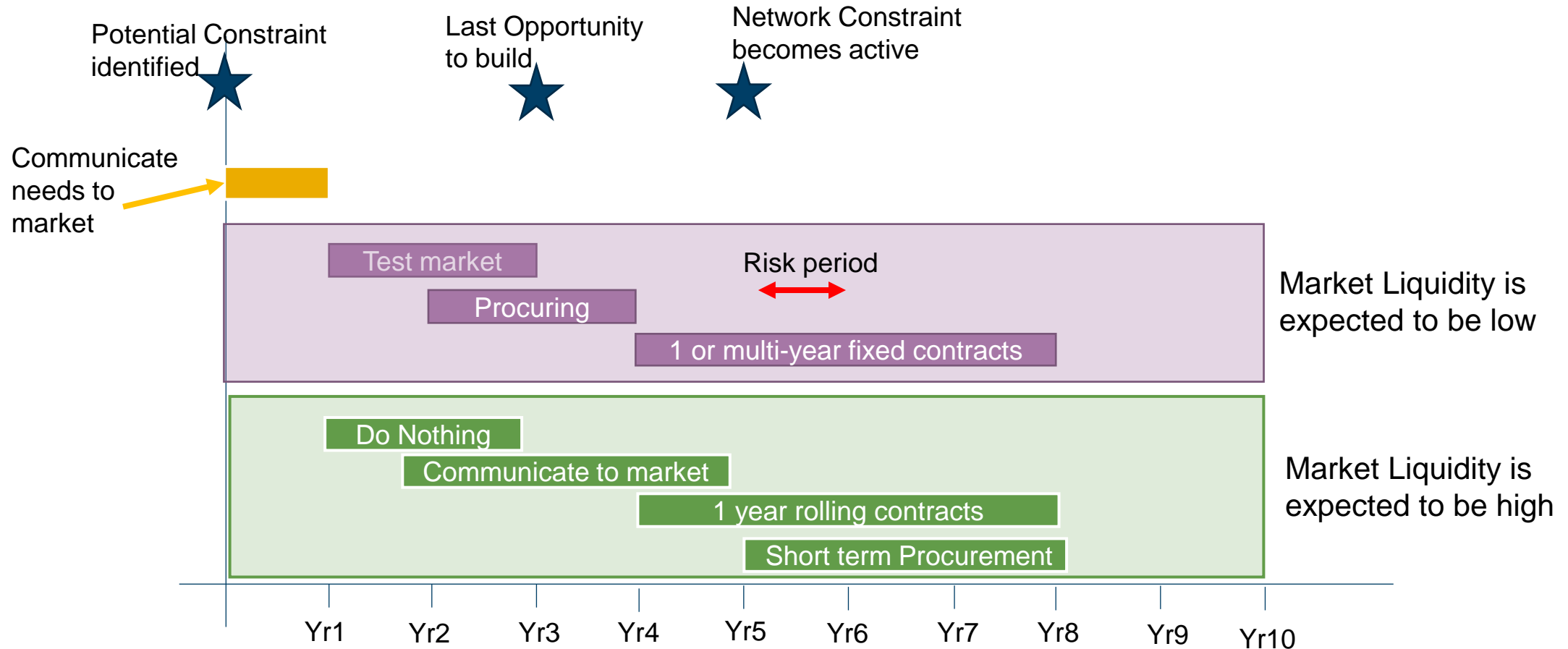
Estimated peak MW outside firm network capacity under each scenario
Grey text relates to estimated peak MW without reinforcement delivery

	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
CT	5.43	5.87	6.71	-(9.85)	-(11.69)	-(14.20)	-(17.94)
ST	5.16	5.47	6.38	-(7.36)	-(8.00)	-(9.42)	-(11.02)
LTW	5.63	6.71	10.04	-(14.04)	-(15.12)	-(18.81)	-(23.05)
FS	4.87	5.20	5.68	-(6.30)	-(6.73)	-(7.74)	-(8.89)

Constraint management timeline



MARKET LIQUIDITY WILL DETERMINE WHEN WE PROCURE FLEXIBILITY





LONG TERM REQUIREMENT AREAS

SEPD

<u>CMZ</u>	<u>Licence Area</u>
<i>* Subject to Change</i>	
Beaconsfield	SEPD
Lychett	SEPD
Ealing	SEPD
Southfield Road	SEPD
Boston Manor	SEPD
Canal Bank	SEPD
Hayes	SEPD
Vicarage Farm Road	SEPD
North Hyde 11kV	SEPD
The Green	SEPD
Bath Road East	SEPD
Northolt	SEPD
Yiewsley	SEPD
Causeway	SEPD
Charlbury – Woodstock	SEPD
Cowley Local	SEPD

SHEPD

<u>CMZ</u>	<u>Licence Area</u>
<i>* Subject to Change</i>	
Culloden	SHEPD
Burghmuir	SHEPD
Abernethy	SHEPD
Stoneywood	SHEPD
Springhill	SHEPD
Montrose North	SHEPD
Muir of Ord	SHEPD



AUGUST 2024: SAOU- DAY AHEAD

<u>CMZ</u>	<u>Licence Area</u>	<u>Estimated Capacity Required (MW)</u>	<u>Estimated Service Window</u>	<u>Availability Days</u>
<i>* Subject to Change</i>				
Alderton	SEPD	0.19*	17:30-20:00*	28
Alresford	SEPD	TBD	17:00-18:00*	28
Ashton Park	SEPD	TBD	15:30-22:00*	28
Egham	SEPD	TBD	17:00-20:30*	28
Faringdon	SEPD	1.68*	15:00-22:00*	28
Goring	SEPD	TBD	16:30-21:00*	28
Harvard Lane	SEPD	0.22*	16:30-22:00*	28
Stokenchurch (AM)	SEPD	0.90*	07:30-08:30*	28
Stokenchurch (PM)	SEPD	0.90*	15:00-22:00*	28
Yetminster	SEPD	TBD	TBD	28
14 Yeovil	SEPD	TBD	TBD	28

These are indicative requirements

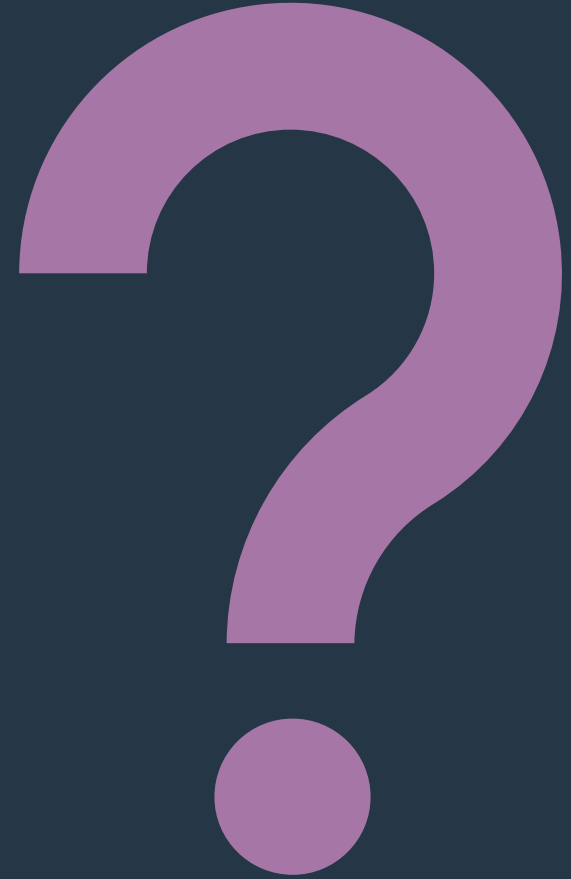
The requirements will change as short term forecasts become available.



DISCUSSION POINT

**WHAT ADDITIONAL INFORMATION THAT WE
DON'T PUBLISH WOULD BE HELPFUL TO
YOU?**

PARTICULARLY FOR SHORT TERM MARKETS





SHORT TERM DECISION MAKING

Catherine Winning,
Flexibility Markets Manager



Scottish & Southern
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PARTICIPATION REQUIREMENTS



	Long Term Markets (> 3 months ahead of delivery)	Short Term Markets (<3 months ahead of delivery)
Signed Overarching Agreement		
Asset Registration		
Flexible Power Onboarded		
Settlement System Set Up		

Your Signed Overarching Agreement must be for the region you wish to bid in for (i.e. SEPD or SHEPD) and must include the service you wish to participate in.

For September Short-term bidding:

- all areas offered will be the SAOU Day Ahead Product.
- your signed overarching agreement must include the SAOU Day Ahead Product from the May mini-competition.



FLEXIBLE POWER CHANGE

- New API Dispatch – Version 2.

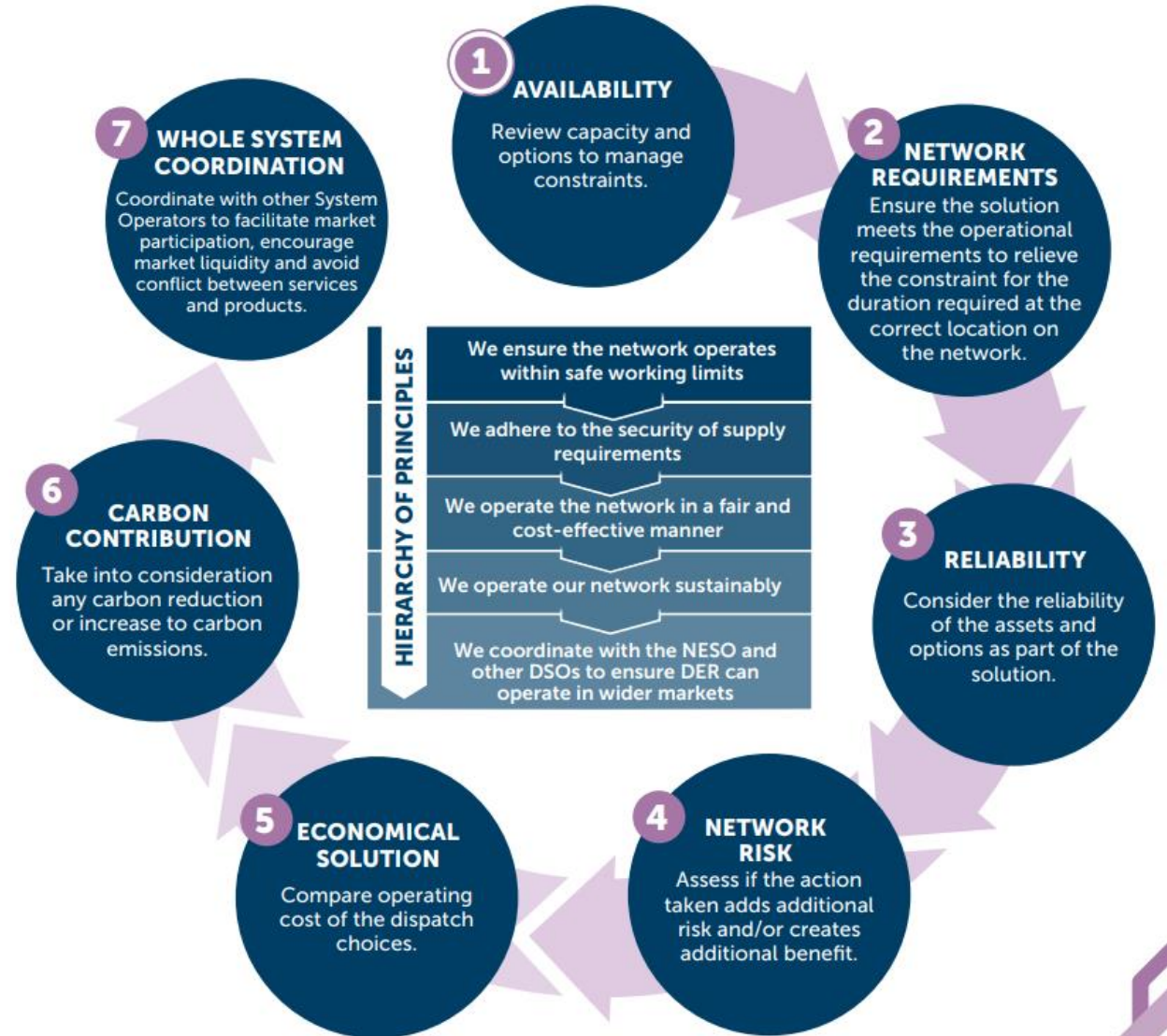
```
PUT {participant_base_url}/v2/dispatch
```

- Available 19th July
- Specification: [Flexible Power - Participant API Documentation \(flexiblepowerportal.co.uk\)](https://flexiblepowerportal.co.uk)
- v2 dispatch introduces an additional instruction type called “notice” and enhances the existing start/stop instruction types with the agreed power change.
 - Week ahead notices will be sent on prior Thursdays at 5pm
 - Day Ahead notices will be sent on prior days at 1:30pm
- Anyone using Version 1 will need to update the end points. v2 API testing page will be provided in the portal to self-test the integration.



OPERATIONAL DECISION MAKING

Short-term markets are influenced by our Operational Decision-Making Process





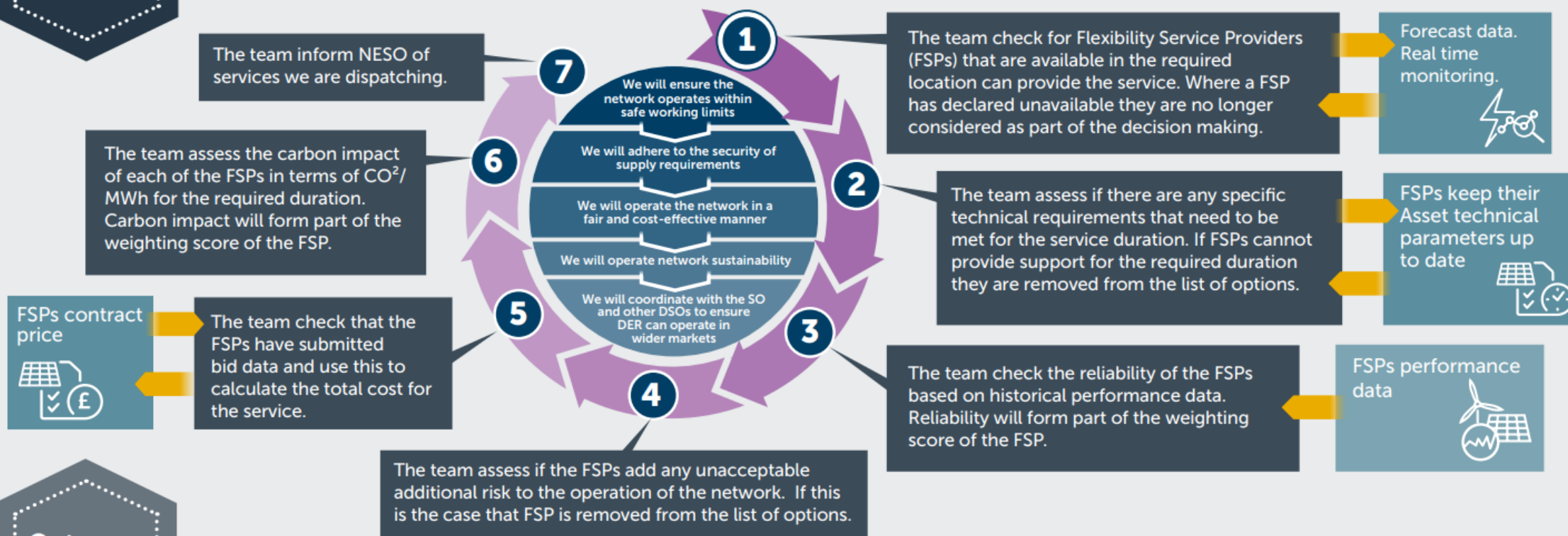
Managing capacity

FLEXIBILITY SCHEDULING

Month Ahead



The Flexibility Scheduling Engineer has run their monthly network analysis based on half-hourly demand data and from these studies they have identified a network need for generation turn up or demand turn down on the network, for a 3-hour period in a specific location, to ensure that the network remains within limits. The specific network needs are required for us to select the most suitable option to address this need.



Outcome



The Flexibility Scheduling Engineers applies the ODM principles by requesting availability across all FSPs in the required location. The requested availability is weighted based on reliability, cost and carbon impact. The FSPs are then scheduled. A similar process is then followed for issuing dispatch instructions, based on forecasted demand data at week ahead. Lastly, the Flexibility Scheduling Engineer will inform the NESO and neighbouring DSOs, if relevant, of the services we are dispatching.



PROCURING ADDITIONAL VOLUME

Confirm Flexibility Need

- We use updated forecasts to recalculate need.

Availability Instructions to Contracted Generation

- Where contracts already exist we use ODM process to issue Availability Instructions

Response to Availability Instructions

- FSPs accept or reject availability instructions

Calculate Remaining Need

- Flexibility Need – Accepted Availability Instructions

SAOU Requirement Published & Market Initiated

Utilisation Instruction



KEY RULES DRIVEN BY THIS PROCESS

- If you have a contract for a CMZ and decline an Availability Instruction, you cannot participate in the bidding for that zone.
- If you accept an Availability contract, you can bid into that zone with additional volume that you have this must be new volume.
- For the first short term markets all products are expected to be SAOU – the acceptance of your bid is a commitment by you to make this volume available to us.
- The Pricing of bids must be economical because we're providing flexibility services on behalf of electricity customers therefore, unreasonably high bids may be rejected.



DISCUSSION POINT

**WHAT WILL STOP YOU PARTICIPATING IN
SHORT TERM MARKETS (IF ANYTHING)?**





MARKET PLATFORM DEMO



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Welcome to the

Flexibility Market Platform

Flexibility Service Providers can sign up to provide flexibility here

[Register](#)



KEY DATES

	<u>Key dates</u>	<u>Deadline</u>
	Respond to questions in email dated 1 st July	15th July 2024
Overarching Agreement	May Mini-competition: Confirm acceptance of overarching agreement	15th July 2024
	May Mini-competition: Sign overarching agreement	29th July 2024
Long-term bidding	Long-term Bidding window opens	w/c: 12th August 2024
	Long-term Bidding window closes	w/c: 26th August 2024
Short-term bidding	Respond to questions in email dated 1 st July	15 th July 2024
	Onboarded to Flexible Power	Latest: 19th August 2024
	Asset Registration	Latest: 19th August 2024
	Short-term Bidding window opens	2 nd September 2024



SUMMARY OF DATES



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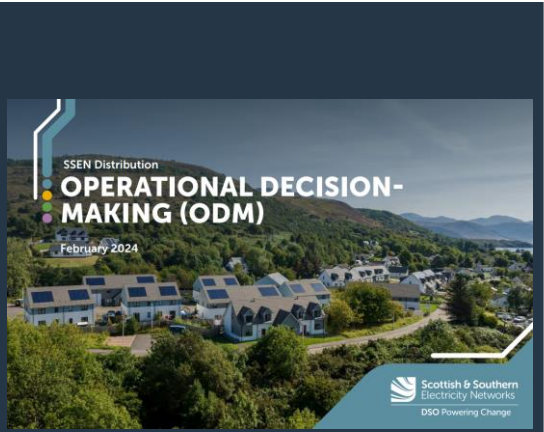
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ENA Webinar on:

Unlocking Power of
DNOs smart meter
consumption data

30th July

Summary - Unlocking the
power of DNO Smart
Meter Consumption Data
Current and future use of
the dataset (cvent.com)



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