

Executive summary

This Distribution Flexibility Services Procurement Report looks back on the Flexibility Services we have procured and operated in the 23/24 regulatory year.

The report also provides summary of how we have engaged with stakeholders, how we ensure our processes remain economic and efficient as well as a view on the carbon intensity of the services we have delivered. In each relevant section, and summarised in Appendix 2, we point to further data sources so you can track our progress in a more granular manner.

This Procurement Report sits alongside the forward looking <u>Procurement Statement</u> published in April, which provides summary of our plans going forwards to the next year.

These two documents summarise the processes for how we identify the need for flexibility services, how we seek to procure them and then how we operate them.

These are designed to provide market efficiency whilst balancing the needs for simplicity and accuracy, and have evolved as we have gained experience, and engaged with our key stakeholders. Our <u>DSO Strategic</u> Action Plan also highlights our strategic priorities for the next 2 years.

We continue to operate a flexibility first process with 173 schemes considered in our latest DNOA. Over the past year, we have procured flexibility services across 80 HV zones, launched our first LV zones (procuring services across 2,244 zones). We have secured additional volume, but there are still many unmet requirements. We have also increased dispatch volumes, exceeding 2GWh for HV and 0.3GWh for LV across over 6,000 and 31,000 dispatch events respectively. This growth is driven by the participation of many demand response customers focused on shifting Low Carbon Technologies.

We are taking a collaborative approach to our Evolution of Flexibility service engagement by working with UK Power Networks to identify areas of alignment. We intend to jointly consult on our proposals for further standardisation in summer 2024.

In the last year we have seen exciting changes in the assets made available to us, and the use cases we can use them for. We have laid strong digital foundations through the delivery of the <u>Market Gateway</u>. We hope to see continued growth in our markets with more competition across zones.

For further information please contact:

Matt Watson

Head of Commercial and Operability

Nged.flexiblepower@nationalgrid.co.uk

1. Introduction

National Grid Electricity Distribution is a Distribution Network Operator (DNO) and a Distribution System Operator (DSO), responsible for distributing electricity to 8 million customers. We look after a network of wires, poles, pylons, cables and substations; distributing electricity to homes and businesses across the West Midlands, East Midlands, the South West and South Wales.

We have been procuring Flexibility Services since 2018 and now operate a "flexibility first" approach. By managing temporal peaks on the network, we can avoid overloading assets and hence push back the need to invest in more assets.

This Distribution Flexibility Services Procurement Report (and the accompanying data template) summarises the services we have procured and used in the last regulatory year. It forms part of a yearly regulatory process involving the publishing of forward-looking Procurement Statement, looking at how we will procure in the coming regulatory year, and the backwards looking Procurement Report, looking at what we have procured. These publications are mandated as part of our Distribution Licence (Condition 31E), and aim to build a minimum level of information required to promote a competitive market for Flexibility Services.

We have established a robust process for the assessment, procurement and then operation of Flexibility Services. This has been formed by our experience of building the services out from innovation projects in a full business as usual process and featured regular feedback and improvement from our stakeholders. This report aims to highlight these processes and point towards existing data sources where possible, providing an overview of our activity to date whilst allowing detailed investigation where desired.

The report covers:

- Summaries of where we have procured and operated services,
- A review of the stakeholder engagement carried out in the last year,
- The processes used to assess the economic viability of Flexibility Services, and individual bids,
- A view on the carbon intensity of our services,
- Further details to help understand the supplementary data, &
- A summary of the related publications and data sources.

Should you have any queries about the contents of this report please contact: NGED.Flexiblepower@nationalgrid.co.uk.

2. Flexibility Procurement and Use Summary

2.1 The Services we have procured and operated

As detailed in section 2 of our <u>Procurement Statement for 23/24</u>, we have a robust process for the identification, communication, procurement and then operation of Flexibility Services. The tables below provide a brief summary of the HV (Secure, Dynamic and Restore) and LV (Sustain) services procured over the last regulatory year, as detailed in the Supporting Data. Due to the extensive nature of the LV service dataset, this has been presented by license area. For a more detailed breakdown, please check the accompanying Supporting Data Sheet.

Please note that we will be implementing the new <u>Standardised Products</u> developed under the Open Networks project in the next regulatory year.

Summaries of our services **procured for delivery in this reporting year** can be found in the tables below. Peak values refer to the maximum requirements within a zone at a point in time rather than the Total. Total values would sum all weekly trades, whereas Peak would take the maximum of that series. Due to this time element in the values presented; they may not neatly sum as they may refer to different time periods. As we saw limited response in the first weeks of our weekly trading, these have set many of the values.

Full details of the services procured and operated can be found in the accompanying Supporting Data, this includes services contracted this year for delivery in subsequent delivery years. It should also be noted that we publish extensive data on our <u>Connected Data Portal</u>. For full details on the data we publish see Appendix 2.

Table 1: Summary of Flexibility Service Procurement by Product for delivery in reporting year

Product	Total Peak Contracted in Prior Years (MW)	Total Peak Forecasted in Delivery Year (MW)*	Total Peak Tendered in Reporting Year (MW)	Total Peak Contracted in Reporting Year (MW)	Total Peak Unmet in Tenders in Reporting Year (MW)
Sustain	0.00	94.57	94.57	1.30	94.57
Secure	169.31	90.41	51.30	7.19	51.30
Dynamic	405.92	170.05	88.71	2.05	88.65
Restore	570.23	260.46	140.00	0.16	80.14

Table 2: Summary of Sustain Service Procurement by Licence Area for delivery in reporting year

Licence Area	Total Peak Contracted in Prior Years (MW)	Total Peak Forecasted in Delivery Year (MW)*	Total Peak Tendered in Reporting Year (MW)	Total Peak Contracted in Reporting Year (MW)	Total Peak Unmet in Tenders in Reporting Year (MW)
East Midlands	0.00	52.30	52.30	0.68	52.30
West Midlands	0.00	21.18	21.18	0.44	21.18
South West	0.00	12.42	12.42	0.05	12.42
South Wales	0.00	8.66	8.66	0.12	8.66

^{*} Sum of all peak flexibility service forecasted and reported in the Procurement Statement. These do not include new constraint zones which have been opened for procurement during the regulatory year.

Table 3: Summary of HV Flexibility Service Procurement by Zone for delivery in reporting year

CMZ Name	Products	Postcodes**	Contracted in Prior Years (MW)	Forecasted in Delivery Year (MW)***	Total Tendered in Reporting Year (MW)	Total Contracted in Reporting Year (MW)	Total Unmet in Tenders in Reporting Year (MW)	Reasons not met	Dispatched in Delivery Year (MWh)
Aberaeron	Dynamic & Restore	SY23 SA46 SA48	0.35	1.21	1.21	0.00	1.21	insufficient market volume	3.21
Alderton Primary	Secure & Restore	GL20 GL54 WR11	0.00	0.00	0.00	0.00	0.00		0.00
Alfreton- Wessington	Secure & Restore	DE56 DE55 DE6 DE4 DE5 TQ4 NG21	0.00	0.00	0.00	0.00	0.00		0.00
Apollo - Tamworth	Secure & Restore	B78 B79 WS1	6.23	0.00	0.00	0.00	0.00		0.46
Ashgrove	Secure & Restore	CF14 CF15	0.00	0.00	3.06	0.01	3.06	insufficient market volume	0.28
Atherstone	Secure & Restore	CV9 B78 CV13 CV10	0.00	1.68	1.68	0.02	1.68	insufficient market volume	2.75
Bretby	Secure & Restore	DE15 DE11 DE65	0.00	0.00	0.00	0.00	0.00		0.00
Bridgwater/Str eet	Secure & Restore	BA1 BA2 BA4 BA5 BA6 BA7 BS2 TA1 TA2 TA3 TA4 TA5 TA6 TA7 TA8 TA9	2.00	0.00	0.00	0.00	0.00		0.92
Brimscombe	Dynamic & Restore	GL6 GL5 GL7 GL4 GL53GL3 GL8 GL12 GL11	10.39	0.00	0.00	0.00	0.00		6.55
Brockworth Primary	Secure & Restore	GL4 GL3	0.00	0.00	0.00	0.00	0.00		0.00
Camborne Treswithian	Secure & Restore	TR14 TR27	0.00	1.08	1.08	0.01	1.08	insufficient market volume	1.56

CMZ Name	Products	Postcodes**	Contracted in Prior Years (MW)	Forecasted in Delivery Year	Total Tendered in Reporting	Total Contracted in Reporting	Total Unmet in Tenders in Reporting	Reasons not met	Dispatched in Delivery Year (MWh)
			()	(MW)***	Year (MW)	Year (MW)	Year (MW)		(,
Chesterfield GSP	Dynamic & Restore	DE55 NG16 NG17 S32 SK17 S33 S42 DE45 S18 S40 S41 S43 S44 DE6 DE22 DE56 S20 S12 S21 DE5 DE4 S49 S45	5.00	19.28	0.00	0.00	0.00		0.00
Chesterfield GSP	Secure & Restore	NG18 NG20 S80 S26 NG15 NG19 NG21 NG5 NG14 S81 NG22 NG6 NG25 S17 DN22 NG23	6.96	0.00	0.00	0.00	0.00		95.20
Chesterfield Main	Secure & Restore	DE5 S42 S45	6.96	1.48	0.00	0.00	0.00		0.70
Clowne	Dynamic & Restore	S21 S43 S44 S80	2.27	0.00	0.00	0.00	0.00		17.57
Coalville	Dynamic & Restore	LE67	13.97	6.53	2.41	0.74	2.41	insufficient market volume	20.53
East Aberthaw	Dynamic & Restore	CF1 CF3 CF5 CF6 CF7	0.21	0.00	0.00	0.00	0.00		13.88
East Yelland	Dynamic & Restore	EX33 EX31 EX39 EX34 EX38 EX32	37.72	4.73	4.73	0.09	4.73	insufficient market volume	14.20
Edgarley Primary	Secure & Restore	BA6	0.00	0.00	0.00	0.00	0.00		0.00
Ellesmere Avenue	Secure & Restore	NN5 NN7	0.00	0.00	0.00	0.00	0.00		0.00
Epwell	Secure & Restore	CV36 OX15 CV35 OX17 CV33	0.00	0.00	0.00	0.00	0.00		0.00
Exeter City	Secure & Restore	EX2 EX17 EX4	0.00	6.61	4.08	6.53	4.08	insufficient market volume	176.31

					V	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1		
CMZ Name	Products	Postcodes**	Contracted in Prior Years (MW)	Forecasted in Delivery Year (MW)***	Total Tendered in Reporting Year (MW)	Total Contracted in Reporting Year (MW)	Total Unmet in Tenders in Reporting Year (MW)	Reasons not met	Dispatched in Delivery Year (MWh)
Exeter City	Dynamic & Restore	EX5 EX6 EX1	27.80	0.00	0.00	0.00	0.00		111.50
Exminster Primary	Secure & Restore	EX6	0.00	0.00	0.00	0.00	0.00		0.00
Feckenham South	Dynamic & Restore	B49 B50 B96 CV3 CV4 GL5 OX1 OX7 WR1 WR7 WR9	13.94	0.00	0.00	0.00	0.00		20.96
Feeder Road A Primary	Dynamic & Restore	BS4 BS3 BS14 BS5	0.00	0.00	0.00	0.00	0.00		0.00
Feeder Road BSP	Dynamic & Restore	BS15 CV11 BS14 EX17 DE65 SA5 CV12 TR19 PL7	0.00	11.84	11.84	0.16	11.84	insufficient market volume	33.30
Feeder Road to Bedminster and Bower Ashton circuit	Dynamic & Restore	BS3 BS13	0.00	0.00	0.00	0.00	0.00		0.00
Filton Airport and Cribbs Causeway Ring	Secure & Restore	BS10 BS34	0.00	5.45	0.46	0.01	0.46	insufficient market volume	0.73
Grassmoor	Secure & Restore	S42 S41 S45 S44 DE55	7.87	1.90	1.90	0.03	1.90	insufficient market volume	52.41
Grendon - Corby 132kV	Secure & Restore	LE1 LE7 LE8 LE9 MK4 NG3 NN1 NN2 NN6 NN8 NN9 PE8 PE9	0.05	23.77	0.00	0.00	0.00		19.40
Gunnislake	Secure & Restore	PL18 PL17 PL12	0.00	1.32	1.32	0.01	1.32	insufficient market volume	3.86
Hallcroft Road	Secure & Restore	DN22	0.00	0.00	0.00	0.00	0.00		0.00

Distribution**System**Operator

			Contracted	Forecasted	Total	Total	Total Unmet		Dispatched
CMZ Name	Products	Postcodes**	in Prior Years (MW)	in Delivery Year (MW)***	Tendered in Reporting Year (MW)	Contracted in Reporting Year (MW)	in Tenders in Reporting Year (MW)	Reasons not met	in Delivery Year (MWh)
Harbury to Banbury 132kV	Dynamic & Restore	CV34 CV37 B95 CV35 CV32 CV31 CV33 B50 B94 CV47	0.00	0.00	0.00	0.00	0.00		0.00
Hayle - Camborne	Dynamic & Restore	TR19 TR14 TR26 TR16 TR18 TR15 TR27 TR20 TR17 TR4 TR13	9.81	15.75	15.75	0.06	15.75	insufficient market volume	314.70
Hemyock	Dynamic & Restore	EX15 EX14	0.98	0.89	0.89	0.01	0.89	insufficient market volume	35.33
Hereford - Ledbury Ring	Secure & Restore	HR9 GL2 GL18 HR1 HR8 GL17 GL19 WR13 HR2 WR14 NP25	6.61	3.76	3.76	0.09	3.76	insufficient market volume	273.05
Hereford BSP	Secure & Restore	HR1 HR2 HR3 HR4 HR7 HR8	50.15	0.00	0.00	0.00	0.00		2.27
Hinckley	Dynamic & Restore	LE10 CV11 LE9	21.00	0.00	0.00	0.00	0.00		40.00
Holme Carr	Secure & Restore	S81 S80	0.00	0.00	0.00	0.00	0.00		0.00
Ilkeston	Dynamic & Restore	DE7 DE75	2.94	11.37	8.24	0.04	8.24	insufficient market volume	54.35
Isles of Scilly	Secure & Restore	TR2	1.40	0.47	0.00	0.00	0.00		0.00
Keynsham East Primary	Secure & Restore	BS31 BA2	0.00	0.00	0.00	0.00	0.00		0.00
Knighton	Secure & Restore	SY7 LD7	0.00	0.33	0.33	0.00	0.33	insufficient market volume	0.56
Laneast	Secure & Restore	PL1	0.00	1.24	1.24	0.00	1.24	insufficient market volume	0.32



CMZ Name	Products	Postcodes**	Contracted in Prior Years (MW)	Forecasted in Delivery Year (MW)***	Total Tendered in Reporting Year (MW)	Total Contracted in Reporting Year (MW)	Total Unmet in Tenders in Reporting Year (MW)	Reasons not met	Dispatched in Delivery Year (MWh)
Lincoln- Anderson Lane	Secure & Restore	LN1 LN2 LN6 LN8 NG2	4.72	4.51	2.91	0.06	2.91	insufficient market volume	32.40
Llandrindod - Rhayader	Dynamic & Restore	LD1 LD6 SY18	6.33	1.19	1.19	0.01	1.19	insufficient market volume	38.27
Llandrindod Wells Primary	Secure & Restore	LD1	0.00	0.00	0.00	0.00	0.00		0.00
Llanfyrnach	Dynamic & Restore	SA3 SA4	0.36	1.64	0.00	0.00	0.00		0.00
Loughboroug h	Dynamic & Restore	LE12 LE67 LE11 CV13 LE6 LE9 WS4 LE8 LE19 LE3 LE10	8.42	4.80	1.50	0.27	1.44	insufficient market volume	0.91
Mackworth	Secure & Restore	DE1 DE2 DE3 DE6	1.23	0.00	0.00	0.00	0.00		3.57
Manton	Secure & Restore	NG2 S80 S81	0.00	1.62	1.62	0.01	1.62	insufficient market volume	18.62
Milford Haven BSP	Dynamic & Restore	SA62 SA73	0.00	14.54	0.00	0.01	0.00		0.00
Moretonhamp stead	Dynamic & Restore	EX6 TQ1	5.92	1.94	0.00	0.00	0.00		0.00
Morwenstow	Dynamic & Restore	EX22 EX23	0.00	1.60	1.60	0.00	1.60	insufficient market volume	1.54
Mullion	Secure & Restore	TR12	0.00	0.53	0.53	0.01	0.53	insufficient market volume	4.33
New Dove Valley	Secure & Restore	DE1 DE6	2.41	0.00	0.00	0.00	0.00		1.00
Newton Abbot to Newton Abbot Main Circuits	Secure & Restore	TQ12 TQ9	0.00	1.99	1.99	0.02	1.99	insufficient market volume	0.32

					Diotribo	tion by sterne	porator		
CMZ Name	Products	Postcodes**	Contracted in Prior Years (MW)	Forecasted in Delivery Year (MW)***	Total Tendered in Reporting Year (MW)	Total Contracted in Reporting Year (MW)	Total Unmet in Tenders in Reporting Year (MW)	Reasons not met	Dispatched in Delivery Year (MWh)
Plymouth/Sou th Hams	Dynamic & Restore	TQ1 TQ12 TQ2 TQ3 TQ9 TQ5 TQ4 TQ6 TQ11 TQ10 PL21 TQ13 PL20 TQ7 TQ8 PL2 PL1 PL3 PL5 PL4 PL8 PL7 PL9 PL6 PL95	62.01	33.35	0.00	0.00	0.00		251.13
Plympton BSP	Secure & Restore	PL7 PL21 PL8 PL9 TQ7 PL6	0.00	0.61	0.61	0.07	0.61	insufficient market volume	9.66
Probus	Secure & Restore	TR1 TR2 TR4	0.00	1.37	1.37	0.00	1.37	insufficient market volume	0.90
Ravenhill	Secure & Restore	SA5 SA1 SA2	0.00	0.72	0.72	0.01	0.72	insufficient market volume	1.01
Shapwick Primary	Secure & Restore	TA7 BA16 BA6	0.00	0.00	0.00	0.00	0.00		0.00
Sharnbrook	Dynamic & Restore	MK44 NN10	0.00	0.91	0.87	0.05	0.87	insufficient market volume	0.22
Shepshed	Secure & Restore	LE12 LE11	0.00	0.00	0.00	0.00	0.00		0.00
Shrewsbury GSP	Dynamic & Restore	TF2 TF10 TF1 TF6 SY4 SY5 SY3 TF11 SY2 SY1 TF3 TF4 TF5 SY15 LE11 SY21 TF13 SY9	0.00	17.66	17.66	0.29	17.66	insufficient market volume	90.08
St Davids Primary	Secure & Restore	SA62	0.00	0.00	0.00	0.00	0.00		0.00
Stamford	Secure & Restore	PE9	0.00	0.00	0.00	0.00	0.00		0.00
Staythorpe GSP	Secure & Restore	DN22 NG22 NG14 NG23 NG31 NG13	0.00	23.04	18.05	0.23	18.05	insufficient market volume	53.72

					V = .00.11.00		0.0.00		
CMZ Name	Products	Postcodes**	Contracted in Prior Years (MW)	Forecasted in Delivery Year (MW)***	Total Tendered in Reporting Year (MW)	Total Contracted in Reporting Year (MW)	Total Unmet in Tenders in Reporting Year (MW)	Reasons not met	Dispatched in Delivery Year (MWh)
		NG24 NG25 DN10 NG32 DN9 LE14 LN6 NG33 NG12 NG5							
Stowfield - St Weonards	Secure & Restore	HR2 HR9	0.00	0.00	0.00	0.00	0.00		0.00
Street BSP	Secure & Restore	TA11 BS28 BA5 BA16 BA6 TA10 BA4	0.00	0.00	0.00	0.00	0.00		0.00
Swansea North/ Upper Boat	Dynamic & Restore	NP22 SA8 CF48 CF81 CF44 CF42 SA10 SA18 SA9 CF47 CF41 SA7 SA6 NP24	0.00	0.00	0.00	0.00	0.00		0.00
Tiverton	Dynamic & Restore	EX16 EX5 EX15 TA21 EX4 EX14	22.52	10.36	10.36	0.16	10.36	insufficient market volume	44.21
Tiverton to Bridge Mills and Cullompton circuits	Secure & Restore	EX4 EX5 EX14 EX15	0.00	0.00	0.00	0.00	0.00		0.00
Toton	Secure & Restore	NG9 NG8	0.00	3.95	3.95	0.05	3.95	insufficient market volume	3.78
Trevaughan	Secure & Restore	SA3	5.00	1.77	0.00	0.00	0.00		0.00
Truro - Truro Treyew	Dynamic & Restore	TR3 TR4 TR1 TR16 LE67	2.59	5.10	5.10	0.03	5.10	insufficient market volume	87.33
Tuxford	Secure & Restore	NG22 NG23 DN22	0.00	0.66	0.45	0.01	0.45	insufficient market volume	0.46

					V = 10 11 110 0		10.01.01101		
CMZ Name	Products	Postcodes**	Contracted in Prior Years (MW)	Forecasted in Delivery Year (MW)***	Total Tendered in Reporting Year (MW)	Total Contracted in Reporting Year (MW)	Total Unmet in Tenders in Reporting Year (MW)	Reasons not met	Dispatched in Delivery Year (MWh)
Weston Super Mare	Dynamic & Restore	BS23 BS22 BS24 BS29 TA9 BS26 BS48 TA8	7.26	3.40	3.40	0.12	3.40	insufficient market volume	104.45
Wise Street	Secure & Restore	CV31	0.00	0.00	0.00	0.00	0.00		0.00
Witheridge	Secure & Restore	EX16 EX17	5.81	0.56	0.18	0.00	0.18	insufficient market volume	0.00
Woodbeck	Dynamic & Restore	DN22 NG22	5.80	1.96	1.96	0.01	1.96	insufficient market volume	0.27

^{**} This is a high level view of the post codes, condensed to allow for visibility on this table. The list of full postcodes is available in our requirements publications on the connected data portal.

^{***} Zones identified in our T8A tranche will show forecast as zero as they were not captured in the associated procurement statement. Tender & Contracted volumes may also show zero where tenders were for subsequent delivery years. Full details can be found in the supporting data.

It should be noted that due to our process for the identification of network needs, and assessing the value of flexibility services, we expect deviations from the forecasts in our Procurement Statement. This could be due to a number of reasons including:

- The identification of new network requirements,
- Customer driven works,
- Under subscription of the services,
- Over subscription of the services (especially where volume is only available in large increments),
- Over/under delivery by participants,
- Pricing changes due to competition, &
- Inherent forecasting inaccuracies.

2.2 When we procured services

As detailed in section 3 of our <u>Procurement Statement for 23/24</u>, we initially planned to conduct 2 procurement rounds for Long Term and Sustain services within the calendar year, along with our weekly trades. Due to limited response to our initial Sustain procurement, we re-opened LV Sustain zones with more refined requirements (following feedback from stakeholders) in Autumn 23.



Figure 1: Procurement timeline (as operated in 23/24)

Our Shorter-Term trades, which was launched in November 2023, operate within a week-ahead timescales. FSPs offer availability, capacity and availability/utilisation prices to us. These are matched against requirements and are manually cleared according to our dispatch principles set out in section 4.2. The key dates for our long and short term trades are highlighted in the figures below.

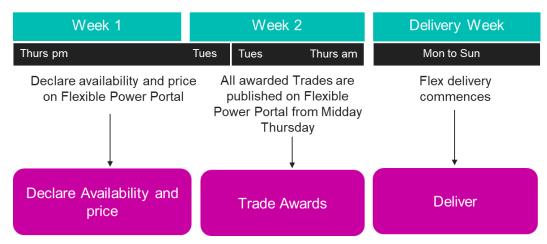


Figure 2: Weekly Short term trades procurement timelines

The updated dates going forwards in covered in our latest Procurement Statement.

Following our procurement cycle, we received valuable feedback from stakeholders. While the majority was positive, we are committed to continuous improvement and have already begun identifying areas where we can further enhance the process.

3. Stakeholder Engagement

3.1 Engagement around Flexibility requirements

Our tendering processes were developed to be objective, transparent and market based. They are designed to be as simple as possible whilst maintaining compliance with the Utilities Contract Regulations. These regulations impose strict requirements on how utilities procure services. Since 2019 we have used a Dynamic Purchasing System (DPS) to maintain a register of all pre-qualified parties enabling their eligibility to tender into all our published procurement cycles.

In April 2023 we evolved our tendering processes to align with the framework contract approach taken by the ESO, and as such have implemented a process where market participants are pre-qualified and awarded an overarching contract ahead of being eligible to bid for trade opportunities. This has allowed us to accommodate the procurement of services at both long- and short-term timescales and in the future will allow us to facilitate even closer to real time procurement.

This process, still uses a DPS, and is split into an initial qualification, where the formal procurement is carried out to award an overarching contract. Following this, ongoing technical qualification and trading can happen at any time. This process is administered on our online Market Gateway, which we launched in 2023 to digitalise our end-to-end procurement process and accelerate platform and marketplace interactions.



Figure 3: Overview of our qualification and trading processes

We have fed our evolved qualification, contracting and tendering process into the ENA's Open Networks project to support ongoing standardisation.

Our Procurement activities were supported by a range of promotional activities to maximise participation, as well as feedback processes to allow us to continually improve our processes. Information on our prequalification requirements as well as all other relevant information were available on the <u>Flexible Power Website</u>. We have summarised the full list of relevant documents in Appendix 2. The publication of our requirements, were accompanied by promotion to increase market awareness and drive participation. This included promotion to our <u>update service</u>, social media posts, webinars, surgeries, one to one engagement and the attendance of relevant events. This targets a wide range of stakeholders to ensure all relevant parties are aware of the opportunity and the response required.

In the last year, we held 8 Flexibility Webinars and Workshops, reaching more than 250 flexibility market stakeholders, and delivered 30 Flexibility Surgeries with prospective FSPs.

Our Requirements were published to a number of places as shown in the figure below.

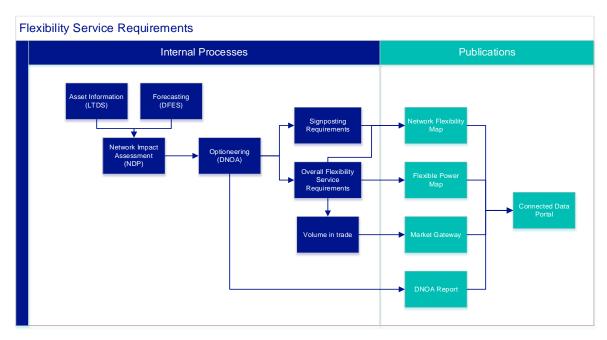


Figure 4: Network Requirement publications

Once each procurement round has been completed, we then focus on collecting feedback on how we could improve how we publish requirements and the DNOA process.

As highlighted in section 2.2, we received valuable feedback from stakeholders following our procurement cycle. While the majority was positive, we are committed to continuous improvement of the process.

Section 3.3 details the engagement we conducted on the services we procure.

We are always looking at how to improve this process and ensure we are engaging in accessible and meaningful ways. If there are any options we should be considering, do let us know.

3.2 Engagement with ESO and DNOs

We recognise that we are one actor amongst many in an ever more complex energy market place. As such, in addition to our wider engagement, we endeavour to engage heavily with the other network licensees.

A key part of this is through our active involvement at the Energy Network Association, especially the <u>Open Networks project</u>, where we have worked with the other licensees to develop and adopt common approaches across a range of DSO related activities. The Market Development workstream focuses on the development of Flexibility Services. Its key objectives included:

• Bringing more transparency in how DNOs facilitate local markets for flexibility and make decisions to provide more confidence in independent decision making.

• Simplifying participation in local flexibility markets through standardisation of approaches across DNOs and between DNOs and the ESO.

Addressing barriers to participation in flexibility markets and facilitate stacking of revenues across multiple markets.

The Open Networks project has built stakeholder engagement into its processes. This covers regular engagement via the Challenge and Dissemination Groups as well as consultations on the Program of Works and the content of the work streams.

In the last year we have:

- Aligned with the ESO's method of framework procurement through the early adoption of the Service Terms structure for the Standard Flexibility Agreement. This allowed our implementation of Short-Term Trades. Other DNOs will align with this structure when version 3 of the Standard Flexibility Agreement is finalised and implemented later this year.
- Aligned with the standardised procurement timelines for our long-term products.

We will continue to implement the outcomes of the Open Networks project, and we have already begun work on developing our systems to allow us to quickly adopt the changes to products, pre-qualification criteria and settlement in summer this year.

In addition we have engaged actively with other licensees directly when needed. Examples of this include:

- Our collaboration with the ESO and other relevant DNOs on the Regional Development Programmes (RDPs). The RDPs look across the whole-system landscape to identify key areas of development to unlock additional network capacity, reduce constraints and open up new revenue streams for market FSPs. Through this work we have developed the MW Dispatch service with the ESO.
- By opening up our Flexible Power brand and processes to other DNOs we have looked to increase
 alignment and collaboration within the industry. The collaboration will help streamline the process for
 flexibility providers and make interfacing with DNOs simpler and easier by avoiding the complexities
 and resource intensity associated with liaising with numerous network operators. We intend to work in
 partnership to further develop the Flexible Power brand and develop the portal functionality to enable
 interface capability with other flexibility platforms so wider market participation options can increasingly
 be made available to providers.

3.3 Engagement about products and process

In addition to what we procure, we also sought stakeholder feedback on how we procure services. We targeted key stakeholders including those who have been involved in various elements of the process as well as wider industry stakeholders, including the ESO and other DNOs. This was conducted in two key stages:

- We took a collaborative approach to our Evolution of Flexibility service engagement by working with UK Power Networks to identify areas of alignment. We intend to jointly consult on our proposals for further standardisation in summer 2024. Leveraging our combined experience as leading DSOs in flexibility, we hope this collaborative approach will streamline stakeholder engagement, fostering alignment not only between our organizations but potentially across other DSOs as well.
- As part of our work in the Open Networks project, we collaborate with the other DNOs to deliver more standardised processes for procurement and operation of Flexibility Services. This includes engagement with the Challenge group, focus groups and the Insights forum. We use this feedback to inform ON work as well as our internal process.

• In December 2023, we published our <u>Revenue Stacking for Flexibility report</u> and a corresponding <u>Summary Infographic</u>. Additionally, we engaged with over 90 stakeholders in February 2024 and developed a <u>Feedback Report</u> which has been shared with the Open Networks project to help shape their approach and deliver tangible benefits in this area.

As detailed in section 3.2 we also incorporated the outcomes of the Open Networks project into our processes to increase alignment.

3.4 Contact details

We have a wide range of options for engaging with stakeholders as highlighted above.

To join our Update Service please sign up using our contact form: Contact NGED (flexiblepower.co.uk).

You can also contact us directly at MGED.Flexiblepower@nationalgrid.co.uk.

A full list of documents is covered in Appendix 2.

4. Economic Viability

4.1 Flexibility Service Requirements

As highlighted in section 5.1 of our <u>Procurement Statement</u>, we have a robust process for the assessment of Flexibility Needs.

Our Long Term Development Statement (LTDS) highlights the assets that make up our network. Feeding in the forecasting of Load Growth from our <u>Distribution Future Energy Scenarios (DFES)</u> allow us to understand how the loadings on the network will change. This feeds into an evaluation of the limitations on the network in the <u>Network Development Plan</u> (NDP). The <u>Distribution Network Options Assessment</u> (DNOA) process then compares the options for managing any potential constraint. Built around the ENA's Common Evaluation Methodology, this assesses the most effective routes forwards. The optimum solutions from the DNOA then feeds into our Procurement of Flexibility Services.

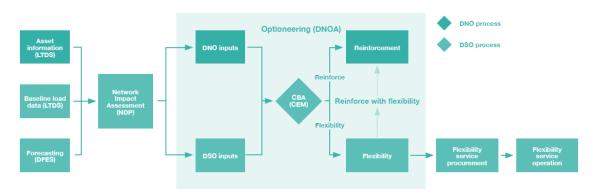


Figure 5: Determining Flexibility Requirements

The summary below highlights the breakdown of the investment decisions for all the schemes from our latest DNOA document.

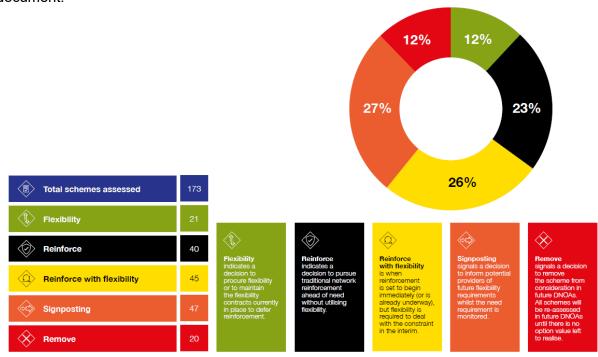


Figure 6: DNOA summary from February 2024

Further details are available in the latest DNOA document (<u>Distribution Network Options Assessment</u>), including the areas selected for procurement.

As detailed in our latest Procurement Statement, we are working towards delivering Energy Efficiency products in ED2.

4.2 Flexibility Service Selection

As highlighted in section 3 of our <u>Procurement Statement</u>, we have a detailed process for procurement of Flexibility Services, including a clear methodology for how we select which services to procure and then instruct.

As we implement new structure of trades, we are reviewing how we select services. We need to balance the needs for transparency, efficiency and deliverability. These are interlinked with our dispatch principles.

We will engage on a road map for operational decision making in summer 2024. This will help steer processes and systems needed.

Our selection is currently built on manual processes, aiming to provide the lowest total cost to the DNO and function on a Pay as Clear basis. As we progress, we will look to develop robust service selection systems

More details can be found in our competition testing and pay-as-clear process in our Clearing Process document (https://www.flexiblepower.co.uk/downloads/178).

As detailed in our latest <u>Procurement Statement</u>, we have implemented zonal Ceiling Prices with a Pay-as-Clear mechanism for our HV and LV trades. This mechanism ensures transparency by clearly showing the maximum price we are willing to pay for flexibility services in different zones.

Our Dispatch principles are set out in section 2.2.3 of our Procurement Statement. As we operated celling price with pay-as-clear pricing structure, there is no differentiation in price between FSPs. However we do optimise our instructions, instructing in an order which most closely aligns to the required flexibility. We considered the following factors to optimise our decisions.

Table 4: Dispatch Principles

Principle	Description	National Grid Electricity Distribution Implementation
Security	The needs of the system will be met using flexibility in such a way that security of supply is maintained.	 This principle can be subdivided into two key criteria that need to be met, Technical Integrity and Customer Security. Technical Integrity considers Network Integrity, the ability of a network to operate within technical limits and System Frequency Integrity, the ability of the System to operate within acceptable frequency limits¹. Customer Security is the ability of a network to meet customer demand and generation. There are minimum standards for these National Grid Electricity Distribution must meet but opportunities to go beyond these standards are also considered where these are economic.

¹ Although System Frequency is not managed by National Grid Electricity Distribution, it can be affected by the operation of National Grid Electricity Distribution's network and customers.

Cost	Flexibility will be operated to meet system need at the minimum level of cost.	The use of Flexibility Services should be cost effective and expenditure proportional to the benefits it brings to the network.
Operability	DSOs will seek to dispatch services that offer compatible levels of operability.	Operability is a measure of how well an offer of a Flexibility Service meets actual or potential System needs. National Grid Electricity Distribution will seek to develop an objective and transparent method for assessing the operability of offers of Flexibility Services.
Competition	DSOs will provide transparency of their dispatch decisions and activities.	Flexibility should be procured using simple, fair and transparent rules and processes. Services should be developed such that service providers can participate easily in different markets.
Fairness	DSOs will operate a fair dispatch methodology and provide equal opportunities to participate.	Flexibility Services shall be assessed and selected impartially purely on their technical and commercial merits. Where multiple technically sufficient Flexibility Services are available at a comparable cost, we will share the dispatch of services across these providers.

We are working to develop standard rules and procedures to assess the operability of offered Flexibility and match this against our system requirements. The first stage of this process is to set out our underlying service selection principles, these will guide both our current service selection process and the more detailed service selection rules we will develop. These principles incorporate the Open Networks principles and provide further information about how these are implemented in practice. These are common across our selection of services to make available, as well as utilise.

To ensure security of supply is delivered for the most cost-effective outcome, we will consider these items in the following order:

Table 5: Priorities for our Dispatch Principles

Priority	Name	Meaning Meaning	Implemented Open Networks Principle
1	Technical Integrity	The National Grid Electricity Distribution requirements of Network Integrity, System Frequency Integrity (<u>SD2</u> / <u>TP1B</u>) shall be met. Where these are dependent on Flexibly Services, these services must meet these requirements.	Security
2	Customer Security	National Grid Electricity Distribution requirements for demand and generator security (<u>SD2</u>) shall be met. Where these are dependent on Flexibility Services, these services must meet these requirements. Opportunities for enhancements to demand and generator security may be used where economic.	Security
3	Value	Flexibility should be procured and operated to carry out the roles of a DSO, in a cost-effective manner.	Operability & Cost
4	Market Resilience	Where multiple technically sufficient Flexibility Services are available at a comparable cost, we will share the dispatch of services across these providers.	Competition & Fairness

As our operational experience in dispatching flexibility increases, we are seeing how these principles apply in practice, and what further rules we must implement to ensure these are applied consistently and that we have effective and transparent decision making. These will be regularly communicated with FSPs to ensure they can maximise their value to the system.

4.3 Market Assessment

As detailed in section 3, we have conducted regular stakeholder engagement to ensure our products remain relevant and valuable for different service providers.

This involved:

- Options for feedback following the publication of the DNOA document,
- Options for feedback following a procurement round,
- Options for feedback following the publication of our Revenue Stacking for Flexibility Report and Summary Infographic,
- Engagement in the Open Networks Project and its associated stakeholder engagement and governance, &

Off the back of this engagement we have implemented/planned a number of improvements including:

- Delivered the market gateway,
- Amended our LV Sustain procurement to better target our requirements
- Updated our data structure on the connected data portal
- · Amended our baselines to technology specific baselines based on profiles rather than historic data
- Amending the timing of our Dynamic replacement product (Scheduled Availability Operational Utilisation) from 15 minutes ahead of real time to day ahead.

We have also considered the impact on the Total System by:

- The operation of the informed procurement process for ODFM and BM Wider Access,
- The development of a coordinated service via the RDPs,
- Co-leading the Open Networks Primacy Product.

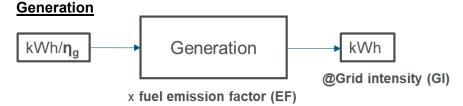
5. Carbon Reporting

Following our initial quantification of the carbon impact on our services, a common methodology was developed by the Open Networks project in WS1A P7. The latest report can be found here.

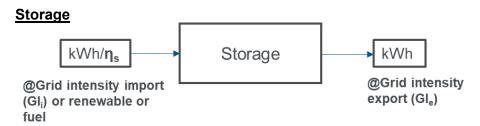
This uses a similar basis to our previous methodology, but adds an additional consideration of the consequential carbon impact. These are summarised in the Methodology below:

5.1 Methodology

- The calculations apply to flexibility services requested for an increase in exports or reduction in imports.
 This is the most prevalent application of flexibility services currently.
- DSO will perform the calculation by technology category without input from providers, except to confirm the technology category where required.
- The calculation includes direct (such as fuel combustion) and consequential carbon impacts (such as battery charging) but excludes indirect impacts (such as embedded emissions in the materials).
- The general formula varies by generation, storage (exports), and demand/storage (imports). In the formulae, kWh is the energy delivered (as opposed to requested) measured at the site of the resource, and η is the energy conversion efficiency.



- For **generation export**, the carbon impact is:
 - 1. combustion of the fuel (direct) = + kWh/η_a x EF
 - 2. displacing grid generation (consequential) = kWh x GI
- If the generator is displacing imports, the carbon impact is the same as the equivalent amount exported directly to the grid.
- For bioenergy, report on both inclusive and exclusive of biogenic CO₂ released during burning of biomass and biofuels by using the relevant emission factors.



For storage export, the carbon impact is:

- 1. carbon intensity of the input energy (consequential) = + kWh/η_s x Gl_i (if from grid), or + $(kWh/\eta_s)/\eta_g$ x EF (if from generator)
- 2. displacing grid generation at export (consequential) = kWh x GI_e
- If storage input energy is physically supplied from a renewable generator assume zero carbon, this does
 not apply to non-physical supplies of low carbon electricity, which should assume grid intensity.
- If storage discharge is displacing imports, the carbon impact is the same as the equivalent amount exported directly to the grid.
- Storage import reduction should be calculated as demand, assuming shifted load (100% payback). Where
 DSO are unsure whether storage is providing export increase or import reduction, use the storage
 calculation. This ensures carbon impacts are not underestimated and incentivises additional information
 to be provided.

Demand -kWh Demand | kWh x | payback% | | @Grid intensity at turndown (GItd) |

- For **demand reduction**, the carbon impact is:
 - 1. reduced grid imports during the turn-down (direct) = kWh x Gltd
 - 2. increase in grid imports during "payback" (consequential) = + kWh x payback% x Gli
- If demand is shifted, such as deferred EV charging, then payback% is 100%. Otherwise, assume an
 associated payback as a percentage of the turn-down energy of 21%. Where DSOs are unsure, assuming
 load shifting. This ensures carbon impacts are not underestimated and incentivises additional information
 to be provided.

The conversion factors are from the following sources.

Table 6: Carbon Conversion Factors

Factor type	Source
Fuel emission	BEIS/Defra
factors	
Efficiency	BEIS Electricity Generation Costs 2020 –
	Coal – DUKES –
	BEIS Storage Costs and Assumptions 2018 –
Grid intensity	Green Book data tables
Payback%	Low Carbon London report

5.2 Results

The key outcomes of the analysis are presented below:

Table 7: Carbon Impact of our Distribution Flexibility Services

Iechnology	Requested energy (MWh)	Delivered energy (MWh)	Direct carbon impact (kgCO2e)	Outside of Scope Direct Carbon Impact (kgCO2e)	Consequential carbon impact (kgCO2e)
Stored Energy (all stored energy irrespective of the original energy source)		90.46	0.00	0.00	2935.54
Biofuel - Landfill gas**	251.13	198.18	136.68	136006.72	-45017.91
Data not available***	111.50	101.94	58149.68	0.00	-23156.03
Demand	1645.03	1816.52	-412632.95	0.00	412632.95
Fossil - Gas	135.20	113.74	64880.42	0.00	-25836.30
Fossil - Other	175.50	201.67	115040.41	0.00	-45810.72
Total	2205.00	2320.83	-289466.17	136006.72	321558.25

^{*} This analysis focuses on the Primary Technology categorisation. We do have some sites with a secondary technology which would impact the carbon reporting. For this analysis we have considered the largest asset as the Primary Technology

There are a few key observations to pull out from this analysis:

- Dispatched volumes are dominated by Demand. Due the methodology, demand shifting has a netneutral carbon impact.
- Due to the volume of landfill gas being utilised within our services, the treatment of the out-of-scope emissions have a significant impact on the view of carbon intensity. Using conventional boundaries, our services have a small carbon impact. However, this increases significantly if the outside of scope carbon is considered.

^{**} For Biofuel sites, as per the UK Government GHG guidance for Company reporting, the impact has been split out between elements that are in and outside of scope. These account for the direct CO2 impact of burning the biofuels. The standard in Scope impacts are treated as net "0" as the fuel source itself absorbs an equivalent amount of CO2.

^{***} This represents contracts entered into before the requirements to collect data for licence condition C31E were in place. We have assessed the technology on the basis that it is also a Fossil-Gas generator as this is the most onerous condition observed.

Appendix 1: Supporting Data

Please see the associated Supporting Data for further details on the services we have procured and dispatched in the last regulatory year.

This is a common data template mandated by Ofgem and implemented across all DNOs. As such it cannot capture all the details of our service requirements. See Appendix 2 for more details about the other data we publish.

To further aid interpretation of the data see the list of clarifications below.

Procurement and Use Summary

As required within the guidance document, we have provided one worksheet per licence area. We have also provided a worksheet to present the data across all NGED's four licence areas.

We have not procured any Reactive Power services in the last year. We have not procured any of the new Open Network's products this year. These will be rolled out next year.

All data in this summary aligns with the Procurement – Locational worksheet.

Total Peak refers to the total of all the peak values for contracted and tendered volumes.

Total Peak Contracted in Prior Reporting Years (MW) & Total Peak Contracted in Reporting Year (MW)

We have included all the contracted flexibility in zones where we have either tendered for flexibility during the 2023/24 regulatory year, dispatched existing contracts or simply zones where we have awarded contracts for delivery in 2023/24.

Total Peak Tendered in Reporting Year (MW)

This includes all the tendered volumes throughout the procurement tranches (T7A and T8A) and weekly trades, irrespective of response.

Total Peak Needs Not Met (MW)

This sums the needs not met. As detailed later, as they refer to the worst period of time, this will not be a strait calculation from the Peak Tendered and Peak Contracted

Dispatched in Delivery Year (MWh)

This includes all the MWh volumes dispatched throughout the regulatory period. We have provided dispatch data for all zones listed for 2023/24.

Tender Rounds Summary

This data summarises the data in the Procurement worksheet, with locational tenders grouped (by CMZ and procurement round).

We have included all tenders for the procurement tranches in the regulatory year as well as the weekly trades. These are aggregated up to either the tranche round or the week.

Where we have not received any bids, the "Number of Participants" columns has been filled with 0 and "Peak Contracted" (MW) with 0. It should be noted that the Peak Contracted value, covers the Peak volume contracted for 2023/24 delivery only.

Procurement

This provides individual tender outcomes by bidding party within the regulatory year. Where cells are blank, this generally refers zones where we had no responses to the tenders.

Restore

We don't tender for Restore as a sole product in a zone, but rather as an additional product attached to the main one (Secure / Dynamic). As such, whenever we procure a Secure or Dynamic product, we also procure the equivalent Restore volumes.

Tender Reference

This is a unique ID that can be referenced across to the Tender Rounds Summary, and Dispatch worksheet.

Service Location (Grid Supply Point)

Due to the locational nature of our services we have grouped the services by CMZ. This provides more details than GSPs which may require the aggregation of zones.

Flexible Unit Reference

This unique unit reference allows for reference with the Dispatch. Where the contract is for future delivery years, the contract may not have been added to our operational systems and will be marked as TBC. Before it gets dispatched a Flexible Unit Reference will be generated.

Main Technology Type

The technology of the asset with the highest capacity in each CMZ is used.

Committed Contracts/Non-Committed Contracts

All our services focus on a weekly operational process, and are therefore classified as non-firm.

Committed Contracts / Non-committed Contracts

With our new trade structure our new contracts are now Firm as opposed to the previous Non-Firm Contracts. Our previous interpretation of Non-Firm related to the ability to adjust the availability of assets rather than the capacity.

Connection Voltage

This represents the connection voltage of the assets. There are some sites where our data is incomplete. We are working to resolve this going forwards.

Potential Service days / Service Window FROM/TO

Our CMZ requirements vary on a monthly basis, with different Service days and windows required. For this table we have used the outermost requirements (e.g. the earliest start and latest end of a service requirement throughout the regulatory year).

Full details can be found in our service requirements documents (as highlighted in Appendix 2).

Price & Service Fee

For our Sustain product we used pricing in £/kW/season. We have translated this into the £/MWh figure. We do not utilise a service fee for any of our products.

Procurement - Locational

This worksheet provides a summary of the tender outcomes by CMZ. We have built on last year's data, kept all previous zones even if we have stopped procurement since, and added new zones where we have either tendered for or dispatched flexibility services in the reporting year.

Zones with multiple products have been included separately to differentiate between them. We have also included a total Restore per zone line in the table.

Peak values refer to the maximum requirements within a zone at a point in time whereas Total is a simple sum. This means that the total would sum all weekly trades, whereas peak would take the maximum of that series.

Due to this time element the values presented; they may not neatly sum as they may refer to different time periods

Peak Contracted in Prior Years / in Reporting Year (MW)

We have calculated these based on the active contracts for delivery in the reporting year, separated by contract start date.

Peak unmet in Tender in Reporting Year (MW)

It is worth noting that the tendered MW value is a maximum difference between the tendered and contracted volume over the delivery year. This may be a different time period to the peak contracted value. As we saw limited response in the first weeks of our weekly trading, these have set many of the values.

Dispatch

This data includes all the individual dispatches which occurred throughout the reporting year.

Tender reference

This is a unique ID that can be referenced across to the Tender Rounds Summary, and Procurement worksheet.

Incident reference

This ID combines the CMZ code and the date of dispatch, linking all dispatches within a day and zone to a single incident.

Incident Location (Grid Supply Point)

Due to the locational nature of our services we have grouped the services by CMZ. This provides more details that GSPs which may require the aggregation of zones.

Flexible Unit Reference

This uniquely identifies a contract rather than a specific Asset and should refer back to the procurement tab.

Main Technology Type

In our older tenders limited information was collected on this data item. As such we have supplemented it with additional data we have on the generation technology collected through our connections process where appropriate.

Price & Service Fee

For our Sustain product we used pricing in £/kW/season. We have translated this into the £/MWh figure. We do not utilise a service fee for any of our products.

Pricing Strategy

We have moved across to our new Pay as Clear pricing strategy. A few legacy contracts still operate fixed pricing.

Date/Time of Instruction

This is set to 15 minutes ahead of the Start time as our Formal Utilisation Instruction via the Flexible Power API is sent 15 minutes ahead of delivery. It should be noted that for our Secure Service acceptance of availability provides another view of when we will be dispatching, as our default for Secure is once accepted, it will be utilised. This confirmation is provided at 12:00 on the Thursday of the preceding week. The formal Instruction is then sent 15 minutes ahead of real time to confirm the requirement.

Appendix 2: Data and Publications

We acknowledge there is a significant amount of data and information involved in the procurement of our services, as well as wider DSO processes.

As such we have summarised the key references in this section. This reflects the latest documentation, rather than all documentation that was relevant last year.

To provide a live view of please refer to our **Document and Data Catalogue**.

Distribution Flexibility Services Regulatory Reporting

Publication	Description	Location
Distribution Flexibility Services Procurement Statement	A forward-looking report on how we will procure services in the coming regulatory year.	National Grid Website & Flexible Power Website
Distribution Flexibility Services Procurement Report	A report, and supporting data table, detailing how and where we have procured flexibility services in the past regulatory year.	National Grid Website
Ongoing Reporting	We publish the outcomes of our Flexibility Service procurement. This is covered by our Procurement Results document.	Flexible Power Website
Evolution of Distribution Flexibility Service Procurement Document and Webinar	Our initial, informal engagement on the changes we would like to make to how we procure flexibility services.	National Grid Website
Distribution Flexibility Services Procurement Consultation Document, Webinar and Outcomes	Our formal consultation on changes we have proposed on how we procure flexibility services.	National Grid Website
Ofgem Guidance	The Ofgem guidance determining what should be covered in the regulatory reporting.	Ofgem Website

DSO process (and inputs)

Publication	Description	Location
Long Term Development Statement (LTDS)	The Long Term Development Statement provides an overview of the design and operation of the distribution network, together with data on the 132kV, 66kV and 33kV systems and the transformation levels down to 11kV. This is produced by DNO rather than DSO functions.	National Grid Website (registration needed)
Distribution Future Energy Scenarios (DFES)	The Distribution Future Energy Scenarios outline the range of credible futures for the growth of the distribution network out to 2050.	National Grid Website & Connected Data Portal
Network Development Plan (NDP)	The Network Development Plan provide stakeholders with transparency on network constraints and needs for flexibility. The NDP has been created to present the 'best view' of planned asset based and flexible network developments over the five to ten-year period	National Grid Website
Distribution Network Options Assessment (DNOA)	The Distribution Network Options Assessment (DNOA) is a publication which outlines reasons behind investment decisions made in order to deal with constraints on our network.	National Grid Website & Connected Data Portal

Flexibility Requirements

Publication	Description	Location
Network Flexibility Map	The Network Flexibility Map includes the availability windows and expected market volumes required for all our DFES scenarios for a five-year period under the Signposting process. Visualisations of the data are available online through the mapping tool and datasets are downloadable. The Network Flexibility Map also presents our firm flexibility requirements which feed into our procurement process. This shorter-term view, gives clarity on our needs and is refreshed every six months in line with our procurement timeline.	National Grid Website & Connected Data Portal
Flexible Power Map	The Flexible Power Map replicates much of the functionality of the Network Flexibility Map but focusses on the requirements against which we will procure. It highlights the required volumes and forecast availability windows. This map is held on the Flexible Power website and hosts data from the other DNOs who are also involved in the Flexible Power Collaboration.	Flexible Power Website & Connected Data Portal
Market Gateway	Our portal for all commercial interactions.	Market Gateway
Procurement results	The results documents provide detailed information on the volumes procured through each cycle.	Flexible Power Website & Connected Data Portal
Post Code Checker	A simple look up tool to assess the allocation of postcodes to CMZs. The background data is available as and excel sheet and on the connected data portal.	Flexible Power Website & Connected Data Portal
Service Value Calculator	A tool to provide a view on the maximum potential revenue available to a provider.	Flexible Power Website
Flexibility Zone Activity Timetable	A spreadsheet detailing which months of the year each zone has a requirement for provider availability	Flexible Power Website

Flexibility Process

Publication	Description	Location
Procurement &	This document provides the proposed procurement window	Flexible Power Website
Engagement Timetable	dates and the surrounding market engagement	
National Grid Guidance	Our Consolidated guidance on how we procure flexibility	Flexible Power Website
for Electricity Distribution	services	
Service Providers		
NGED_ENA Standard	The latest version of the T&Cs applicable to our	Flexible Power Website
Flexibility Services	Procurement of Flexibility Services	
Agreement		
On Track to Trade -	Slides and Recording on our Webinars on how to	Flexible Power Website
Webinar	participate in our services.	
Flexible Power Payment	An overview of the Flexible Power Payment Mechanics	Flexible Power Website
Mechanics		
Flexible Power Example	An example of the performance report created post a	Flexible Power Website
Event Performance	response event.	
Report		
Flexible Power Example	An example of the monthly invoice created at the end of	Flexible Power Website
Monthly Invoice	each month.	
Flexible Power Example	An example of the payment breakdown of utilisation	Flexible Power Website
Event Earnings Report	earnings created post a response event.	

Flexible Power Nominated	The values used for our nominated baselines	Flexible Power Website
Baseline values		

Flexibility Updates

Publication	Description	Location
Flexibility Update	A mailing list to receive Updates on our	Email Sign up at: Contact NGED
Service	Flexibility Services	(flexiblepower.co.uk)

Other relevant information

Topic	Description	Location
Open Networks	An overview of the Open Networks Project and all the relevant documentation.	ENA Website
RDPs	Overviews of the Regional Development Programmes	National Grid ESO website & National Grid website
Innovation	An overview of the National Grid Electricity Distribution innovation portfolio	National Grid Website

Distribution **System** Operator

DSO national**grid**