Nicholas Doherty @ Unsplash



ENA Open Networks

Insights Forum

28 September 2023



Thank you for joining this webinar

- If you are unable to play the audio through your device, you can dial in by calling +44 20 3855 5885 and using access code 466223301#
- All microphones will be set to mute to avoid background noise.
- Please ask questions or make comments throughout the meeting via the chat function or by raising your hand.
- Please note that the webinar will be recorded and made publicly available on <u>ENA's YouTube channel</u>. Please do not turn your video on if you don't want your likeness to be recorded and shared.
- The slides from the webinar will be made publicly available on ENA's website.
- If you would like any further information about the Open Networks programme or have any feedback you would like to submit, please get in touch with us at <u>opennetworks@energynetworks.org</u>.



Agenda

ltem	Start	Finish	Time	Item	Presenter
1	10:00	10:05	5	Welcome, overview of agenda, housekeeping	Helen Jarva (ON Project Manager, ENA)
2	10:05	10:35	30	Introduction to Open Networks 2023 - GB flex figures - Open Networks Success Framework - Q&A	Avi Aithal (Head of ON, ENA) & Reece Breen Begadon (ON Technical Lead, ENA)
3	10:35	10:55	20	Flexibility products - Introducing common flex products - Q&A	Laura Brown (NPg) & Guy Shapland (SPEN D) (Technical working group co-Leads)
4	10:55	11:10	15	Procurement processes - Introducing aligned pre-qualification - Q&A	Helen Sawdon (Technical working group Lead, NG ED)
5	11:10	11:20	10	Break	
6	11:20	11:35	15	Settlement process - Aligning settlement processes - Q&A	Gavin Stewart (Technical working group Lead, SSEN D)
7	11:35	11:55	5	Dispatch Systems - Making dispatch systems interoperable - Q&A	Tim Manandhar (UKPN) & Joe Davey (NG ED) (Technical working group co-Leads) & Ross McPherson (PNDC)
8	11:55	12:05	10	What's next for Open Networks - Upcoming ENA events	Helen Jarva (ON Project Manager, ENA)
9	12:05	12:30	25	Open discussion, reflections, AOB	Helen Jarva (ON Project Manager, ENA) & All



Introduction to Open Networks 2023

GB Flex figures and Open Networks success framework

Avi Aithal (Head of ON, ENA) Reece Breen Begadon (ON Technical Lead, ENA)

The voice of the networks

The voice of the networks

Origins of Open Networks

Started in 2017, the Open Networks programme is working with the networks and industry to lead the **transition to a smart and flexible energy system** that will enable net zero.

- Key drivers

 Net Zero mandate

 Smart Systems &
Flexibility Plan

 Stakeholder
feedback

 Ofgem, DESNZ &
Steering Group input
- ✓ Informing the transition to <u>Distribution System</u> operation
- Opening local flexibility markets to demand response and renewable energy
- ✓ Helping customers <u>connect faster</u>
- Opening data to enable customers identify best locations to invest
- Delivering efficiencies between network companies to operate secure and efficient networks





5

Evolution of Open Networks



	2018 - 2022	2023
DSO Transition	 DSO worlds + Detailed SGAM models Impact assessment + Pathways DSO Implementation plan 	• BaU
Connections	 Embedded Capacity Register Queue Management Interactivity guide 	 Progressed via the Strategic Connections Group
Whole Energy System	 Whole system CBA Support LAEP (Best Practice Guide) Gas & Electricity Network co-ordination 	 Progressed via the Whole System Strategy Group
	2018-2020 2021-2022	
Flexibility Services	Development of business Development of technical case specs	
T - D	Flex first commitment Development of processes	Open Networks
coordination and data	Mkt Principles Flexibility as BaU	



Local Flexibility Market - State of play (GB flex figures)

Flexibility Services in GB (Actuals) (Tendered and Contracted Services for delivery in the reporting year) Contracted (MW) Tendered (MW) 4641 4582 TOTAL MW OF FLEXIBILITY 3616 2400 2065 1848 1871 306 1166 256 116

#

REPORTING

YEAR-4

(2021/22)

#

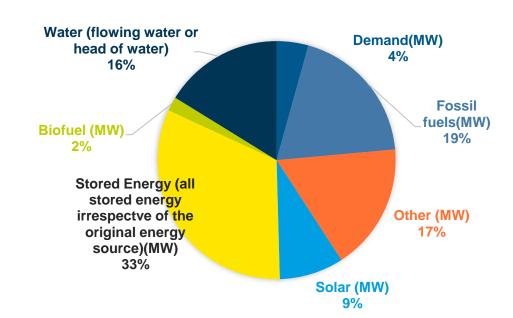
YEAR-5

(2022/23)

*AS ON DATE

REPORTING FOR 2023/24

Technology breakup of contracted flexibility for delivery in 22/23



* Contracted/Tendered to date, more expected over the remainder of 2023

REPORTING

YEAR-3

(2020)

Reporting cycle moved from calendar year to regulatory year

REPORTING

YEAR-2

(2019)

The voice of the networks

0

REPORTING

YEAR-1

(2018)

Open Networks 2023

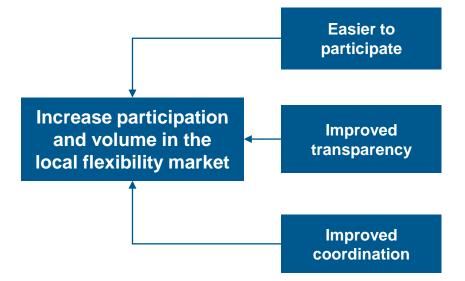


In 2023, The focus of Open Networks will be to increase participation and volume in the local flexibility market. In line with the actions from the government's Smart System Flexibility Plan 2021.

Open Networks is looking to demonstrate our ambition to delivering tangible consistent changes to industry practices across the participating members.

we will focus on:

- Making it easier for flexibility service providers to participate in the flexibility market by standardising products, processes and contracts,
- Improving operational coordination between networks and companies to remove barriers to dispatch of services,
- Putting in measures to improve transparency of processes and decision-making.



Overview of outcomes

Overview of	outcom	es	end
Main outcomes	Target Date	Description of result	Stakeholder impact energynetworks
Standardisation of Flex products	By Apr 2024	80% of total volume of flexibility tendered by DNOs will be with common products having common technical specifications	Flexibility service providers will have consistent user experience accessing the DSO market with a consistent product specification across the country
Standardisation of Pre-qualification	By Apr 2024	All assets registering for distribution flexibility services will use standard data for technical and commercial pre-qualification	Simplified and standardised pre-qualification process will ensure easy sign-up to DSO flexibility markets and a consistent user experience across the country
Standardisation of Flexibility contracts	By Apr 2024	All DNOs will use common T&Cs and schedule headings for all flexibility contracted.	Moving towards a framework agreement, flexibility providers will have minimal legal costs when engaging with the market across all DSO and relevant ESO flexibility services,
Standardisation of Dispatch API	By Apr 2024**	All DNOs adopt common API specification for dispatch of flexibility.	DSO flexibility market platforms will provide an optimal end-to-end experience, saving flexibility service providers from needing to develop multiple interfaces
Standardisation of Settlement process	By Apr 2024	All DNOs adopt a common settlement approach for flexibility.	Simplified and standardised settlement process will ensure a consistent user experience across the country
Implementation of Primacy rules	By Apr 2024**	All DNOs and ESO implement designed processes and information flows to implement primacy rules (increments 1 and 2).	Clear and consistent rules to manage conflicts arising within and across flexibility markets will help service providers improve their DSO flexibility offerings, whilst ensuring secure operation of the networks
Harmonisation of data shared between DNO-ESOs	By Apr 2024**	Consistent bilateral operational data exchange between all DNOs and ESO.	Markets will benefit from improved efficiencies with network company processes and confidence in their operational forecasting
Harmonise DER visibility Information	By Dec 2023**	All DNOs use consistent DER visibility specifications ('Go' or 'No go' decision to be taken in Sep 2023).	Requirements for new DER connections will be streamlined and network visibility will be improved through the consistent information flow from DER to DNOs
Consistent Network development plans	By Jun 2023	All DNOs report using the agreed Network Development Plan (NDP) format	
Consistent Network co-ordination activities	By Jun 2023	All DNOs report using the agreed whole electricity system co- ordination register format.	Consistent reporting and regulatory submissions across network companies will allow stakeholders to be better informed of major network developments,
Consistent Carbon Reporting	By Jun 2023	All DNOs report using the agreed carbon reporting methodology for 2023 & 2024 SLC 31E submissions.	with a sufficient level of detail to aid their planning and forecasting activities
Consistent Flex Reporting	By Aug 2023	Publication of flexibility figures collated from SLC 31E submissions (including technology break down).	



Flexibility products

Introducing aligned flexibility products

Laura Brown (NPg) & Guy Shapland (SPEN D) Technical working group co-Leads



Flexibility Products

• The ENA ON had historically developed four distinct, standardised Distribution Flexibility Market Products

Product	DNO Requirement	Payment and Dispatch Structure
Sustain	To manage an ongoing requirement to reduce peak demand	Typically, dispatch is scheduled well in advance for a fixed fee
Secure	To manage peak demand on the network, usually weekday evenings	Predominantly paid based on utilisation, but with some use of availability payments also. Timing of dispatch varies by DNO (e.g. WPD dispatch one week ahead while UKPN dispatch in real time)
Dynamic	To support the network during fault conditions, often during maintenance work	Typically dispatched at short notice with low availability payments and high utilisation payments
Restore	To support the network during faults that occur as a result of equipment failure	Typically dispatched at short notice with low availability payments and high utilisation payments

Development and Implementation plan

Flexibility Products TWG 2023 Outcomes

- Alignment of products specifications, integrate with 2023 tender rounds and revise the Catalogue
- Take into account how the Flexibility Services market has evolved

Development

- Collation of all the existing procured product use cases and technical specifications
- Detailing interview m and technical requirement such as h p rates etc.
- Analysis findings

•

- of arrent product
- Discussions of irrent product offerings a concensu on relevance moving forward
- Agreement on alignment of specifications
- Provide recommendation to Steering Group

Implementation

- Seek agreement from the Market and the Regulator
- Plan implementation ideally ahead of autumn tender roun
- Seek age
- Signal
- Implen



Engagement and Communication

- Ensure consistency of deployment
- Engage with the Market to ensure they are well briefed on the plans
- Provide opportunity for feedback and challenge
- Revise the Product Catalogue
- Revise Stackability Report if applicable
- Flexibility Products chooser tool

Working on

12



y are

associatio

. .



<u>Status</u>

Standardised Products

- Flexibility Services types defined by common product parameters
- Characterised by Market Structure, Availability and Utilisation
- Defined five standard products
- The products are aligned by all GB DNOs/DSOs and a variant is allowed for one parameter (generally response time) to ensure that all market use cases can be included

Future-proofing

 Future Governance process in place (via ENA Engineering Recommendations or similar) to manage future evolutions to prevent future deviation while still providing route to market for new innovative products

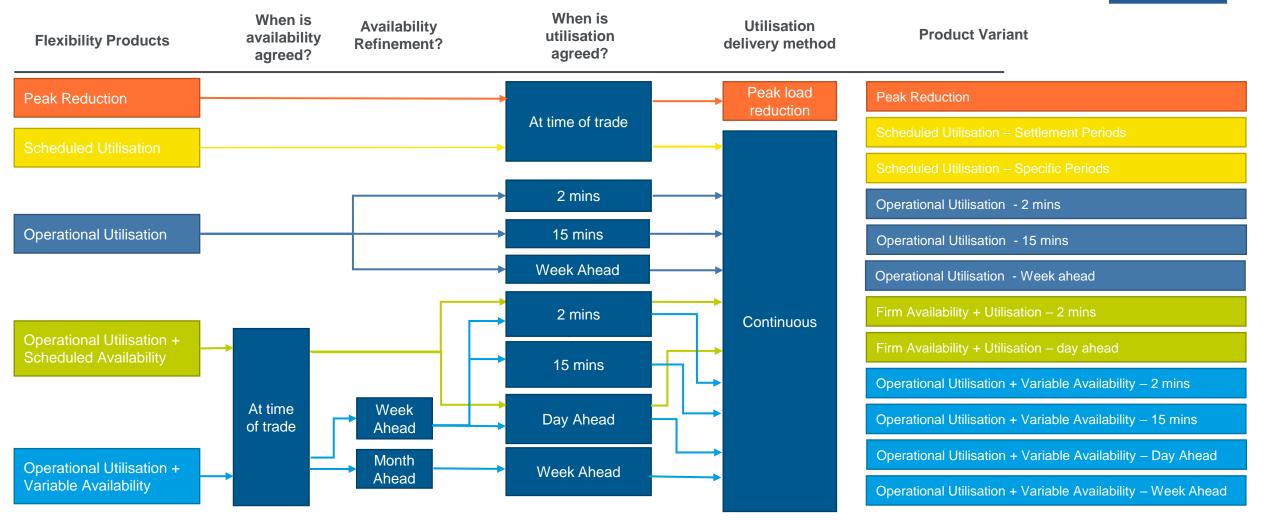


Standardised products

Product name	Network Requirement	Example of how it may be used (other uses are possible)	Payment Structure	
Scheduled Utilisation	Advanced planning for the management of the forecasted seasonal demand on the network	Network Asset reinforcement deferral		
Operational Utilisation	Supplement (in nearer-real time) the management of the seasonal demand on the network	Network maintenance requiring planned outage management	Utilisation payment only	
Peak Reduction	To manage an ongoing requirement to reduce peak demand	Energy Efficiency		
Operational Utilisation + Scheduled Availability	To support the network during fault conditions, often during planned maintenance work	Unplanned fault management	Availability and Utilisation payments	
Operational Utilisation + Variable Availability	To support the network during faults that occur as a result of equipment failure and unplanned maintenance	Network restoration		

Proposed Flexibility Products





The voice of the networks



Product Migration Plans

New procurement only listed here – anticipated dates





Dependencies to the schedule

- System changes to needs assessment, procurement, service selection, scheduling, dispatch, and settlements
- Contractual changes to service terms and payment calculations
- Communication/education of market (including 'Which product' excel spreadsheet calculator)

Workstream	Technical working group	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				power produc									
Market								Implement					
Market	Flexibility Products									Impl	ementation	and revision	n as appropriate
Development											Product C		Non-standard
										Sta	ckability upo	date	products review

Кеу
Annual update
Development stage
Stakeholder engagement
Implementation
Continuation of group or work







Procurement process

Introducing aligned pre-qualification

Helen Sawdon (NG ED, technical working group Lead)

The voice of the networks



2023 Objectives

Open Networks Steering Group challenge for 2023;

- Deliver full Technical & Commercial standardisation
- Exceed TWG deliverable timeline
- Remover barriers to achieve prompt internal implementation

Review the gap analysis undertaken in 2022 that compares existing approaches and propose a Standardised Template for both technical and commercial criteria.

Undertake Stakeholder engagement to review and consolidate the Standard Template proposal.

Taking on board stakeholder feedback, agree Standardised Templates and set out a clear Implementation Plan.

Outcomes - Summary



Then;

No. of questions asked at point where gap initial analysis was carried out;

	Commercial	Technical	Total
ENW	93	80	173
NIEN	80	22	102
NPg	16	47	63
SPEN	25	30	55
SSEN	45	32	77
UKPN	44	80	124
NGED	17	16	33
Grand Total	320	307	627

Now;

- 30 standard questions for Commercial Qualification
- 34 standard questions for Technical Qualification
- Standardised replicable data layer



Commercial Template

Area	Field Name	Commercial Qualification Questions	Allowable Responses	Pass Criteria
	COMM_CI_CNAME	Registered or legal name of the contracting party	free text	completed
	COMM_CI_REGNO	Company Registered Number [Or Charity/Trust]	free text	completed
	COMM_CI_REGA1	Registered address 1	free text	completed
	COMM_CI_REGA2	Registered address 2	free text	completed
	COMM_CI_REGA3	Registered address 3	free text, blank	completed, blank
C	COMM_CI_POSTC	Registered address postcode	free text	completed
	COMM_CI_FIRST	Key contact First Name	free text	completed
Information	COMM_CI_CLAST	Key contact Last Name	free text	completed
	COMM_CI_EMAIL	Key contact email	free text	completed
	COMM_CI_TELNO	Key contact number	free text	completed
	COMM_CI_WEBSI	Organisation website	free text	completed
	COMM_CI_RELAT	Legal relationship with flexibility asset/s	Owner, Operator, Aggregator	one code completed
	COMM_CI_VATNO	VAT Registration Number	free text	completed
Terms and	COMM_TC_ACCEP	Confirm; Acceptance of ENA_Standard Flexibility Services Agreement	Y, N	Y
Conditions	COMM_TC_DECLA	Do you declare that you have the authority to submit this application and by confirming you declare that to the best of your knowledge, the information in this form is acc	Y, N	Y
	COMM_DD_FLEXA	Is the contracting party a member of Flex Assure Code of Conduct?	Y, N	Y, N
	COMM_DD_ACHIL	Contracting parties Achilles UVDB Registered No. if applicable	free text, blank	completed, blank
	COMM_DD_CHECK	Where Achilles UVDB registration has not been advised, you understand that the DNO may access the contracting Parties most recent audited financial accounts via Comp	Y, N, NA	Y, NA
	COMM_DD_RECEI	Is this contracting party currently, or has it ever been in receivership?	Y, N	N
	COMM_DD_ADMIN	Is this contracting party currently, or has it ever been in administration?	Y, N	Ν
	COMM_DD_LIQUI	Is this contracting party currently, or has it ever been in liquidation?	Y, N	N
	COMM_DD_DEBTS	Is this contracting party currently, or has it ever been unable to pay its debts as they fall due (within the meaning of Section 268 Insolvency Act 1986)?	Y, N	Ν
	COMM_DD_WINDI	Is this contracting party currently, or has it ever had, in the past 3 years, any petitions for winding up (other than vexatious petitions)?	Y, N	Ν
Company Information Conditions Co	COMM_DD_BANKR	Is this contracting party currently, or has it ever had any petitions for bankruptcy (or their equivalent in the country in which the Applicant is incorporated) within the last three years?	Y, N	N
		Is this contracting party currently, or has it ever been convicted of any of the offences or has any discretional exclusion occurred, as contained in Regulation 80 of the		
		Utilities Contract Regulations 2016 (UCR), and listed in Regulation 57 (1) and 57 (8) of the Public Contracts Regulations 2015 (PCR)? [IF IN SCOTLAND, Is this contracting		
	COMM_DD_OFFEN	party currently, or has it ever been convicted of any of the offences or has any discretional exclusion occurred, as contained in Regulation 78 of the Utilities Contract		
		(Scotland) Regulations 2016 (UC(S)R), and listed in Regulation 58 of the Public Contracts (Scotland) Regulations 2015 (PC(S)R)?]	Y, N	Ν
Information Terms and Conditions Due Diligence Insurance	COMM_DD_TERMI	Is this contracting party currently, or has it ever had, in the past 3 years, any similar contracts terminated prematurely and/or had damages claims or other comparable sanctions brought against the contracting party for any significant or persistent deficiencies in performance of a substantive requirement of the contract?	V N	N
		Has the contracting party been subject to any material non-employment related litigation (pending, threatened or determined) or other legal proceedings against the	Y, N	IN
	COMM_DD_LITIG	contracting party within the last three years that may be relevant to your ability to deliver services.	Y, N	N
		Does the contracting party within the last time years that may be relevant to your ability to deriver services.	Y, N	v
Incurance	COMM_IN_EMPLO	Does the contracting party have or commit to have Employer's hability insurance with a minimum limit of £10m	Y, N Y, N	r V
insurance			,	I V
	COMM_IN_COPIE	Will the contracting party provide copies of such insurances upon request	Y, N	I T



Commercial - Big Wins and Deviations

Contracting Party

Clear questions, reducing the number of 'in the case of' questions

Due Diligence

No. of questions vastly reduced and less onerous to complete

Insurance

Reduced to only two requirements and values lowered to minimum statutory limits remain

Deviations

NGED have already adopted an overarching contract approach and as such need to collect billing information from FSP at the point of contract; this will happen through a separate secure system/process.

NPg will continue to collect information security data, this will likely be collected through a separate process

Alignment of these will happen as more DNOs adopt an overarching contract approach



Technical Template

Area	Field Name	Technical Qualification Questions	Allowable Responses	Pass criteria
	TECH_CN_STATUS	DER Connection status	Energised, Awating Energisation, Planned,	Energised, Awating Energisation, Planned,
	TECH CN AWAI1	If awaiting energisation, firm date of energisation	DD/MM/YY, NA	Completed
	TECH_CN_AWAI2	If awaiting energisation, connection reference number	Free text, NA	Completed
	TECH_CN_PLAN1	If planned, connection voltage level	11, 33, 132, NA	Completed
Connection	TECH_CN_PLAN2	If planned, connection offer status	Not yet applied, applied awaiting offer, offer	Not yet applied, applied awaiting offer, offer
Connection	TECH_CN_PLAN3	If planned, connection reference number	Free text, NA	Completed
	TECH_CN_PLAN4	If planned, what is the target delivery date?	DD/MM/YY, NA	Completed
	TECH_CN_SPEC1	If speculative, service readiness date	DD/MM/YY, NA	Completed
	TECH_CN_SPEC2	If speculative, recruitment status	ASSET CONTRACTED, ASSET KNOWN, ASSET	
	TECH_CN_SPEC3	CMZ Location	Free text, NA	Completed
	TECH_LN_POSTC	If Energised, Awating Energisation, Planned; Postcode	free text	Completed
	TECH_LN_IMPAN	If Energised, Awating Energisation, Planned; Import MPAN (Meter Point Administration Number) If known	free text (13 Characters), NA	Completed
	TECH_LN_EMPAN	If Energised, Awating Energisation, Planned; Export MPAN (Meter Point Administration Number) If known	free text (13 Characters), NA	Completed
	TECH_LN_MSID1	If Energised, Awating Energisation, Planned; MSID (where applicable)	free text, NA	Completed
	TECH_LN_ANAME	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Name/Ref	free text	Completed
	TECH_TG_GROU1	Asset Scale	DOMES, CANDI	Completed
	TECH_TG_GROU2	Metering Point	POIOC, ASSEL	Completed
	TECH_TG_GROU3	DER Type; Generation &/OR Storage	Y, N	Y, N
	TECH_TG_GROU4	DER Type; Demand	Y, N	Y, N
Technology	TECH_TG_GSCL1	If Generation &/OR Storage, Energy Source	BACAS, COMAS, ENGCR, GASTU, GEOPP, HYDPS,	Completed
	TECH_TG_GSCL2	If Generation &/OR Storage, Energy Conversion Type	ADVAF, BIFAD, BIOLG, BIOOT, BIOSG, BIOMA,	Completed
	TECH_TG_DDCLS	If Demand, Technology Type	AIRSO, GRSHP, WASHP, HYBHP, EVCHP, EVVTG,	Completed
	TECH_TG_ACTIV	Service Type; Can respond to Active Services	Y, N	Y, N
	TECN_TG_REACT	Service Type; Can respond to Reactive Services	Y, N	Y, N
	TECH_PS_INCAP	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Installed capacity (MW)	free text	Completed
	TECH_PS_FCDTU	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Flexible Capacity - Demand Turn-up (MW)	free text	Completed
	TECH_PS_FCDTD	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Flexible Capacity - Demand Turn-down (MW)	free text	Completed
	TECH_PS_FCGTU	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Flexible Capacity - Generation Turn-up (MW)	free text	Completed
	TECH_PS_FCGTD	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Flexible Capacity - Generation Turn-down (MW)	free text	Completed
echnology	TECH_PF_MINOD	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Min Operating Duration (HH:MM)	HH:MM	HH:MM
	TECH_PF_MAXOD	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Max Operating Duration (HH:MM)	HH:MM	HH:MM
	TECH_PS_RESPO	DER [IF SPECULATIVE, THEN AGGREGATED GROUP] Response Time (minutes)	HH:MM	HH:MM
		Recovery Time; The time required by the DER [IF SPECULATIVE AGGREGATED GROUP] to recover from one		
	TECH_PS_RECOV	instruction until the next instruction can be actioned.	HH:MM	HH:MM
Metering	TECH_PS_METER	Metering Granularity (minute, HH)	MIN, HH	MIN, HH



Technical - Big Wins and Deviations

Connection Status

A one size fits all approach to DER with different statuses

Technology identity

As standard set of groupings aligned to reporting needs

DER Parameters

Future proof and aligned to other TWG outcomes

Deviations

NGED are proposing to collect an additional granularity of data where multiple DER of varying technology types are metered at the same Point of Connection, this will improve baseline accuracy.



Next Steps – DNO Implementation

	2023											2024		
March	April	May	June	July	August	Septembe	October	Novembe	December	January	February	March		
Propose Standardised templates				Stakeholder Feedback	Finalise t	emplates			Imple	ement				

- All DNOs expect to adopt when they carry out their next procurement activity, provided the templates are final and there is time to implement (most will launch an Oct round)
- However, dependencies may delay full implementation out to next procurement (generally in Spring);
 - It may be logical for DNOs to align implementation with any change to a 'Overarching Contract' (Framework style) approach to flex contracting.
 - > Any required process and system development (internal/external) completed in time.
 - > DNOs currently undertaking individual assessment, more detail to be collated at next TWG meeting.







10 Minute Break

The voice of the networks



Settlement process

Aligning settlement processes

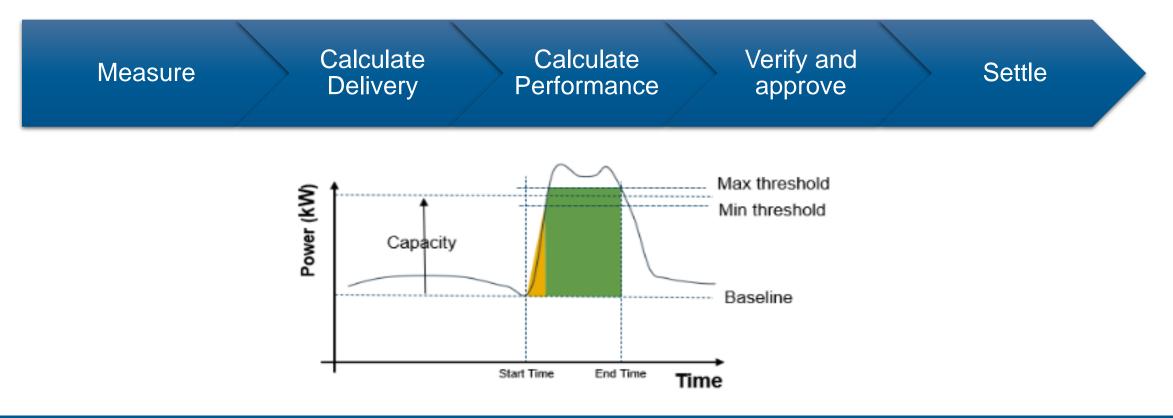
Gavin Stewart (SSEN D, technical working group Lead)

The voice of the networks

Introduction to Settlement

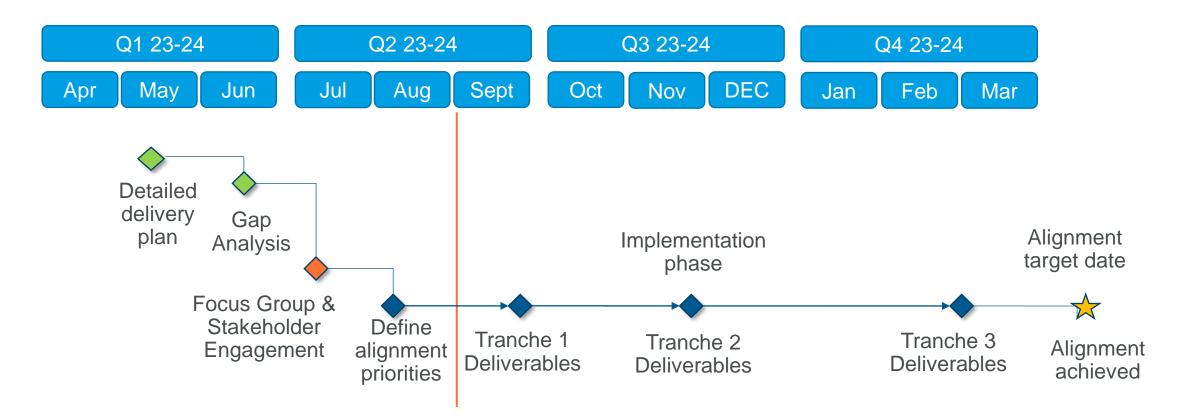


Main Outcome: Settlement process for the standardised flexibility service products to follow common settlement process by April 2024



Settlement Process Milestones









The voice of the networks



Item 1: Metering Granularity

Agreed Alignment:

Minute-by-minute and half hourly data, will be accepted for settlement purposes. Certain products rely on minute-by-minute metering granularity for accurate performance monitoring and settlement. Where an alternative to minute-by-minute granularity is provided the data may be disaggregated. As such, this could result in performance monitoring and calculation inaccuracies.

Target Delivery date:

DNO's are to adopt the wording into the October 2023 tender round.



Item 2: How often payments are made

Agreed Alignment:

Payments will be made monthly; the date of payment may be different due to DNO internal processes.

Delivery Plan DNO's are implement by November 2023.



Item 3 & 4: Over and Under Delivery

Agreed Alignment:

DNO's have agreed there will be no payment for non-delivery, and no increased payment for delivery over the maximum threshold.

Target Delivery date:

DNO's are to implement by November 2023.



Item 5: Requested Metering Data

Agreed Alignment:

Joint agreement on defined API parameters and CSV templates

Delivery Plan

DNO's to agree on the API & CSV standard messaging by April 2024. DNOs to subsequently implement this standard by Autumn 2024 tenders. This is to reflect the effort for platform providers and to accommodate any changes required following Phase 1 of Dispatch and System Interoperability. This also reflects that DNOs need to give sufficient time for FSPs to modify their own API systems to accept the new API and CSV standards.

Item 6: Metering Accuracy Standards

Agreed Alignment:



For Asset Point Metering, the Provider will ensure compliance with the following metering standards set out within the most recent published relevant **Balancing and Settlement Code of Practice Eleven: code of practice for the metering of balancing services assets for settlement purposes:**

- the metering 'accuracy requirements'
- 'the asset meter calibration test certification'
- 'the limits of error'
- The 'sealing' requirements

For Boundary Point Metering, the Provider should be compliant with Balancing and Settlement Codes of Practice 1, 2, 3, 4, 5 and 10 as applicable.

If requested by the Company, the Provider shall provide evidence of compliance with the above standards. This may be in the form of certification, photo, or written confirmation.

Service Terms Glossary Definitions

Asset Point Metering:

Asset Point Metering means the metering measured directly from the DER and is downstream of the Boundary Point Metering. **Boundary Point Metering:**

Boundary Point Metering means the metering measured at the point of supply from the DNO network.

Target Delivery date:

DNO's are to adopt the wording into the October 2023 tender round.



Item 7: Boundary and Asset Metering Locations

Agreed Alignment:

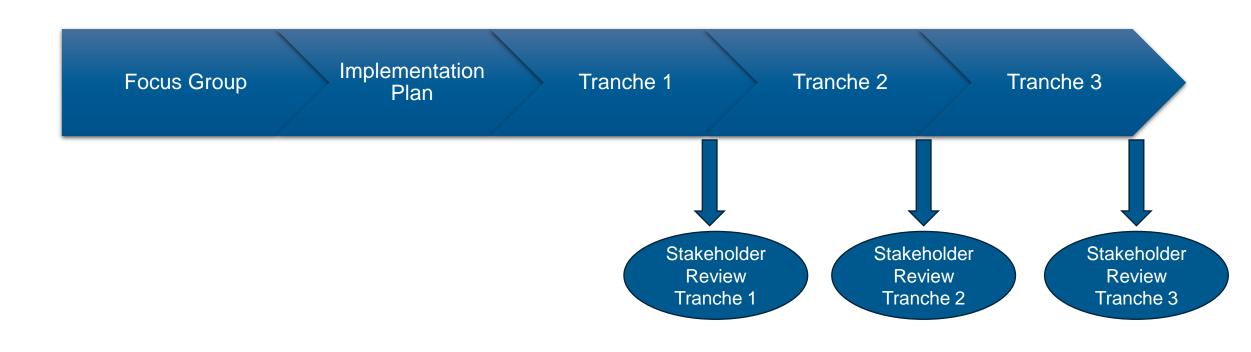
DNO's have agreed to accept both boundary and asset metering locations and appropriate wording has already been added to the Flexibility Agreement.

Target Delivery date:

Already delivered as part of Standard Contracts TWG



Implementation Stages









Dispatch systems

Making dispatch systems interoperable

Tim Manandhar (UKPN) & Joe Davey (NG ED) (Technical working group co-Leads) & Ross McPherson (PNDC)



Progress update and key deliverables

Progress so far:

- PNDC contracted to work on the project
- Engagement with Ofgem's OGS consultants
- Engagement plan and delivery approach agreed
- Focus group engagement

Key Deliverables:

- Phase 1: Gap analysis and Dispatch requirements
 - **Deliverable 1:** High-level assessment of gaps for systems interoperability in all areas of Flexibility services
 - Deliverable 2: Detailed requirements for dispatch including a methodology to select dispatch options
- Phase 2: Comparative analysis of all dispatch options
- **Deliverable 3:** Objective assessment of options to inform the selection of the most suitable standard
- **Phase 3:** Implementation



Key Take Homes : What Flexibility Service Providers want

- Agreed that developing consistency in the market and wider eco-system would be extremely beneficial to grow liquidity
- Wished to have greater visibility of potential commercial opportunities
- Generally, don't care about specific platform
 - provided it is consistent, has longevity, and is relatively simple to interface with
- Strong preference for deploying a solution now
 - then iterate don't wait for "the perfect solution"
- Prefer a common digital life-cycle engagement between all DNOs / DSOs
 - including Tendering, PQQ, Contracts, Dispatch and Settlement
- Mixed on feelings on whether a "confidence parameter" is required or not
 - but had no strong feelings on the matter
- No strong feelings on including a unique asset identifier
 - felt it is a DNO / DSO issue



Key Take Homes : What Flexibility Service Providers want

- Preference to employing modern technologies (HTTP REST vs XML SOAP)
 - more established ecosystem of developers
- Highlighted the importance of trial sandboxes to explore and experiment
 - even over supporting documentation as that can be interpreted differently
- Recognise the importance of cyber security
 - but consider it to be platform issue
- Would look forward to stable APIs for automation
 - but also email notifications for information
- Generally sought iteration on a design, albeit without breaking backwards compatibility
 - versioned systems, support different versions of an API, with implementers able to upgrade when they felt it was worthwhile



Key Take Homes : What DNOs / DSOs want

- Data portability between dispatch platforms
 - noted the need to integrate with a range of internal systems
 - including network data
- Want linkage between market data, dispatch and settlement
 - able to be linked up through a single platform
- Want clear control/accountability for platform interactions and issues
- Would like, and value, a simple user interface (UI) for any system like this



Gaps Identified

Interoperability Gaps

- Co-ordination
- Flexibility Procurement
- Dispatch & Control
- Platform Transaction Settlement
- Platform Market Services
- Analytics and Feedback

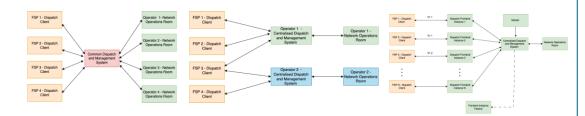
Other Gaps

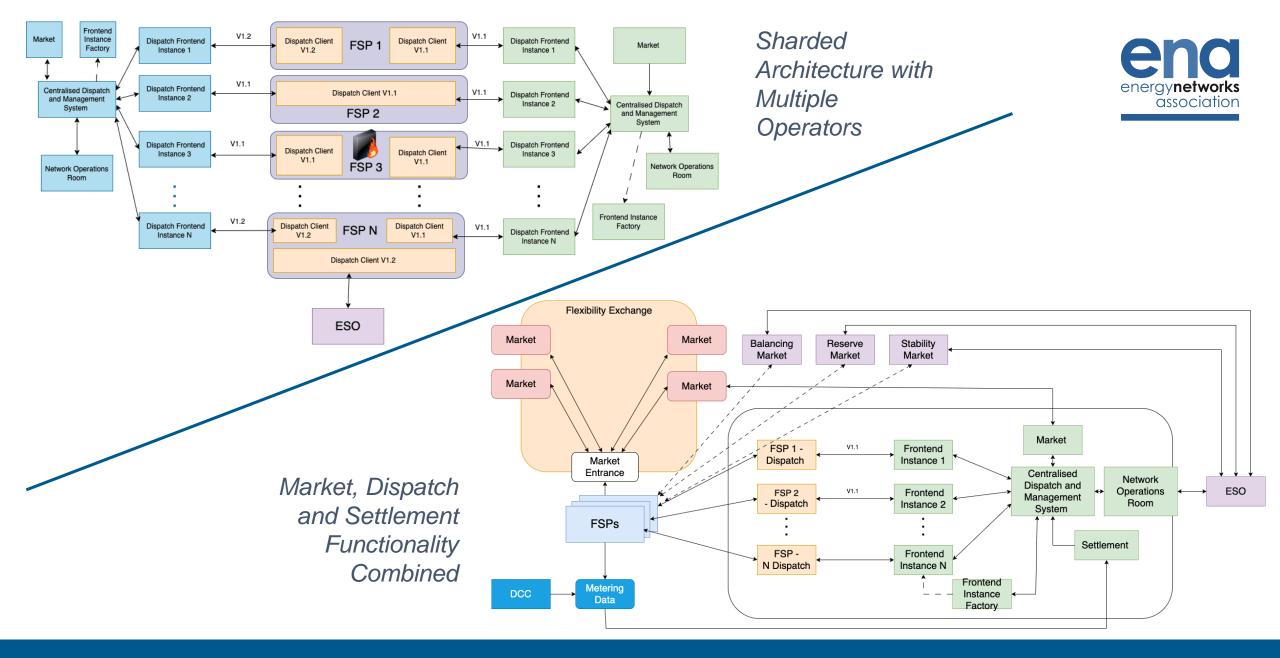
- Cyber security
- Governance and Accountability
- Standards vs APIs

Dispatch Requirements (D2)

- Communication
- Security
- Testing
- Architecture

What is the architecture? Who is the server?





The voice of the networks







What's next for Open Networks Upcoming ENA events

Helen Jarva (ON Project Manager, ENA)

What's next for Open Networks

What's next for Open Networks																	
	2023												2024 tion				
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Define	Ke outco		(ENA+ ON	l Technica group)	l working	Succe	ss frame	work									
Measure		Inte	ernal revi	es/ Gap a engage		takehold	ler	-	alysis/St ngageme	akeholde ent**	er	≻ (ENA+ O	N Technic group)	al working			
Analyse					Deve	lopment	of propos	sals for s	tandardis	sation/ali	gnment		(ON Te	chnical wo	king group)	
Implement											Indivi	dual DNC	<mark>) implem</mark>	entation c	<mark>f propos</mark> a		DNOs)
Control									Stake	holder en	ngagemer	it + Futur	e govern	ance appr	oach of o	<mark>utcomes</mark> (DNOs +	
	(Complete	Ongoing	Comir	ng up	(**For s	select deliv	rerables		₩ ₩ Pul	blish statu	s, with visi	bility of th	e progress	of individu		



Upcoming ENA events

Energy Innovation Summit

<u>Registration is open</u> for ENA's 2023 Energy Innovation Summit, held in Liverpool on 31st October – 1st November.

Next for Net Zero series: Building a resilient energy system

Focus on the measures the networks have in place to keep our system resilient and secure in the face of storms and bad weather, as well as cyber security.

Register online for 2nd November, 13:00 – 14:30

Transport + Energy Forum – Further and Faster: accelerating the transition to a decarbonised future

<u>Registration is open</u> for the Transport + Energy Forum, held in Birmingham on 16th November. This Forum will explore how energy and transport networks can move faster to meet the challenge of decarbonisation.



Open discussions, Q&A and reflections

The voice of the networks



Energy Networks Association 4 More London Riverside London SE1 2AU t. +44 (0)20 7706 5100

@EnergyNetworks energynetworks.org

© ENA 2023

Energy Networks Association Limited is a company registered in England & Wales No. 04832301 Registered office: 4 More London Riverside, London SE1 2AU

The voice of the networks