

Open Networks 2023 Success Framework

Details of
key outcomes



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Executive Summary

Since its inception in 2017, Open Networks has played a pivotal role in supporting the move towards Net Zero by enabling local flexibility markets and implementing the processes required to support them.

Earlier in 2023, we overhauled and restructured the programme, making it more focused on practical delivery. By listening to our stakeholders, we know we need to focus on issues like improving market liquidity to unlock further savings for consumers.

We are focused on creating a more consistent user experience and increasing market transparency. These measures aim to bring more people and businesses into the flexibility market, driving its fast adoption.

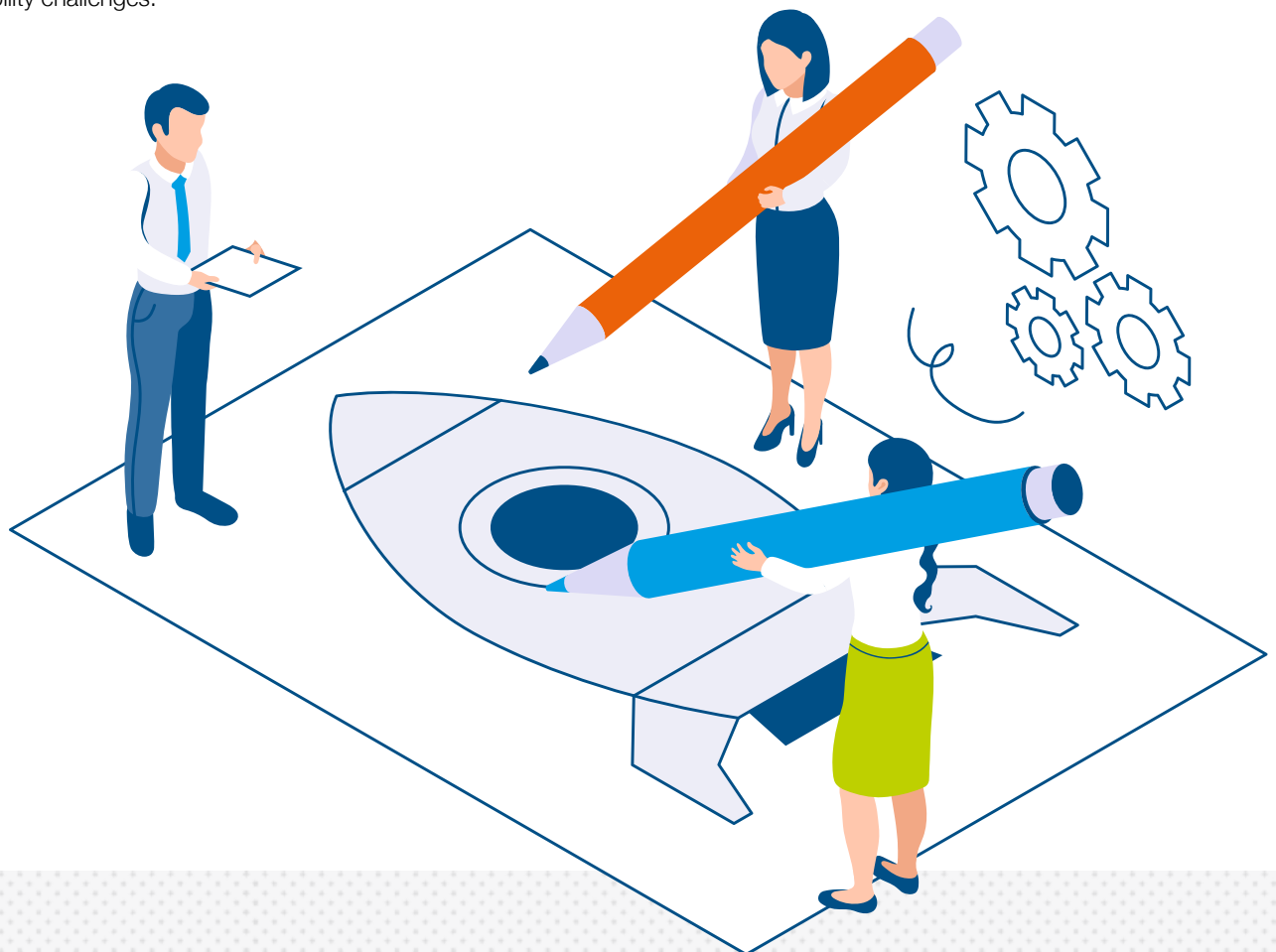
This document outlines the key outcomes the programme is set to deliver in 2023 along with the timeline for implementation.

This year, we are addressing big practical steps to help resolve potential service conflicts by developing primacy rules between providers, and developing technological solutions to overcome interoperability challenges.

This will be underpinned by the standardisation of technical specifications and processes around flexibility services.

This includes service delivery and contracts for flexibility services, standardised network development plans (NDPs), and whole electricity system coordination registers to allow those making the decisions around network development to have a fuller understanding of the impact of investment.

A summary of the key outcomes and the date of delivery is shown on page 07.



About ENA

Energy Networks Association represents the companies which operate the electricity wires, gas pipes and energy system in the UK and Ireland.

We help our members meet the challenge of delivering electricity and gas to communities across the UK and Ireland safely, sustainably and reliably.

Our members and associates

Membership of Energy Networks Association is open to all owners and operators of energy networks in the UK.

- Companies which operate smaller networks or are licence holders in the islands around the UK and Ireland can be associates of ENA too. This gives them access to the expertise and knowledge available through ENA.
- Companies and organisations with an interest in the UK transmission and distribution market are now able to directly benefit from the work of ENA through associate status.



ENA members



ENA associates

→ [Chubu](#)

→ [EEA](#)

→ [Guernsey Electricity Ltd](#)

→ [Heathrow Airport](#)

→ [Jersey Electricity](#)

→ [Manx Electricity Authority](#)

→ [Network Rail](#)

→ [TEPCO](#)

Development of local flexibility markets

Open Networks’ role in delivering a world leading local flexibility market.

Launched in 2017, ENA’s Open Networks programme has brought together the nine electricity grid operators in the UK and Ireland to work together to standardise customer experiences and align processes and the transition to Distribution System Operation (DSO). Open Networks has been key to enabling the delivery of this transition by:

- Opening local flexibility markets to demand response, renewable energy and new low-carbon technology and removing barriers to participation.
- Providing opportunities for these flexible resources to connect to our networks faster.
- Opening data to allow these flexible resources to identify the best locations to invest.
- Delivering efficiencies between the network companies to plan and operate secure efficient networks.

Since its inception, Open Networks has played a pivotal role in supporting the move towards Net Zero by enabling local flexibility markets and implementing the processes required to support them.

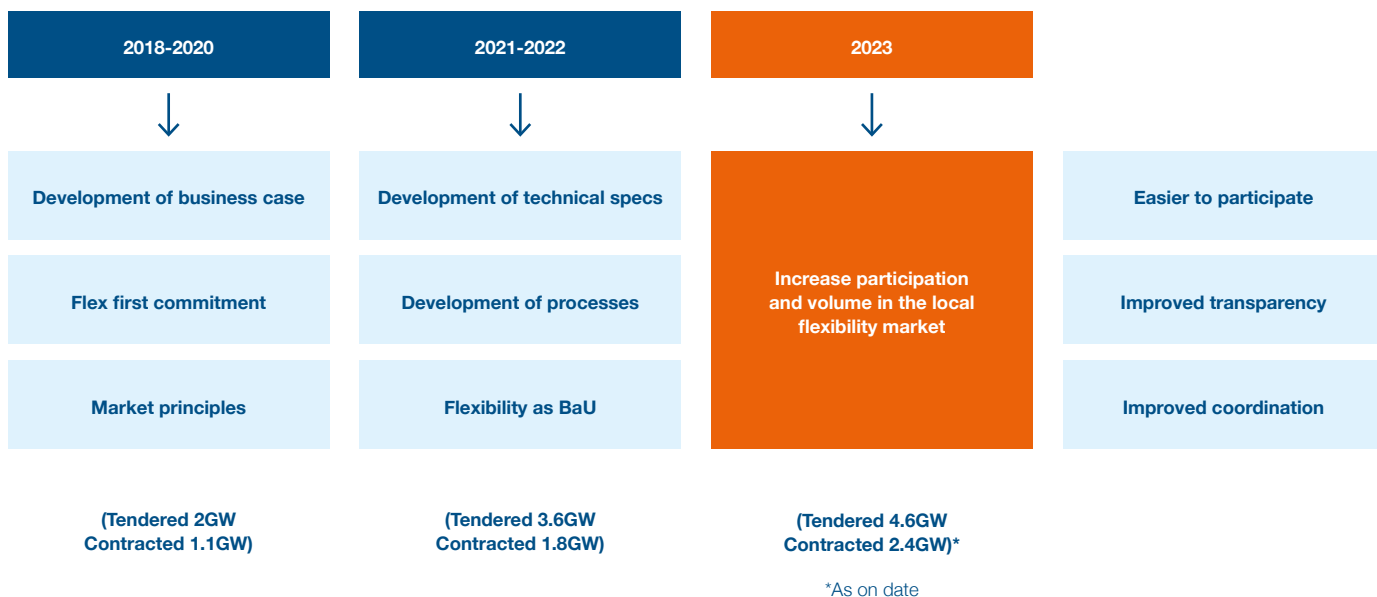
We strive to enable networks to deliver open, transparent, accessible and efficient markets for local flexibility, in coordination with the ESO and accounting for impacts across transmission and distribution systems.

The programme’s work has helped the UK to establish world-leading local flexibility markets through standardisation (across DNOs and with the ESO), simplification and transparency in decision-making.

In 2022, ENA sought views from beyond its core of distribution network operators (DNO) to encompass the needs of other stakeholders. They expressed a desire for a swift delivery of more streamlined and standardised processes across the country, greater visibility of network-connected assets and improvements to market liquidity.

In response, ENA has identified a number of steps for 2023 to ensure the direction of travel is reflective of industry needs, with tangible outcomes.

Journey of local flexibility markets (Open Networks)



Key outcomes delivered this year

What are the key outcomes we are delivering this year, and why does it matter?

Earlier in 2023, we overhauled and restructured the programme, making it more focused on practical delivery. By listening to our stakeholders, we know we need to focus on issues like improving market liquidity to unlock further savings for consumers.

We are focused on creating a more consistent user experience and increasing market transparency. These measures aim to bring more people and businesses into the flexibility market, driving its fast adoption.

In line with the actions from the government and Ofgem's Smart System Flexibility plan 2021, Open Networks is looking to demonstrate our ambition to deliver tangible consistent changes to industry practices across the participating ENA members.

We are focused on:

1. Making it easier for flexibility service providers to participate in the flexibility market by standardising products, processes and contracts,
2. Improving operational coordination between networks and companies to remove barriers to the delivery of flexibility services,
3. Improving the transparency of processes, reporting and decision-making.



Overview of outcomes

<p>Making it easier for flexibility service providers to participate</p>	<p>Standardisation of flexibility products</p>	<p>80% of total volume of flexibility tendered by DNOs will be with common products having common technical specifications.</p>	<p>By Apr 2024</p>
	<p>Standardisation of pre-qualification</p>	<p>All assets registering for distribution flexibility services will use standard data for technical and commercial pre-qualification.</p>	<p>By Apr 2024</p>
	<p>Standardisation of flexibility contracts</p>	<p>All DNOs will use common T&Cs and schedule headings for all flexibility contracted.</p>	<p>By Apr 2024</p>
	<p>Standardisation of dispatch API</p>	<p>All DNOs adopt common API specification for dispatch of flexibility.</p>	<p>By Apr 2024**</p>
	<p>Standardisation of settlement processes</p>	<p>All DNOs adopt a common settlement approach for flexibility.</p>	<p>By Apr 2024</p>
<p>Improving operational coordination between networks and companies</p>	<p>Implementation of primacy rules</p>	<p>All DNOs and ESO implement designed processes and information flows to implement primacy rules (increments 1 and 2).</p>	<p>By Apr 2024**</p>
	<p>Harmonisation of data shared between DNOs and ESO</p>	<p>Consistent bilateral operational data exchange between all DNOs and ESO.</p>	<p>By Apr 2024**</p>
	<p>Harmonisation of DER visibility information</p>	<p>All DNOs use consistent DER visibility specifications ('Go' or 'No go' decision to be taken in Sep 2023).</p>	<p>By Dec 2023**</p>
<p>Improving the transparency of processes and reporting</p>	<p>Consistent Network Development Plans</p>	<p>All DNOs report using the agreed Network Development Plan (NDP) format.</p>	<p>By Jun 2023</p>
	<p>Consistent network co-ordination activities</p>	<p>All DNOs report using the agreed whole electricity system co-ordination register format.</p>	<p>By Jun 2023</p>
	<p>Consistent carbon reporting</p>	<p>All DNOs report using the agreed carbon reporting methodology for 2023 & 2024 SLC 31E submissions.</p>	<p>By Jun 2023</p>
	<p>Consistent flexibility reporting</p>	<p>Publication of flexibility figures collated from SLC 31E submissions (including technology break down).</p>	<p>By Aug 2023</p>

Key

 Focus areas	 Main outcomes	 Description of result	 Target Date
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** Part of continued development

Making it easier for flexibility service providers to participate

Simplified and standardised products, processes and contracts will ensure easy sign-up to local flexibility markets and a consistent user experience across the country. This outcome will be delivered by:

Making it easier for flexibility service providers to participate
#1

Standardisation of flexibility products

Outcome Description:	In scope	Clarifications
<p>80% of total volume of flexibility tendered by DNOs will be with common products having common technical specifications excluding market testing flexibility products that have not been formally standardised-under trial/ innovation projects.</p>	<ul style="list-style-type: none"> Availability agreement timing Availability window options Utilisation instruction timing Payment structure Response time 	<ul style="list-style-type: none"> DNOs will procure specific products based on their needs and may not procure all the standard products
Impact/Customer benefit:	Out of scope	Justification
<p>Flexibility service providers are able to identify which services they're best placed to offer, based on a limited number of standardised DSO flexibility products.</p>	<ul style="list-style-type: none"> Price Valuing flex Network need assessment 	<ul style="list-style-type: none"> Value and pricing of flex is dependent of network requirements and DNO businesses
Wider interdependence		
<p>Within Open Networks:</p> <ul style="list-style-type: none"> Pre-qualification processes Dispatch process and technology (API/Platform etc.) Settlement process 		

Target date of completion: **By Apr 2024**

#2

Making it easier for flexibility service providers to participate

Standardisation of pre-qualification

Outcome Description:

All assets registering for distribution flexibility services will use standard data layers for both technical and commercial pre-qualification.

Impact/Customer benefit:

Simplified and standardised pre-qualification process will ensure easy sign-up to DSO flexibility markets and a consistent user experience across the country.

Wider interdependence

- Technology group (consistent with flex reporting)
- Dispatch process and technology (API/Platform etc.)
- Settlement process
- Standard agreement

In scope

- DER registration - connection status, site location, technology group (consistent with flex reporting), DER parameters
- Company info (Reg no, contact etc.)
- Settlement info (VAT etc.)
- Availability window options
- Compliance terms (standard terms, due diligence)

Out of scope

- Service parameters (tender window)
- Metering
- Cyber security policy
- Delivery criteria

Clarifications

- Asset registering for non-standard products and innovation trials may have separate considerations – The data layer will be standard, there will not be a single template used by all DNOs as there will be a mix of processes used; some manual, some using platforms etc., but regardless of the interface, the criteria asked will be the same.

Justification

- Dependent on network requirements and DNO businesses

Target date of completion: **By Apr 2024**

Making it easier for flexibility service providers to participate (Cont)

Simplified and standardised products, processes and contracts will ensure easy sign-up to local flexibility markets and a consistent user experience across the country. This outcome will be delivered by:

#3

Making it easier for flexibility service providers to participate

Standardisation of flexibility contracts

<p>Outcome Description:</p>	<p>In scope</p>	<p>Clarifications</p>
<p>All DNOs will use the same version of the standard agreement using common T&Cs and schedule headings for local flexibility tenders and specific ESO services (where applicable) for contracts awarded.</p>	<ul style="list-style-type: none"> ● T&Cs to ensure the application of primacy rules (in version 2.1) ● For version 3, scope of standardisation of schedule format being developed ● Further refinement/ review of clauses including liabilities, data protection and anti-corruption and inclusion of cyber-security clauses 	<ul style="list-style-type: none"> ● A public-facing cover letter will be attached to all updates to note changes made in each version
<p>Impact/Customer benefit:</p>	<p>Out of scope</p>	<p>Justification</p>
<p>Flexibility providers will have minimal legal costs in engaging with the market through standard agreements across all DSO and relevant ESO flexibility services, moving towards a framework arrangement.</p>	<ul style="list-style-type: none"> ● Full standardisation of service terms schedules 	<ul style="list-style-type: none"> ● DSO and ESO continue to be required to include service and platform specific details
<p>Wider interdependence</p>		
<ul style="list-style-type: none"> ● Flexibility product definitions ● Dispatch process and technology (API/Platform etc.) ● Settlement process ● Procurement process 		

Target date of completion: **By Apr 2024**

#4

Making it easier for flexibility service providers to participate

Standardisation of dispatch API

<p>Outcome Description:</p>	<p>In scope</p>	<p>Clarifications</p>
<p>All DNOs will adopt common API specifications for the dispatch of local flexibility services.</p>	<ul style="list-style-type: none"> ● Holistic assessment of gaps on all areas of flexibility services ● Requirements specification for dispatch ● Dispatch interface standardisation ● Assessment against key criteria including security, scaling and futureproofing 	<ul style="list-style-type: none"> ● Existing and legacy methods will be retained through the transition to allow new flexibility service providers to ensure adequate infrastructure is in place ● Working with Ofgem and DESNZ to align with wider industry developments
<p>Impact/Customer benefit:</p>	<p>Out of scope</p>	<p>Justification</p>
<p>DSO flexibility market platforms will provide an optimal end-to-end experience, saving flexibility service providers from needing to develop multiple interfaces.</p>	<ul style="list-style-type: none"> ● Detailed specifications for other systems ● Standardisation of other areas of flexibility services such as settlement or market interfaces 	<ul style="list-style-type: none"> ● Working closely with wider ENA data and digitalisation working groups to ensure we are aligned with wider work around standardising API ● Holistic gap analysis is introduced as the first deliverable that will ensure the dispatch standardisation is closely aligned with other areas
<p>Wider interdependence</p>		
<ul style="list-style-type: none"> ● Technology group (consistent with flex reporting) ● Settlement process ● Standard agreement 		

Target date of completion: **By Apr 2024** (Part of continued development)**

Making it easier for flexibility service providers to participate (Cont)

Simplified and standardised products, processes and contracts will ensure easy sign-up to local flexibility markets and a consistent user experience across the country. This outcome will be delivered by:

#5

Making it easier for flexibility service providers to participate

Standardisation of settlement process

<p>Outcome Description:</p>	<p>In scope</p>	<p>Clarifications</p>
<p>All DNOs adopt a common settlement approach for delivery of local flexibility services.</p>	<ul style="list-style-type: none"> ● Requested metering data ● Metering granularity* (focus group) ● Process timescales ● Performance penalties ● Performance calculations 	<ul style="list-style-type: none"> ● Input will be sought from focus groups to further refine requirements of alignment
<p>Impact/Customer benefit:</p>	<p>Out of scope</p>	<p>Justification</p>
<p>Simplified and standardised process will ensure a consistent user experience across the country.</p>	<ul style="list-style-type: none"> ● Payment process automated or manual ● Settlement completed in-house/through a third party/other ● Baselining methodology ● Dispute process ● Data transmission (API/Manual/Other) 	<ul style="list-style-type: none"> ● Dependent on network requirements and individual DNO business policy
<p>Wider interdependence</p>		
<ul style="list-style-type: none"> ● Technology group (consistent with flex reporting) ● Standard agreement/contract ● Dispatch process and technology (API/Platform etc.) 		

Target date of completion: **By Apr 2024**

Improving operational coordination

Consistency of operational coordination between DSO and ESO ensures more robust forecasts and processes that will directly contribute to improving flexibility market operation. This outcome will be delivered by:

#1

Improving operational coordination between networks and companies

Implementation of primacy rules

Outcome Description:

All DNOs and ESO implement primacy rules in increments. The designed processes and information flows for deployment of primacy rules use cases in increments 1 and 2 will be implemented in 2023.

Impact/Customer benefit:

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.

Wider interdependence

- ESO-DSO data sharing
- Transmission-Distribution interaction with connection process

In scope

- Primacy rules for Increment-1
 - Balancing Mechanism (BM) vs DNO Active Power flexibility services
 - ESO Transmission Constraint Management service and DNO Active Power flexibility services
- Primacy rules for Increment-2
 - Short Term Operating Reserve (STOR) vs Generator led Active Network Management (ANM)
- Analysis of enabling data exchanges and data processes between parties
- Plans for development and rules for additional use cases

Out of scope

- In 2023 plan - Use cases not included within increments 1 & 2

Clarifications

- Some rules and processes won't be implemented until conflicts start to occur. This may mean that not all DNOs are using the rules at the same time if they don't need them
- DNOs will ensure the processes and information flows are in place to implement if and when the conflict occurs
- Associated governance of the rules will be an ongoing development

Justification

- Dependent on network requirements and individual DNO business policy

Target date of completion: **By Apr 2024** (Part of continued development)**

Improving operational coordination (Cont)

Consistency of operational coordination between DSO and ESO ensures more robust forecasts and processes that will directly contribute to improving flexibility market operation. This outcome will be delivered by:

#2

Improving operational coordination between networks and companies

Harmonisation of operational data shared between DNOs and ESO

<p>Outcome Description:</p>	<p>In scope</p>	<p>Clarifications</p>
<p>Harmonise bilateral data exchange between DNOs and ESO essential for network and system operation. Launch appropriate code modification for implementation (where applicable).</p>	<ul style="list-style-type: none"> ● Bilateral operational data exchanged between ESO and DNOs - minimum viable data sets required for ESO-DNO operation and to support ongoing development (e.g. implementation of primacy rules) ● Mechanism for data exchange - Launch code modifications (as appropriate). 	<ul style="list-style-type: none"> ● Data and digitalisation is an actively evolving space. It is important to prioritise key enablers in service of flexibility markets and ensure continued development for future proofing -Timeline of any code modification not factored in the planning.
<p>Impact/Customer benefit:</p>	<p>Out of scope</p>	<p>Justification</p>
<p>Consistency of data sharing between DNOs and ESO ensures more robust forecasts and processes that will directly contribute to improving flexibility market operation.</p>	<ul style="list-style-type: none"> ● Development of portal/platform for data sharing ● Application of the data triage process to share information more widely 	<ul style="list-style-type: none"> ● Dependent on network requirements and individual DNO business policy
<p>Wider interdependence</p>		
<ul style="list-style-type: none"> ● Primacy rules implementation ● ENA's Data and Digitalisation working group ● Individual networks, data sharing policies 		

Target date of completion: **By Apr 2024** (Part of continued development)**

Improving operational coordination between networks and companies

Harmonise DER visibility Information

Outcome Description:

All DNOs use consistent Distributed Energy Resources (DER) visibility specifications ('Go' or 'No go' decision to be taken in Sep 2023 following stakeholder engagement).

Impact/Customer benefit:

Requirements for new DER connections will be streamlined and network visibility will be improved through the consistent information flow from DER to DNOs.

Wider interdependence

- Grid codes (GC0139)
- Connection and Use of System Code (CUSC)
- ENA's engineering recommendations

In scope

- DER market data: visibility of service contracted (ESO services/DNO flexibility services, Active Network Managed asset etc.)
- DER forecast data: DER declared output through physical notification and final physical notification
- DER availability: forward-looking availability of DER availability/outages

Clarifications

- 'Go' or 'No go' decision will be taken in Sep 2023 following extensive stakeholder engagement
- Timeline of any code modification not factored in the planning

Out of scope

- DER controllability

Justification

- DSO and ESO continue to be required to include service and platform specific details

Target date of completion: **By Dec 2023** (Part of continued development)**

Improve transparency

Customers will have visibility of local flexibility markets, carbon intensity and major developments across GB networks, reported through a consistent and transparent methodology with sufficient detail to aid their planning and forecasting activities.



Improve the transparency of processes, reporting

Consistent network reporting for key regulatory publications

<p>Outcome Description:</p>	<p>In scope</p>	<p>Clarifications</p>
<p>All DNOs will ensure consistent reporting formats for key regulatory publications.</p> <ul style="list-style-type: none"> • Network Development Plans (NDP) • Whole electricity system coordination register • Carbon reporting for local flexibility 	<ul style="list-style-type: none"> • Network Development Plans (including best-view scenario) • Whole electricity system co-ordination register • Methodology to report carbon impacts in the Distribution Flexibility Services Procurement Report, as part of Licence Condition 31E <ul style="list-style-type: none"> • Methodology to calculate carbon impacts of flexibility service dispatch • GB wide flex figures including technology break down 	<p>None noted</p>
<p>Impact/Customer benefit:</p>		
<p>Stakeholders are informed of major developments with sufficient detail to aid their planning and forecasting activities.</p>		
<p>Wider interdependence</p>	<p>Out of scope</p>	<p>Justification</p>
<p>None noted</p>	<ul style="list-style-type: none"> • Method of publication of information • Reporting for other purposes beyond Licence Condition 31E (carbon reporting) 	<ul style="list-style-type: none"> • All information will be available on individual DNO websites (ENA website for GB flex figures)
<p>Target date of completion: Annually (Jun 2023- Aug 2023)</p>		



Progress so far

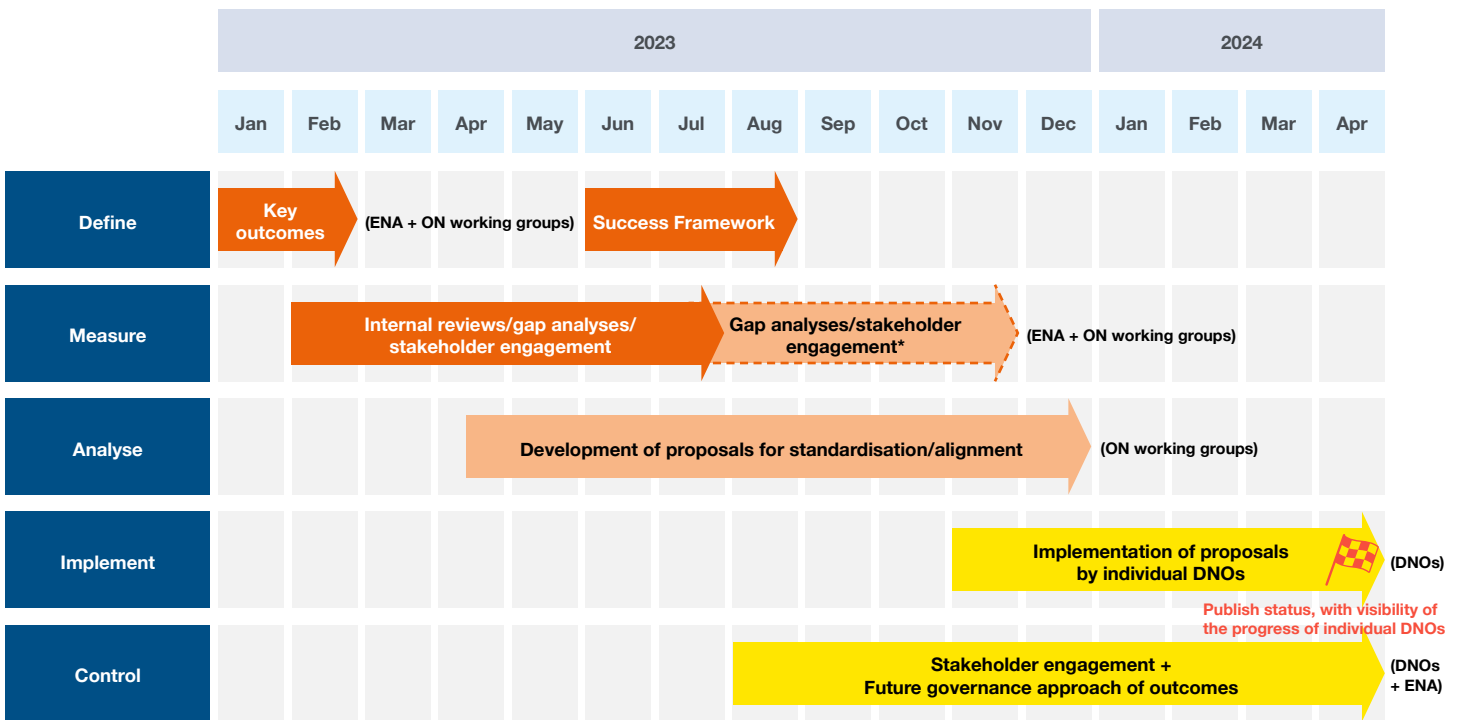
The table below outlines status of key outcomes along with actual dates of relevant completed tasks.

Focus areas	Main outcomes	Status
Making it easier for flexibility service providers to participate	Standardisation of flexibility products	Finalisation of standardised technical specification
	Standardisation of pre-qualification	Finalisation of standardised technical and commercial specification
	Standardisation of flexibility contracts	Ver 2.1 publication imminent, Ver 3.0 work initiated
	Standardisation of dispatch API	Technical experts reviewing industry standards
	Standardisation of settlement process	Finalisation of standardised technical specification
Improving operational coordination between networks and companies	Implementation of primacy rules	Increment-1 implementation ongoing Increment-2 implementation imminent
	Harmonisation of data shared between DNOs and ESO	ESO developing minimum viable data list/specification
	Harmonise DER visibility information	Stakeholder engagement ongoing 'Go' or 'No go' decision imminent
Improving the transparency of processes and reporting	Consistent Network Development Plans (NDP)	Published for 2023
	Consistent network co-ordination activities	Published for 2023
	Consistent carbon reporting	Published for 2023

ENWL	NG ED	NPg	SPEN	SSEN	UKPN	NG ET	SSEN T	ESO
Work in progress. Expected completion date: Apr-24								
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Work in progress. Expected completion date of scoped phase: Apr-24 (part of continued development)								
Work in progress. Expected completion date of scoped phase: Apr-24 (part of continued development)								
Work in progress. Expected completion date of scoped phase: Dec-23 (part of continued development)								
May-23	May-23	May-23	May-23	May-23	May-23	n/a	n/a	n/a
May-23	May-23	May-23	May-23	May-23	May-23	May-23	May-23	n/a
Apr-23	Apr-23	Apr-23	Apr-23	May-23	Apr-23	n/a	n/a	n/a

Next steps

Proposals to converge will be developed and approved throughout the rest of 2023, with full implementation by each DNO to be completed by April 2024.



Key

- Complete
- Ongoing
- Coming up

Considerations for network companies to implement

All ENA members are invested in delivering these outcomes, however, it is important to note some of the factors that network companies need to consider on route to implementation.

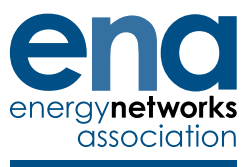
Impact on resources: There is likely to be a reasonable if not significant impact on the DNOs (and ESO) in the adoption of proposals. The required resource to roll out the final actions would involve several teams beyond Open Networks including (but not limited to) flexibility services, procurement, and legal teams in each network company.

Timing: It is likely that a period of 2-3 months will be needed for some DNOs to fully adopt the new proposals post review, release (and consultation). Some legacy contracts and processes will remain in place for several months before being phased out. For the ESO adoption could be more complex with additional consultations and regulatory review periods imposed.

Cost: This is DNO/ESO dependent based on their existing processes, systems and needs. In some instances, DNOs could need discussions with Ofgem once an approach is agreed.

Visit our website to find out more about [Open Networks](#)





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