electricity north west

Bringing energy to your door

Flexibility workshop

Wednesday 6th November 2019

Stay connected...

www.enwl.co.uk

Domestic Arrangements

Don’t forget to sign in

Please keep your phones on silent

No planned fire alarms

Facilities are in the foyer

Emergency assembly point

Your feedback is important

Meet the Team

Lois Clark

Lois works within the Capacity Strategy team. Her role is centred around flexible services and contracted capacity, helping to find innovative alternatives to traditional reinforcement solutions.

Keith Evans

Keith works in the DSO transition team. He is responsible for, and leads activities to identify, the business processes that will change as a result of the transition to Distribution System Operation (DSO).

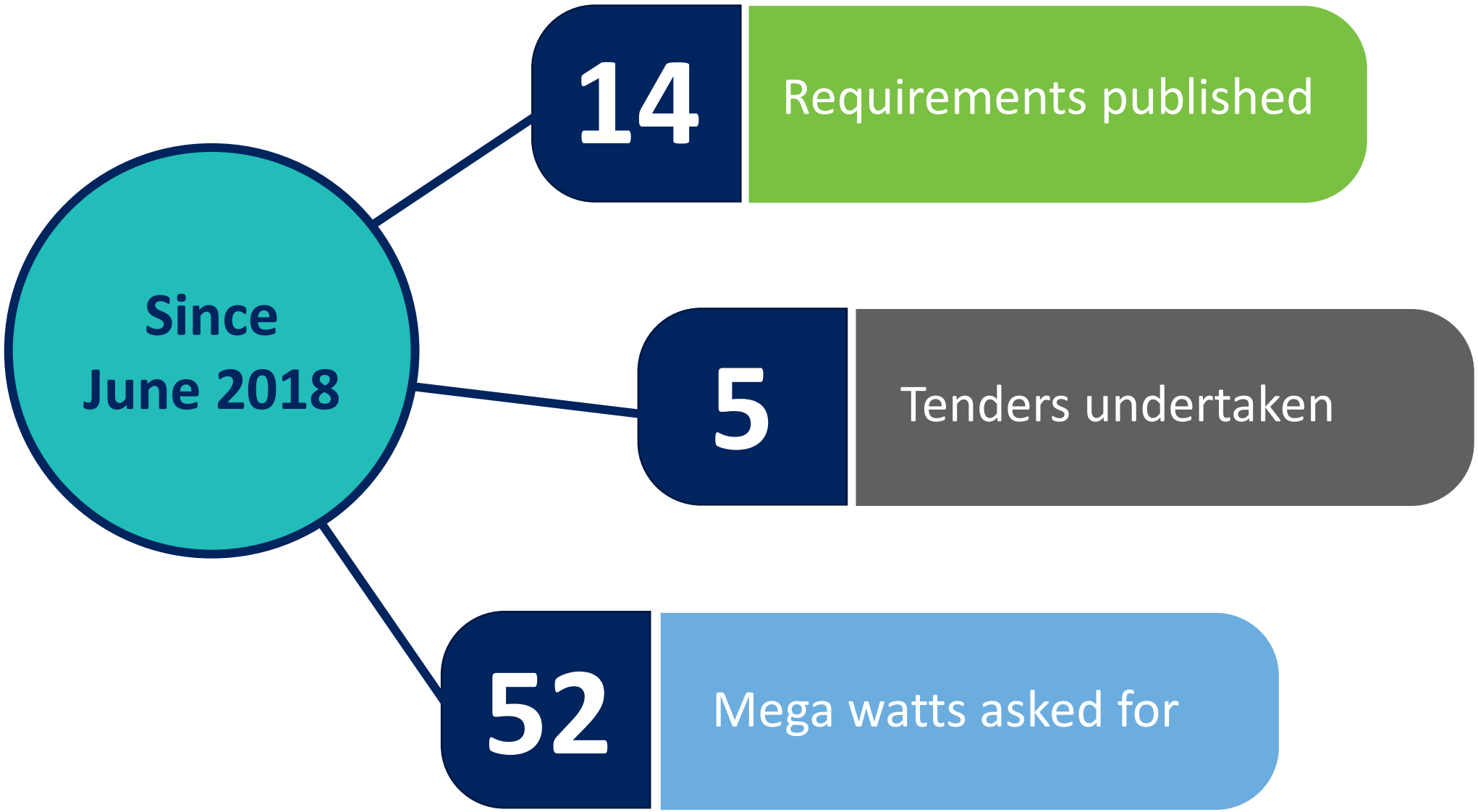
Lucy Penketh

Lucy works within the Capacity Strategy team. She acts as a customer liaison for flexible services, IDNO networks and local authorities, and manages any changes to contracted capacity.

Agenda

		
Background	A brief overview	Our process from start to end
		
Our current requirements	Flexibility in the future	Lunch & networking

What we've done so far



Progress since June 2018

You said	We did
The minimum size for participation is too high	We reduced the minimum size for directly connected customers to 50kW and aggregated resources to 100kW
The requirement for minute by minute metering is a deterrent	We changed the metering requirement to half-hourly metering
More transparency is needed with documentation	We created the addition information section on our website which includes the template contract and T&Cs
More notice is needed of future requirements	We now sign post our future requirements on our flexibility map on our website
The requirements and associated processes aren't clear	We have extended the clarification window at the beginning of each RfP going forward and have introduced bi-annual workshops

So what do we want from you?

One word – **Feedback!**

This is an interactive workshop and we'll be opening up the conversation to you at various points throughout the morning.

We really do value any feedback you may have on our approach to flexibility and we encourage you to get in touch at any time via any of the below means.

Our email address – flexible.contracts@enwl.co.uk

A brief overview

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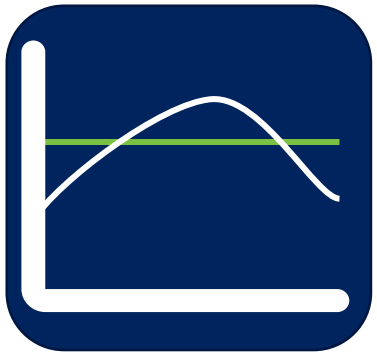
What are Flexible Services?

Flexible Services is the term given to the act of reducing consumption or increasing generation following receipt of a signal, due to a network constraint.

In simple terms, it means a customer generating more or using less electricity after we've asked them to.



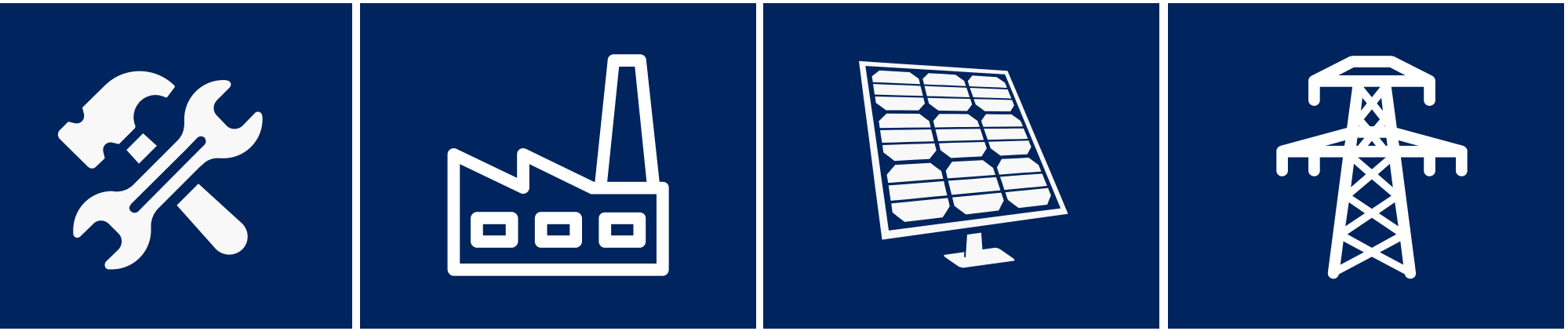
A network constraint is when safe network operating limits are breached.

This means the requirement for electricity in the area is greater than the amount that the local network is capable of providing.

In return for providing Flexible Services a customer will **receive payment**

What are the benefits?

Cheaper bills for customers	Reduces CO_2 emissions	Reduction in supply interruptions	Supports community energy groups



Less disruption	Supports local businesses	Encourages low carbon technologies	Utilises existing assets

So why now?

A revolution is currently underway as the UK embraces a zero carbon future, and the way energy is generated, stored, consumed and traded is all evolving at a significant pace. The electricity industry is facing one of it's biggest challenges yet.

Increase in low carbon technologies

For the UK to meet it's decarbonisation targets, we expect to see a huge uptake in low carbon technologies

More demand on the network

This uptake will result in an increased demand on the network, which wasn't originally designed to cope with low carbon technologies

Reinforcement required

To be able to meet this demand, we will need to invest millions of pounds in reinforcing the network

Increased cost to customers

These costs are ultimately passed down to our customers through their electricity bills

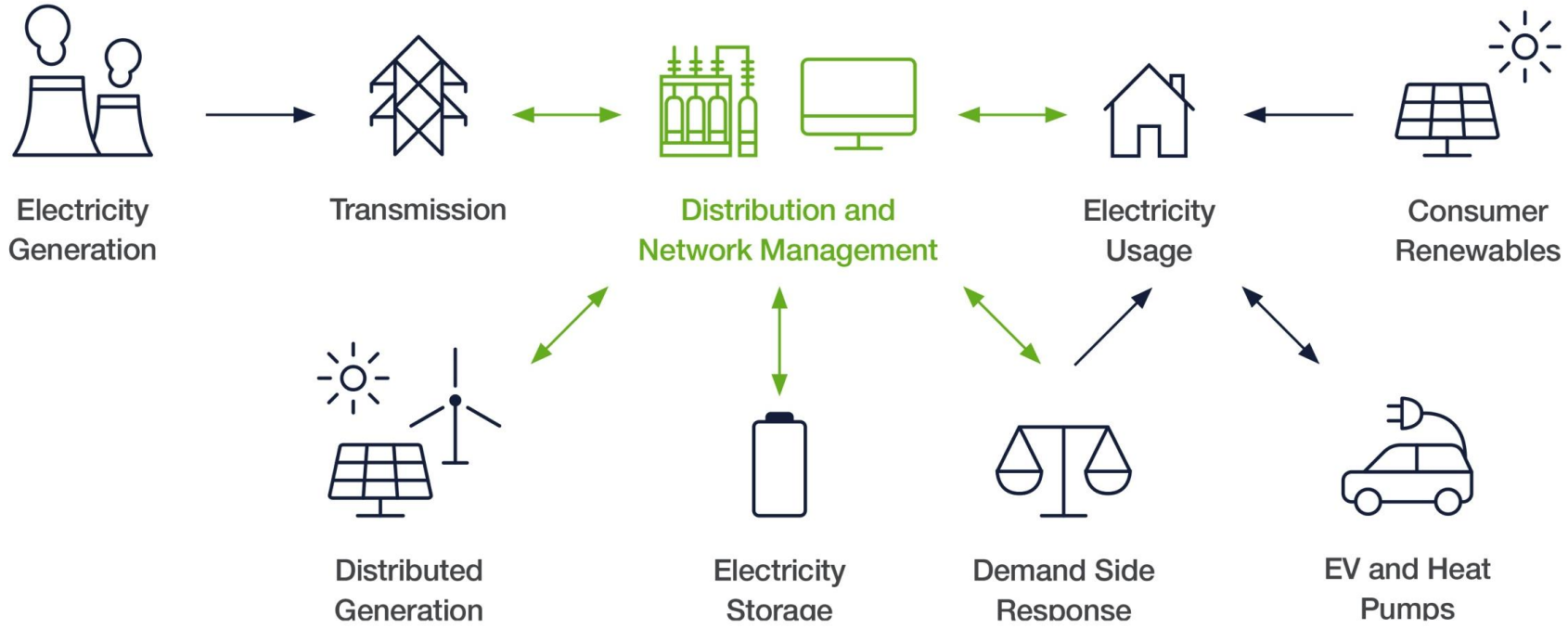
Disruption

In addition, these reinforcement works have the potential to cause a lot of disruption in terms of road closures and supply interruptions

It's our responsibility to find smarter, more flexible ways to meet future needs, and procuring Flexible Services is one of the ways in which we plan to tackle this challenge.

Distribution system operator

The facilitation of flexible services will play a crucial role in our job as a Distribution System Operator



"A DSO balances capacity on the distribution network to enable new connections and meet the requirements of existing customers through the use of flexible distributed energy resources, network investment and commercial services ensuring security and quality of supply standards are delivered"

Before

How we identify our requirements

On a annual basis, we forecast what we expect the demand to be on our network in both the near and distant future

We then take a look at each of our substations, and compare the firm capacity with the forecasted demand

Where a constraint is identified which can be alleviated by Flexible Services, we publish a Request for Proposal

Our three requirement types

The requirement will fall into one of the below types

Each type has a different driver and represents a different kind of response

RESTORE	SUSTAIN	CONTINUOUS
Provide an immediate response following an unplanned network event	Flex your supply up or down at peak times to help manage network constraints	Fulfil a continuous capacity requirement

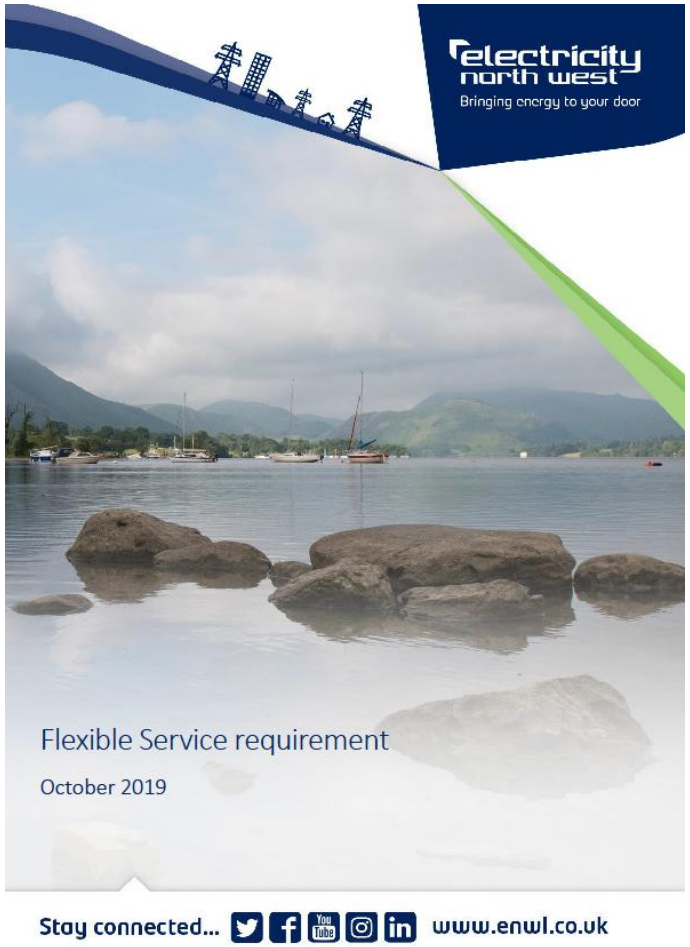
How we publish our requirements

All of our requirements are published on our website.

Whenever we publish a requirement we send an email out to let people know.

We publish a requirement document which includes....

- Location
- Size and type
- Availability window
- Conditions precedent



This is the type of response that we require.

This is the location of our requirement and where the application would need to be situated.

The DER would need to be energised and ready to deliver services by this date.

This is the amount of time that we require the DER to be available for as we may require a response.

Type of Response	When to act	Network Location	Feeding postcodes	Capacity required (kVA)	Certainty of utilisation	Risk to network assets	Start date	Availability Window			Estimated Availability Rate	Estimated Utilisation Rate
								Months	Days	Times		
RESTORE	Post fault	Location 1	WA1 1	0.2	Low	High	Sep-20	All year	All Week	All day	Up to 8760 hrs pa	Up to 40hrs pa
SUSTAIN	During peak times	Location 2	PR1 1	1.8	Medium	Medium	Oct-20	Oct-Mar	Mon-Fri	16:00 – 19:00	Up to 5202 hrs pa	Up to 40hrs pa
CONTINUOUS	Constantly	Location 3	CA1 1	5.0	High	Medium	Mar-20	All year	All Week	All day	Up to 8760 hrs pa	Up to 8760hrs pa

This is the estimated total amount of time that we may require the DER to respond for.

When we would require a DER to act (provide us with a capacity).

The postcode sectors within the feeding area of the requirement.

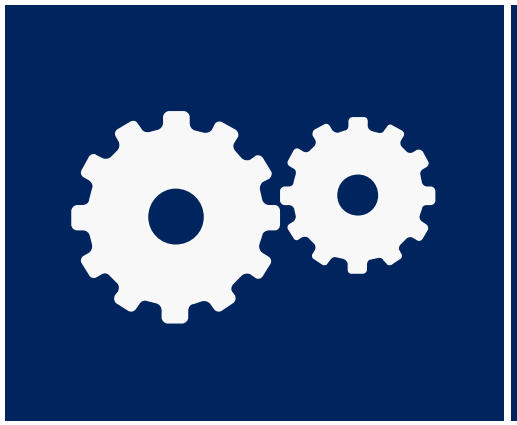
The peak amount of capacity that is required. This may change depending on the month/day/time, detailed load profiles are included in the RfP documentation.

The DER would need to be available to provide flexible services during this period.

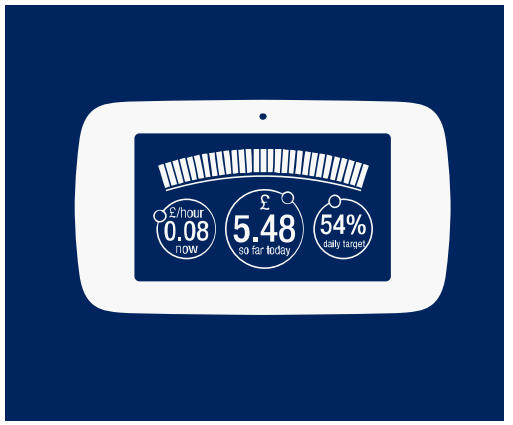
Minimum criteria

In order to participate you need to meet the conditions precedent, which means you must be...

Located within the requirement area



Able to provide a minimum of 50kW – aggregators 100kW



Half-hourly metered

Able to provide within the specified availability window

Connected at least two months prior to the start date

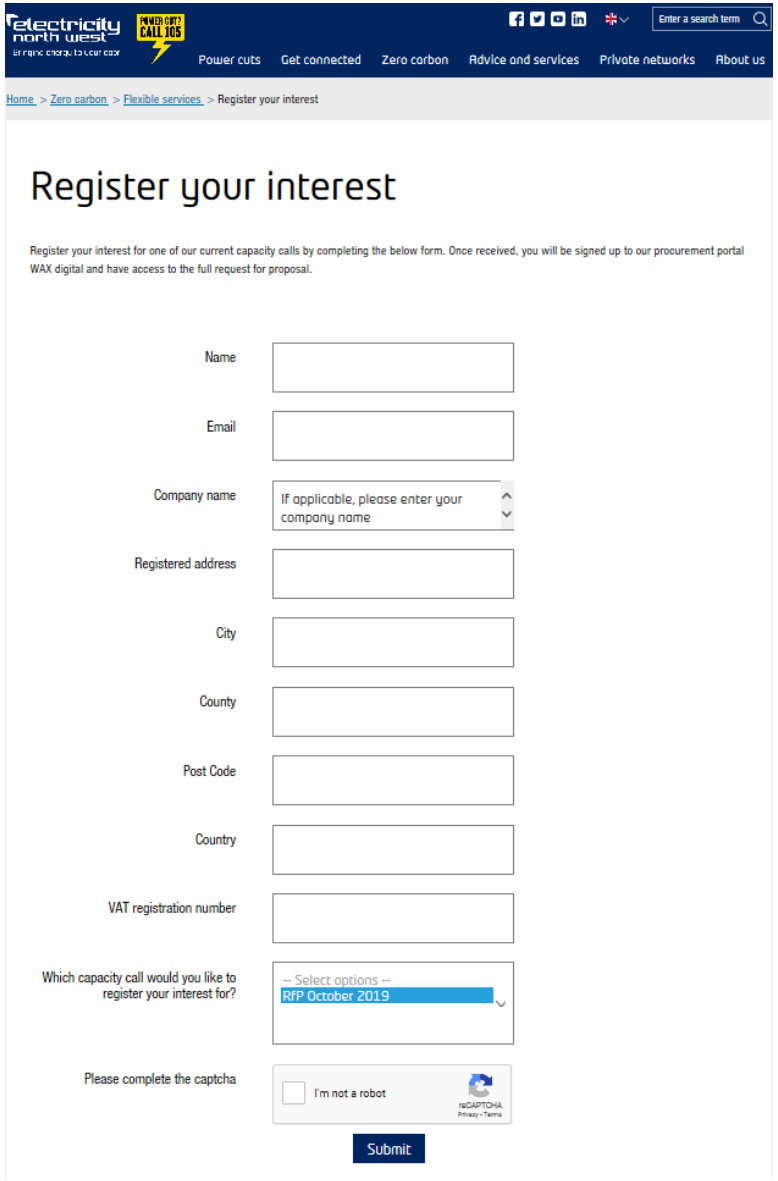
Registering your interest

It’s really easy to register your interest for one of our RfPs, just complete the form on our website!

Alternatively you can send us an email if you’d prefer, just make sure to include:

- Contact name
- Email address for portal log in
- Company Name
- Registered address
- VAT registration number
- Which RfP you’d like to register for

Shortly before the publication of the full RfP, you’ll receive log in details to our procurement portal – WAX digital



During

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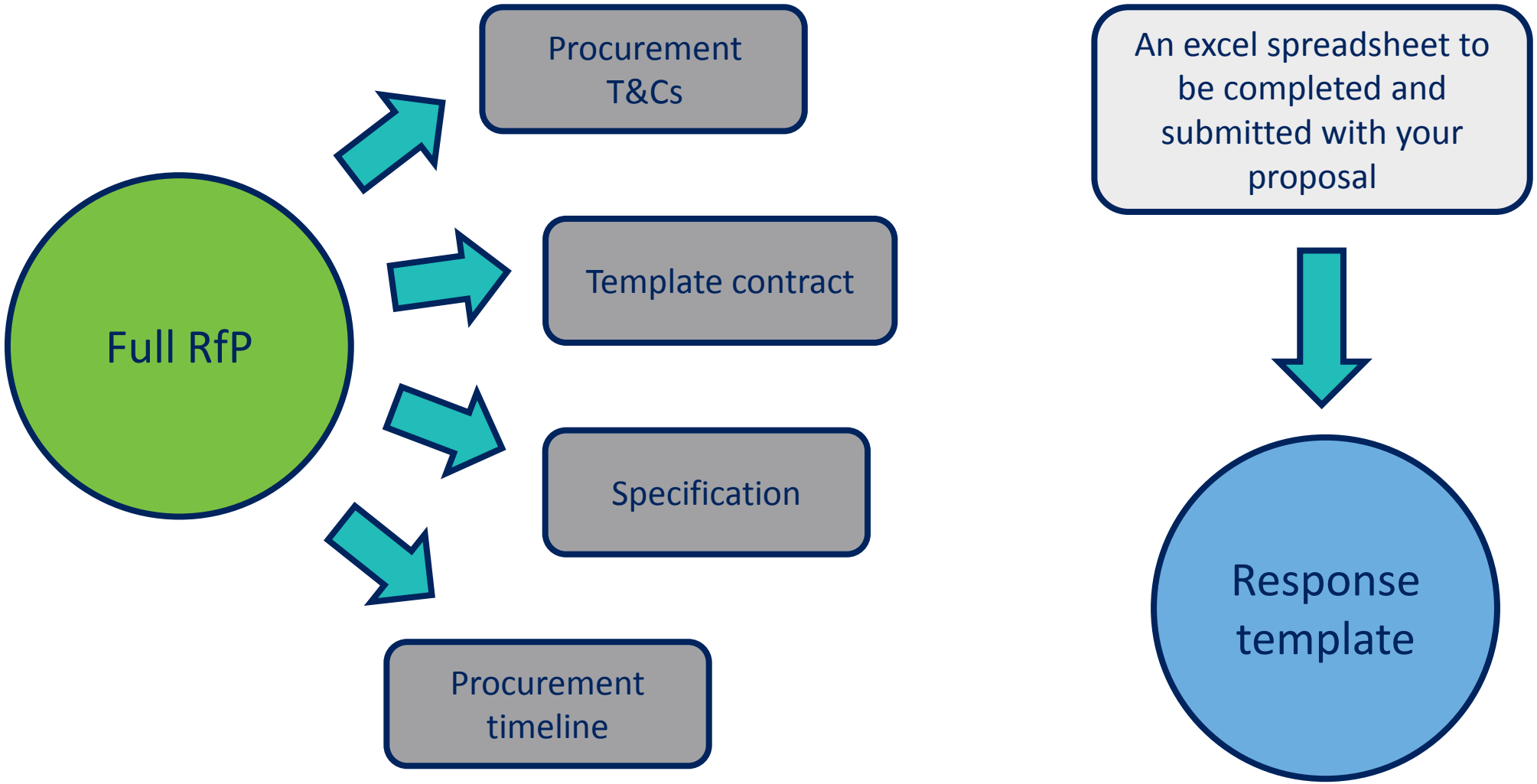
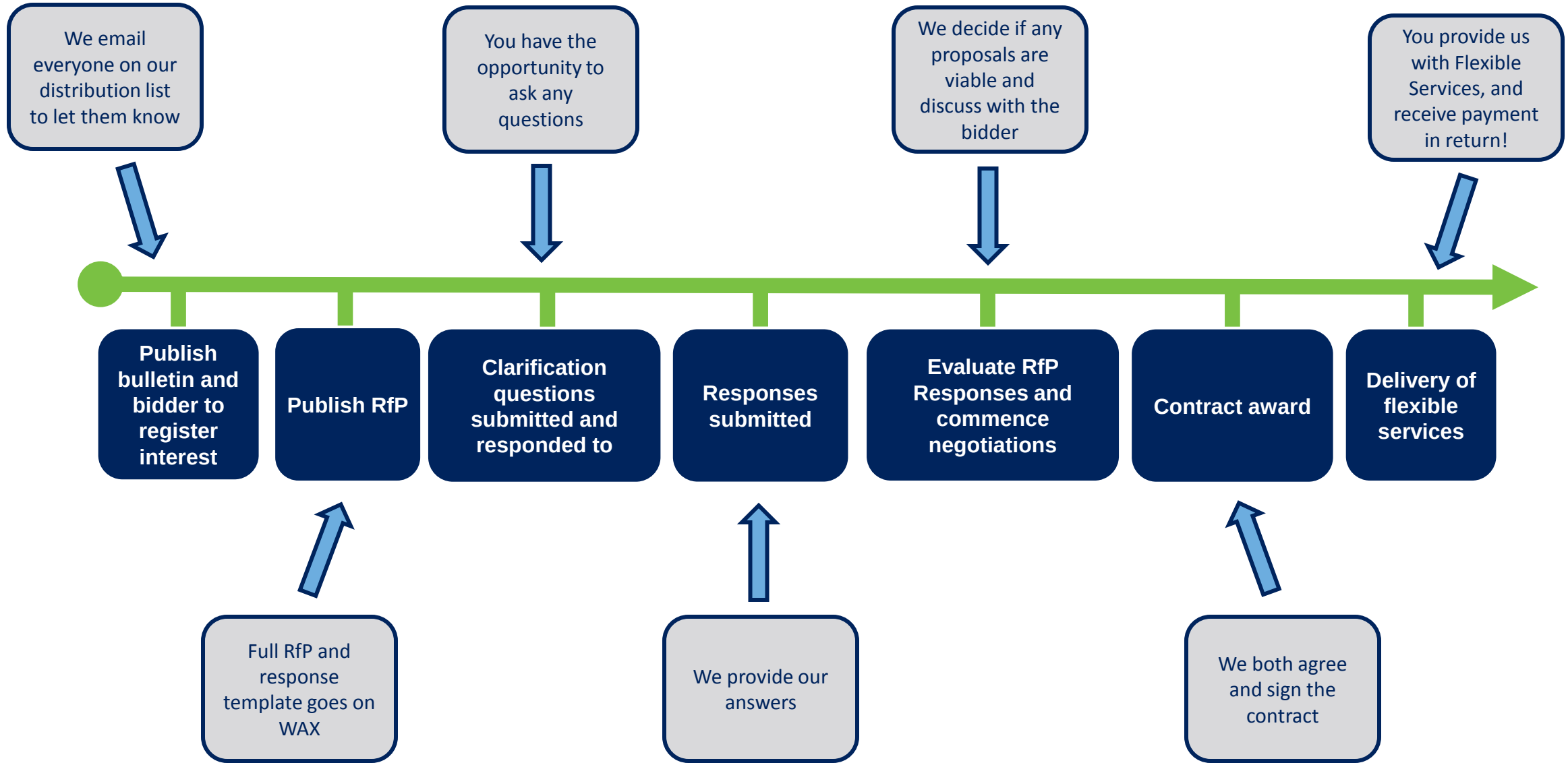
What we publish



Procurement timeline



WAX Digital

All of our procurement is conducted through our procurement portal WAX Digital. Through the portal you can:

View the full documentation

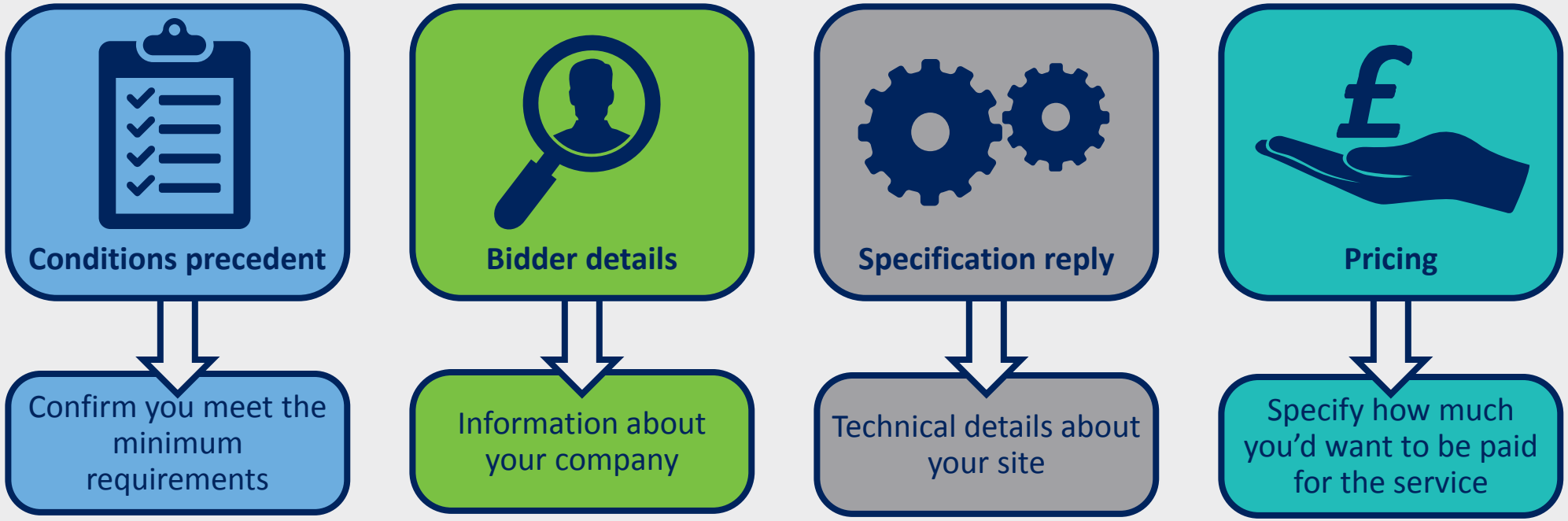
Ask any clarification questions

Submit a proposal

Once you've registered your interest, you'll receive an email with this link.

How to submit a response

To submit a response you need to complete 4 out of the 6 tabs in our response template workbook



The completed response template should then be uploaded to WAX digital

Decision making criteria

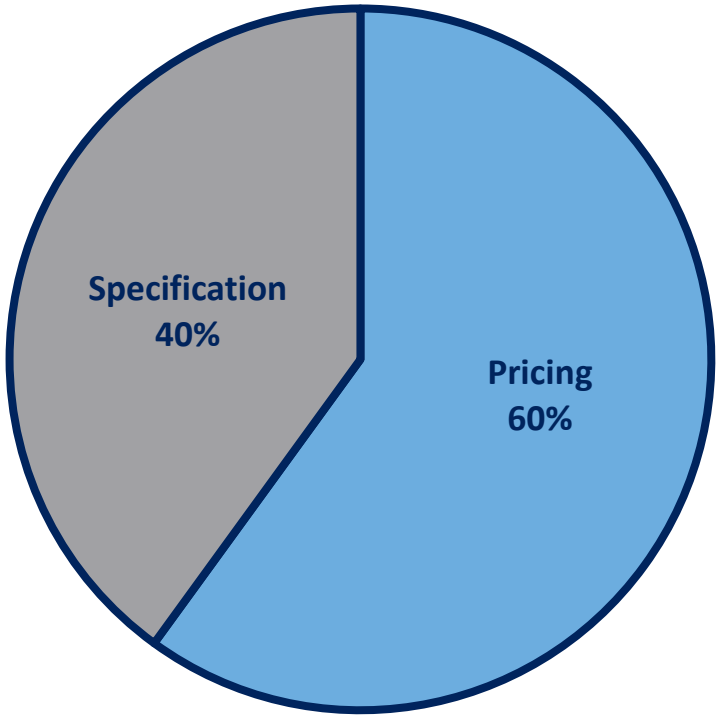
Each response to a Request for Proposal (RfP) is assessed based on the proposed pricing and it's ability to meet the specification.

Firstly the proposal needs to meet the conditions precedent and minimum criteria specified in the RfP.

The proposal is then given a score for how suitable the solution is.

Another score is given for the proposed cost of providing the service.

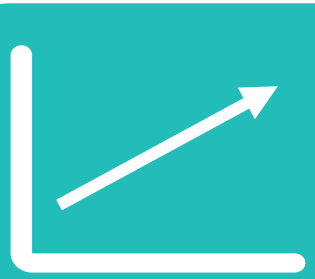
The pricing is given a weighting of 60% and the specification a weighting of 40%



ROCBA Analysis

We use our specifically designed Real Options Cost Benefit Analysis (ROCBA) tool to compare traditional reinforcement options with flexible services.

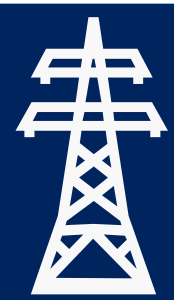
The tool helps us to ensure we're making the most economically efficient decisions for our customers whilst also ensuring our network is able to meet future needs. It does this by comparing..


Demand Forecasts


Capacity provision


Initial Investment & Rate of Return


Depreciation of assets


Network losses

It produces a net present value for each solution which we use to inform a decision on which strategy to proceed with.

You can learn more about our ROCBA tool here

Is there any additional information that would be helpful?

Prioritise these in terms of importance

15 minutes

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Break

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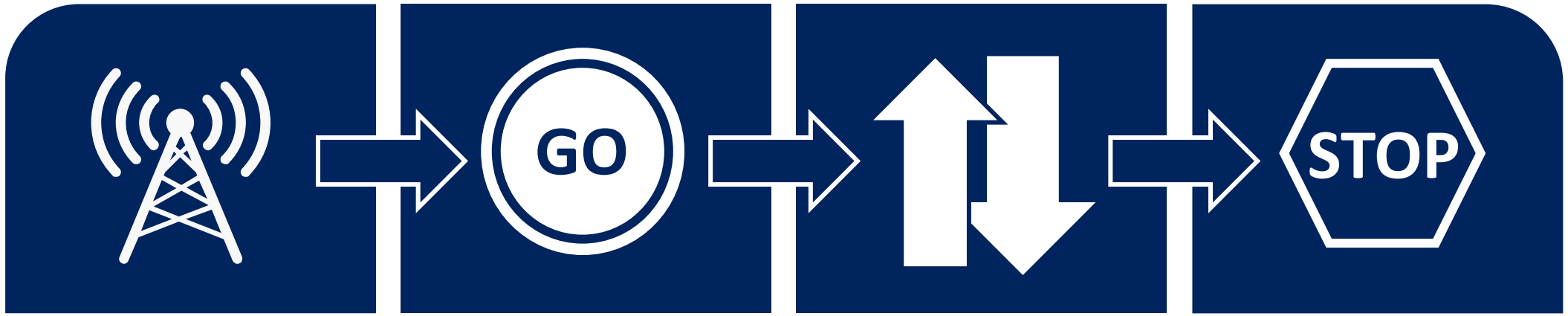
After

How we dispatch



We'll install an Remote Terminal Unit at our cost*	You'll receive a 24V signal to signify Flexible Services are required	You'll provide us with Flexible Services	You'll receive a 24V signal to signify Flexible Services are no longer required

*For aggregated portfolios of Flexible Resources a suitable communications solution should be agreed with the Company as part of the contract negotiation process.

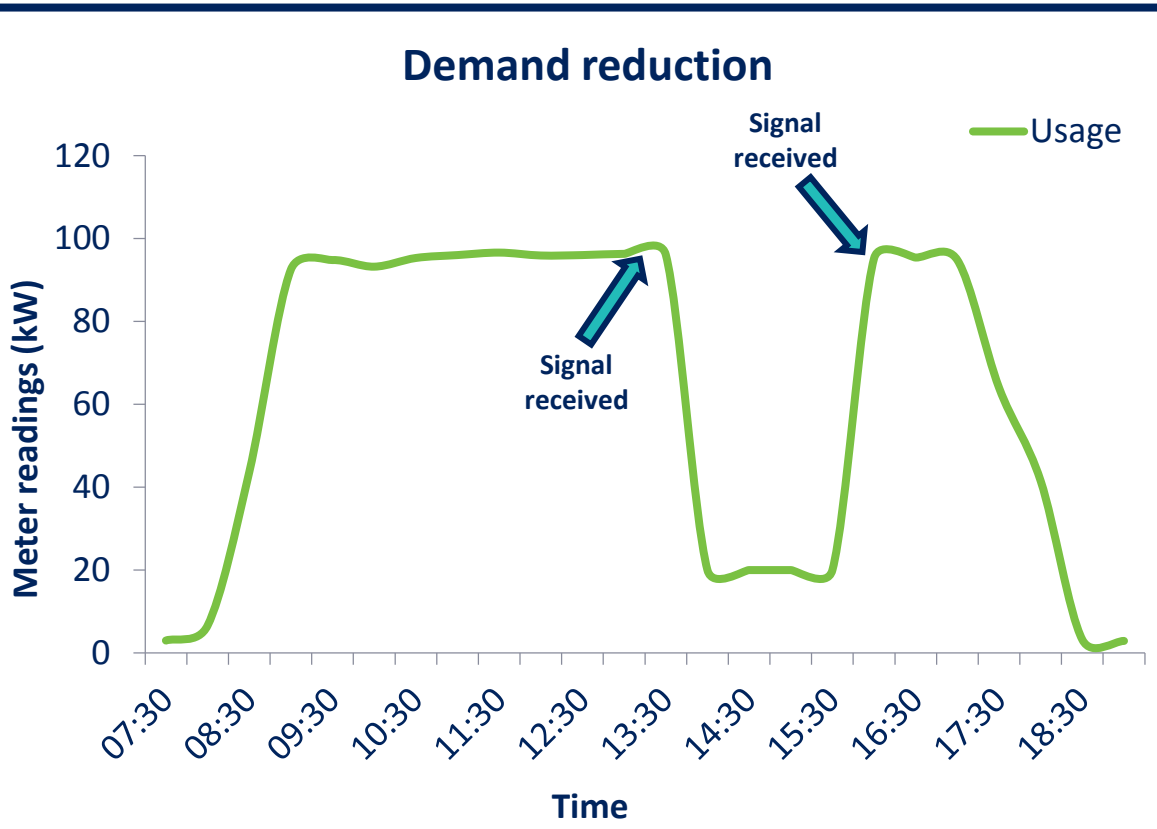
Service delivery – response times

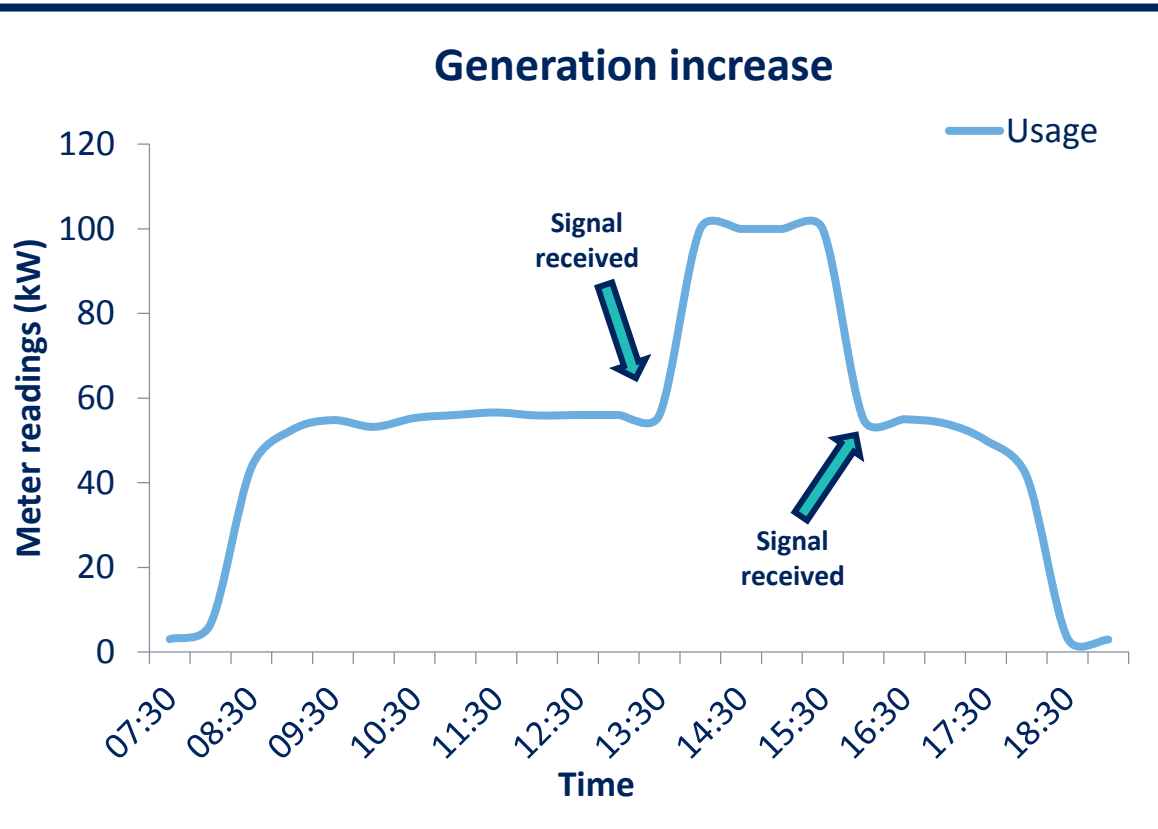
	RESTORE	SUSTAIN	CONTINUOUS
Maximum response time	3 minutes	15 minutes	Site specific
Minimum response duration	30 minutes	30 minutes	Site specific

Following an event we'll provide you with a performance report

Verifying your performance

We'll verify your performance by looking at your meter readings..





To confirm you've changed your usage following the receipt of a signal

Under provision of services

If for any reason you are unable to provide Flexible Services you will need to notify us immediately

Failure to provide Flexible Services will result in a charge of the service delivery value plus 5%

Under 65% delivery constitutes a service failure

2 or more service failures in a 12 month rolling period may result in contract termination

Payment

We'll verify your performance

You'll invoice us

You'll receive payment the following month (via BACs)

Current requirements

Current requirements

We currently have three Flexible Services requirements in..

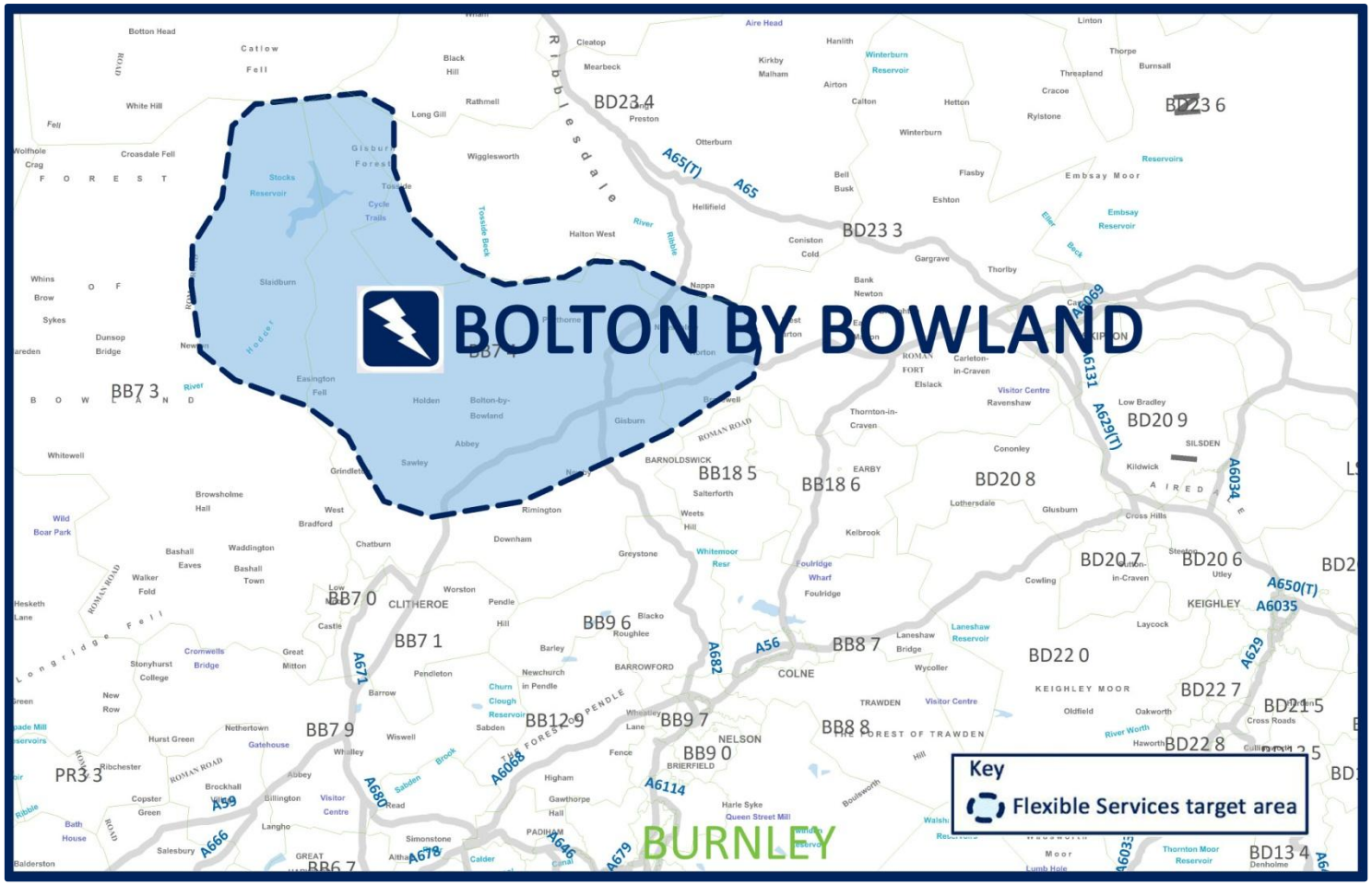
Bolton by Bowland

Coniston

Easton

Bolton by Bowland factsheet

RESTORE response



Winter

900 kVA

All week

4370 hrs pa availability

All day

Postcode sectors BB7 3, BB7 4, BD23 4, LA2 8

Coniston factsheet

RESTORE response

350 kVA

8760 hrs pa availability

Postcode sectors LA12 8, LA20 6, LA21 8, LA22 0

All year

All week

All day

Easton factsheet

RESTORE response

Postcode sectors CA6 5, CA6 6

Winter

100 kVA

All week

2040 hrs pa availability

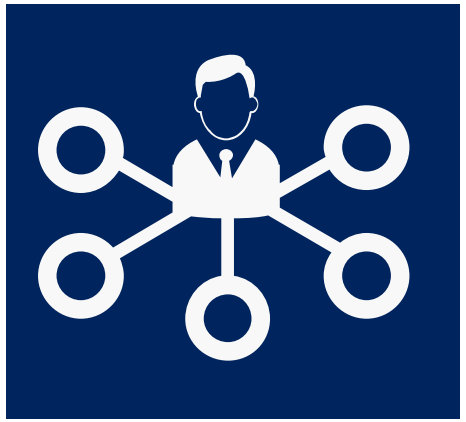
07:00 – 20:30

Timeline

The full RfP was published on WAX Digital on Tuesday 5th November 2019

18th November 2019

Clarification questions



25th November 2019

Answers provided

13th December 2019

Submit proposal

8th January 2020

Contract negotiations

4th February 2020

Contract award

You **can** still register to participate by completing the form on the website or by emailing flexible.contracts@enwl.co.uk

Flexibility in the future

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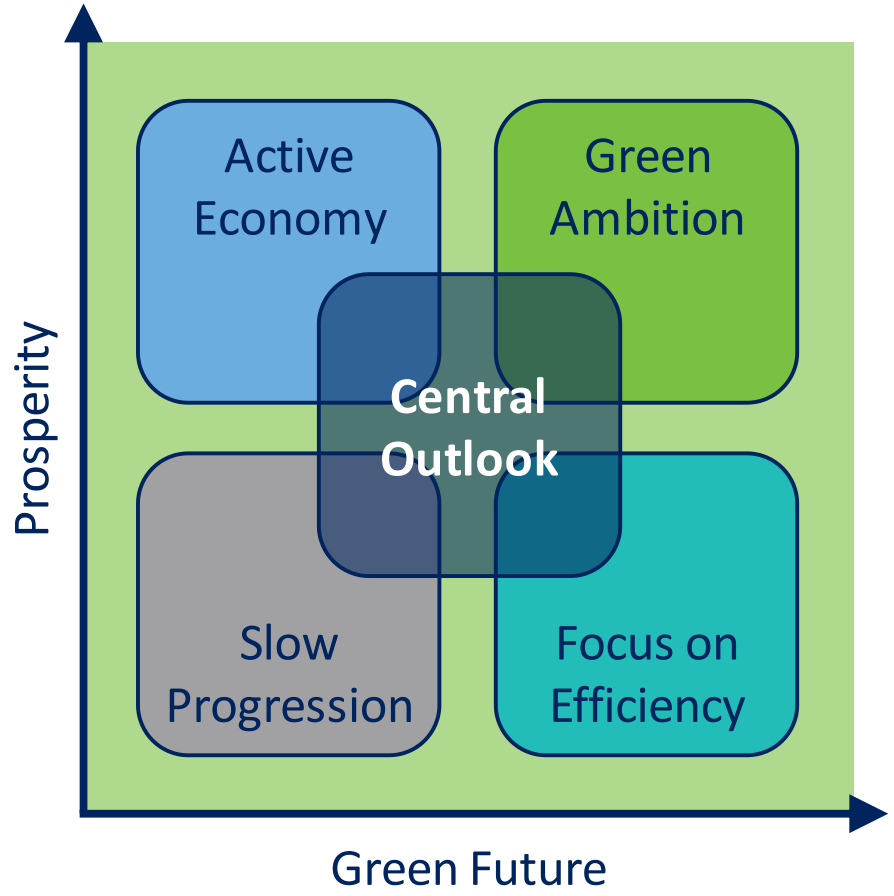
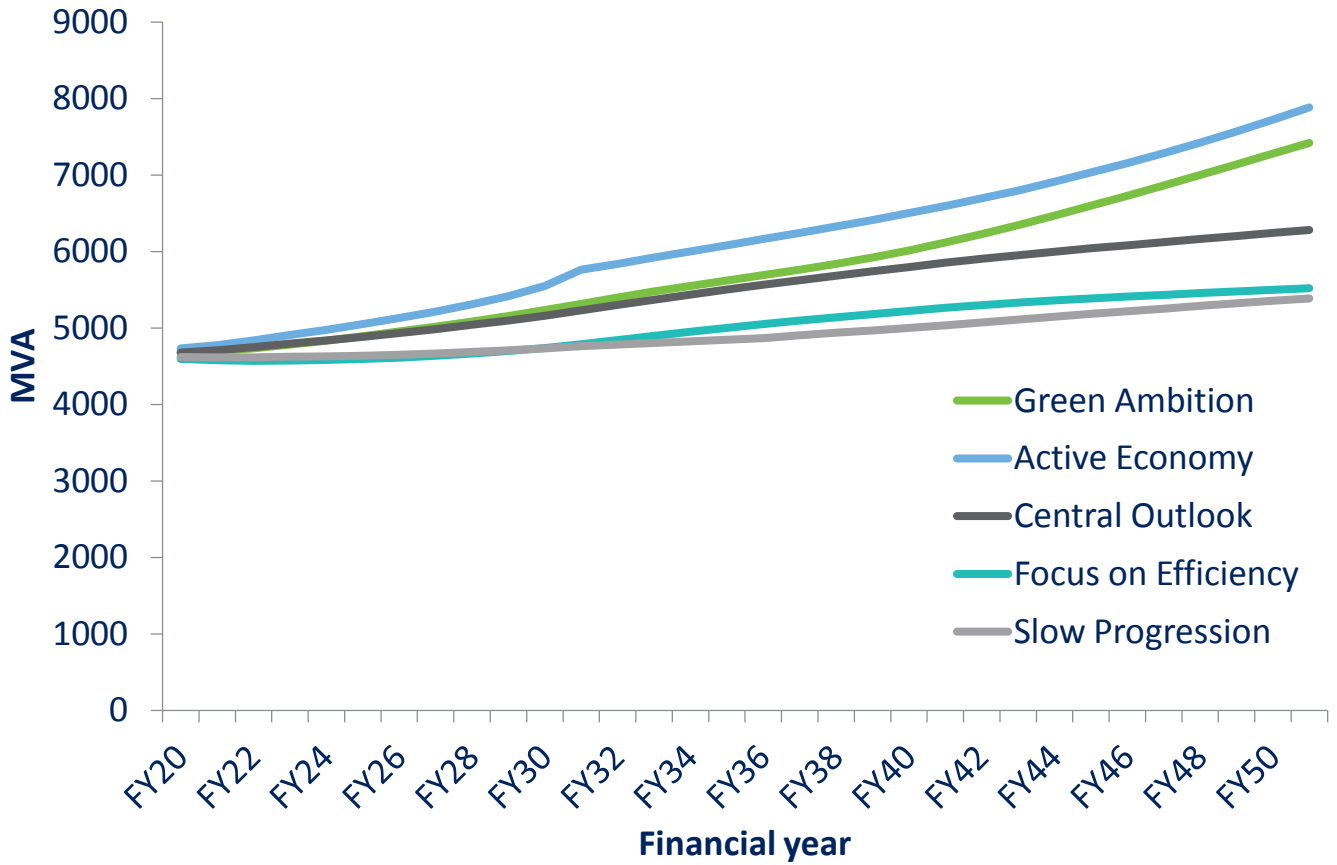
Planning for the future

As part of our ATLAS project we produced our five future electricity scenarios, and on an annual basis we create our demand forecasts.

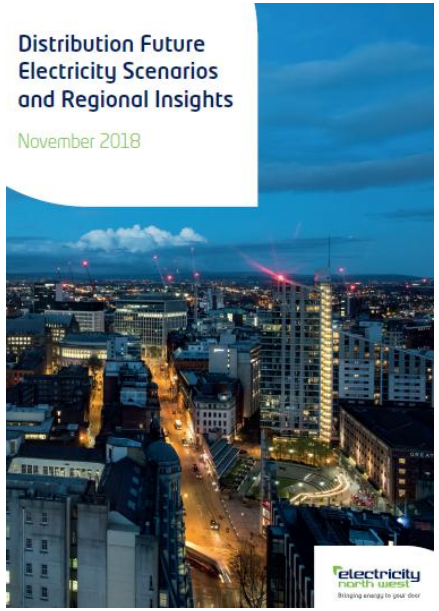




With demand set to grow exponentially as we transition to a low carbon future, every asset will have it's time!

Useful documents

DFES



Distribution Future Electricity Scenarios

The DFES document allows you to understand the potential demand growth on the network and how different factors will have an impact on this growth.

LTDS

Long Term Development Statement

The LTDS allows you to understand the current loading and demand on the network

Both documents will be updated at the end of November, and available to download on our website

Open Networks Project

We participate in the Open Networks Project hosted by the Energy Networks Association

This project sees all 6 DNOs working together along with BEIS and Ofgem

ena energynetworks association

ofgem Making a positive difference for energy consumers

Department for Business, Energy & Industrial Strategy

As part of the Open Networks project there is a **flexibility workstream**, divided into 6 parts

1. Flexibility market principles
2. Procurement processes
3. Dispatch & settlement
4. Commercial arrangements
5. Conflict management and co-optimisation
6. Facilitation of new markets

Plans for next year

Feedback from stakeholders has highlighted the need to make it easier to participate in multiple markets and across distribution network boundaries.

Open Networks are now prioritising consistency between DNO's to facilitate stakeholders and remove barriers to participation.

Good practice guide

- Agreement on detail of information to be provided by all DNOs
- Work on procurement processes is ongoing and will continue next year

Consistent reporting

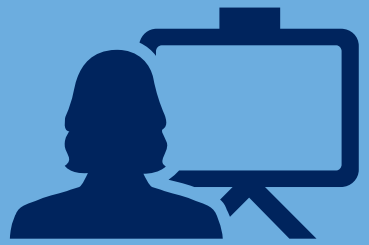
- March 2020 all DNO's will adopt consistent branding of flexibility products
- Service characteristics of each type of response will be aligned

Standard terms & conditions

- Currently producing a set of standard terms and conditions
- These are to be adopted by all DNO's in March 2020

The 6 Flexibility principles

Championing a level playing field



Ensure visibility and accessibility

Conduct procurement in an open and transparent manner

Provide clarity on the dispatch of services

Provide regular, consistent and transparent reporting

Work together towards whole energy system outcomes

What do you think the biggest barriers are to participation?

Prioritise them in terms of big to small

15 minutes

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Questions & Answers

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Future Requirements

We publish our forecasted requirements on our website

These are sites that may potentially require flexible service in the future

These are **not guaranteed** and will be subject to future capacity reviews

Our next Request for Proposal for Flexible Services will be issued in the Spring