Distributed Generation HV & EHV Workshop

July 2021

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Agenda

- 2021-22 ICE Workplan Update
- Queue Management
- Flexible Services Update
- Future Business Planning
- National Grid Regional Development Plans
- Wrap up & Close

Meet the Team

Hannah Sharratt
Stakeholder engagement & Regulatory Manager

Kate Stewart
Flexible Services Analyst

Steffan Jones
Infrastructure Solutions Manager

Brian Hoy
Head of Market Regulation

Victoria Brown
Grid & Primary Programme Manager

Gavin Anderson
Connections Team Leader

2021-22 ICE Workplan Update

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2021-22 DG HV EHV ICE Workplan

➢ We will improve our application of **Queue Management** principles to slow moving projects to ensure consistency with revised industry best practice	➢ Covered as part of today's session.	Q2
➢ We will **brief stakeholders** on the development of **changes to charges** being made by Ofgem	➢ Overview in today's session. ➢ Webinar in August	Q4
➢ We will continuously improve how we **provide information** and publish requirements for **flexible services**. We will publish information and **guidance** on how to get involved.	➢ Covered as part of today's session. ➢ Further updates to follow	Q4
➢ We will keep stakeholders informed on our transition of Distribution Network Operators (DNO) to **Distribution System Operation (DSO)**	➢ Updates to follow in November workshop ➢ *DSO strategy*, *Analysis of DSO functions*	Q4

2021-22 DG HV EHV ICE Workplan

➢ We will continue to **communicate** with our stakeholders	➢ Via quarterly newsletters and other communication channels.	Q4
➢ We will continue to offer opportunities for stakeholders to **engage** with us. We will also provide **surgery sessions** to meet our stakeholders needs, targeting all are held **within 10 working days**.	➢ Via workshops / webinars and via surgery sessions upon request. ➢ Currently facilitating surgery sessions within 2 working days	Q4
➢ Target **Time to Quote** timescales for **HV** Quotations (57 working days)	➢ Year to date average of **42 working days**	Q4
➢ Target **Time to Quote** timescales for **EHV** Quotations (57 working days)	➢ Year to date average of **60 working days**	Q4

ICE 2021-22 Workplan Performance

We would love to hear your feedback, please get in touch with either Ami or Hannah should you have anything to discuss after the session.

Any comments please contact ice@enwl.co.uk

Queue Management

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Introduction to Queue Management

- Queue management is the process which manages contracted connections and enables:
  - Effective management of contracted projects which are not progressing against agreed milestones;
  - Avoid stalled or slow-moving projects from affecting other projects in queues; and
  - Utilise flexible resources in connection queues to better utilise the available capacity.

- The main components in respect of applying queue management are:
  - **Milestones**: benchmarks agreed between network companies and customers to measure and track project progress towards a contracted connection date.
  - **Tolerance**: provides some flexibility which recognises that some delays can lead to milestones not being achieved and provides customers with an opportunity to get their project back on track.

QM Milestones

- The current milestones developed in 2016 remain unchanged and a new milestone which demonstrates Project Commitment has been created. They:
  - Represent the agreed key stages requiring completion to allow the project to connect on time.
  - Are intended to be transparent and realistic and with an expectation that customers will undertake relevant project development are key stages.
  - Are supported by timescales and the requirement to provide suitable evidence.
- If the milestone, and any applied tolerance, is exceeded then this could result in contract termination.
- A high level overview of the milestones is shown in the table below.

Milestone	Action	Commencement
M1	Initiate statutory consents including Planning Permission (IPP)	From offer acceptance
M2	Secure statutory consents including Planning Permission (SPP)	From offer acceptance
M3	Secure Land Rights (SLR)	From offer acceptance
M4	Transmission interface (TSO)	From offer acceptance
M5	Contestable Design Works Submission (CDWS)	Working back from M8 and after achieving planning permission
M6	Provision and agreement of Construction Plan (ACP)	From planning permission being granted
M7	Project Commitment (PCom)	Agreed as part of M6
M8	Project Construction (PCon)	Agreed as part of M6

Tolerance periods and project status

- Tolerance allows customers to manage reasonable delays without the risk of having their contract terminated if they fail to meet an agreed milestone.
  - 'On Track,' – the project is proceeding within the relevant milestone periods; or
  - 'Within Tolerance' – the project has exceeded one or more of its required milestones but the Cumulative Delay (for earlier milestones), or individual milestone delays (for later milestones) do not exceed the Tolerance; or
  - 'Termination'- the project has not met a milestone(s) and the Cumulative Delay has exceeded the tolerance resulting in the initiation of the offer termination process.
- The tolerance period for a project varies by voltage level as shown in the table below.

Project voltage	Project Status		
	On track	Within Tolerance	Termination
LV & HV	Milestones achieved without delay	Up to 65 working days (approx 3 months)	More than 65 working days (approx 3 months)
EHV & 132kV		Up to 130 working days (approx 6 months)	More than 130 working days (approx 6 months)
275kV, 400kV & offshore 132kV		Up to 260 working days (approx 12 months)	More than 260 working days (approx 12 months)

Other changes based on feedback

Issues out with the customer's control

- Queue Management recognises that there may be exceptional issues that customers cannot control and which may lead to project delay and these include, but are not limited to:
  - Force Majeure: a contract provision that excuses a party from not performing its contractual obligations that becomes impossible or impracticable, due to an event or effect that the parties could not have anticipated or controlled.
  - Planning appeals and third party challenges (challenged through a formal appeal process).
  - Where a relevant authority places an obligation on the project which could cause the milestone/tolerance timescales to be exceed and change the project status.
  - Any delay which is caused by the network company, e.g. the customer is awaiting a required input from the network operator.
- Project experiencing delays of an exceptional nature can be placed on hold and the customer's connection terms maintained however the onus is on the customer to justify any delay.
- The customer must complies with the following conditions:
  - they discuss the specifics of the delay with the network company at the earliest opportunity; and
  - they provide reasonable evidence to justify the specific delay.
- A failure to comply with any of these conditions can result in a failure of a milestone and a change in the project status, i.e. within tolerance or termination.

Cross industry implementation plan

Implementation Plan and Review (Q3 PID action)

Date	Action
February 2021	Open Letter published
14 May 2021	ENA Webinar to brief stakeholders on the QM Implementation Process
June 2021	Network companies make the internal process and system changes necessary to facilitate the implementation dates.
June 2021	Individual network companies to brief their own stakeholders.
July 2021	Distribution companies to apply the revised QM process to all new and modified connection applications received on or after this date.
July 2021	Transmission companies will introduce the revised QM process to all new and modified applications received for clock starts on or after this date.
July 2021	In parallel with the introduction of the QM process into BCA's a Connection and Use of System Code (CUSC) modification will be initiated.
July – Sept 2021	Identify any further steps needed for improvement

What's changing

- We will be applying this new process to all Distributed Generation applications >1MW received on or after 1 July
- All customers will have been informed as part of the letter we issue on A&D fees
- When customers receive their offers, the terms and conditions will include provision for Queue Management

Further information available on ENA website:

- User Guide
  - ON20-WS2-P2 Queue Management User Guide-PUBLISHED.23.12.20.pdf (energynetworks.org)
- ENA Webinar
  - https://youtu.be/9zyxUQNvtUw

Flexible Services

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What are Flexible Services?

When the demand for electricity in an area is greater than the amount that we are capable of providing, we can utilise companies or individual customers known as Distributed Energy Resources (DERs) to alleviate constraints

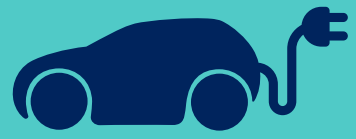
This ensures a safe and reliable supply of energy

There are lots of things that can cause an increase in the demand for electricity, leading to network constraints

Electric heating in Winter

Air conditioning in the Summer

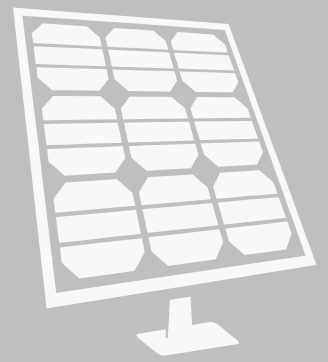
Big televised events



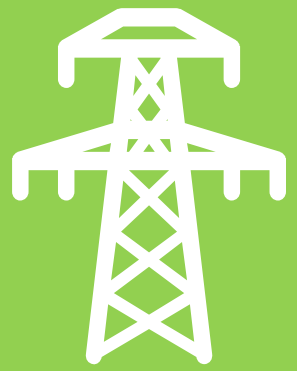
The uptake of LCTs

In return for providing Flexible Services, DERs will receive payment

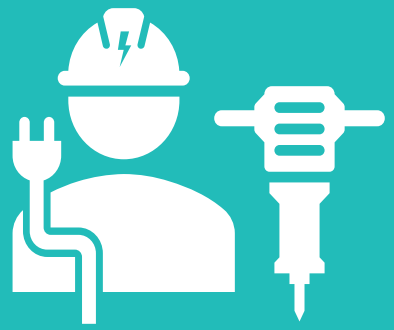
What are the benefits?



Encourages Low Carbon Technologies



Utilises existing assets



Less disruption: road closures supply interruptions

Cheaper bills for customers

Flexibility requirements

We publish our requirements twice a year in Spring and Autumn on our website and on the PicloFlex platform

Our flexibility map displays the locations within our distribution area where we are currently seeking Flexible Services, or may have a requirement in the future.

The icons next to each location name relate to the response type that we are looking for:

- Sustain
- Restore
- Dynamic
- Secure

Flexible Services products

Sustain (Pre-fault)

Provides a scheduled response to prevent network constraints

DERs flex their supply up or down in accordance with a schedule to help manage network constraints by providing additional capacity and capability

Dynamic (Post-fault)

Keeps the power flowing during an unplanned network event

DERs are available and provide an immediate response following a fault or unplanned network event

Secure (Pre-fault)

Provide a scheduled response to manage network loading

DERs are available at peak times to help manage the load on the networks and prevent it from exceeding it's capabilities

Restore (Post-fault)

Gets the lights back on following an unplanned network event

DERs are available and provide an immediate response to help us restore supplies for customers more quickly following an unplanned network event

Who can take part?

To participate in our tenders and receive payment in return for providing flexible services to our network, you need to:

- ✓ Have an asset in one of our requirement areas
- ✓ Be capable of adjusting how much electricity you consume or generate
- ✓ and provide a minimum of 50kW either individually or via an aggregator

1. Sign up to the Dynamic Purchasing System via PicloFlex
2. Register and upload your assets via PicloFlex
3. Complete the pre-qualification questionnaire on our website
4. Confirm your participation in our competition via PicloFlex
5. Submit a bid via PicloFlex

Procurement updates

We have listened to your feedback and continue to adapt and develop our approach to procuring flexibility to meet your requirements, making it easier than ever to participate in our tenders

We introduced **ceiling prices** to encourage flexibility providers to submit competitive prices for the competition zone at the bidding stage of each tender.

- Determined using new Common Evaluation Methodology and Tool (CEM)
- Can be found within Appendix 3 of our current tender documentation and on our flexibility map

We embedded the Pre-Qualification Questionnaire (PQQ) on our website for this tender, replacing the previous Word document version to:

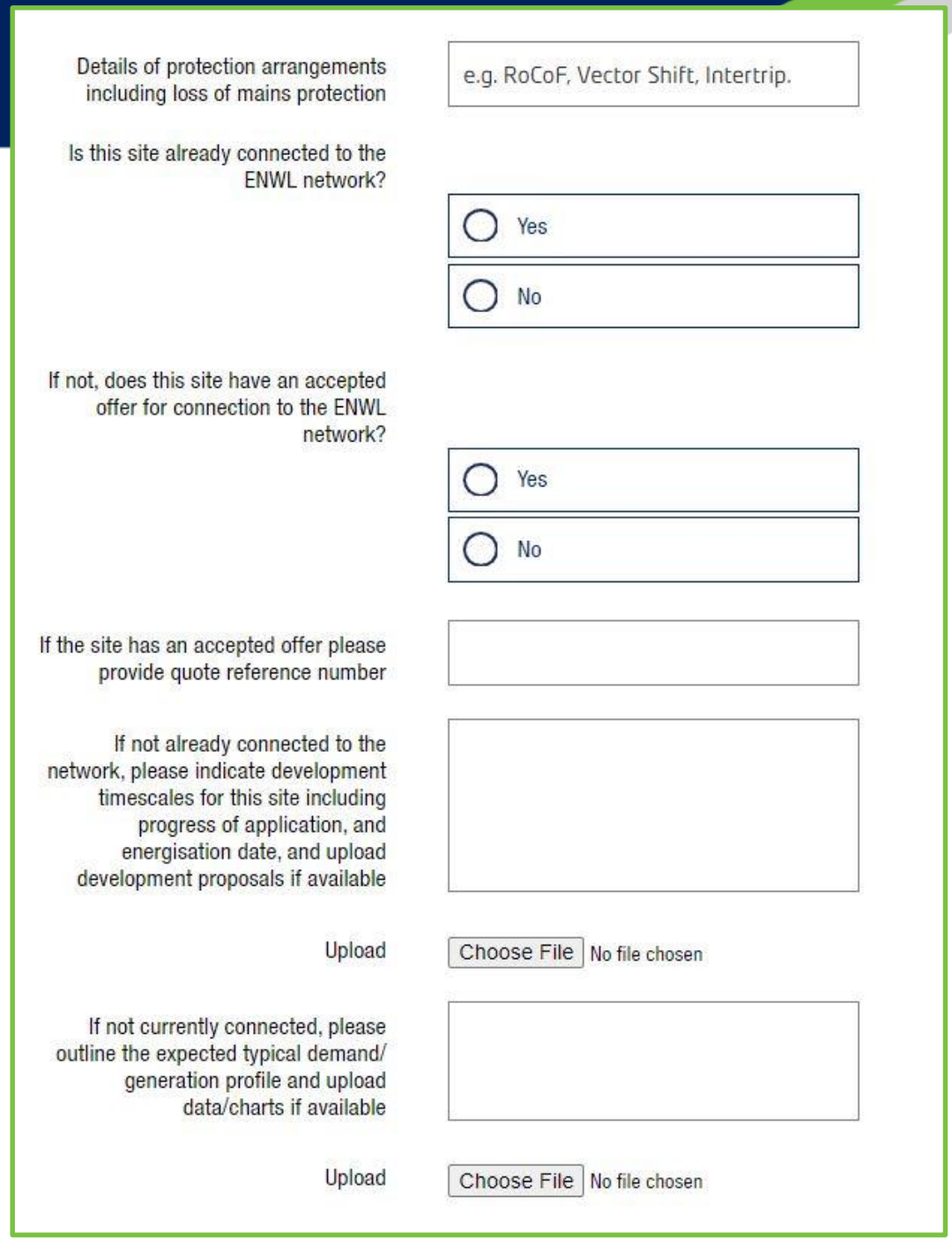
- Improve and simplify the pre-qualification process;
- Save you time and effort; and
- Ensure we have all of the required information to assess your application.

Pre Qualification Questionnaire (PQQ)

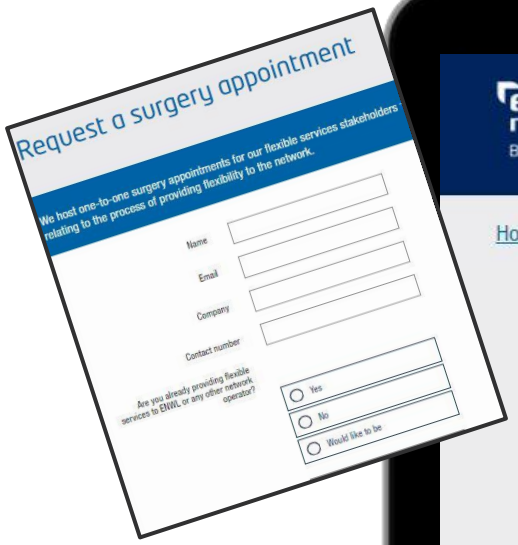
To participate in our tenders, Flexibility Providers are required to complete our PQQ after having:

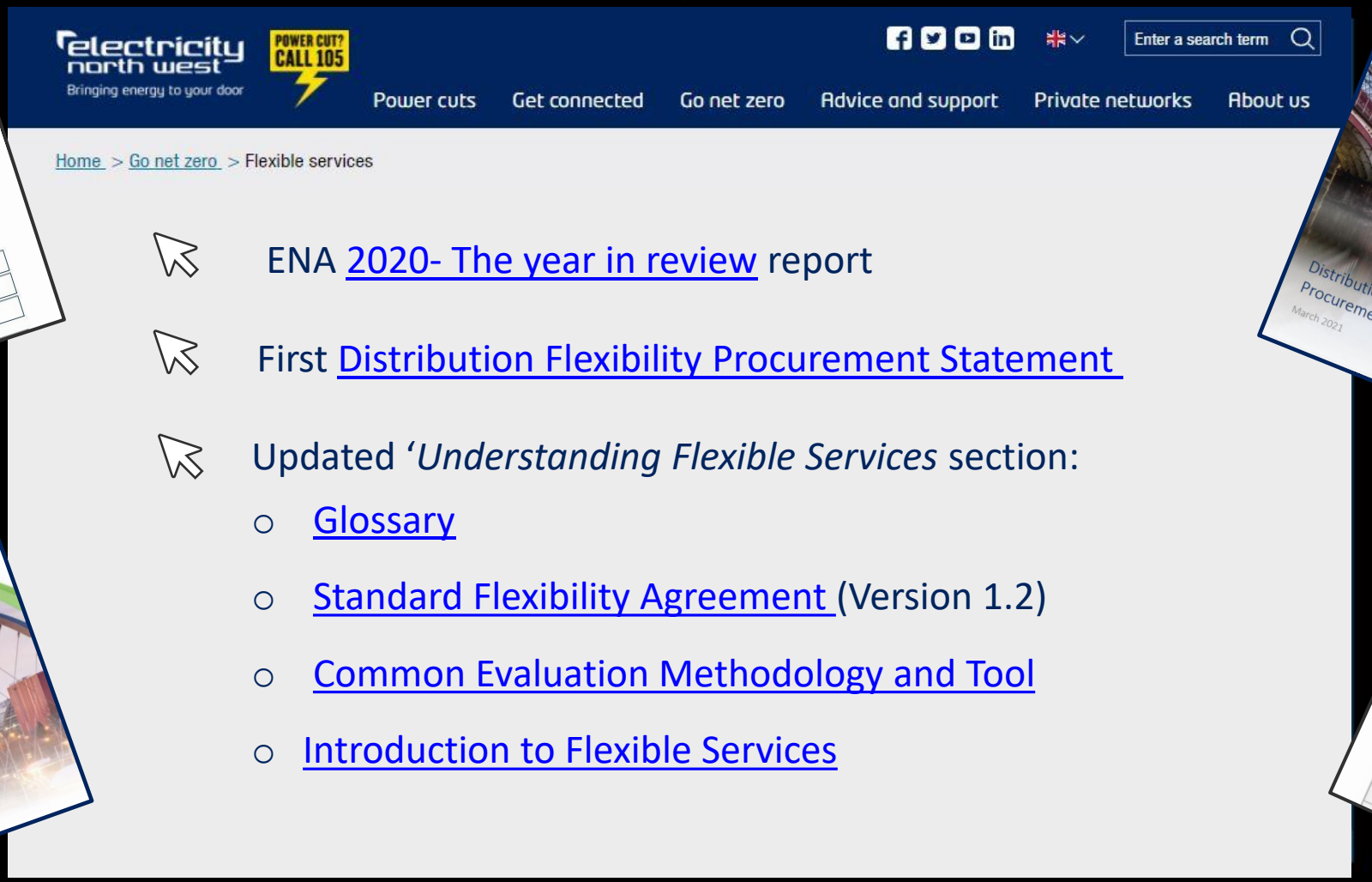
- ✓ Successfully registered onto our Dynamic Purchasing System (DPS) on Piclo.
- ✓ Uploaded your assets on Piclo.

- Asks for technical details of the site and the capability for delivering flexibility.
- **All fields must be accurately completed** to receive an invite to submit a bid.
- If you need assistance when completing the PQQ, you can book a 1-2-1 surgery appointment with a member of our team.



Website updates





- ENA 2020- The year in review report
- First Distribution Flexibility Procurement Statement
- Updated '*Understanding Flexible Services* section:
  - Glossary
  - Standard Flexibility Agreement (Version 1.2)
  - Common Evaluation Methodology and Tool
  - Introduction to Flexible Services

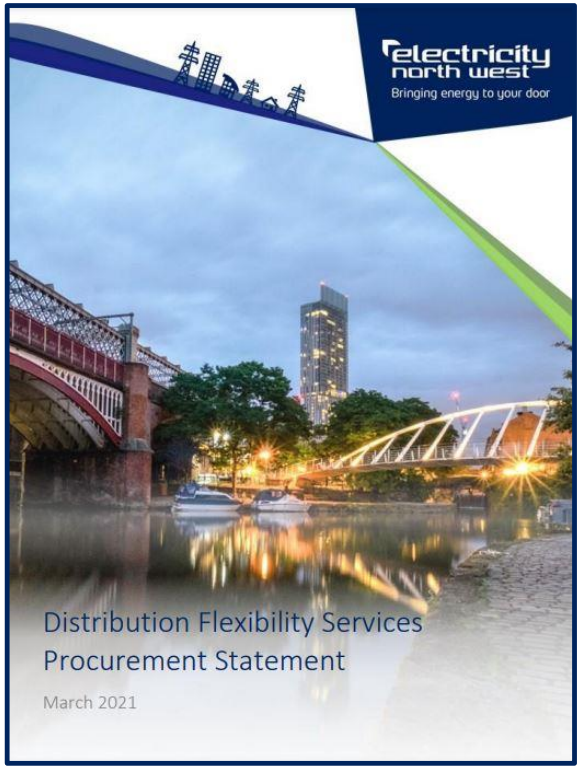
New Distribution Flexibility Procurement Statement

- *Clean Energy for all Europeans Package* introduced by UK Government in December 2020
- Ofgem added a new condition to our Electricity Distribution Licence:
  Condition 31E: *Procurement and use of distribution flexibility services*

We published our first Distribution Flexibility Procurement Statement which sets out our plans for procuring Flexible Services for the upcoming regulatory year and supports the flexibility market in Great Britain as we cooperate with other DNOs and IDNOs to deliver:

✓ Simplicity ✓ Accessibility ✓ Transparency

throughout our flexibility processes in this fast-developing new sector.



Get in touch

Email

For all queries relating to this event, or flexibility services, please contact our team at flexible.contracts@enwl.co.uk

Register asset

You can register your asset(s) on our website to be notified when we have a requirement in your area

Register asset

Surgery appointments

We offer free 1-2-1 surgery appointments to assist with any queries relating to the process of providing flexibility

Book now

Sign up

Sign up to our distribution list to receive our newsletters, tender information and event invites

Sign up

SCR Update

What is the Access SCR?

- **A Significant Code Review (SCR)** allows Ofgem to initiate wide ranging and holistic change and to implement reform of a code based issue.

- **Objective of Access Significant Code Review (SCR):** to ensure electricity networks are used efficiently and flexibly, reflecting users' needs and allowing consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills in general**.**
  - **Access arrangements** - the nature of users' access to the electricity networks (for example, when users can import/export electricity and how much) and how these rights are allocated:
  - **Forward-looking charges** –the type of ongoing electricity network charges which signal to users how their actions can ether increase or decrease network costs in the future

- **Scope:**
  - Review of the definition and choice of transmission and distribution access rights
  - Wide-ranging review of Distribution Use of System (DUoS) network charges
  - Review of distribution connection charging boundary
  - Focussed review of Transmission Network Use of System (TNUoS) charges

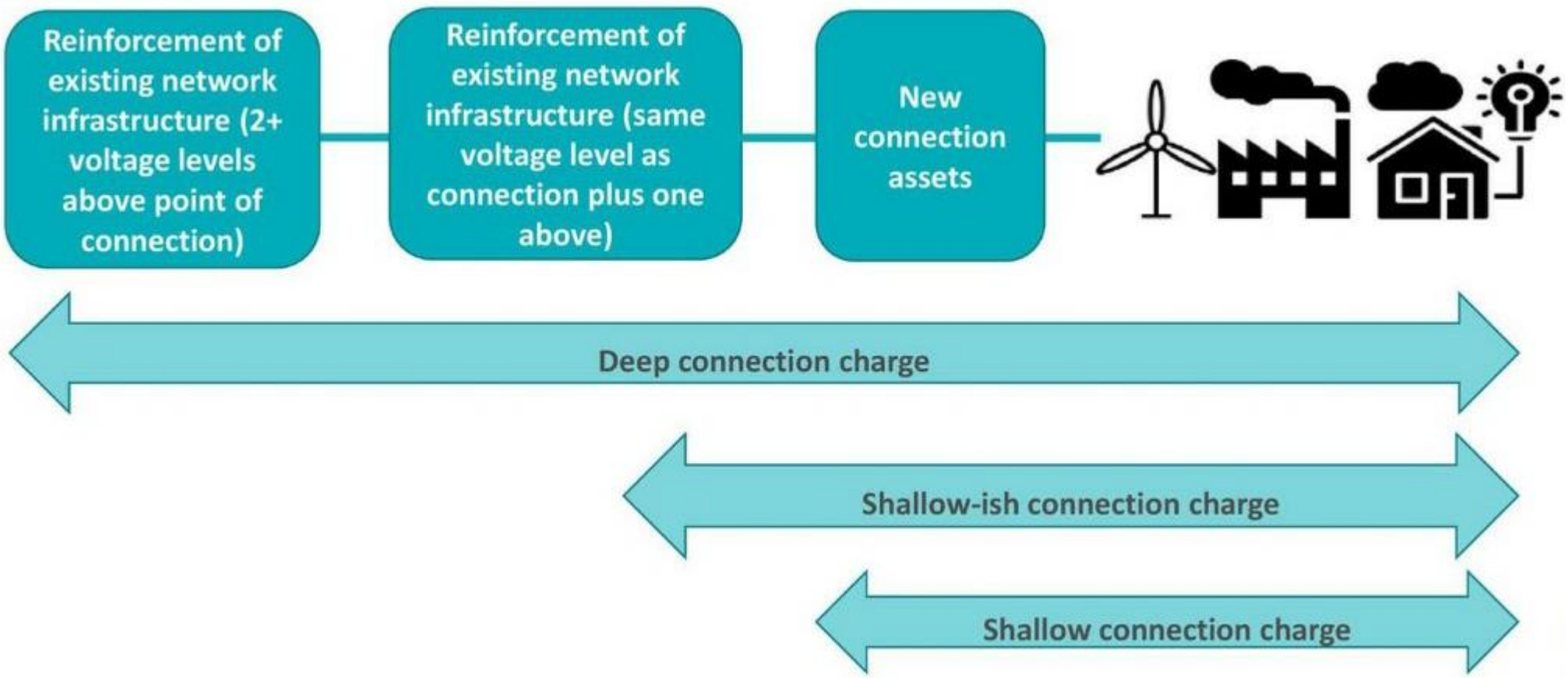
Timelines

Original

Revised

What is the ‘connections boundary’?

When connecting to the network there can be different kinds of assets required to make the connection. The ‘connections boundary’ describes the assets that the customer has to pay for.



How does it work now and what are the issues?

Transmission

- **Shallow connection boundary**
- Pay for new connecting assets up front or over time
- TOs must fund any necessary reinforcement via RIIO allowances or the ESO could actively manage the constraints through flex markets
- To protect against TOs undertaking reinforcement that is not then used, users provide securities against them cancelling their projects ('user commitment')

Distribution

- **Shallow-ish connection boundary**
- Pay upfront for new connecting assets and a share of any necessary reinforcement of the upstream network
- Can lead to high connection charges and might reduce incentives for DNOs to invest strategically, **but** provides a locational signal
- Protects wider consumers from the risk of stranded or under used infrastructure

Potential problems with these arrangements

- The difference between arrangements may be distorting investment decisions or competition between projects
- The connection arrangements could be creating barriers to entry for some users (eg upfront cost) and slow down connections of new technologies like distributed generation and EV charging infrastructure

Distribution connection charging boundary

- On balance, Ofgem think there are good arguments for making a change to the charging arrangements. Ofgem is **minded to**:
  - remove the contribution to reinforcement within the connection charge completely for demand connections
  - reduce the contribution to reinforcement within the connection charge for generation connections
  - Not make any changes to the treatment of transmission work triggered by a distribution connection

What does this mean?

- **Demand** - No connecting customer charges for reinforcement
- **Distributed Generation** - Connecting customer would pay for any reinforcement at same voltage as point of connection. High Cost Cap would be retained.
- **Storage** - Import and export treated individually and full rules above
- **Transmission work** - charged to the individual connection customer as part of the DNO's connection charge.

Consultation details

- Published 30 June
- Open to 25 August

- Covers proposals on
  - distribution connection charging
  - definition and choice of access rights
  - TNUoS charging for Small Distributed Generation

- Access and Forward-looking Charges Significant Code Review - Consultation on Minded to Positions | Ofgem

Future Business Planning :
2023-28 Business Plans (RIIO-ED2)

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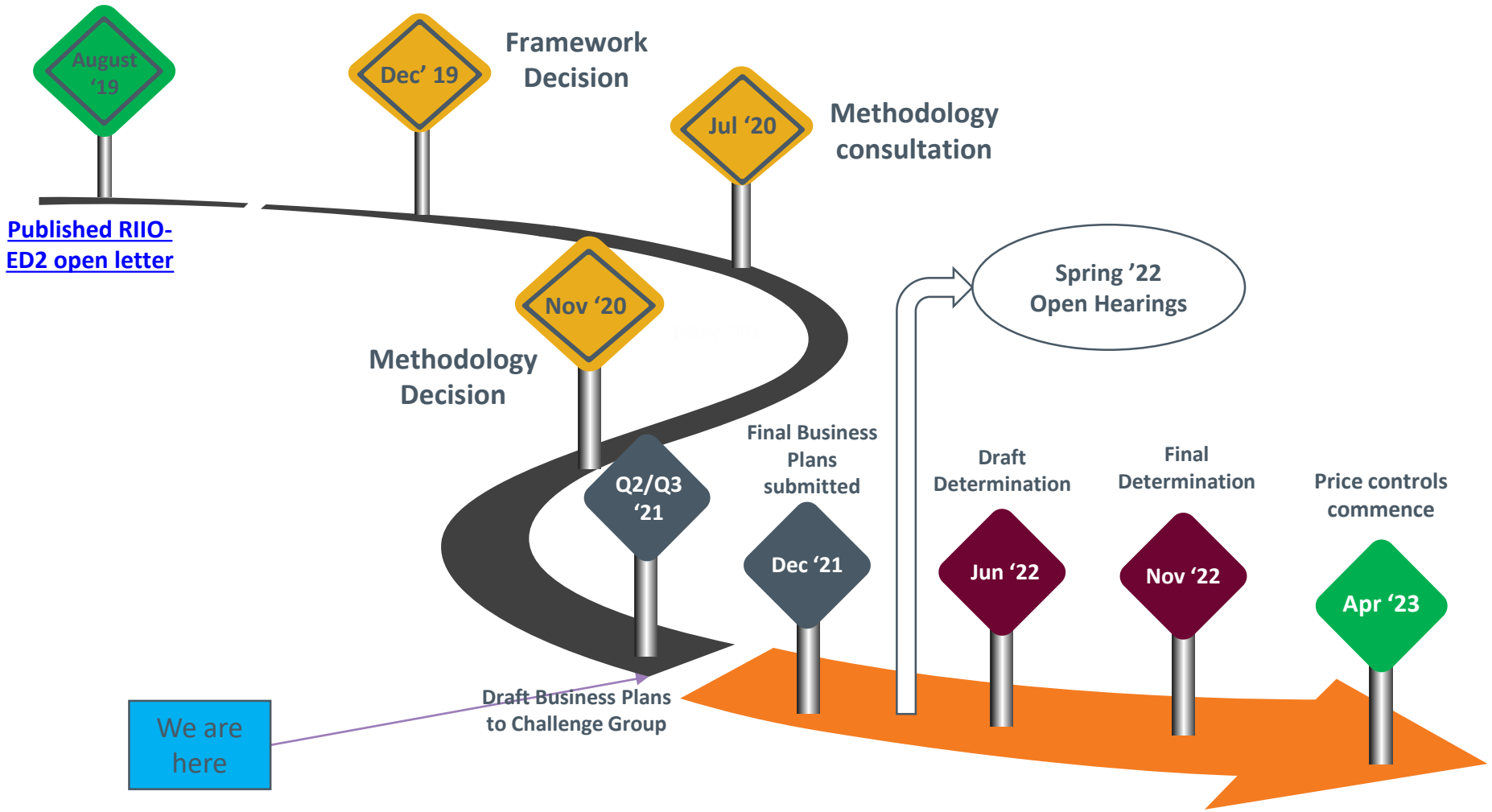
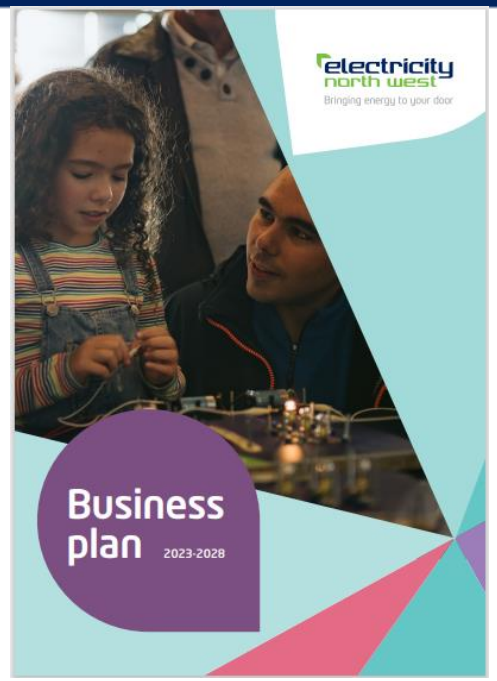
Road to RIIO-ED2



- 1 July marked major milestone
- DNOs required to submit draft Business Plans to Ofgem
- No requirement to publish
- Varying degrees of information made public

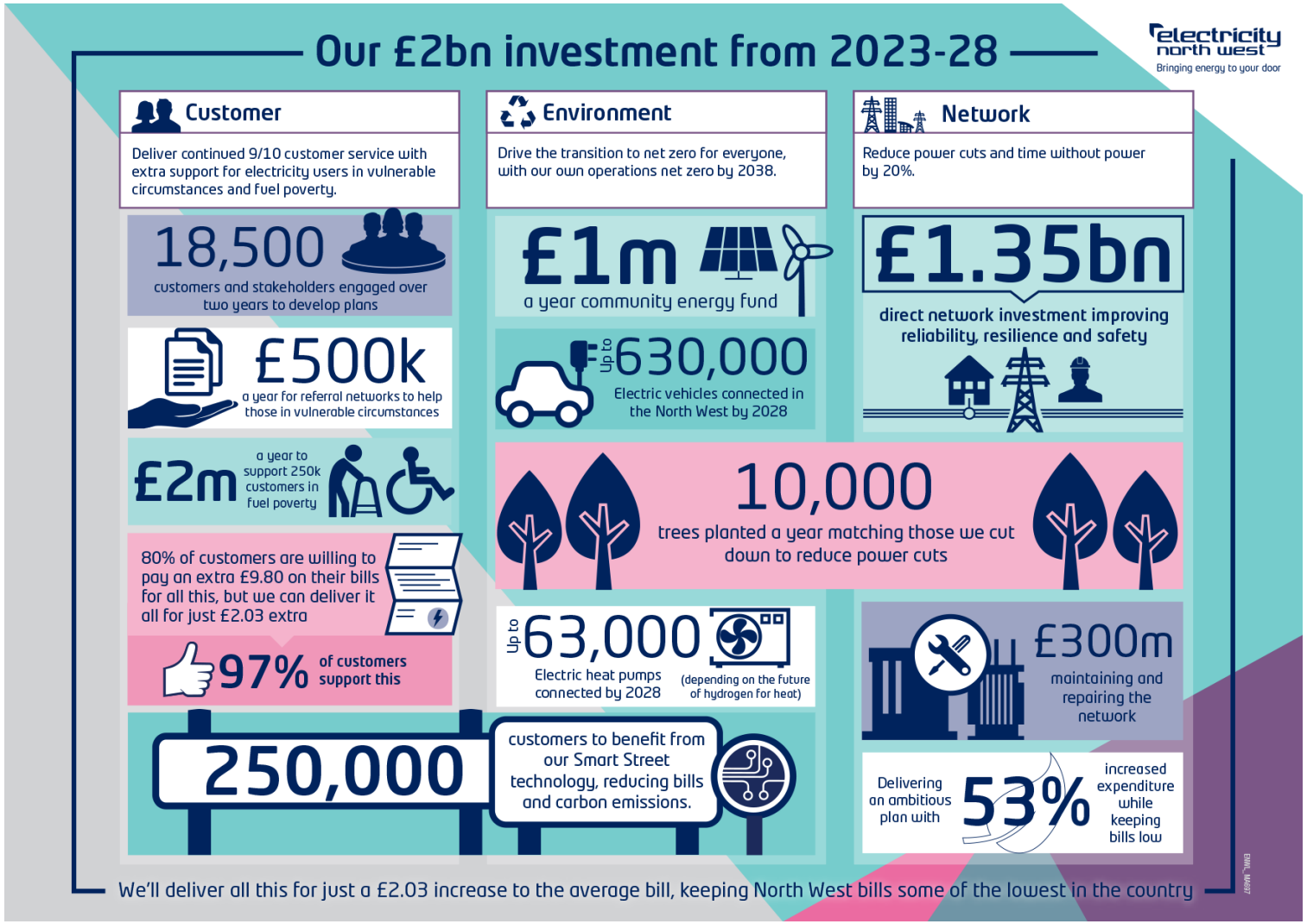
What did we publish?



[Draft business plan 2023-28 (enwl.co.uk)]

We published:

- Our draft plan
- 36 Annexes
- 174 data tables
- 44 Engineering justification papers
- 21 Cost benefit analysis



Connections specific requirements

- DNOs required to submit a ‘Major Connections Strategy’ to cover
  - Any market segments that did not pass the Competition tests in 2013
  - Provision of non-contestable activities for all market segments
- For us that means
  - Distributed Generation Low Voltage
  - Unmetered Other

	ENWL	NPg		UKPN			WPD				SSE		SPEN	
RMS		NPgY	NPgN	EPN	SPN	LPN	EMID	WMID	SWEST	SWALES	SHEPD	SEPD	SPD	SPM
Metered demand LV														
Metered demand HV														
Metered demand HV & EV														
Metered demand EV and above														
Distributed generation LV														
Distributed generation HV and EV														
Unmetered local authority														
Unmetered PFI														
Unmetered other														

Key	
	Pass
	Did not pass
	Did not apply

Demand	Low Voltage	High Voltage	Extra High Voltage	Extra High Voltage & above
Distributed Generation	Low Voltage	High Voltage & above		
Unmetered	Local Authority	PFI	Other	

Scope of a ‘Major Connections Strategy’

- As a minimum requirement, DNOs’ strategies must:
  - include an assessment of the connection issues prevalent in the company’s region and evidence of how this informs its proposed approach.
  - set out a clearly articulated vision for addressing connections issues identified, identifying links between the proposed deliverables and the outcomes and the benefits these will deliver.
  - demonstrate how the company will deliver the standard of service outlined in the principles and baseline expectations.
  - include deliverables which are specific, time bound and relevant.
  - propose relevant performance measures proposals which will enable stakeholders and Ofgem to evaluate the DNO’s progress in delivering its Major Connections Strategy and associated outcomes.
  - where a DNO indicates the relevant performance measure is a quantifiable metric, it should include a baseline performance benchmark with justification to support this.
  - be developed with stakeholder and CEG input and developed in line with the company’s wider business planning processes and decisions.

Baseline Expectations

- Ofgem has set out a number of ‘Baseline Expectations’ under three principles:

  - **Principle 1** -Support connection stakeholders prior to making a connections application by providing accurate, comprehensive and user-friendly information

  - **Principle 2** -Deliver value for customers by ensuring simplicity and transparency through the applications process

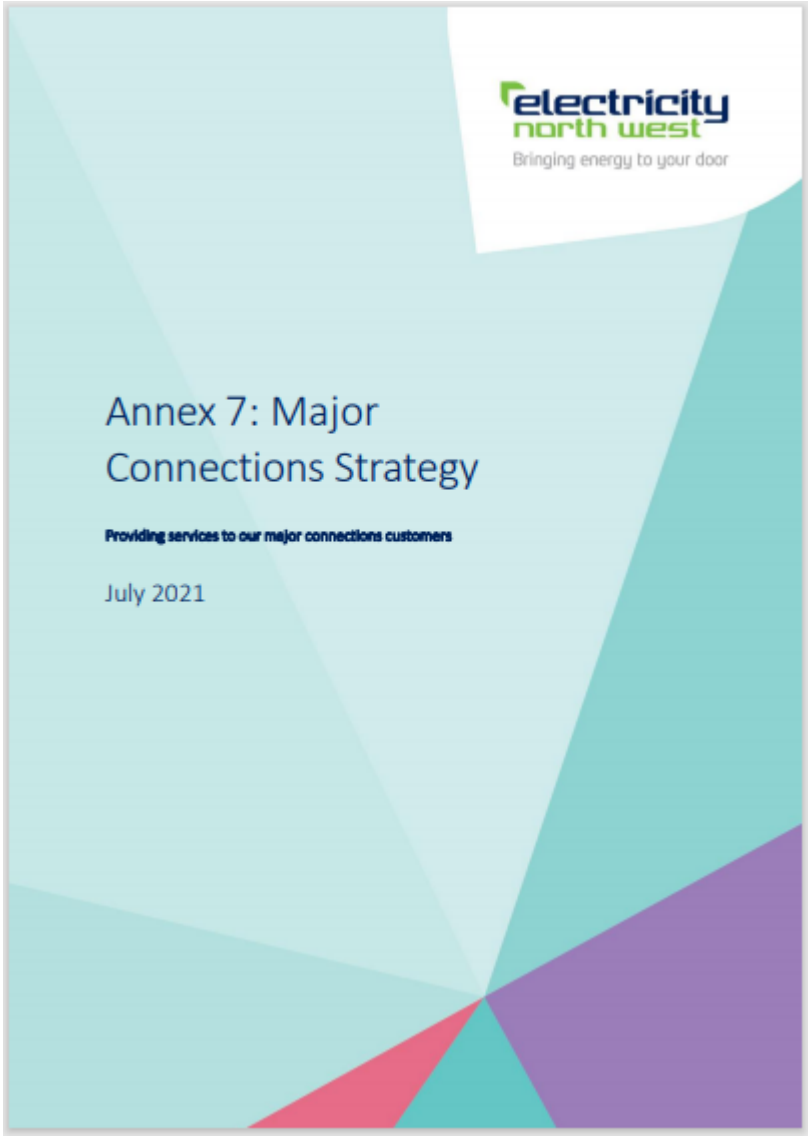
  - **Principle 3** - Facilitate the delivery of timely and economical connections that meet customers’ needs

Our ‘Major Connections Strategy’

- Published at the link below
  - annex-07-major-connections-strategy.pdf (enwl.co.uk)

- Sets out
  - What we do already for customers
  - What feedback we have had on how well we meet the Baseline Expectations
  - How we propose to measure our performance

- Please have a look and give us any extra feedback



Ofgem review of competition

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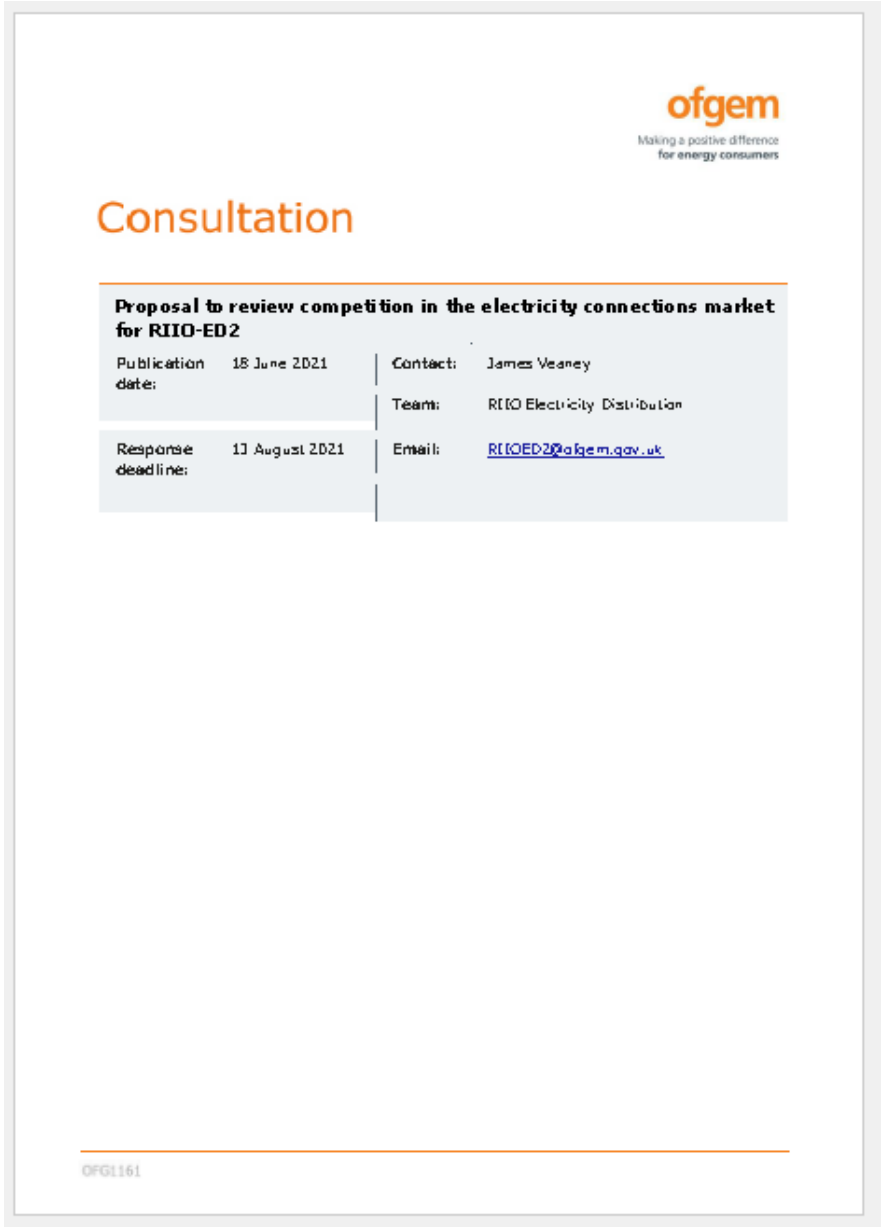
Ofgem consultation

- Ofgem has published a consultation on the levels of competition in the connections market
    - Issued 18 June 2021
    - Closing date 13 August 2021

- This is proposed to be a review based on data to provide an update on the 2013 position

- Consultation asks 13 questions that cover every part of the process

- [Consultation on the proposal to review competition in the electricity distribution connections market | Ofgem]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Consultation

Proposal to review competition in the electricity connections market for RIIO-ED2

Publication date:	18 June 2021	Contact:	James Veaney
		Team:	RIIO Electricity Distribution
Response deadline:	13 August 2021	Email:	RIIOED2@ofgem.gov.uk

OFGL161

Competition Test re-run

- Ofgem propose to:
  - assess the levels of competition where it has previously not seen evidence of effective competition
  - base this review on what it considers are the key indicators of effective competition.
  - The outcome of this review will inform
    - financially incentivised outputs in RIIO-ED2.
    - changes to provisions that enable DNOs to charge connection customers a margin
  - Ofgem may at a future point undertake a broader review into the connections market.

- Key market indicators

Market share – number of offers	Total number of offers
Market share – accepted offers	Number of third parties
Market share – capacity (MW)	Value of acceptances

National Grid Regional Development Plans

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ENWL GSP – Heatmap Appendix G

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Appendix G Summary

GSP / Site	Capacity of Connected & Contracted Connections (MW)				Materiality Headroom (Part 5) (MW)	Materiality Status	Capacity in Project Progression / Modification Application	Total Aggregated Developer Capacity Limit(MW)	Transmission FL Headroom (kA)
	Part 1	Part 2	Part 3	Part 4					
BOLD*	25.1	50.4	0.0	0.0	0.0	B	N/A	75.5	0.0
BREDBURY	10.1	87.2	0.0	0.0	49.1	A	0.0	146.4	3.0
CARRINGTON	105.0	59.0	0.0	0.0	174.0	A	0.0	338.0	5.0
HARKER	670.8	119.6	0.0	105.5	69.9	C	0.0	965.8	0.1
HUTTON	47.9	0.0	0.0	53.0	108.0	C	0.0	163.9	0.3
HEYSHAM	292.6	0.0	0.0	82.0	61.4	C	204.5	436.0	0.2
KEARSLEY	57.9	240.7	0.0	0.0	32.3	A	0.0	330.9	3.1
KIRKBY	6.0	152.2	0.0	0.0	0.0	B	0.0	158.2	3.0
MACCLESFIELD	27.9	22.6	0.0	0.0	47.4	A	0.0	97.9	2.6
PADIHAM	35.5	146.6	0.0	0.0	43.9	A	0.0	226.0	1.7
PENWORTHAM	187.9	512.2	0.0	0.0	46.8	A	0.0	746.9	3.3
ROCHDALE	204.1	187.0	0.0	49.9	25.0	A	0.0	494.2	2.8
SOUTH MANCHESTER	22.2	70.3	0.0	0.0	89.6	A	0.0	182.1	0.7
STALYBRIDGE	58.3	169.0	0.0	0.0	86.0	A	0.0	313.3	0.9
STANAH	195.9	63.5	0.0	0.0	0.0	B	40.0	259.4	0.0
WASHWAY FARM	7.9	101.2	0.0	0.0	36.3	A	0.0	145.4	2.6
WHITEGATE	32.0	119.1	0.0	0.0	105.8	A	0.0	256.9	3.5

In 2018 ENWL moved all GSPs to the Appendix G process to manage headroom availability

This data is updated every month in the Heatmap tool available on our Website

Regional Development Programme

- The APP Gs replaced the Statement of Works submissions and allow ENWL to determine headroom at each GSP. When the headroom in the G is exhausted a project progression is then triggered to determine requirements for possible Transmission reinforcement.

- A recent development to this process has been the introduction of Regional Development Programmes being carried out alongside Project Progressions.

- An RDP is a detailed system analysis carried out by NGESO to review distributed generation interaction with the Transmission network.

- Proposed and carried out in areas of large scale DG penetration where Transmission reinforcement is likely to be / or has been triggered by DG acceptances.

- It examines the existing situation and then takes a whole system approach to determining the best option to facilitate a DG connection
  - Asset build
  - Operational solution via flexible and managed connections.
  - CBA is carried out as part of the exercise to determine the best solution.

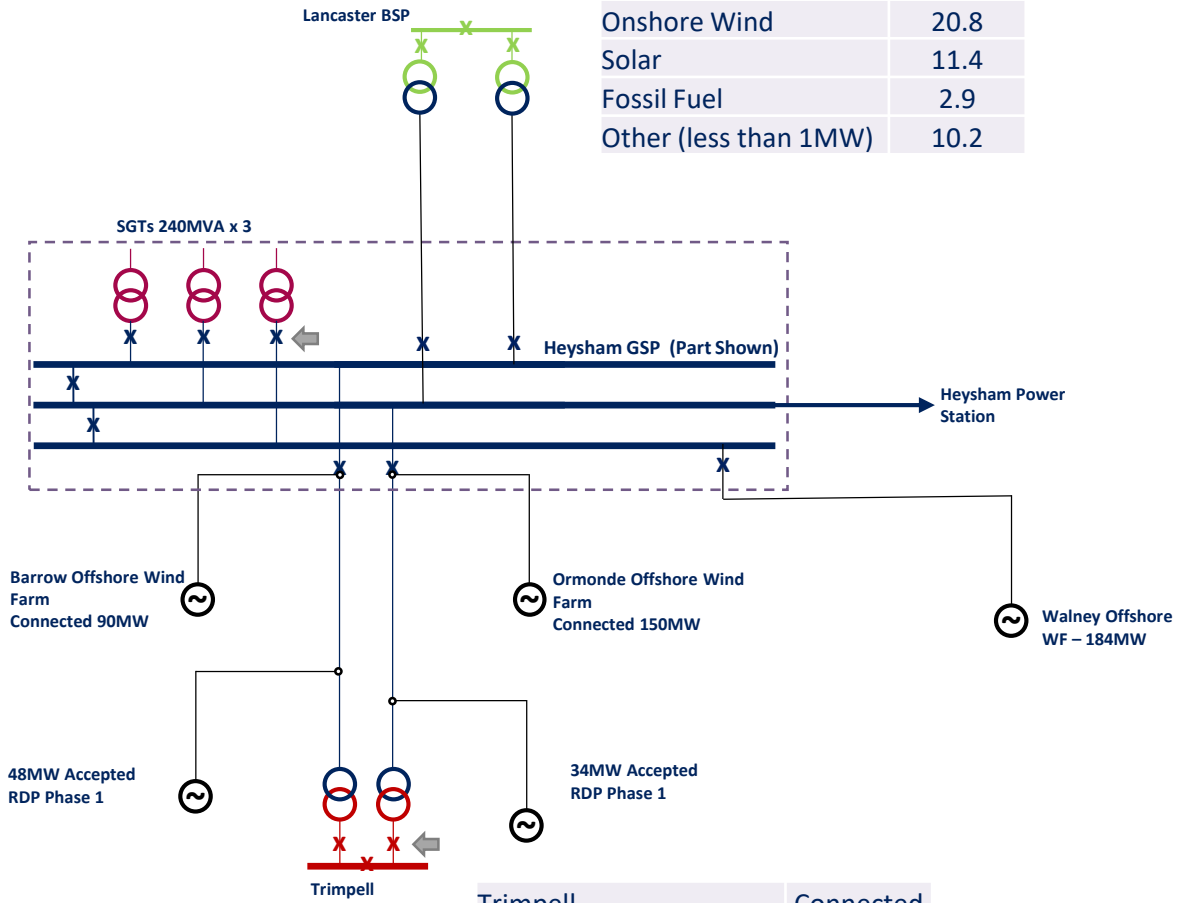
RDP overview

- We are working with NGESO to help standardise this approach with all DNOs across GB.
- Aim is to create a set of standard RDP solutions which can then be applied to specific areas.
- ENWL have agreed one RDP at Heysham and enabled the connection of two generators via this process.
- As areas become more constrained this option will always be analysed as part of the project progression process.

NGESO has recently published on its website a joint factsheet to summarise the process -

https://www.nationalgrideso.com/research-publications/regional-development-programmes

Heysham GSP – RDP Overview



Lancaster	Connected
Onshore Wind	20.8
Solar	11.4
Fossil Fuel	2.9
Other (less than 1MW)	10.2

Trimpell	Connected
Onshore Wind	7.5
Solar	
Fossil Fuel	
Other (less than 1MW)	

- Existing ~475MW of DG connections at Heysham
- Two further generators looking to connect a further 82MW
- Asset reinforcement via a new SGT was proposed
- RDP solution offered connection via constraint management for specific outage conditions.
- Further recent acceptances have now triggered RDP Phase 2
- Outcome expected Aug 21

Summary

- Regional Development Programmes are likely to be a common feature going forward as part of NGESO's answer to connection of DG in constrained areas.
- ENWL welcome the approach to get customers connected and will continue to work with NGESO to develop where applicable.
- ENWL appreciate of course that it may not be what every customer desires.
- As part of the joint DNO forum, NGESO have offered to set up a joint webinar with ENWL to discuss the RDP process in more detail.
- Areas around the technical requirements and potential routes to market would be covered in this webinar.
- If this is something that would be of interest please let us know and we can get it set up.
- Likely mid September – date to be confirmed.

Accelerated Loss of Mains Change Programme

electricity north west
Bringing energy to your door

Background

Engineering Recommendation (EREC) G59 requires generation owners to install loss of mains (LoM) protection at their generation sites.

The two most commons forms of LoM protection are:

- Rate of change of frequency (RoCoF) relays, and
- Vector shift (VS) relays.

Older relays work on a vector shift principle, which is susceptible to nuisance tripping and new sites connected using G99 or recent sites under G59-3, are prohibited from using VS protection.

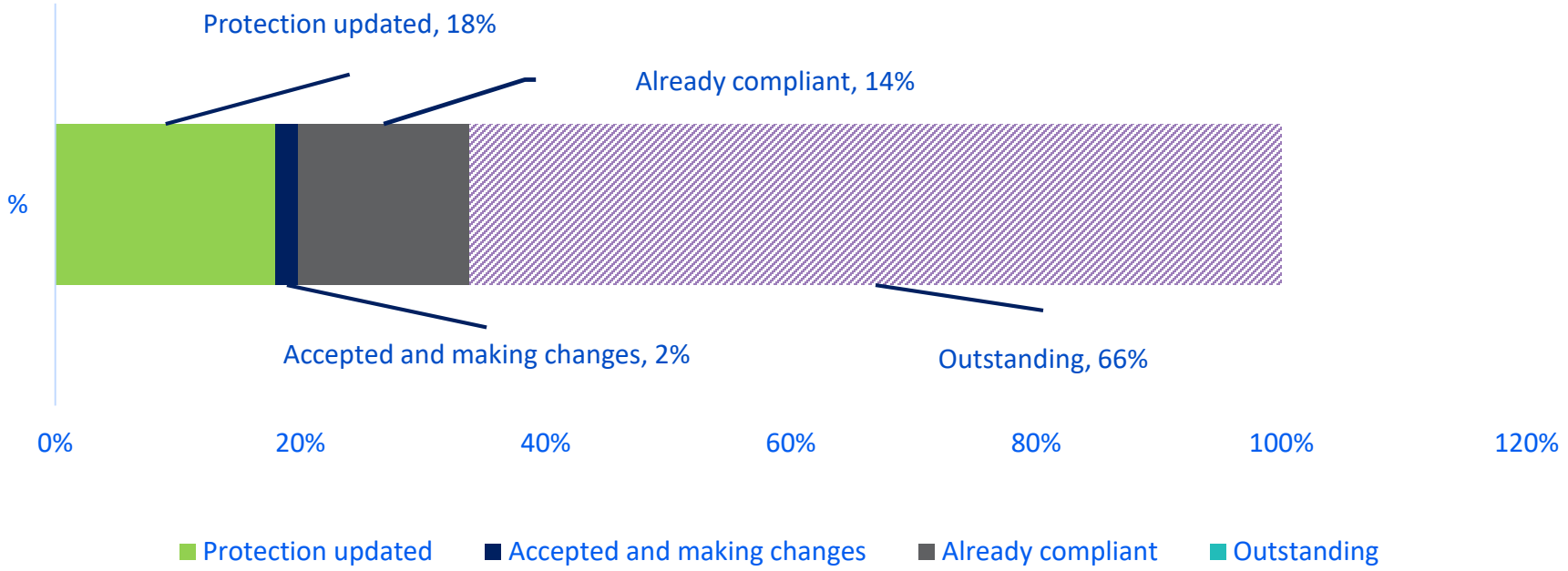
To lower the cost of the reserve generation, National Grid and the ENA have stated that all sites will have to be converted from Vector Shift protection to Rate of Change of Frequency

Key programme highlights

				
7/11	**357**	**308**	**452MW**	**£932k**
application windows complete	accepted applications	confirmed changes to protection	generation capacity updated	In payments made

Progress to date

The programme has been open since October 2019 and we are encouraging all eligible generators to apply as soon as possible.



It is very likely that any generators that are not compliant post **September 2022** will be subject to an enforcement programme.

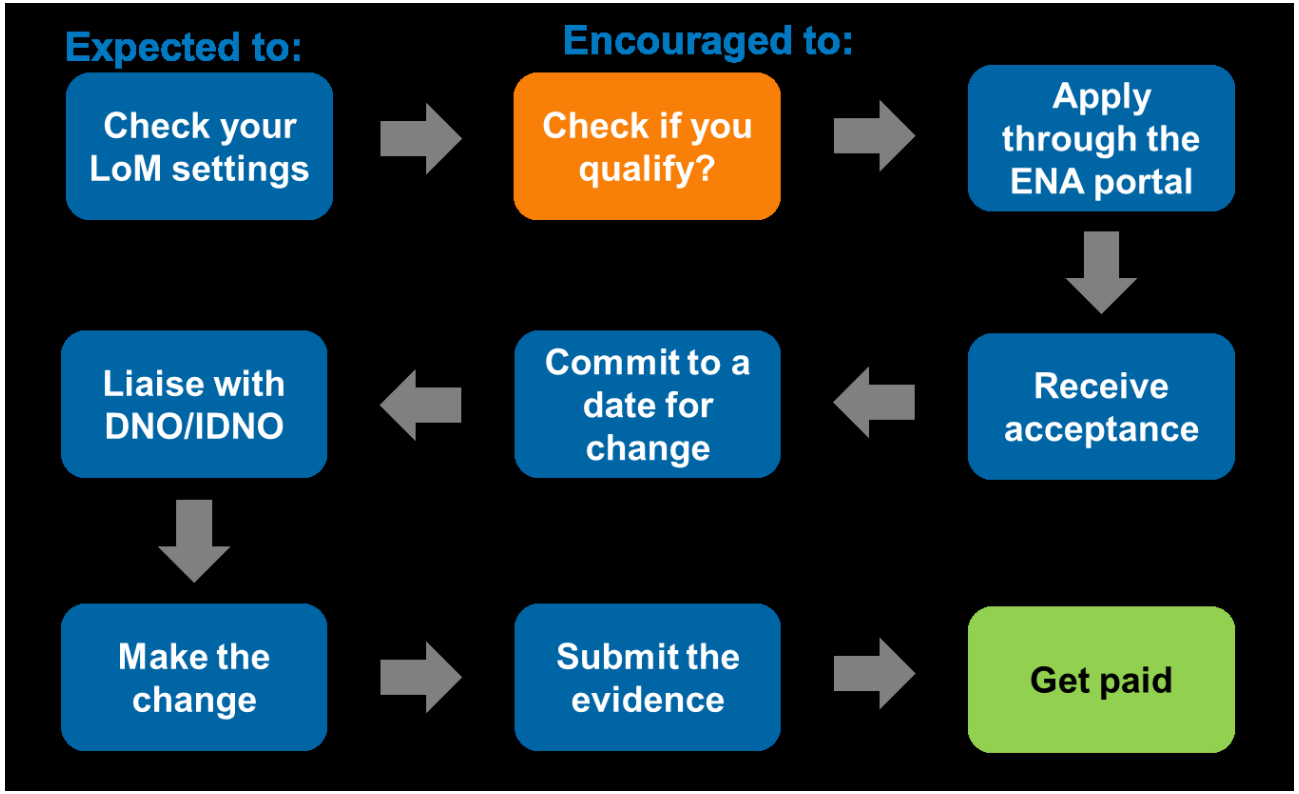
How to apply

More info: ENWL website

Submit application: ENA Portal

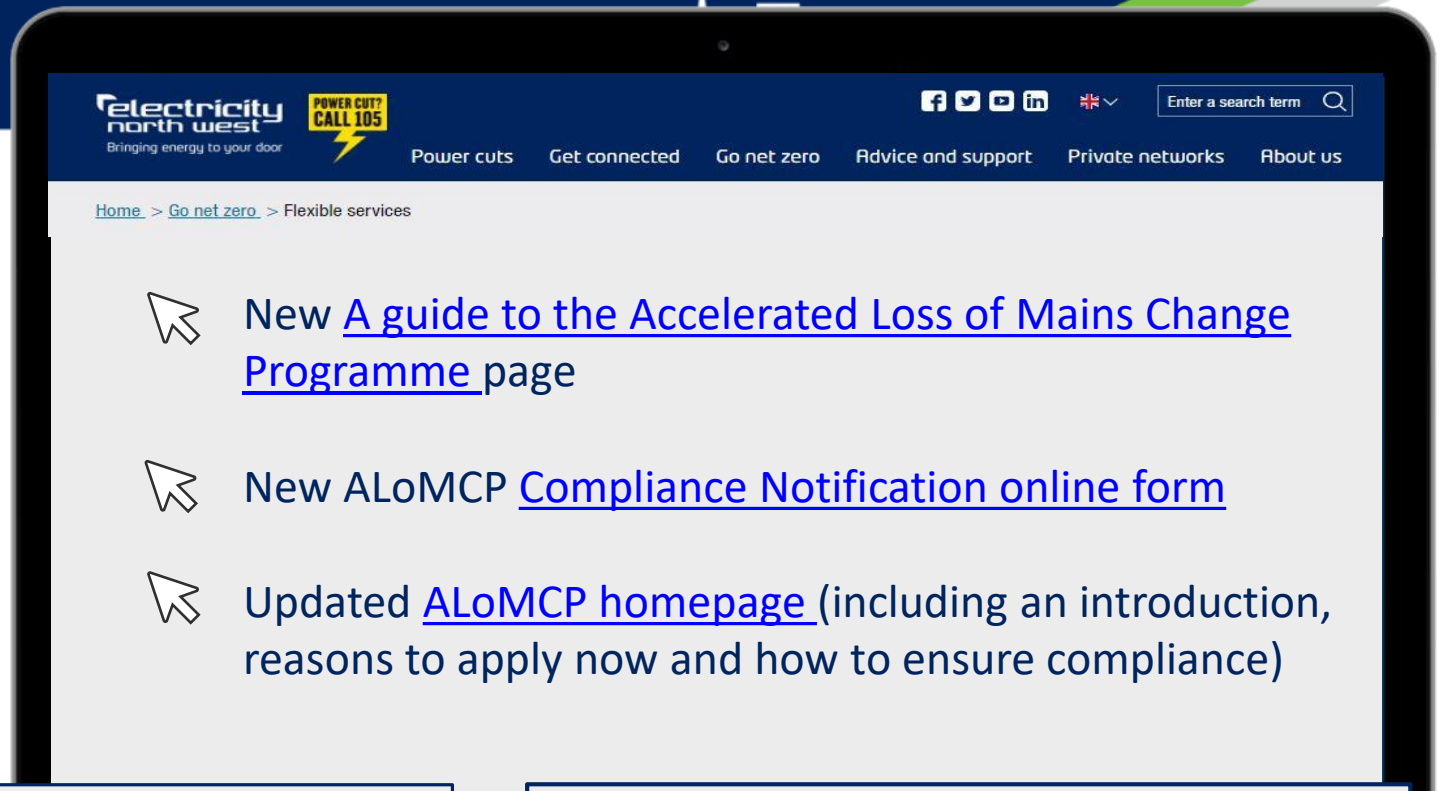
Future Proof your power

Contact us at ALoMCP@enwl.co.uk

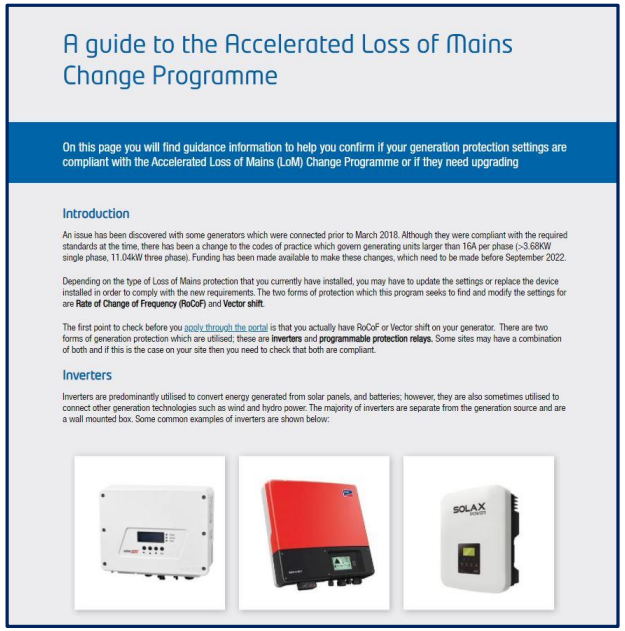


Website updates

We recently created two new pages in the Accelerated Loss of Mains Change Programme section of our website
Find the links here →



- New A guide to the Accelerated Loss of Mains Change Programme page
- New ALoMCP Compliance Notification online form
- Updated ALoMCP homepage (including an introduction, reasons to apply now and how to ensure compliance)



A guide to the Accelerated Loss of Mains Change Programme

On this page you will find guidance information to help you confirm if your generation protection settings are compliant with the Accelerated Loss of Mains (LoM) Change Programme or if they need upgrading

Introduction

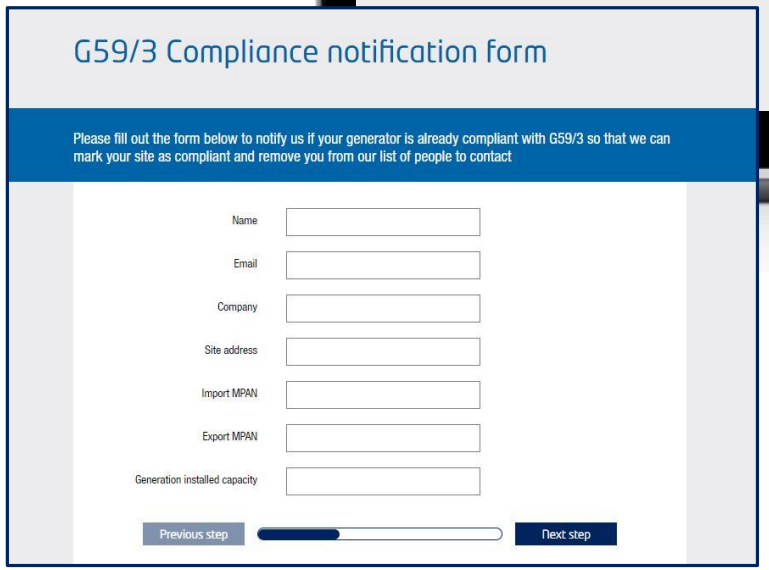
An issue has been discovered with some generators which were connected prior to March 2018. Although they were compliant with the required standards at the time, there has been a change to the codes of practice which govern generating units larger than 16A per phase (>3.68KW single phase, 11.04kW three phase). Funding has been made available to make these changes, which need to be made before September 2022.

Depending on the type of Loss of Mains protection that you currently have installed, you may have to update the settings or replace the device installed in order to comply with the new requirements. The two forms of protection which this program seeks to find and modify the settings for are **Rate of Change of Frequency (RoCoF)** and **Vector shift**.

The first point to check before you apply through the portal is that you actually have RoCoF or Vector shift on your generator. There are two forms of generation protection which are utilised; these are **inverters** and **programmable protection relays**. Some sites may have a combination of both and if this is the case on your site then you need to check that both are compliant.

Inverters

Inverters are predominantly utilised to convert energy generated from solar panels, and batteries; however, they are also sometimes utilised to connect other generation technologies such as wind and hydro power. The majority of inverters are separate from the generation source and are a wall mounted box. Some common examples of inverters are shown below:



G59/3 Compliance notification form

Please fill out the form below to notify us if your generator is already compliant with G59/3 so that we can mark your site as compliant and remove you from our list of people to contact

Name
Email
Company
Site address
Import MPAN
Export MPAN
Generation installed capacity

Previous step
Next step

Introduction

The Accelerated Loss of Mains (LoM) Change Programme allows generator owners to apply for funding to make the necessary changes to their protection required to ensure compliance against an update to the Distribution Code, which specifies that the current protection settings required for any new generation connecting to the network must now also be applied to all existing generation with loss of mains protection by September 2022.

LoM Accelerated Loss of Mains Change Programme
ena nationalgridESO

Reasons to apply now

Upgrading your Loss of Mains protection now will make your equipment more efficient, help to avoid unneccesary disruption to our customers, and support a net zero carbon electricity grid by allowing more low carbon power to flow at a lower cost. To encourage the change of these settings as soon as possible and reduce the risk on the network, the programme invites all generators (apart from domestic distributed generators) connected before 1 February 2018 that have settable Vector Shift or Rate of Change of Frequency (RoCoF) Loss of Mains protection to submit an application for funding. If you act quickly to make your generation setup compliant, we could contribute to your costs and support you through the process. Late applications may not receive funding as the amount of funding will reduce for sites completing the updates after 24 March 2022.

To comply with the changes made to the distribution code, it is neccessary to ensure that:

- Where rate of change of frequency (RoCoF) protection relays are used, as part of Loss of Mains protection, the applied setting should be 1Hzs-1 with a definite time delay of 500ms.
- Vector shift protection technique should be removed where it is in use as Loss of Mains protection.
- Any existing over-frequency setting relays still set at 50.5Hz should if possible be reset to 52.0Hz.

Questions & Answers

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Any questions?

Wrap Up & Close

- Please give us your honest feedback either email ICE or leave your feedback in the chat 
- Presentation slides will be available via our website shortly.
- Future events, including webinars are available here
- Don't forget to get in touch with us at ICE@enwl.co.uk
- Thank you for your attendance.