Western Power Distribution - DG Owner Operator Forum

3 August 2021

Our Engagement Groups

Our Customer Engagement Group

Connection Customer Engagement

Customer Panel

Future Forum Meeting Dates

28 April 2021 (webinar)

If you or a colleague would like to join the forum then please contact Olly at Regen on: ofrankland@regen.co.uk for further details.

Attendance is free of charge and limited to MW scale owner/operators of DG assets.

Distributed Generation Owner Operator Forum

We hold a regular forum aimed at owners and operators of MW scale renewables connected to WPD's network. Working in partnership with Regen, these meetings provide an opportunity for DG owners and operators to engage with us, contribute towards improved processes and tackle arising issues.

Previous areas of discussion have included:

- WPD work to address grid constraints;
- Improving communication with generators on outages and constraints; and
- Potential approaches for forecasting and mitigating outages.

Meeting notes & slides from previous events

2021

28 January presentation slides

PDF / 1 MiB

28 January notes

PDF / 638 KiB

WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Click here for our Post Energisation Document

This leaflet has been designed to try to offer you a synoptic review of some areas you may wish to investigate further with us and that may pop into your mind once you have a connection to your site.
Remember, we are here to help you generate onto our network, so please take a moment to familiarise yourself with the document's contents, and for those of you who are familiar with WPD, hopefully it will be a handy aid memoir on who to contact within our organisation.

Log in

You are being granted access to Western Power Distribution's Generation Portal. You understand that your access to this website is subject to the website's **Terms of Use** and **Privacy Policy**.

User name:

Password:

WPD operate a Distributed Generation Online Portal where users can view upcoming outages/export constraints and access general background information for each generator site.

This information is focussed, at the moment, on generator connections at 33kV, 66kV and 132kV. Please visit generation.westernpower.co.uk to access the portal. To sign up to the portal, or if any contact details (and gate access codes etc.) have changed for a generator site within our area please contact; wpdswestwalesgen@westernpower.co.uk.

Please ensure WPD have up to date contact details for your generation site.

Timescales for Planned Outages

WPD receive notification from National Grid of Year Ahead (April through until end of March) planned outages on the England & Wales Transmission System at the end of Week 49 every year. WPD then begin planning the Year Ahead work on our Distribution System. All outages (including National Grid outages) are entered into WPDs Outage Management

Export Constraints/ Interruption to Supply

For certain system planned outages WPD might apply a full or partial export constraint to a generation site. In some cases, the generation connection may be within the isolated section where WPD wishes to undertake work.

In such cases, the generator site will be temporarily disconnected from

Outage Notification

DG customers can access any upcoming planned outages via the Generation Portal. A Four Week Report is also sent out by our Control Centre every Friday. This report details any export constraints/ interruptions to supply that a DG customer can expect at their generation site within the next four weeks.

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

regen
transforming energy

Chair: Olly Frankland, project manager, Regen

13.00 **Introduction, action review and objective setting from the chair and WPD**

13.10 **Improving industry and WPD communications to address outages/constraints**
Danielle Greedy, outage planning engineer, Western Power Distribution

13.30 **Flexible Power procurement and market update**
Helen Sawdon, Flexible Power commercial officer, Western Power Distribution

13.45 **Deep Connect and Manage update**
Matt Watson, network strategy engineer, Western Power Distribution

14.00 **Break**

14.10 **Accelerated Loss of Mains Change Programme update**
Andrew Akani, primary system design manager, Western Power Distribution

14.25 **Proposed network charging changes and the impact on customers**
Andrew Akani, primary system design manager, Western Power Distribution

14.40 **AOB**

15.00 **Close**

DG Support Assistant Role Update

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

- The role of WPD DG Support Assistant was disseminated as of Tuesday 4th May 2021.
- Role is now split between WPD Control Room Assistants (Cardiff Control Room & Pegasus Control Room) and Outage Planners, who will all have access to the below email inboxes.

- Going forward, please can all correspondence to be sent to relevant Generation inbox;

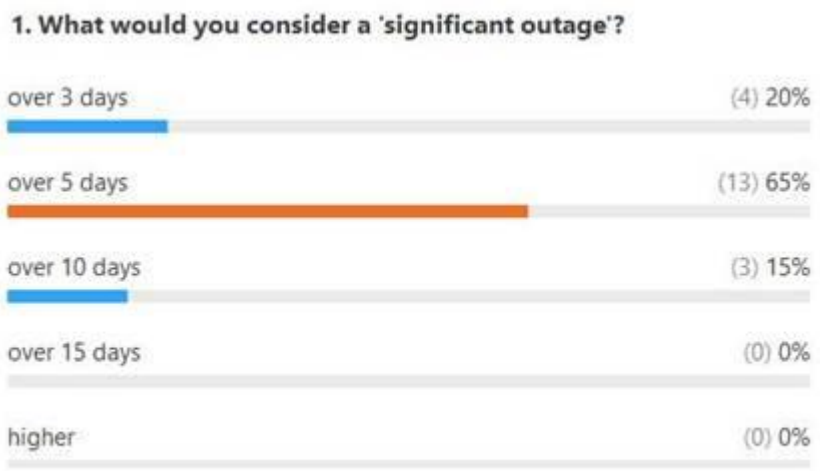
  - WPD, Generators East Mids wpdeastmidgen@westernpower.co.uk
  - WPD, Generators West Mids wpdwestmidgen@westernpower.co.uk
  - WPD, Generators South West & Wales wpdswestwalesgen@westernpower.co.uk

DG Owner Operator Portal Update

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

REQUEST FOR EMAIL NOTIFICATIONS

- Discussion at January 2021 DG forum regarding the possibility of a notification / ping system that would send an instant email informing site of changes to ‘significant outages’.



- WPD have been working with our Web Developers to introduce a new notification system for every time a planned outage is added / changed / updated in our OMS.
- We have introduced this for all 132/66/33kV outages, regardless of duration / work involved.
- Email addresses will need to be kept up to date for this to be successful.
- **ICE Plan 2021 Implementation Date = Q3 2021**

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

regen
transforming energy

Chair: Olly Frankland, project manager, Regen

13.00 **Introduction, action review and objective setting from the chair and WPD**

13.10 **Improving industry and WPD communications to address outages/constraints**
Danielle Greedy, outage planning engineer, Western Power Distribution

13.30 **Flexible Power procurement and market update**
Helen Sawdon, Flexible Power commercial officer, Western Power Distribution

13.45 **Deep Connect and Manage update**
Matt Watson, network strategy engineer, Western Power Distribution

14.00 **Break**

14.10 **Accelerated Loss of Mains Change Programme update**
Andrew Akani, primary system design manager, Western Power Distribution

14.25 **Proposed network charging changes and the impact on customers**
Andrew Akani, primary system design manager, Western Power Distribution

14.40 **AOB**

15.00 **Close**

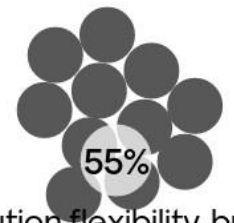
To date, what level of involvement has your business had with the distribution flexibility market?

5%

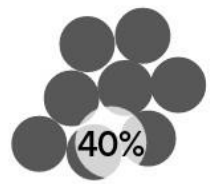
Have a flexibility contract with WPD or another DNO.

0%

Actively considering participating in distribution flexibility.



Aware of distribution flexibility, but we are not yet considering participating.



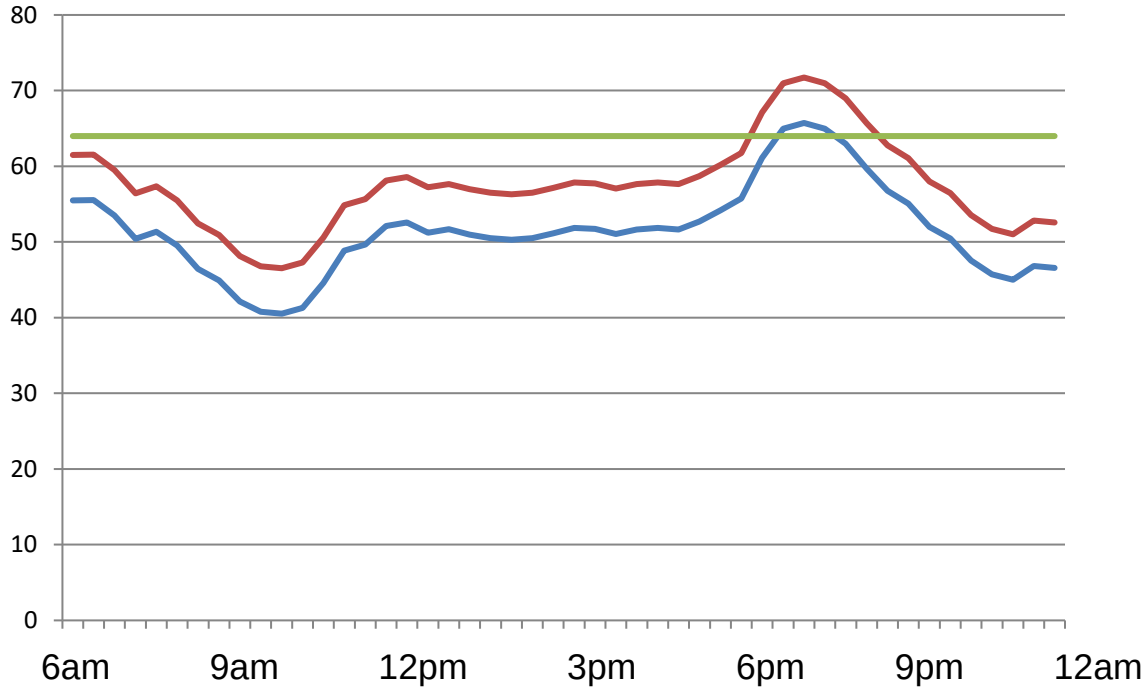
Doesn't yet have a good enough understanding of distribution flexibility.

DG Owner Operator Forum
Tuesday 3rd August 2021

Helen Sawdon
Flexible Power Commercial Officer

Flexible Power

Why DNOs need Flexibility Services



- Traditionally we would build bigger networks to accommodate.
- Shift towards EVs, electric heating, etc. increasing electrical demand.
- We are looking for customers that can increase generation or decrease demand at these peak times.
- Flexibility means we can avoid or defer reinforcement works.
- Reduce socialised cost to customers.

Our Flexibility Requirements

- To date we have contracted 456.5MW of flexibility across 56 Constraint Management Zones (CMZs). Which in 19/20 was used to defer £39.4m of reinforcement expenditure.

- We are continually increasing our flexibility requirements to meet demand growth and procure flexibility services on a 6 monthly basis.
- We're currently in our 10th procurement cycle (started 2nd Aug), seeking flexibility in 44 CMZs with peak requirements totalling 258.5MW.

- CMZs on our network are confined to specific geographical locations.
- Each CMZ will have requirements for specific times of the year.
- We have determined which flexibility products are applicable to each zone.

CMZ locations

East Midlands	
Alfreton	Derbyshire
Apollo - Tamworth	Staffordshire
Berkswell SGT	Berkswell
Chesterfield Main	Chesterfield
Clowne	Mansfield
Coalville	Leicestershire
Crowland	Crowland
Grassmoor	Chesterfield
Ilkeston	Derbyshire
Lincoln-Anderson Lane	Lincolnshire
Loughborough	Loughborough
Mackworth	Derbyshire
Manton	Oakham
Nailstone	Nuneaton
New Dove Valley	Derbyshire
Tamworth Main	Staffordshire
Union Street - Rugby	Warwickshire
Woodbeck	Retford
West Midlands	
Brimscombe	Stroud
Feckenham South	Worcestershire
Hereford - Ledbury Ring	Herefordshire
Hereford BSP	Hereford BSP

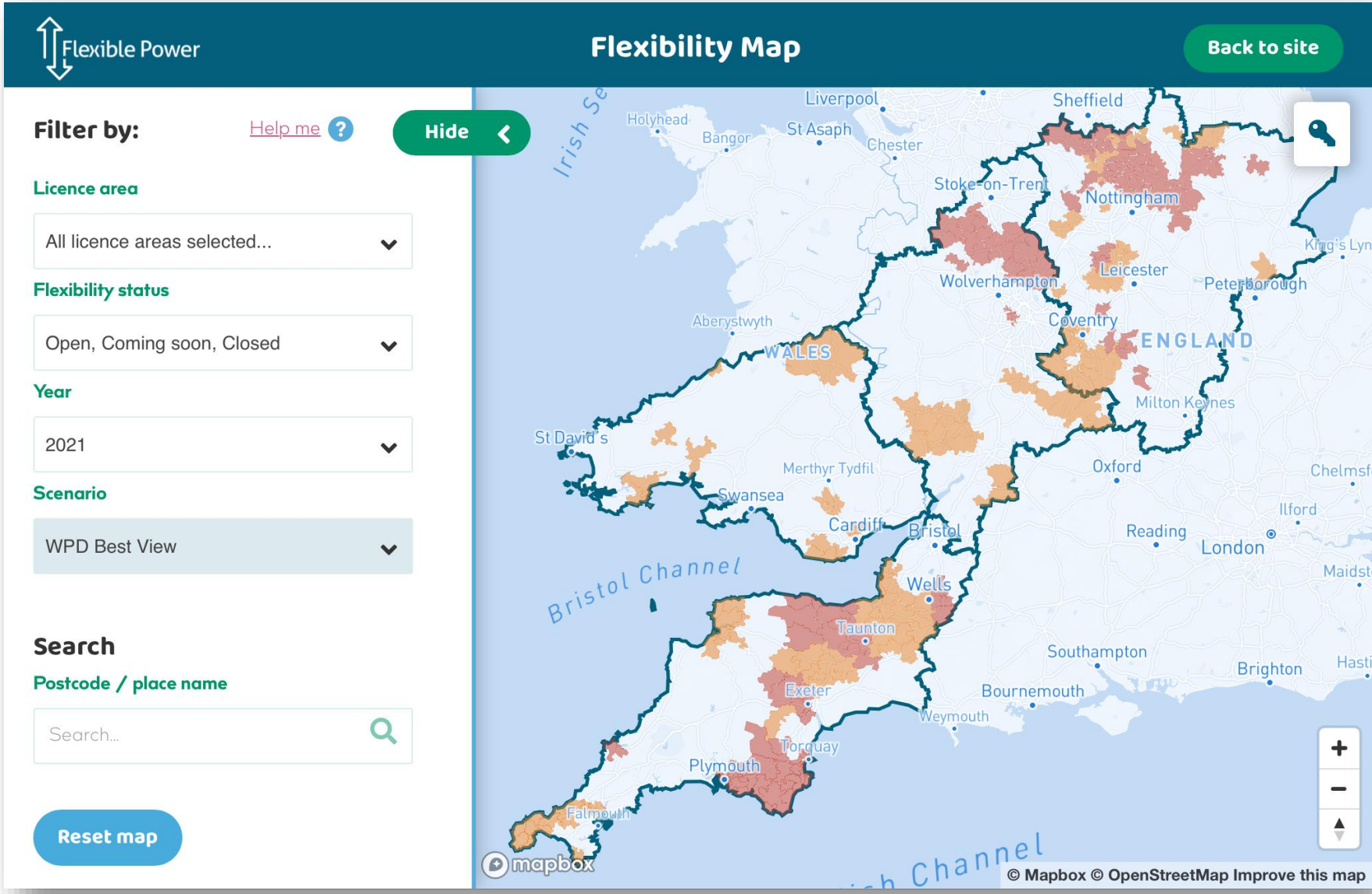
South Wales	
Aberaeron	Ceredigion
Cardiff North	Cardiff
East Aberthaw	Aberthaw
Llandrindod - Rhayader	South Wales
Llanfyrnach	Pembrokeshire
Mountain Ash	Rhondda Cynon Taf
Pembroke - BroadField	South Wales
Pembroke - St Florence	South Wales
Pembroke - Tenby	South Wales
Trevaughan	South Wales
South West	
Bridgwater/Street	Somerset
East Yelland	Devon
Hayle - Camborne	Cornwall
Hemyock	Devon
Isles of Scilly	Isles of Scilly
Moretonhampstead	Newton Abbot North
Mullion	Cornwall
Roundswell	Devon
Tiverton	Devon
Truro - Truro Treyew	Truro - Truro Treyew
Weston Super Mare	Somerset
Witheridge	Devon

CMZ Locations

Use our interactive map:

www.flexiblepower.co.uk/locations/western-power-distribution/map-application

Our online postcode checker will help you determine if you suitable have sites within our CMZs; www.flexiblepower.co.uk/locations/western-power-distribution/postcode-checker

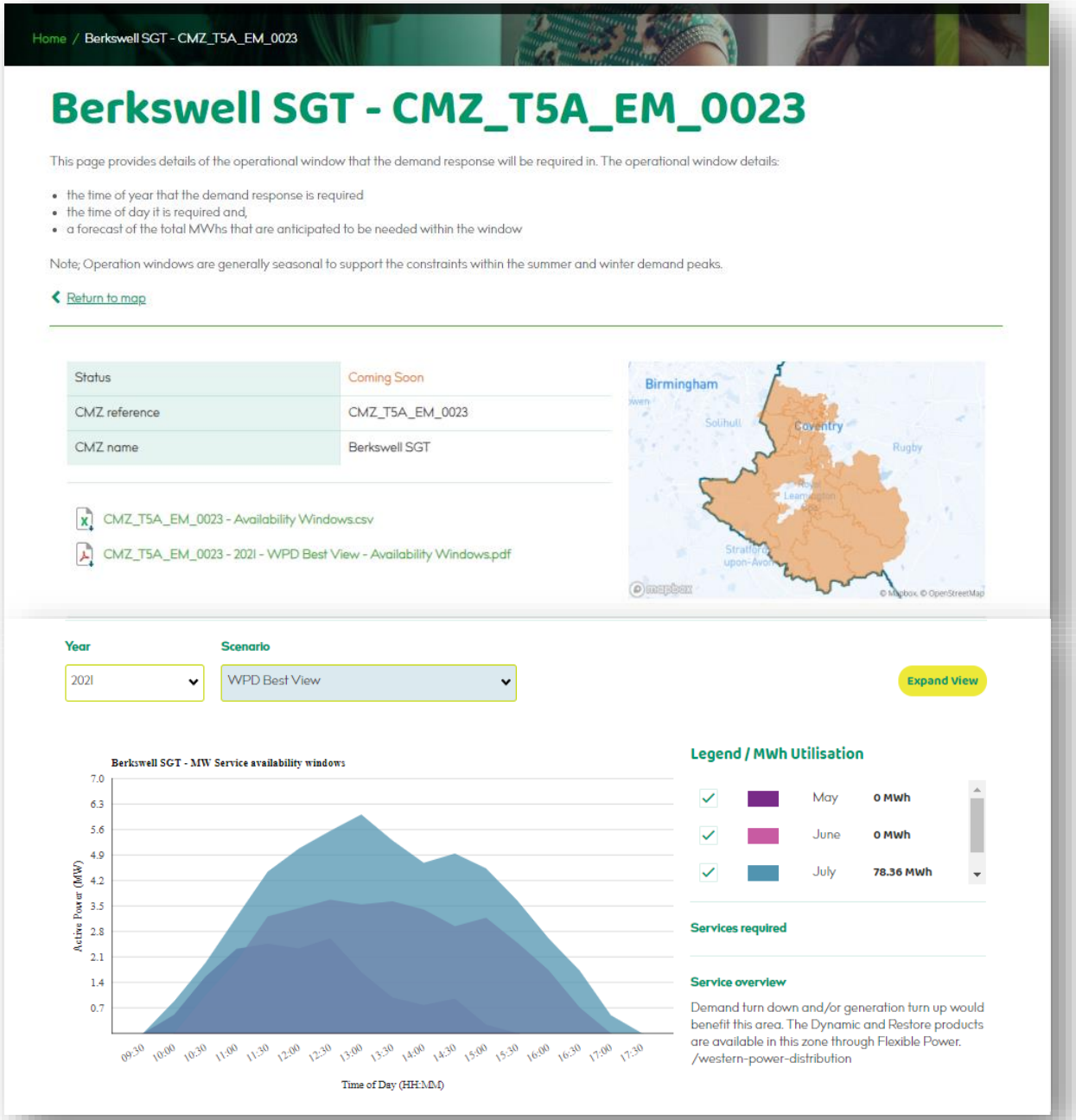


CMZ Locations

Detailed Forecast Includes:

- Times of day availability required.
- Days of the week and months of the year we have a requirement.
- Forecast utilisation volume.
- Data can be downloaded in pdf or csv.

Collated data for all zones can be downloaded here; www.flexiblepower.co.uk/downloads/948



Products attributed to each CMZ

WPD is procuring flexibility through three products, these are:

Secure

Pre-Fault Constraint Management

Our **Secure** service is used to manage peak demand loading on the network and pre-emptively reduce network loading.
It offers a higher availability payment and lower utilisation payment.

Dynamic

Post-fault Constraint Management

Our **Dynamic** service has been developed to support the network in the event of specific fault conditions, such as during maintenance work.
It offers a low availability payment and higher utilisation payment.

Restore

Restoration Support

Our **Restore** service supports power restoration following rare fault conditions.

No availability payment, instead it offers a premium utilisation payment.

Pricing

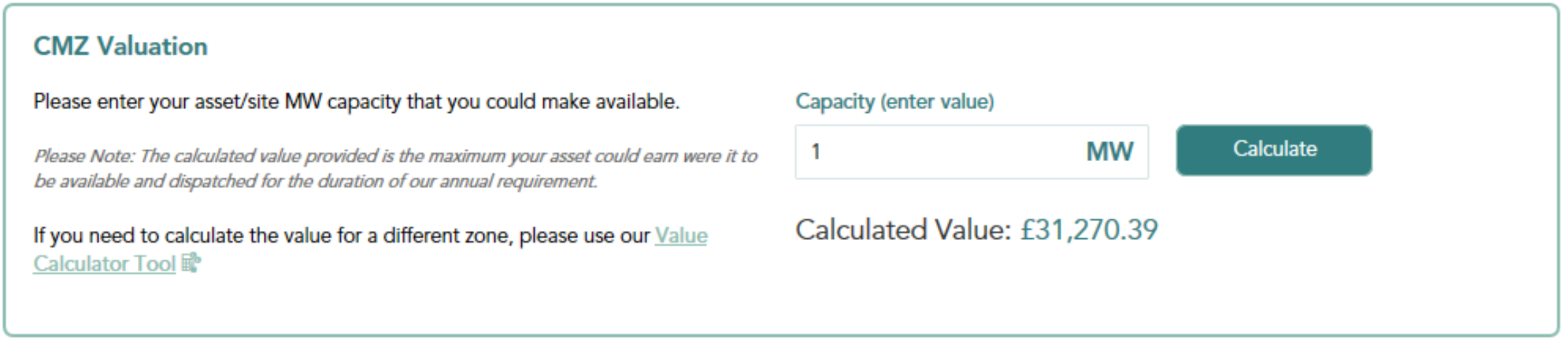
We have calculated a maximum fixed price for flexibility within our **Constraint Management Zones** (CMZs) based on cost efficiency.

Our fixed prices are operating at…

	Arming	Availability	Utilisation
Secure	£125/MWh	N/A	£175/MWh
Dynamic	N/A	£5/MWh	£300/MWh
Restore	N/A	N/A	£600/MWh

These prices will only be applicable to CMZs that do not have multiple flexibility providers with a total capacity that exceeds the CMZs needs. Zones with a sufficient level of competition will proceed to Clearing. Here best offers will be assessed to established a zonal clearing price which will be awarded to all bidders.

CMZ value calculator



Average Zone Value

£5,903/MW/yr

Procurement process

Join the Dynamic Purchasing Register (DPS)

Respond to the PIN notice https://rfxxp.westernpower.co.uk/ECE

PQQ documents will be emailed to the named contact for completion

DPS Registration Complete

Respond to an Invitation to tender

Receive email notification of all CMZ tenders

Ascertain if you have a suitable site within a CMZ

Complete the ITT

Timeline & key dates

First 2019 Procurement cycle:

28th Jun – flexibility zones and supporting information published
2nd August – Invitation to tender (ITT) issued to all participants who have registered their interest and passed a pre-qualification (PQQ) stage
10th September – ITT deadline
1st October – Procurement results.

Expression of Interest

Register onto our DPS ahead of the ITT window

Procure

ITT window open from 2nd Aug – 10th Sep

Build and Test

Contracts awarded on 1st Oct
API build follows

Operate

Zones become operational in time for seasonal window.

Sources of additional information

- View the CMZ locations and download supporting information: www.flexiblepower.co.uk/locations/western-power-distribution/map-application
- Check if your site is within a CMZ: www.flexiblepower.co.uk/locations/western-power-distribution/postcode-checker
- Estimate your sites potential earnings: http://www.flexiblepower.co.uk/locations/western-power-distribution/value-calculator
- Register to join our purchasing register: https://rfxxp.westernpower.co.uk/ECE
- Documents and information including; procurement dates out to 2024, procurement results from previous tenders, month ahead forecasting, and much more: www.flexiblepower.co.uk/locations/western-power-distribution/tools-and-documents.
- We signpost our requirements up to five years across our network on the WPD website: www.westernpower.co.uk/network-flexibility-map

Flexible Power

Get in Touch

Email: wpdflexiblepower@westernpower.co.uk
hsawdon@westernpower.co.uk

Call: 01332 827436
07892 787721

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

regen
transforming energy

Chair: Olly Frankland, project manager, Regen

13.00 **Introduction, action review and objective setting from the chair and WPD**

13.10 **Improving industry and WPD communications to address outages/constraints**
Danielle Greedy, outage planning engineer, Western Power Distribution

13.30 **Flexible Power procurement and market update**
Helen Sawdon, Flexible Power commercial officer, Western Power Distribution

13.45 **Deep Connect and Manage update**
Matt Watson, network strategy engineer, Western Power Distribution

14.00 **Break**

14.10 **Accelerated Loss of Mains Change Programme update**
Andrew Akani, primary system design manager, Western Power Distribution

14.25 **Proposed network charging changes and the impact on customers**
Andrew Akani, primary system design manager, Western Power Distribution

14.40 **AOB**

15.00 **Close**

WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Deep Connect & Manage Update

Part of the Regional Development Programmes

03/08/2021

POWER CUT? CALL 105

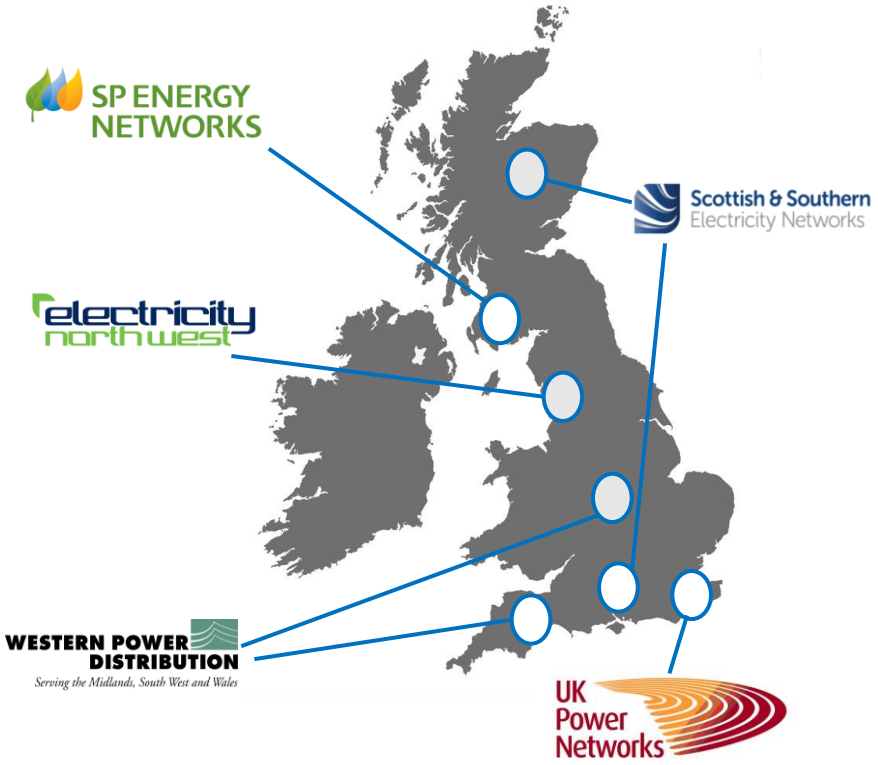
westernpower.co.uk

Regional Development Programmes

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

Background

- RDPs are examinations of whole areas of the network where more distributed energy resources (DERs) might create operability challenges
- By working together, network organisations are finding ways to ‘unlock’ more capacity through non-network solutions
- RDPs are considering the use of flexibility services from DERs by developing coordinated markets, systems, processes and ways of working with distribution network operators (DNOs)
- Learning is being shared across RDPs to help delivery common solutions



Regional Development Programmes

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

The South West

- The South West of England is expected to play a major part in meeting the future governmental green energy targets because there is lots of renewable solar and wind generation
- Sunny days in spring and summer present a challenge to transmission and distribution networks, particularly when windy and / or coincident with low demand
- A whole system assessment found that investing in systems to manage generation on the distribution network in the South West is more economic than network investment
- It also facilitates quicker connection of new DER to the system than would otherwise be possible
- As part of the South West RDP a number of new requirements were established :
    - SWOTS
    - Deep Connect & Manage/ Visibility & Commercial Control

Deep Connect and Manage

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

Facilitating Transmission Constraint Management

- Since 2018 connection offers in the South West (apart from Iron Acton, Melksham & Seabank) have had requirements to provide “Visibility & Commercial control” (often termed Deep Connect and Manage).

- We see DER being able to fulfil these obligations in a number of ways. The initial methods will be:
  - Participation in the BM
  - MW dispatch

- Participation in a form of visibility and control is mandated through the connection agreement, but it is up to the DER to chose their preferred route for participation.
- DERs will then sign separate commercial contracts for the relevant method.
- As we move forwards we will look into alternative routes that sit between the initial methods.

MW dispatch

A new transmission constraint management service

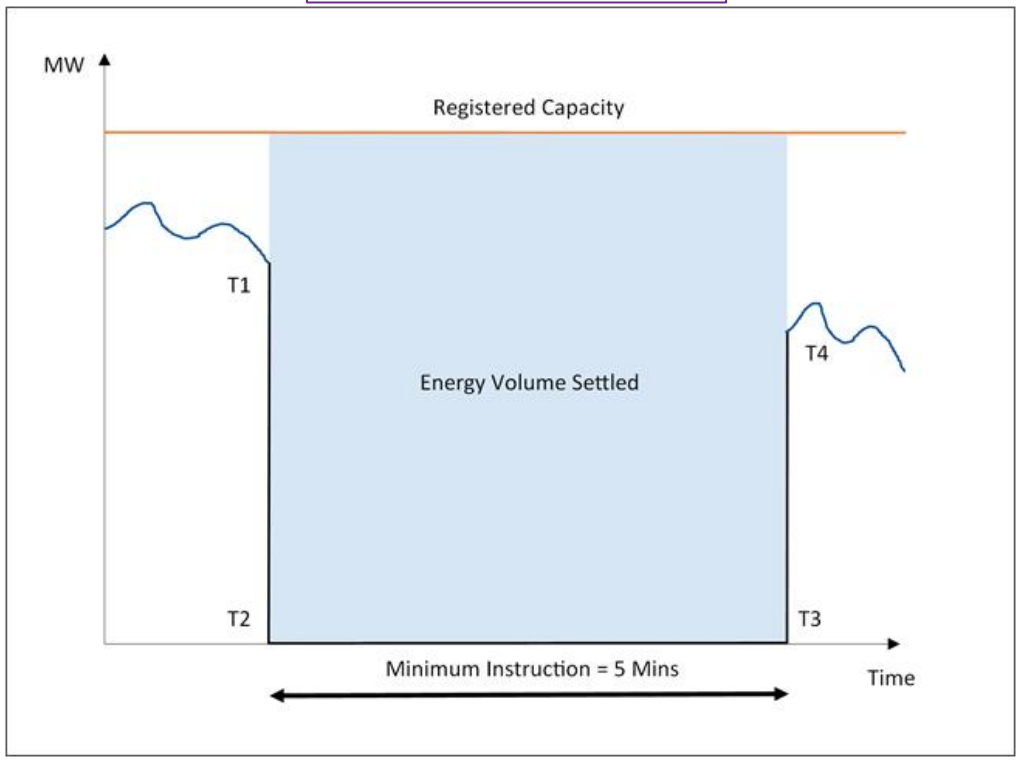
Instruction from ESO via DNO system	Instruct to 0MW or “float” for storage	Utilisation payments only
A continuous service – assumed available (unless declared otherwise)		Price can be resubmitted regularly
A separate commercial contract with the ESO		

- We are developing a new transmission thermal constraint management service to help resolve increasingly regional network constraints
- This service is designed to be simple and provide an alternative route for DER to fulfil their ‘visibility & control’ connection terms.
- The Balancing Mechanism or Wider Access remain existing options.

MW dispatch

A Proposed initial service

Payment option 1 - Example

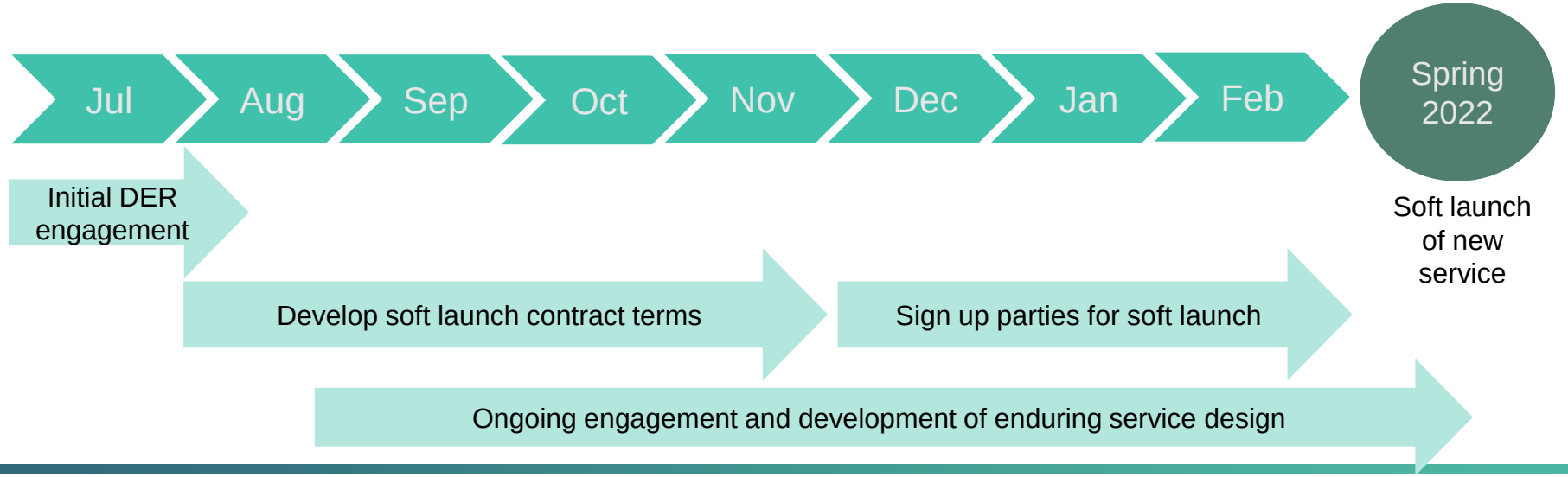


- The service instruction will instruct DER from their current output to 0MW
- Instructions will be timebound (with a minimum settlement volume calculated over a time period of 5 minutes).
- The minimum instruction time will be 5 mins, maximum 89 minutes
- Proposed response time to be within 2 minutes
- Basis of service payment still being considered:
  - Option 1 – pay on Registered Capacity (as shown)
  - Option 2 – take snapshot of output at T1 and assume straight line delivery for duration of instruction

MW dispatch

Project timescales

- We are planning to test the new service, using a simple service design, from Spring 2022
- We will then refine this into a formal basic service offering, following testing.
- We will develop that design with you before implementation in 2022/23



MW dispatch

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

Feedback

We are currently looking for feedback on our proposals

This can be provided to : box.WholeElectricitySystem@nationalgrideso.com

On the ESO website there are some follow up questions as well as a recording of a longer webinar.

We are also happy to arrange follow on discussions if needed

WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Thanks for your attention

POWER CUT? CALL 105

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

regen
transforming energy

Chair: Olly Frankland, project manager, Regen

13.00 **Introduction, action review and objective setting from the chair and WPD**

13.10 **Improving industry and WPD communications to address outages/constraints**
Danielle Greedy, outage planning engineer, Western Power Distribution

13.30 **Flexible Power procurement and market update**
Helen Sawdon, Flexible Power commercial officer, Western Power Distribution

13.45 **Deep Connect and Manage update**
Matt Watson, network strategy engineer, Western Power Distribution

14.00 **Break**

14.10 **Accelerated Loss of Mains Change Programme update**
Andrew Akani, primary system design manager, Western Power Distribution

14.25 **Proposed network charging changes and the impact on customers**
Andrew Akani, primary system design manager, Western Power Distribution

14.40 **AOB**

15.00 **Close**

westernpower.co.uk

Accelerated Loss of Mains Change Programme update

Andrew Akani

Primary System Design Manager

Accelerated Loss of Mains Change Programme

WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

ALoMCP Background

- The ALoMCP is a joint initiative with the NGESO, Energy Networks Association, distribution network operators and independent distribution network operators.
- The ALoMCP is offering funding to non-domestic distributed generators that were connected before 1 February 2018 to upgrade their hardware in a move that will improve network resilience, and support wider initiatives helping meet the UK's net zero targets.
- Grants are available through quarterly application windows. Generators are encouraged to apply as soon as they can on the registration portal ahead of the final application deadline on 10 May 2022.
- By making them in the ALoMCP, owners can take advantage of financial support to carry out the work.

ALoMCP Background

- G59/3-3 published on 1 Feb 2018 to include new LOM settings:
  - Removed **Vector Shift** as Loss of Mains protection.
  - Increased **ROCOF settings** to 1Hz/s, 500ms time delay.
  - Retrospective for existing sites, implementation by **31st Aug 2022**.
  - Non-Domestic generators greater than 16A/phase (3.68kW single phase, 11.04kW three phase).
- Inverters may contain G59 settings
  - These settings also need to either be changed or disabled
  - ENA guidance on inverters https://www.ena-eng.org/ALoMCP/mankb

ALoMCP Background

- Incentive payment is **£4,000** + VAT per relay replacement* and **£1,500** + VAT (capped at £4,000) for settings changes/disablement of protection settings.
- Applies to G59 protection settings on relays and inverters on site.
- £500 + VAT per site if a Post-Work Sample Site Visit is required.
- Link to ENA webpage: https://www.ena-eng.org/ALoMCP/
- Recognised contractors list published https://www.westernpower.co.uk/our-network/loss-of-mains

** Applies to Synchronous Generation only*

ALoMCP Background

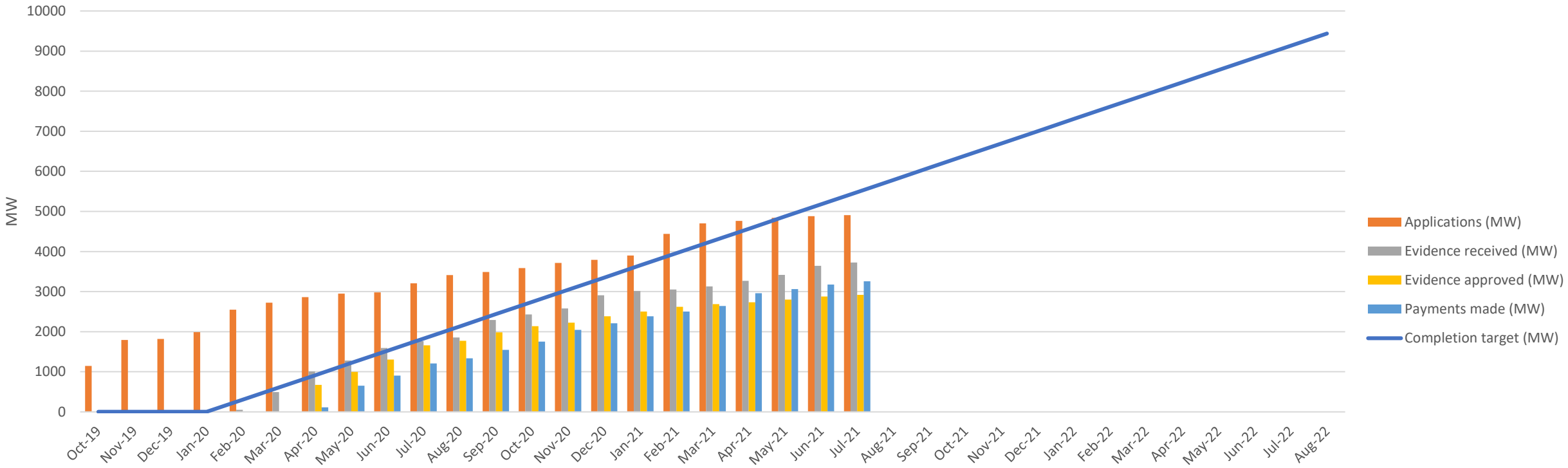
- Tapered payments are likely to be brought in
  - Current thinking is 80% in Q1 2022
  - 70% in Q2 2022
- Plenty of funding left – please apply!
- From 1st Sept 2022, all generators need to comply with the new settings. Enforcement actions may be placed on generators.
- Currently in Window 8

ALoMCP Progress Update

- 2,140 applications received (4.84GW) out of approx. 21,000 sites (approx. 8.6GW).
  - 1,555 sites completed works (evidence received 3.66GW).
  - 1,337 sites paid, over £4.23m.
  - 290+ sites have had a virtual sample site visit.
- Cost and risk to system operation is reducing as a result of changes through the programme.
- More engagement underway.
- Window 8 closes 10th August.
- Window 9 is open from 11th August to 9th November 2021.

ALoMCP Progress Update

ALOMCP tracker - Data as at 28/07/2021



ALoMCP Customer Engagement

- Multiple attempts to make contact via direct mail.
- Contact through Supplier Channels.
- We are attempting to contact larger generating sites directly as these sites will provide most benefit to the programme – Challenge is finding relevant contact within organisations.
- National PR campaign is underway targeting specific industries and sectors using social media platforms and other media.
- Creation of ALoMC Programme landing page and self-serve tool to help guide all types of generating customer (www.futureproofyourpower.co.uk).

Compliance Outside ALoMCP

- There maybe sites not participating through the programme either due to already having achieved compliance in the past or choosing to not receive funding. **These Customers MUST notify the programme of their compliance:**
  - Customers are able to Self-Declare compliance via the ENA Portal.
  - Customers can also contact ALoMCP mailbox to notify us of any G59/3 compliance outside of the programme.
  - Customers can also complete details on “Compliance Form” sent by DNO.
- Some form of evidence will be required to confirm compliance has been met, either:
  - G59/3 Test sheets that show the compliant settings, or
  - Manufacturer Data sheet/Picture of device model (to confirm compliance at inverters).

ALoMCP Contact Details

- WPD ALoMCP Contact details:

➢ Email: ALOMCP@westernpower.co.uk

➢ Telephone: 0800 0328880

- **Please contact us with any queries**

Any questions?

Questions ?

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

regen
transforming energy

Chair: Olly Frankland, project manager, Regen

13.00 **Introduction, action review and objective setting from the chair and WPD**

13.10 **Improving industry and WPD communications to address outages/constraints**
Danielle Greedy, outage planning engineer, Western Power Distribution

13.30 **Flexible Power procurement and market update**
Helen Sawdon, Flexible Power commercial officer, Western Power Distribution

13.45 **Deep Connect and Manage update**
Matt Watson, network strategy engineer, Western Power Distribution

14.00 **Break**

14.10 **Accelerated Loss of Mains Change Programme update**
Andrew Akani, primary system design manager, Western Power Distribution

14.25 **Proposed network charging changes and the impact on customers**
Andrew Akani, primary system design manager, Western Power Distribution

14.40 **AOB**

15.00 **Close**

OFGEM's Access and Forward-looking Charges Significant Code Review: Consultation on Minded to Positions

Andrew Akani

Primary System Design Manager

Accelerated Loss of Mains Change Programme

ena nationalgridESO

WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

SCR – Ofgem consultation on minded-to position

Consultation

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

Publication date:	30/06/2021	**Contact:**	Patrick Cassels, Head of Electricity Network Access
		Team:	Future Charging and Access
Response deadline:	25/08/2021	**Tel:**	0207 901 7000
		Email:	FutureChargingandAccess@ofgem.gov.uk

SCR – Ofgem consultation on minded-to position

- Consultation closes on the 25th August 2021.
- Respond if you have any concerns or strong views.
- Minded to Decision:

https://www.ofgem.gov.uk/publications/access-and-forward-looking-charges-significant-code-review-consultation-minded-positions

SCR – Ofgem consultation on minded-to position

- Consultation focusses on 3 key areas of the Access and forward-looking Charges Significant Code review:
  - Distribution Network Connection Reinforcement Charges
  - Access Rights choices:
  - Transmission Network Charges.

- Subject to feedback from this consultation and our final decision, we are proposing to implement our access rights and connection boundary reforms by **1st April 2023**.

SCR – Ofgem consultation on minded-to position

- Distribution Network Connection Reinforcement Charges
  - Remove upstream reinforcement charge for Demand.
  - Shallower upstream Reinforcement charge for Generation.
  - Both will still be liable for connection assets.
- High Cost Cap (HCC*), Ofgem considering two options:
  - Distributed generators that trigger reinforcement also face a High Cost Cap (HCC). The HCC states that all reinforcement above £200/kW is fully funded by the customer.
  - HCC only applies at the voltage of connection (i.e. the voltage rule takes precedence);
  - HCC applies at the same voltage level as connection, plus one above (i.e. the HCC takes precedence).

SCR – Ofgem consultation on minded-to position

- Current Arrangements
  - Demand and DG Customers required to contribute towards the cost of any reinforcement provided at the same level as their PoC plus one voltage level above.
  - The apportionment of reinforcement costs between connection customers and the DNO is determined using two Cost Apportionment Factors (CAFs). The Security CAF and or the Fault Level CAF are used depending on what is driving the need for reinforcement (network or fault level capacity). This ensures that the connection customer's contribution is proportionate to their share of the new network capacity being provided.

SCR – Ofgem consultation on minded-to position

- Access Rights choices:
  - Introduce options on the levels of firmness*.
  - Time-profiled access. This would provide choices other than continuous, year-round access rights (e.g. ‘peak’ or ‘off-peak’ access).

  **Where users agreed to a lower level of firmness their eligibility for compensation in a loss of supply scenario could be restricted.*
- Current Arrangements
  - Defined via connection agreements.
  - Users have had limited choice of access rights, and where choices have been introduced, these are loosely defined and require users to potentially face unlimited levels of curtailment.

SCR – Ofgem consultation on minded-to position

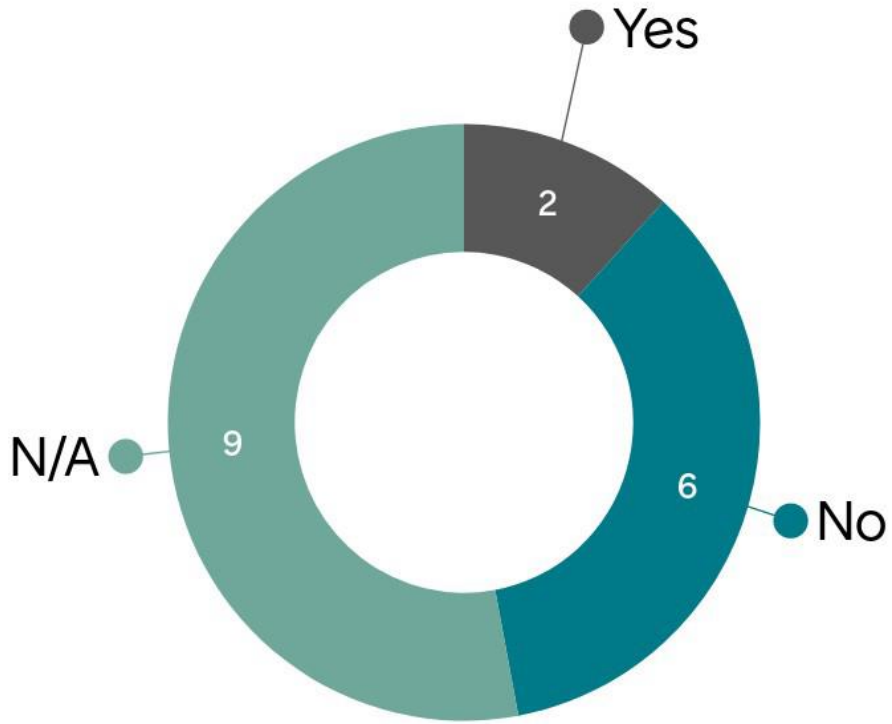
- Transmission Network Charges.
  - Introduce TNUoS for small* distribution connected DG over 1MW.

- Current Arrangements
  - Large generators face different charges depending on their size and where they connect to the network.
  - Large generators face TNUoS charges but Small Distributed Generators do not.

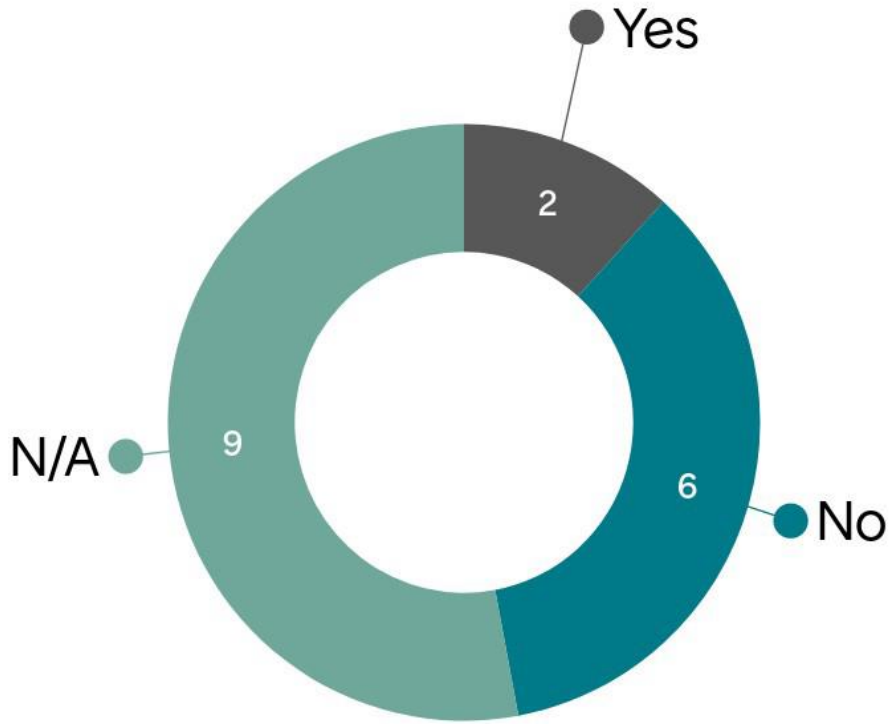
*refers to generation <100MW

Questions ?

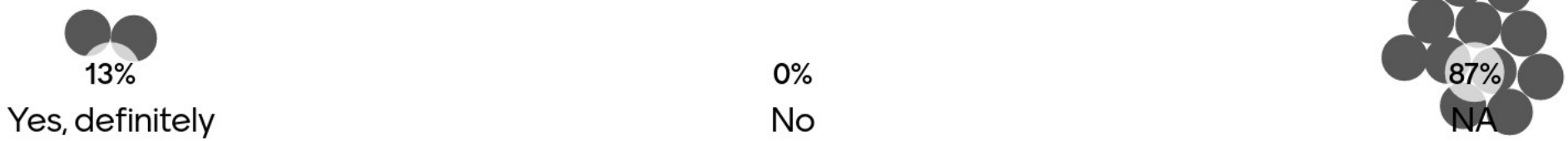
Would these proposals likely to encourage you to delay any applications until they come into effect (April 2023)?



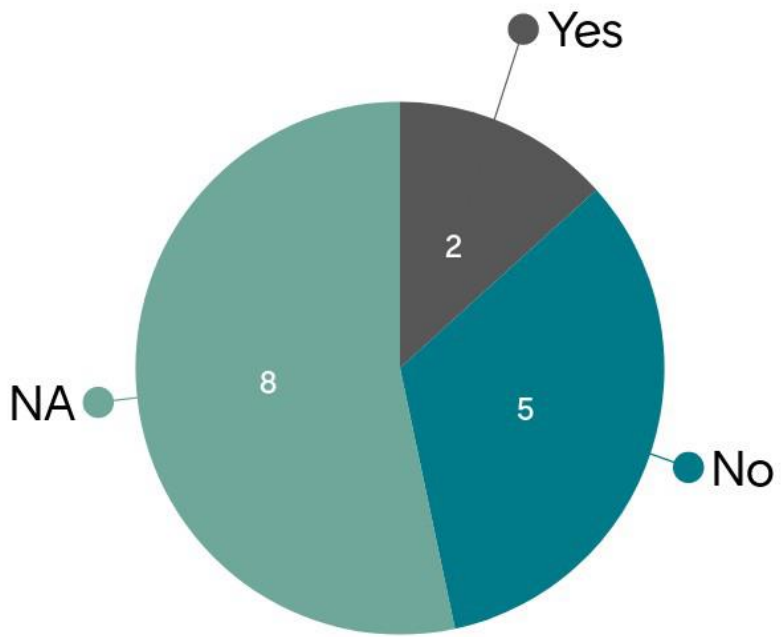
Would these proposals likely to encourage you to delay any applications until they come into effect (April 2023)?



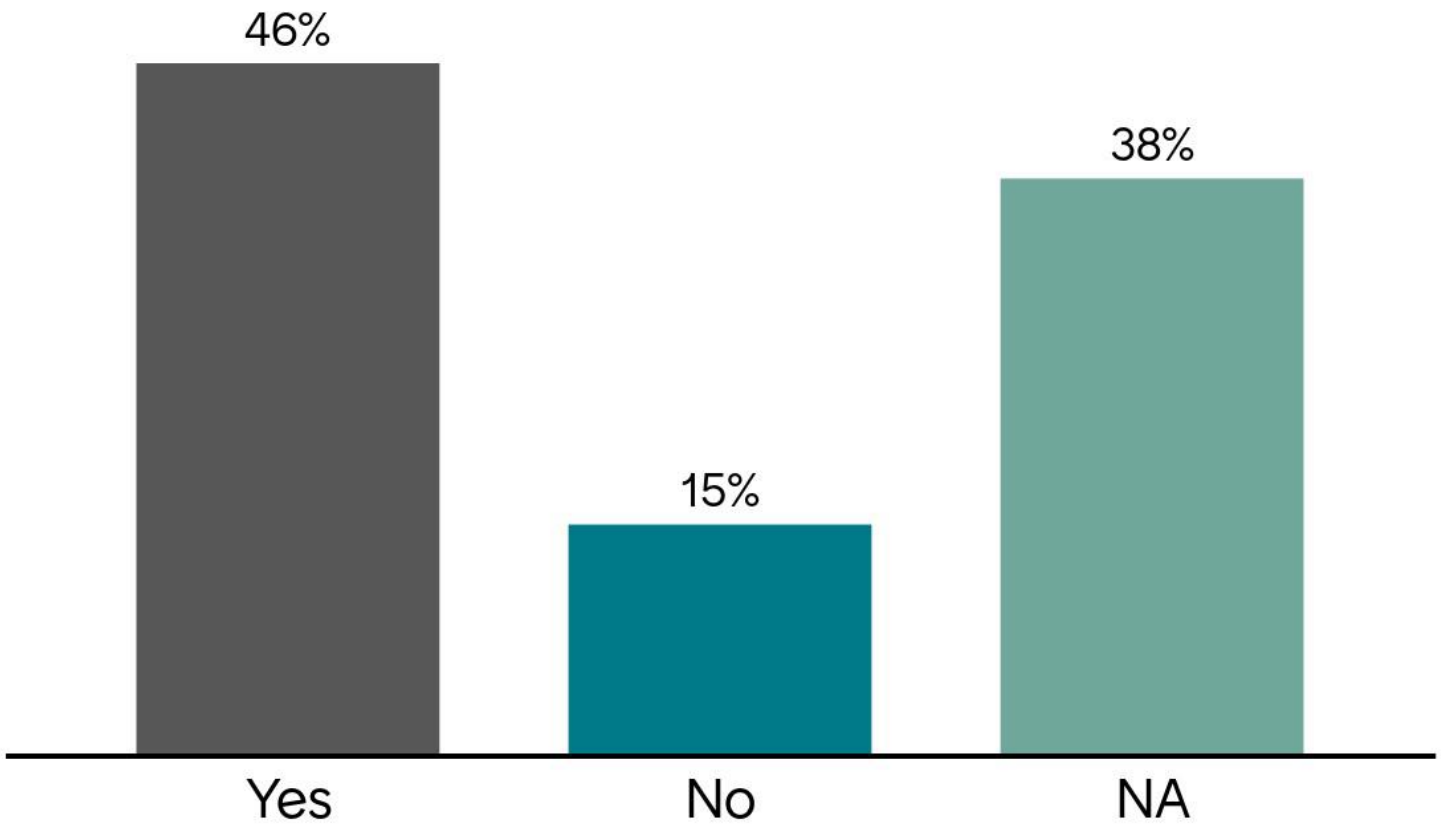
Do you have any previous unprogressed schemes (unaccepted DNO offers) that you are now likely to revisit when these proposals come into effect?



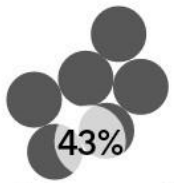
Do you have any schemes with restricted access rights that you are likely to seek revised access rights after these proposals come into effect?



Are the TNUOS proposals likely to have a material impact on your future investment decisions?



Which of these proposals is likely to have a material impact on your future investment decisions?



Distribution Network Connection Reinforcement Charges

Access Rights choices

Transmission Network Charges

None of them