



Western Power Distribution - DG Owner Operator Forum

10 February 2022



Our Engagement Groups

[Our Customer Engagement Group](#)

[Connection Customer Engagement](#)

[Customer Panel](#)

Future Forum Meeting Dates



10th February 2022 (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




[30 November 2021 slides](#)

PDF / 1 MiB



[30 November 2021 Notes](#)

PDF / 210 KiB



**Western Power
Distribution
Generation Portal**

[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:

PLEASE NOTE, THESE TERMS AND CONDITIONS GOVERN THE USE OF OUR GENERATOR PORTAL. BY CLICKING ON THE "ACCEPT" BUTTON BELOW OR USING THE GENERATOR PORTAL, YOU AGREE TO THESE TERMS AND CONDITIONS, WHICH WILL BIND YOU. IF YOU DO NOT AGREE TO THESE TERMS AND CONDITIONS, YOU MAY NOT USE THE GENERATOR PORTAL AND YOU AGREE THAT YOU WILL CEASE TO DO SO IMMEDIATELY.



WPD Post-energisation Guide

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.

WPD Maintenance Schedule

WPD are required by law to maintain our network. The nature of your connection and the voltage level at which are you are connected will affect how often you can expect to be constrained/interrupted for a routine maintenance task. Below is a table showing the frequency and typical duration of a WPD maintenance task on various items of WPD plant.

	Frequency (Years)	Duration (Days)
132kV Switchgear Maintenance	3	5
132kV Protection Maintenance	3	1
132kV Isolator Maintenance	3	2
66/33kV Switchgear Maintenance	3	3
66/33kV Protection Maintenance	3	1
66/33kV Isolator Maintenance	3	2

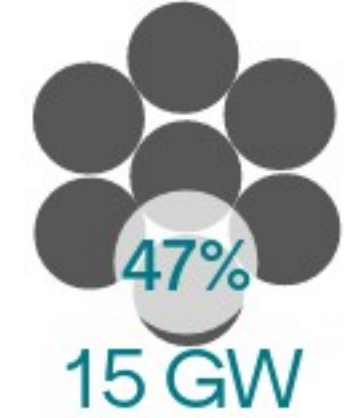
This table does not include other outages (such as pole changes/overhead tree cutting / fault outages) that may be occur throughout the year on WPDs network.



Engagement and feedback via:

- Zoom (chat and raise hand/turn on video)
- Mentimeter (phone or separate tab)

How much solar PV is connected to the Western Power Distribution network?



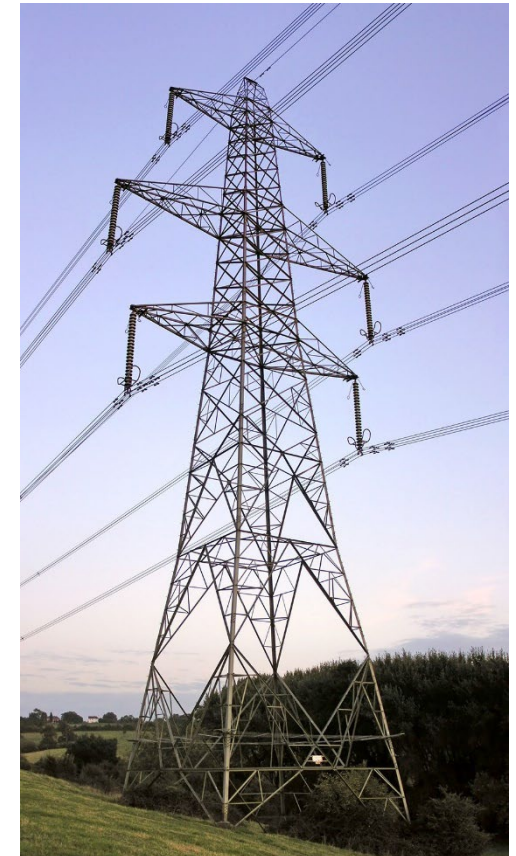
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2022/23 Outage Plan

National Grid Outages

- Year Ahead Plan received in December 2021 (includes planned outages from April 2022 – March 2023).
- Any sites affected by outages on National Grids network will be able to view these on the WPD DG Portal now.
- Formal notification of these 132kV generator outages / constraints will come from WPD Outage Planner for the relevant area.
- Any queries for these outages should be directed to the WPD Generation Inbox for your area where they will be directed to the appropriate outage planner.



2022/23 Outage Plan

WPD 132kV Outages

- All planned 132kV outages that affect DG sites for April 2022 – March 2023 available to view on WPD DG Portal from end of January 2022.
- Formal notification of these supply interruptions / constraints will come from WPD person responsible for work (Project Engineer / Technician). These details are also available to view on the DG portal.
- Where possible, outages have been merged with NGC outages that affect DG customers to limit interruptions / constraints.



2022/23 Outage Plan

WPD 33kV Outages

- All planned outages for April 2022 – March 2023 available to view on WPD Portal from end of February 2022.
- Same as 132kV outages, formal notification of these outages will come from WPD person responsible for work. These details are available to view on the portal.
- WPD have merged outages (where possible) to limit number of constraints / interruptions to DG sites. Any queries regarding this can be sent to the WPD Generators inbox for the relevant area.
- If any sites wish to undertake work on their own equipment this year and would like this to be at the same time as a WPD outage, please contact the WPD Generation Inbox for your area.



2022/23 Outage Plan

Provisionally Approved Outages

- Outages in Portal will initially be marked as Provisionally Approved.
- Further studies required prior to full Approval but outage should go ahead unless issues are identified during this process.
- Approval will be granted Four Weeks Ahead of outage. If any changes are required (such as date or duration), these will be identified in the WPD Portal / Four Week Report under 'Reason for Change' section.

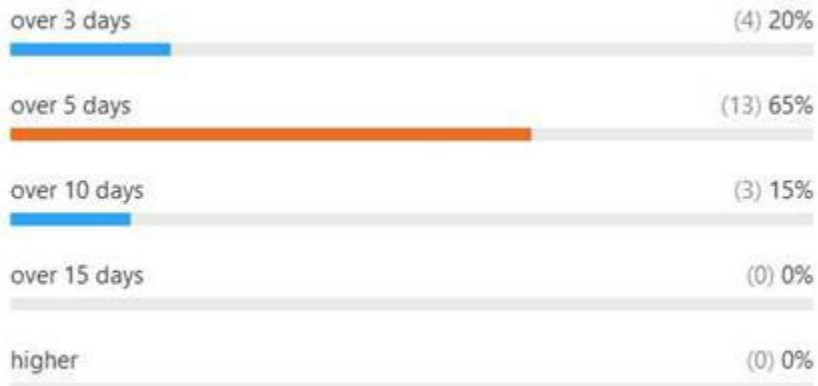


DG Owner Operator Portal Update

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'.

1. What would you consider a 'significant outage'?

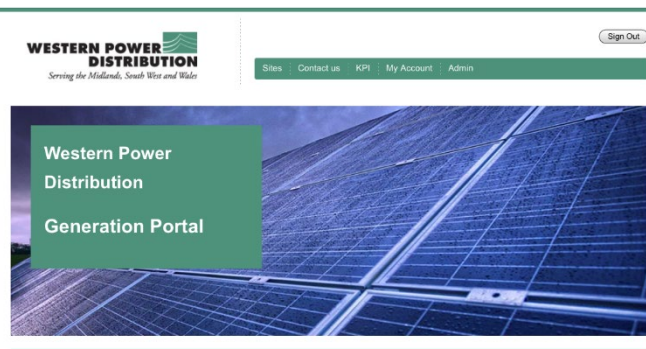


- WPD have been working with our Web Developers to introduce a new notification system for every time a planned outage is added / changed / updated in our OMS.
- We have introduced this for all 132/66/33kV outages, regardless of duration / work involved.
- Email addresses will need to be kept up to date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

DG Owner Operator Portal Update

PROJECT NOW LIVE

- WPD undertook a 'Soft Launch' in December / January with a select number of customers to ensure we had captured all information required / check it was working as planned.



[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.

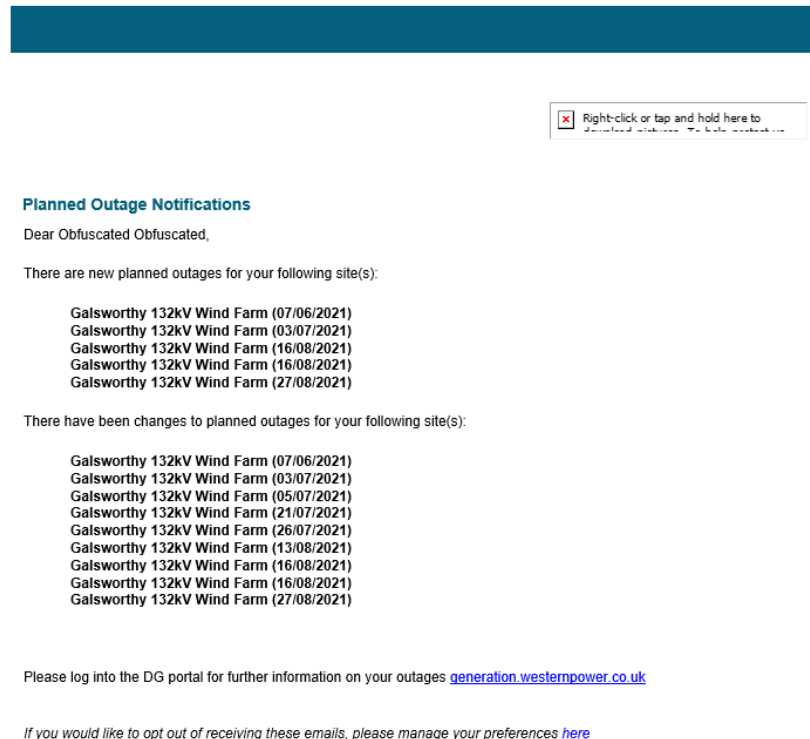
For queries relating to the generator portal, to receive a copy of our getting started guide or to request the creation of a user account please contact wpdswestwalesgen@westernpower.co.uk.

- Soft Launch was a success. Thank you to all customers who took part & provided feedback.
- Project went 'Live' last month with all customers registered on the DG portal 'opted in' to receive notifications for outage changes.
- If anyone would rather not receive these notifications please send an email to wpdswestwalesgen@westernpower.co.uk and we can ensure you do not receive these emails.



DG Owner Operator Portal Update

Outage Changes Example Email



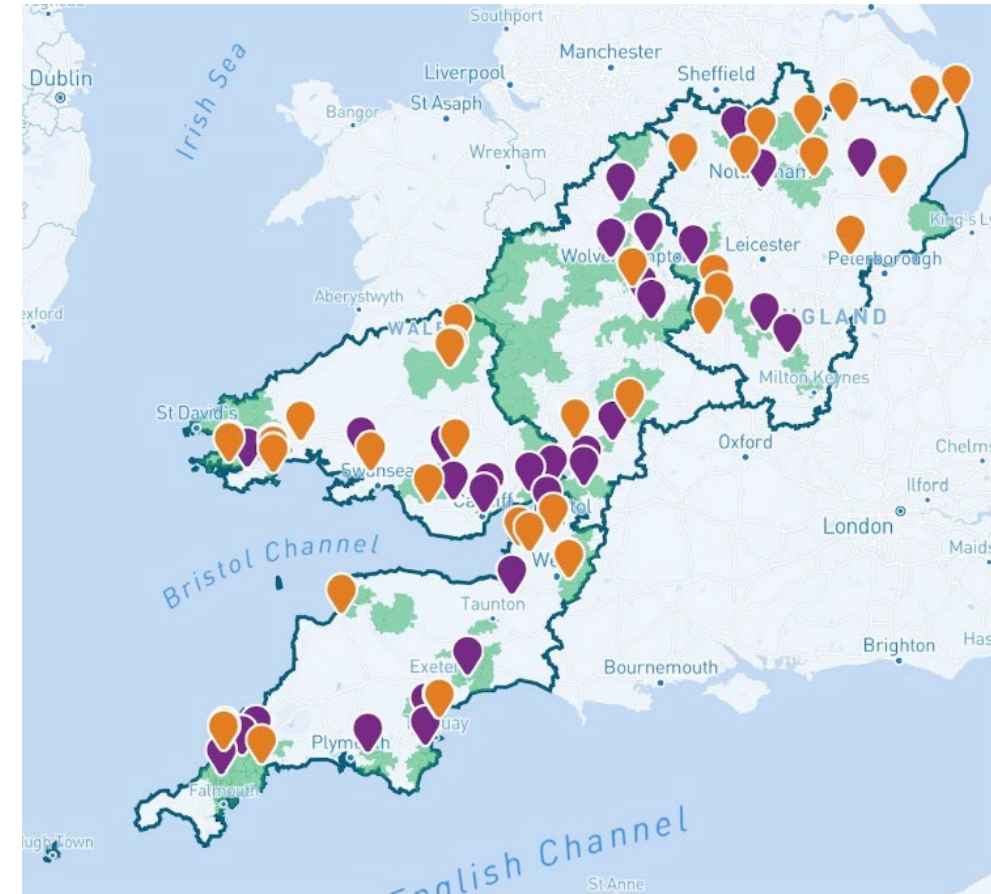
- Emails go out at 10am every day, containing any changes that have occurred in WPDs Outage Management System in the previous 24 hours.
- You will be invited to log into your DG portal account to view the changes that have occurred.
- Any queries to be communicated to WPD person undertaking the work (outage query) or WPD Generation inbox (email / portal query).
- Option to 'opt out' also available at bottom of email.



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Green Recovery

- WPD is investing up to £60m in the network over the next 2 years.
- Investment will help enable more green developments, such as electric vehicle chargers, mass heat pump installations and renewable generation (e.g. solar parks), to connect to the electricity network.
- WPD identified areas where there is interest in low carbon technology projects and where some network restrictions exist.
- Extensive engagement during a Call for Evidence in Feb/March 2021. WPD received over 200 responses (including new areas) to help us prioritise areas for investment.
- Investment will unlock additional capacity in the chosen areas or bring the network closer to where the third party interest is.
- Additional capacity created by this investment will be available to any customer.



How we made our Investment Decisions

To effectively target the available investment, we needed to determine what could be delivered in the next two years using the core criteria below.

Deliverability: How quickly WPD could complete the infrastructure and solutions

Utilisation: Does a network constraint exist at present and what was the evidence of growth or customer need for capacity in an area in the near term. The number of customers benefitting?

Value for Money: Consideration of scheme cost to the amount of network capacity released and other wider societal benefits

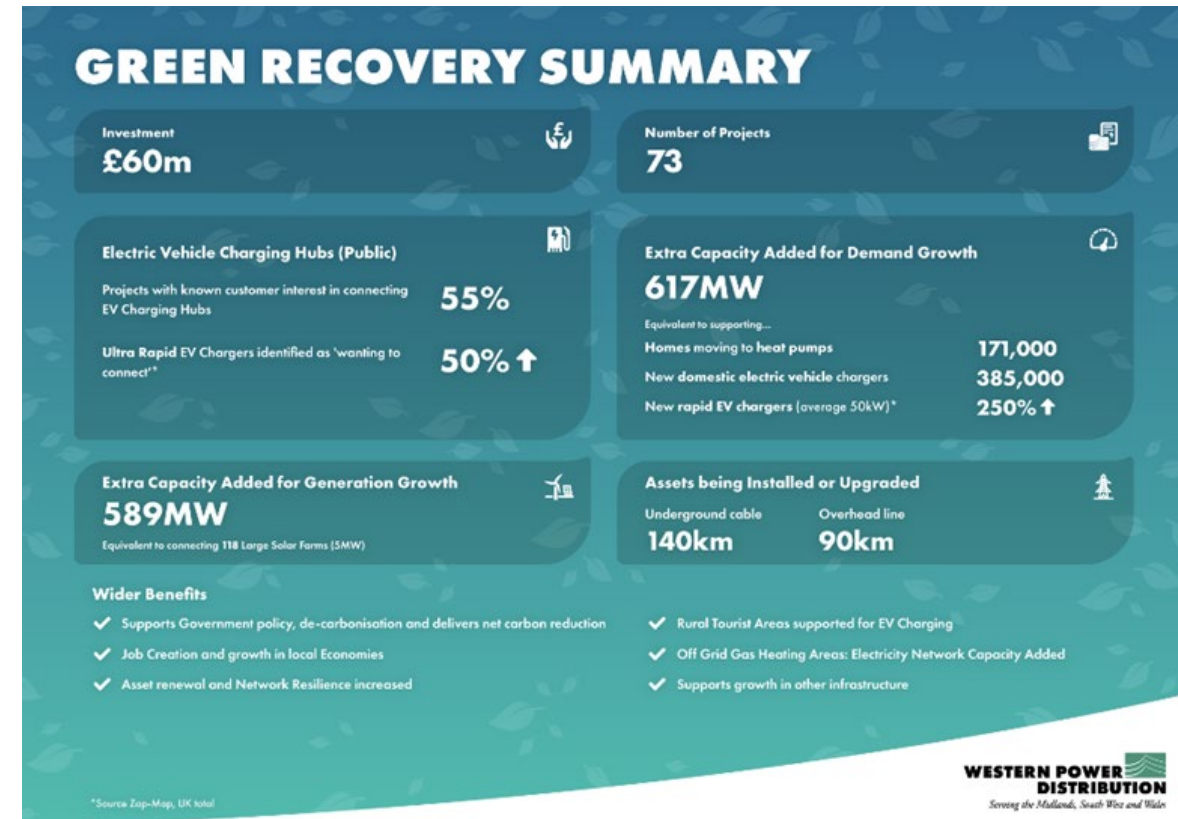
Schemes include network extensions to MSA's, Primary & BSP substation upgrades, 33kV & 132kV circuit upgrades and local level 11kV circuit and HV/LV substation reinforcement

Green Recovery

Project Examples & Summary

- **MID WALES:** Multiple 11kV network investments (new cabling and HV/LV substations) near Builth Wells and Llandrindod Wells. These are rural tourist areas between the Brecon Beacons National Park and Shropshire Hills AONB and will facilitate EV charging in these more remote areas
- **TRURO:** Replacing both 132/33kV grid transformers; this will both boost network resilience and provide extra demand and generation capacity and facilitate the proposed new garden village in that area, as well as areas currently without either gas or electric sourced heating

More information on our Green Recovery projects can be found at www.westernpower.co.uk/green-recovery

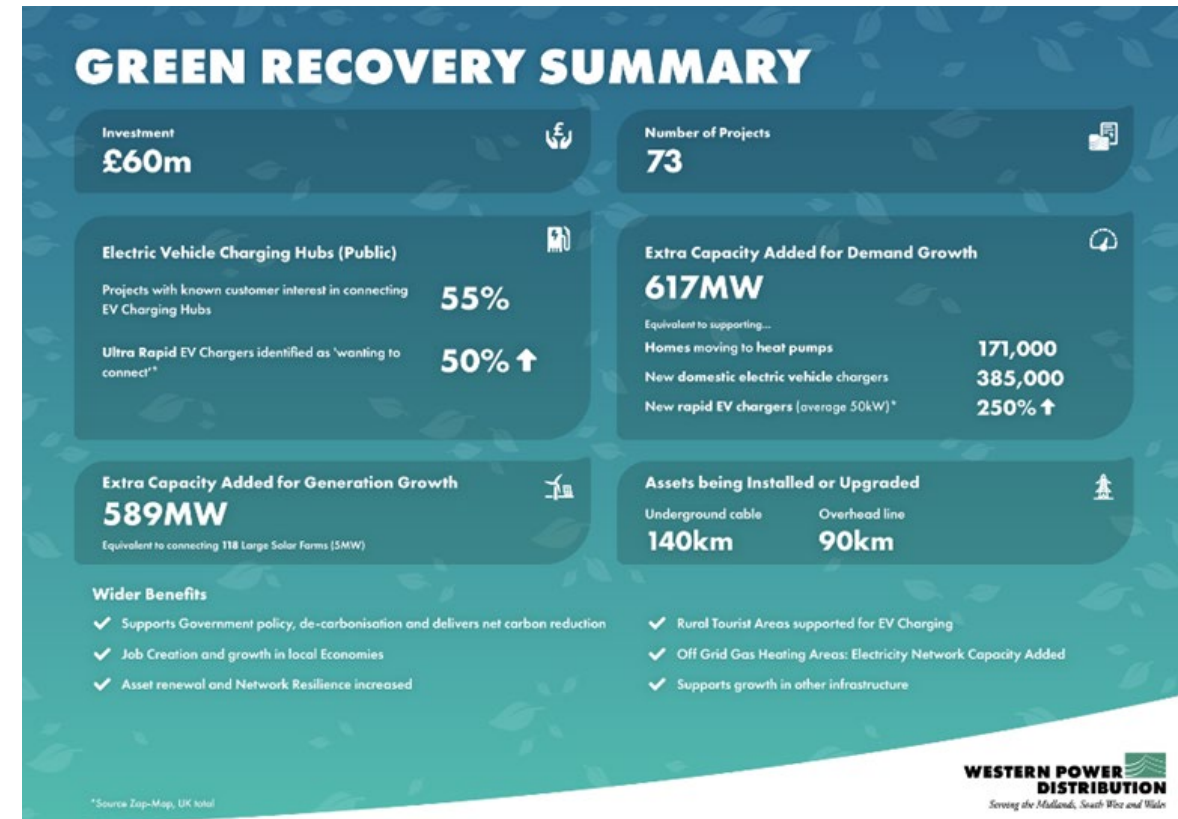


Green Recovery

Project Examples & Summary

- **GLOUCESTER**: An 11kV network extension via two new cables from Tuffley 33/11kV substation towards Gloucester Services on the M4. This will create and anchor node for the interest in connection of demand and generation in this area, including rapid EV chargers at the motorway services
- **NOTTINGHAM**: Installing a new 33/11kV substation at East Croft in the centre of Nottingham; the extra capacity will facilitate demand and generation connections in one of the city's growth areas and increase network resilience

More information on our Green Recovery projects can be found at www.westernpower.co.uk/green-recovery





Break

We will see you shortly



Accelerated Loss of Mains Change Programme update

Andrew Akani

Primary System Design Manager



Serving the Midlands, South West and Wales

ALoMCP Background

- The ALoMCP is a joint initiative with the NGENSO, 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>
- There is additional information and support for generators at www.futureproofyourpower.co.uk to help determine next steps at their site

** Applies to Synchronous Generation only*



Tapered Payments

- Sites completing the changes after **24th March 2022** but on or before **23rd June 2022** will be paid **80%** of the funding amount.
- Sites completing the changes after **23rd June 2022** but on or before **31st August 2022** will be paid **70%** of the funding amount
- Plenty of funding left – please apply!
- ALoMCP funding deadline: **10th May 2022**
- Generators must be complaint by: **1st September 2022**



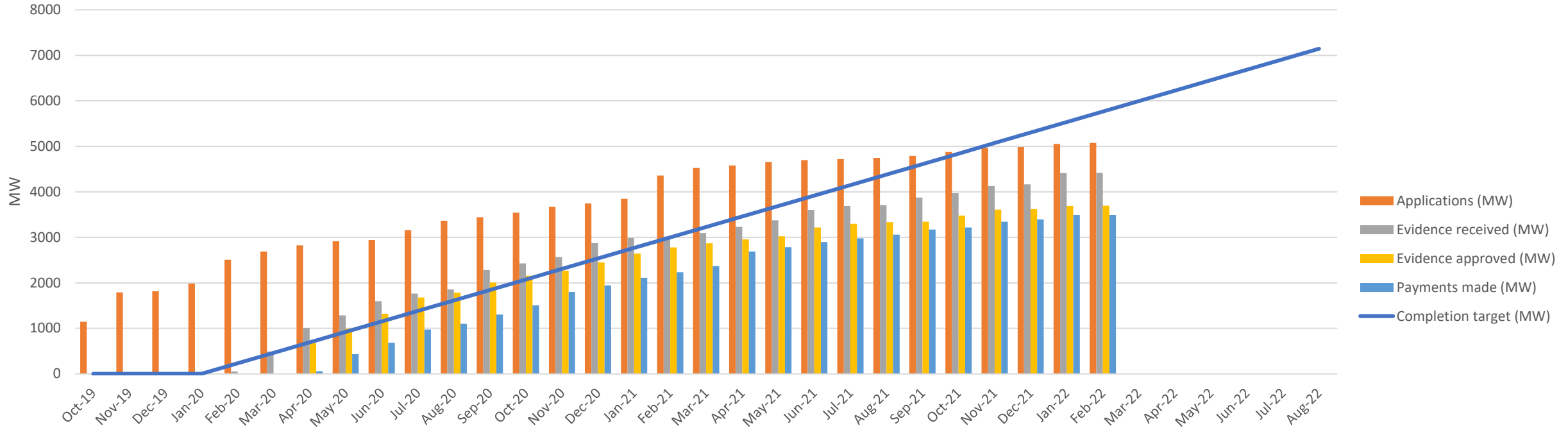
ALoMCP Progress Update

- 2,426 applications received (5.05GW) out of approx. 21,000 sites (approx. 8.6GW).
 - 1,747 sites completed works (evidence received 4.35GW).
 - 1,903 sites paid, over £4.80m.
 - 360+ sites have been selected for a virtual sample site visit. 281 Completed.
- Cost and risk to system operation is reducing as a result of changes through the programme.
- Window 10 closed on 8th February 2022
- **Window 11** is now open and closes on 10th May 2022



ALoMCP Progress Update

ALOMCP Key Milestone Tracker (Capacity MW) - Data as at 07/02/2022



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.
- 2.29GW of Compliance Outside of the Programme declared so far
- Evidence requirements to confirm compliance consist of:
 - Completed Compliance Declaration Form provided by DNO
 - G59/3 Test sheets for all generation that shows the compliant settings, or
 - Manufacturer Data sheet/Picture of device model (to confirm compliance at inverters).



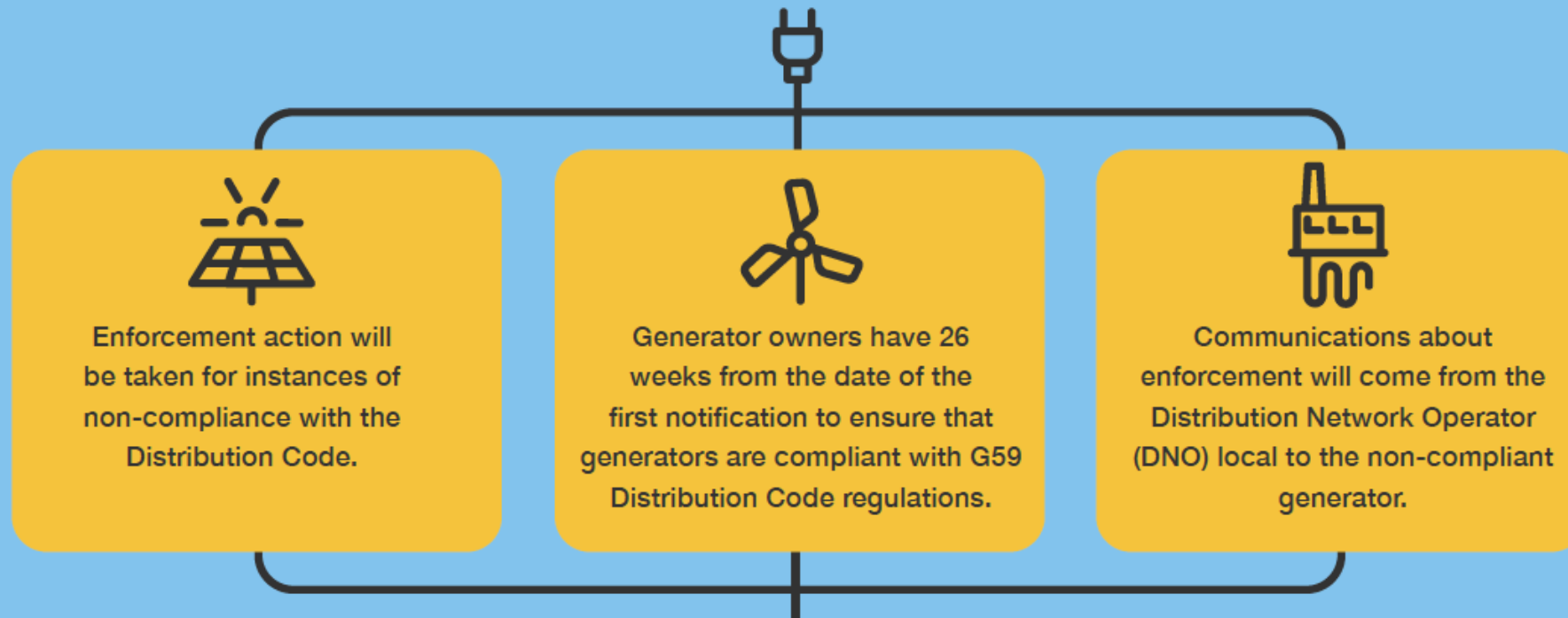
What if I am not compliant?

- Compliance with the Loss of Mains regulations is **not optional**.
- The changes are **mandatory**, and right now there is funding available to incentivise compliance.
- Generators that are not compliant after the deadline will not be tolerated due to the inherent risk that they pose to Great Britain's power supply and communities.
- Those not compliant from 1st September will be subject to an **enforcement process** that could result in the de-energisation of your site.



Enforcement measures for non-compliance

Enforcement process for non-compliance with the Distribution Code



Enforcement measures for non-compliance

Escalating warnings and enforcement action



WEEK 0 first notice

Written notification sets out to generator owner the non-compliance or unknown status of their generator site and sets out the actions to address non-compliance.



WEEK 4 second notice

Written notification sets out whether a response has been received to the first notice. If no response is provided then a physical, durable copy of the notification will be attached at, or as close to, the generator site as possible. The notification will repeat the actions to address non-compliance.



WEEK 8 third notice

Repetition of second notice: written notification sets out whether an appropriate response to non-compliance has been provided. If no response is provided, another physical copy of notification attached at, or close to, the generator site.



WEEK 16 fourth notice

Repetition of second notice.



WEEK 22 final notice

Repetition of second notice.



WEEK 26 de-energisation

If no evidence of compliance provided or evidence is not sufficient to demonstrate compliance with the Distribution Code, the DNO will make arrangements to de-energise the generation site's Connection Point in accordance with Distribution Code DGC12.



ALoMCP Contact Details

- WPD ALoMCP Contact details:

- Email: ALOMCP@westernpower.co.uk

- Telephone: 0800 0328880

- **Please contact us with any queries**

Any
questions?



westernpower.co.uk

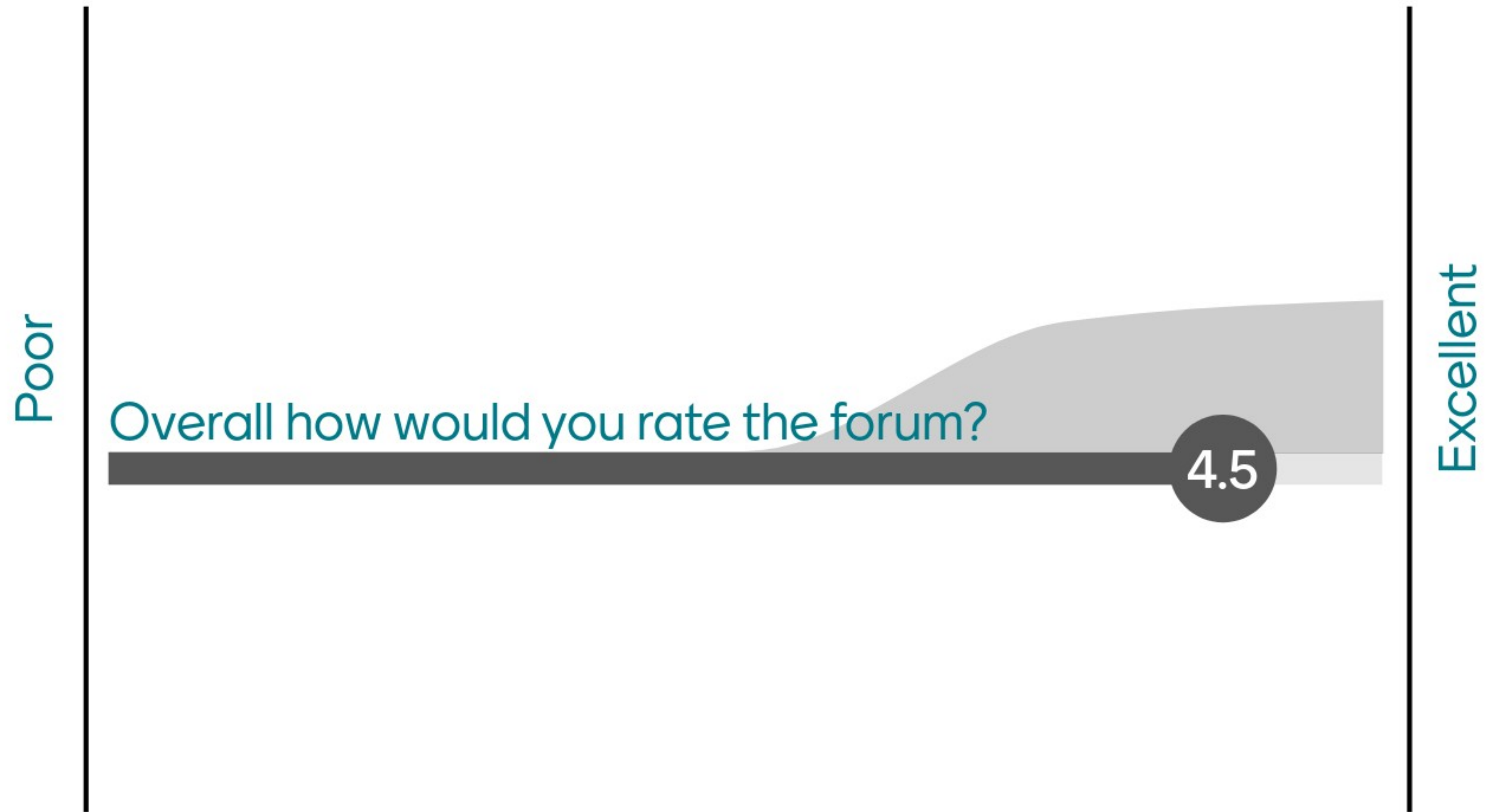


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Feedback



What topics would you like to see further information on from WPD at future sessions?

Management of SF6 leaks on network

Battery storage intergration into network.

IDNO's in local networks as microgeneration expands

List of long outages since previous meetings > 2day?

How can modelling be changed to allow connected generation export at a restricted rate rather than restricting to 0 during times of planned maintenance

Can you suggest anything that would help make these sessions more accessible to a wider audience?

alternate face to face and online meetings, easier to attend online.