



Western Power Distribution - DG Owner Operator Forum

27 October 2020



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

2020



12 August presentation slides

PDF / 2 MiB

Future Forum Meeting Dates



TBC (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.



**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:

<https://generation.westernpower.co.uk/>



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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.

<https://generation.westernpower.co.uk/Media/Documents/WPD-Post-energisation-Guide.aspx>

Webinar agenda

14.00 Introduction, action review and objective setting from the chair and WPD

14.15 Improving industry and WPD communications to address outages/constraints

- Update on the impact of COVID-19 on outages and communication
- Forum member feedback on communication
- Report back from single point of contact
- Latest information regarding the outage portal
- Update on WPD work to merge and minimise length of planned outages
- Update on WPD KPI's

14.45 Upgrading your network connection as a connected customer

Tim Hughes, connections policy manager, Western Power Distribution

15.15 Accelerated Mains Loss of Mains Change Programme

Peter Aston, primary system design manager, Western Power Distribution

15.50 AOB

16.00 Close

ICE 2020/21 Plan Commitments

Two outstanding commitments at last DG Forum in August 2020; DG Community KPI Booklet – Target Q3 2020

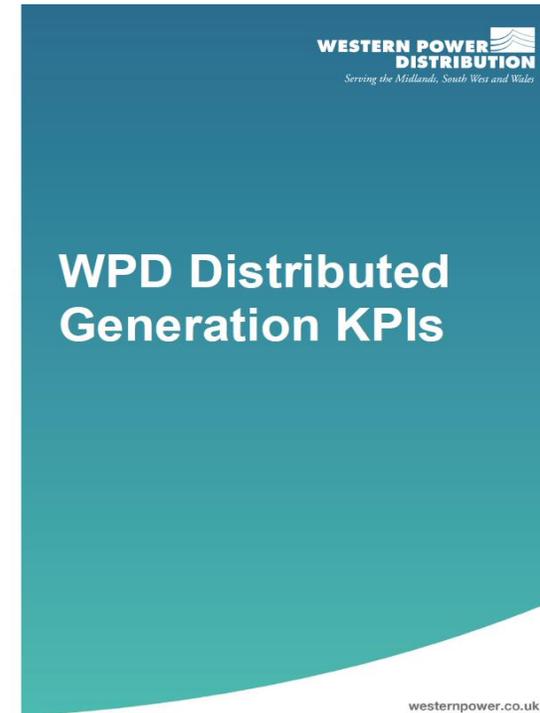
<p>12 Distributed Generation KPI Pack Continuing 2019/20 Initiative 3.11</p>	<p>Develop a quarterly KPI pack incorporating measures on outage activity, timeliness and accuracy of notifications. Work with Distributed Generation Owner Operator (DGOO) stakeholders to identify and develop KPIs aligned with their requirements.</p>	<p>Develop a quarterly KPI pack incorporating measures on outage activity, timeliness and accuracy of notifications. Work with DGOO stakeholders to identify and develop KPIs aligned with their requirements.</p>	<p>Stakeholder feedback and web hits on DGOO webpage.</p>	<p>Q3 Sept 2020</p>			•	•
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DG Owner Operator Portal Outage Reasons – Target Q3 2020

<p>22 Distributed Generation Owner Operator Portal Continuing 2019/20 initiative: 3.13</p>	<p>Enhance DGOO portal to be able to record and communicate reasons for changes to planned outages.</p>	<p>Enhance DGOO portal to be able to record and communicate reasons for changes to planned outages.</p>	<p>Stakeholder feedback on KPI pack published on website.</p>	<p>Q3 Sept 2020</p>			•	•
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DG Community KPI Booklet

- WPD have worked with DGOO stakeholders to identify and develop KPIs aligned with their requirements.
- We have now developed a quarterly KPI pack incorporating measures identified as most important by our DG customers.
- WPD will continue to develop this booklet each quarter to incorporate further KPIs.
- We welcome any feedback / other requests for discussion at further DG events.



KPI: Measure the number of Short Notice Outages

Overview: Following on from discussions with DG customers at recent DG forums, WPD have been asked to measure the number of short notice outages received with less than four weeks' notice that have affected DG sites (interruption to supply or constraint) connected to WPD's network.

Target: To minimise the number of short notice outages that affect DG sites. The number of Short Notice outages from August 2020 are shown below.

West Midlands		
		% of Total
No. of Short Notice Outages requested	57	
No. of Short Notice Outages requested by a DG customer	1	1.8%
No. of Short Notice Outages requiring Generator Constraints	6	10.5%
Total number of DG sites affected by the above outages	7	

KPI: Measure number of users on WPD DGOO Portal

Overview: WPD created the DG portal in 2016/17 to improve communication with DG operators / owners with regards to outage / constraint information.

Target: To increase the number of registered users each year from when the DG portal was introduced in 2016/17. The total number of registered users now stands at 80.

South West & Wales		
		% of Total
No. of Short Notice Outages requested	86	
No. of Short Notice Outages requested by a DG customer	3	3.5%
No. of Short Notice Outages requiring Generator Constraints	22	25.58%
Total number of DG sites affected by the above outages	28	

East Midlands		
		% of Total
No. of Short Notice Outages requested	58	
No. of Short Notice Outages requested by a DG customer	1	1.7%
No. of Short Notice Outages requiring Generator Constraints	8	13.8%
Total number of DG sites affected by the above outages	8	

westernpower.co.uk

Available to view / download on WPD DGOO Portal



DG Owner Operator Portal Changes

WPD Outage Changes

- WPDs Outage Management System (OMS) has been updated across all four license areas to incorporate a 'Reason for Change' field every time an outage is changed.

30917 - Test Outage - DO NOT DELETE Danielle Greedy

Go to outage:

Work Details | Contingency | Operation Notes | Comments | Constraints | Additional Staff / Parties | Attachments

Reason for change

Reason for change is shown to all customers affected by this outage in reports and portal

Site	Constraint	Export (MW)	Start Date	End Date	Interruption
Test Site	Full	0	29/01/2118	30/01/2118	

Notes (Appears on WPD internal documents only)

Reason for Change will appear on:

- WPD Four Week Report
- WPD DGOO Portal

Co-ordination / Merging of WPD Outages

WPD Outage Planning for 2021/22 due to begin December 2020

- NGC Year Ahead (2021/22) Plan due early December.
- WPD 132kV Outage Plan will start being built from mid-December onwards.
- Outage Planners have requested year ahead outages that affect DG customers for April 2021 – March 2022.
- WPD 33kV Plan will follow this.
- Each outage planner will have the task of coordinating / merging outages where possible.
- DG customers can also contact WPD to let us know when they would like to do planned maintenance at their sites. We can then inform local area to see if we have any works to complete on the circuit in question. If yes, the outages can then be merged into one single outage, therefore reducing the impact on DG sites.

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Upgrading existing DER connections WPD's Process

Tim Hughes
Connections Policy Manager



Availability of network information

- You can undertake your own homework by visiting our Energy Data Hub
 - ✓ Network Capacity Map
 - ✓ Common Information Models
 - ✓ Embedded capacity register
 - ✓ Dataportal2
- <https://www.westernpower.co.uk/our-network/energy-data-hub>

The Energy Data Hub

Enables easy access to all our existing data that we currently share with the industry, regulator and the customer

Our aim is to unlock value from data within the energy system and produce cost effective systems that work for consumers



Pre-application options

- WPD offer a number of options for gathering information prior to making a formal application:
 - ✓ Connection Surgeries available for discussing your plans with us at an early stage
 - ✓ Budget Estimates when you want an idea of the costs to connect
 - ✓ Feasibility studies when you are still evaluating your options and want more detail

Connection Surgery:

South West & Wales: 0800 028 6229

Midlands: 0800 121 4909

Email:

wpdconnectappoint@westernpower.co.uk

Online:

<https://yourpowerfuture.westernpower.co.uk>

We will call you within 2 working days



Applying for an upgrade

- For increases in export capacity the process is very similar to applying for a new connection
- Applicants should utilise the ENA standard G99 form
- We will acknowledge receipt of an enquiry for connection and inform you of the Planner designated to assess the application and prepare the Connection Offer
- A Connection Offer will be provided within 65 working days of receipt of the application

Connection of Power Generating Modules to DNO Distribution Networks in accordance with EREC G99

Version 6, May 2020

www.energynetworks.org

Modifications

- Where there is no increase to export capacity an application for a Modification should be made
- The Application Form may be used where there is a technology change or removal
- The Application Form may also be used if you are not changing the technology but will be carrying out works which will impact the fault level or harmonic contributions
- Where required we will send you a Connection Offer
- A variation to the Connection Agreement may also be required

Application for a Modification to an Existing Connection

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(If you have any questions regarding how to complete this Application Form please contact us for assistance.)

What can this form be used for? – You can use this form to request:

- New or replaced technology, such as generation, motors, welders, heat pumps and electric vehicle charging
- Change to total installed generation (where no increase to export capacity)
- Change to fault level or harmonics contributions
- Decrease in maximum import (MIC) or export (MEC) capacities

Note: This form may not be used to request an increase in maximum import or export capacities. Please complete the Application for a New or Augmented Connection in these instances. We may also identify the need for a full application based on the information you provide, e.g. where increasing fault level infeed. We will let you know as soon as possible if this is required.

Section A – Your Details

1. Customer address details
Please provide details of the existing customer

Title: First Name: Last Name:

Company (if applicable): Company Registered Number (if applicable):

Number: Building name: Street:

Town: City: Postcode:

Daytime Telephone: Mobile: Email:

2. Premises address (if different from above)

Number: Building name: Street:

Town: City: Postcode:

3. Representative details
With your consent we can liaise with a contractor, supplier or agent acting on your behalf. If you want to nominate a representative please complete the details below

Title: First Name: Last Name:

Company (if applicable): Company Registered Number (if applicable):

Number: Building name: Street:

Town: City: Postcode:

Daytime Telephone: Mobile: Email:

Upgrading to a firm connection

- In this context if a customer is currently part of an ANM scheme they may apply for an unconstrained connection
- We will assess the available capacity at that moment in time and pass through any applicable reinforcement charges in line with our published charging methodology
- We will send you a Connection Offer setting out the terms for connection
- The Connection Agreement will be varied to accommodate the changes

Curtailment could change if the network changes. It may increase or decrease dependent on the changes. This may include new conventional connections, condition based asset replacement or upgraded assets due to load growth

DGOO

Thank you

www.westernpower.co.uk/ice



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ALOMCP update

Accelerated Loss of Mains Change Programme update

Peter Aston, Primary System Design Manager



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ALOMCP update

Overview

- South Wales transmission network capacity
- Hinkley Point C connection
- Accelerated Loss of Mains Change Programme update



South Wales transmission capacity

South Wales transmission capacity

- May 2016 – restriction imposed by NGENSO on thermal plant connecting in South Wales.
- This included batteries, gas, diesel, etc, anything that could run at peak times.
- Connection dates were 2026.
- NGENSO notified WPD at the end of Sept 2020 that this restriction is now lifted.
- This is due in part to the closure of large thermal plant and changes to contracted background.
- Thermal plant are no longer restricted by wider transmission issues.
- Note, connections are still subject to assessment by WPD, NGET and NGENSO.
- Other more local issues may still cause restrictions.
- <http://www.westernpower.co.uk/our-network/statement-of-works>
- It is advised to book a Connection Surgery with the South Wales connection teams to discuss (wpdconnectappoint@westernpower.co.uk).



Hinkley Point C connection

Impacts on WPD

- Diversion works from LV up to 132kV
 - Most along the route of the new 400kV line
 - Some along the route of haul roads
- Establishment of Sandford GSP
- Removal of F route 132kV line
- Remaining network as secure as the existing network
- Works mostly up to early 2024
- <https://hinkleyconnection.co.uk>



ALOMCP update

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 31 Aug 2022. Everything greater than 16A/phase (3.68kW single phase, 11.04kW three phase).**
- **Payment is up to £4000 per site for settings change/disabling, or £4000 per relay for a relay change**
- **Applies to relays and inverters**
- **Link to ENA webpage: <https://www.ena-eng.org/ALoMCP/>**



ALOMCP update

Windows for application

- Window 5 (10 Aug- 10 Nov 2020) and Window 6 (10 Nov 20 – 10 Feb 21)
- Likely that applications will be extended to Windows 7 and 8, up to Aug 2021
- Only had about 70 applications in Window 5, compared to 456 in W1 and 254 in W4.
- Recognised contractors list published <https://www.westernpower.co.uk/our-network/loss-of-mains>
- Programme has continued through Covid restrictions



ALOMCP update

Inverters

- Inverters may contain G59 settings
- These settings need to either be changed or disabled
- ENA guidance on inverters <https://www.ena-eng.org/ALoMCP/mankb>



ALOMCP update

Invoices and payments

- Once a customer has undertaken the works, an invoice is sent to WPD, along with the evidence
- WPD reviews the evidence
- Once the evidence is reviewed and is satisfactory, WPD raises a payment for the customer
- WPD then claims the money back from NGEN



ALOMCP update

Progress

- 1475 applications received (3.75GW) out of approx. 10,000-15,000 sites (about 10GW)
- 990 sites completed works (evidence received)
- 680 sites paid, over £2.5m
- 95 sites have had a virtual sample site visit
- Completion dates currently into Q1 2021
- 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.



ALOMCP update

Engagement

- Due to limited activity to date, DNOs are stepping up their engagement
- Specific comms going to larger customers with known email addresses and telephone numbers
- Bulk letter drops going to all customers who haven't applied and might need to make changes
- All customers need to be compliant



ALOMCP update

Fast track

- An additional £5000 payment per site
- Runs in 'schemes', with each scheme having specific criteria
- Make the required changes within 4 weeks
- Specific criteria for the current scheme:
 - Site capacity: $\geq 500\text{kW}$ up to $< 5,000\text{kW}$
 - Existing Protection: ROCOF, up to and including 0.2Hz/s
- <https://www.ena-eng.org/ALoMCP/>
- Not many applications yet



LoM Accelerated Loss of Mains Change Programme

Home Assistance Contact Us

Log In

Register

Welcome to the ENA's Accelerated Loss of Mains Change Programme (ALoMCP)

Fast Track Scheme 1: Critical RoCoF [ALoMCP - Coronavirus Pandemic Response](#) (Updated 17th June 2020)

The Energy Networks Association (ENA) represents the interests of all energy network companies in the UK. For more information about the ENA, please visit the [corporate website](#).

For more detail on the Accelerated Loss of Mains Change Programme, please click [here](#). For a FAQ on technical issues, please click [here](#). The proforma for submitting evidence of the changes made can be downloaded [here](#).

Registered users can login [here](#). Unregistered users should register [here](#).

Fast Track Scheme 1: Critical RoCoF

The ALoMC Programme has identified that there are additional savings to overall system balancing costs in making changes to RoCoF loss of mains (LoM) protection more quickly than originally envisaged.

Sites meeting the criteria below will be fast tracked through the application process and are eligible for the additional payment shown. Full details of the Fast Tracking Scheme can be found in the Payment Process Specification which is published on the ENA's website [here](#).

Item	Description
Scheme becomes active on	29 June 2020
Cap	The Fast Track is open to 100 sites initially and the programme will review whether to extend this based upon market response and the ability of the supply chain to sustain it.
Criteria	<ul style="list-style-type: none">• Site Registered Capacity: minimum 500 kW but less than 5MW• Type of LoM protection: RoCoF• Pre-change RoCoF settings: Up to and including 0.2Hz/s• Lead time: Less than or equal to 4 weeks
Fast-tracking payment	£5000 (plus VAT) per site

Close

ALOMCP update

Contact WPD about the programme

- Email: ALOMCP@westernpower.co.uk
- Telephone: 0800 0328880

Any
questions?



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ALoMCP - how can the programme engage better with smaller customers to get better participation in the scheme?

Engage with community energy groups with generation?

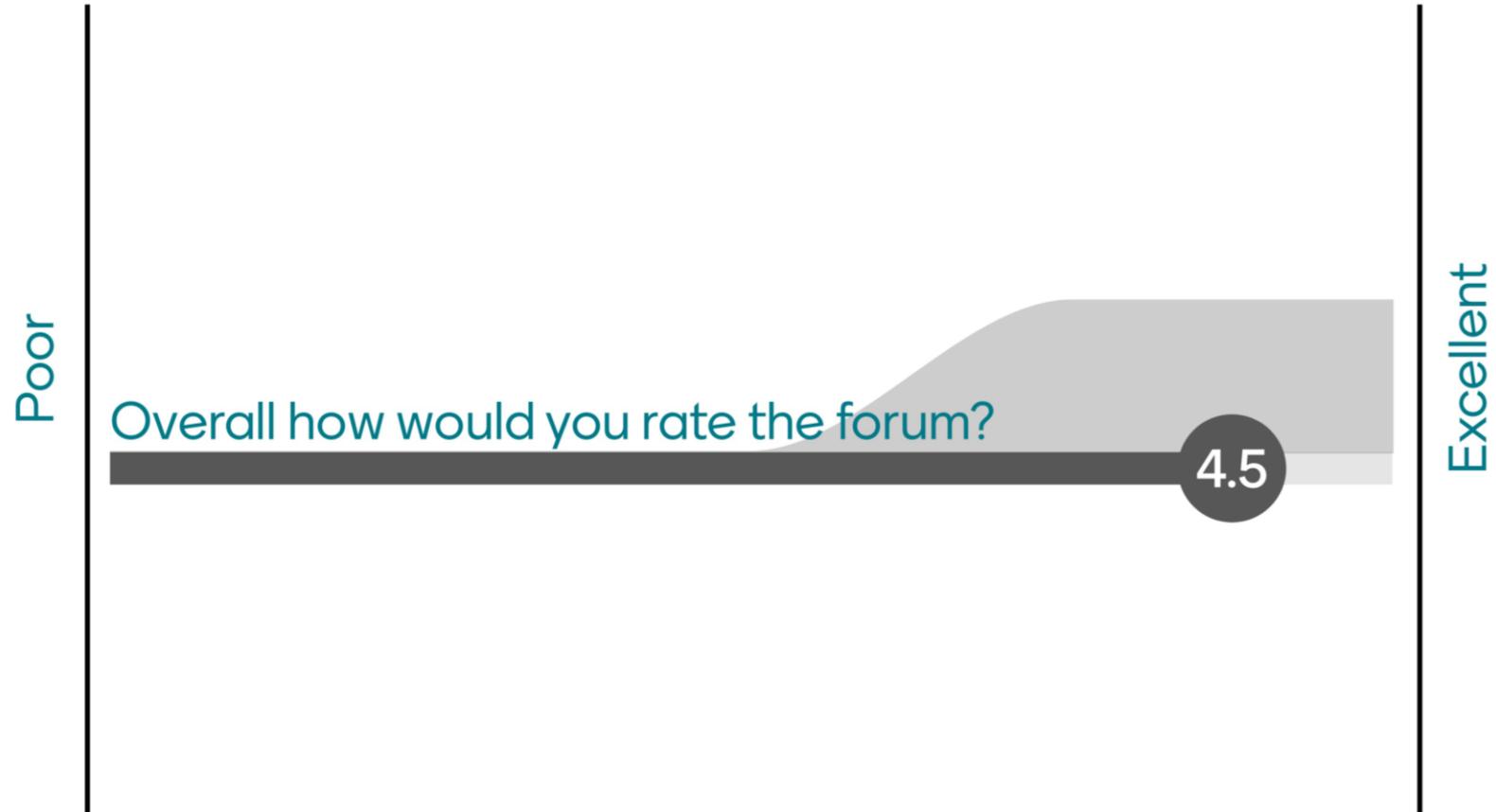
Perhaps ask local authorities to speak to these smaller owners.

Supplying an approved contractor to carry out the works.

Work with companies who can manage the process for owners, clients we work with are not comfortable with the technical elements and it is not in the O&M scope



Feedback



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

Updates on Hinckley C connection as it comes out

Sharing solutions to NEDERs.

Assuming next session is in early 2021, it will be good to get an update on the summer 2021 outage schedule.

Unplanned outages and faults. Notification messages and response times.

The current agendas are good. Further information on large works in the area such as that relating to Hinckley point.

