

Flexible Power

Year in Numbers 2019

Summary

To enable a greater volume of demand, generation and storage to be connected, Western Power Distribution's networks are becoming smarter and more active. Creating a more efficient and flexible electricity system will benefit all customers and empower them to be at the centre of the energy revolution.



This report details how WPD has been actively using flexibility, contracted through third parties, to deliver solutions for our network throughout 2019.



To get involved with providing flexibility to WPD, please visit www.flexiblepower.co.uk

Coverage

2019 saw a significant increase in the areas where we were seeking to use flexibility on our network. During the 2nd procurement round of 2019 we offered flex providers the option of securing a longer term contract of up to 4 years rather than the 1 year contract. The result of this was that 50% of providers took up the longer term offer.



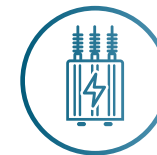
29

Significant reinforcement schemes assessed



3

Potential reinforcements deferred

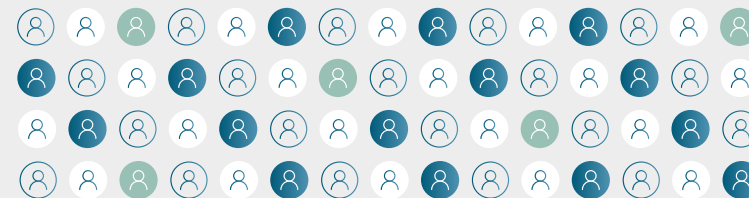


122

Primary substations where flexibility sought

803,166

Customers served within flexibility locations



Product offerings to market:



Secure

Pre-Fault



Dynamic

Post-Fault



Restore

Outage Restoration

System needs

Flexibility can help support our system, enabling us to deliver a safe, secure and economic service. As our usage of flexibility as a whole increases so too will the power and energy we require.

184MW

Peak power required

1,660MWh

Annual energy required

34,779MWh

Annual availability required

Zones



7

Secure zones



10

Dynamic zones

Funding



100%

Funded through
BAU activity



0%

Funded through
innovation trials

Market response

297MW

Volume of interest from market

123MW

MW Contracted



125

Flex Providers
entering procurement



17

Contracts
signed

Conventional reinforcement

72

Number of significant conventional reinforcement schemes completed



£44.8m

Total spend on conventional reinforcement



£26.4m

Value of deferred/avoided reinforcement in areas of successful flexibility



£547,000

Flex Spend in 2019



Operational performance



Secure

638^{MWh} / 126^{MWh}

Availability offered / accepted



Dynamic

32016^{MWh} / 6578^{MWh}

Availability offered / accepted



Restore

74252^{MWh} / 74252^{MWh}

Availability offered / accepted



590 ^{MWh}

Total dispatched by WPD



543 ^{MWh}

Total delivered by Flex Providers



92 %

Average Flex Provider delivery



Earning potential

Secure areas



£300 per ^{MWh}

Dynamic areas



£300 per ^{MWh}

Restore areas



£600 per ^{MWh}

Flex Provider satisfaction



of existing Flex Providers would recommend Flexible Power to other organisations.



agree it is useful for their company.



agree it is useful for the wider energy system.

Flex Provider experience



Simple tendering process



Straightforward contracts and payment terms



Responsiveness of the Flexible Power team



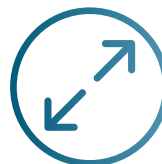
Extra revenue stream that is stackable and compliments day to day business

Action on feedback

We held 8 stakeholder events over 2019 and published a public consultation to gather feedback from existing Flex Providers and wider market stakeholders. As a result we introduced changes to the Flexible Power offering which seek to lower barriers and maximise participation from wider market demographics.



Minimum run times reduced to one hour.



Minimum asset size removed.



Liabilities capped and mutual.



Flexible Power portal investment for increased asset operability.