



Part Two Submission:

Stakeholder engagement outcomes



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D's detailed report - Q1a. What do you think about our approach to reporting for 2015/16?



boards of the

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This document is Western Power Distribution's **Part Two submission** to Ofgem's Stakeholder Engagement & Consumer Vulnerability (SECV) Incentive for the regulatory year 2016/17.

Western Power Distribution (WPD) is the Distribution Network Operator (DNO) responsible for delivering electricity to 7.8 million customers across the East and West Midlands, South West England and South Wales.

Ofgem's SECV Incentive is an annual scheme that encourages network companies to engage proactively with stakeholders in order to anticipate their needs and deliver a consumer focused, socially responsible and sustainable energy service. WPD's submission to this incentive is divided into three parts:

Part 1: WPD's stakeholder engagement & consumer vulnerability strategies and key evidence (demonstrating that we meet Ofgem's minimum requirements).

Part 2: Key outcomes resulting from WPD's stakeholder engagement activities.

Part 3: Key outcomes resulting from WPD's consumer vulnerability activities.

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Welcome

I expect every key decision taken at WPD to be underpinned by stakeholder engagement. We serve 7.8m customers who rightly expect the highest levels of performance from a business that refuses to stand still.

We build long-term and enduring relationships with stakeholders. We follow a cycle of engagement where we not only seek feedback and identify actions, but we use input and collaboration throughout implementation. We put measures in place so stakeholders can review the outcomes and then we return periodically to ask how we can improve further.

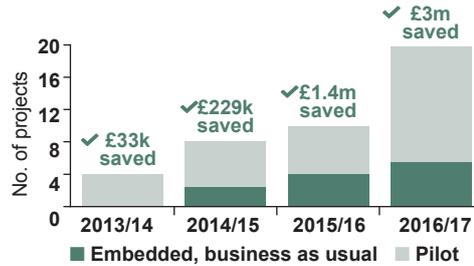
Enduring engagement and embedded initiatives deliver the most robust and beneficial outcomes for customers.

It is also vital to strike a balance between the piloting of new, innovative approaches, and simultaneously scaling-up and rolling-out established, successful schemes. The key is that we seek continuous improvement.

A combination of new initiatives and expansions of previous pilots has realised a number of achievements in 2016/17:

- Best ever customer satisfaction (8.91/10).
- Highest ever percentage of proactive contact to customers (49%).
- Unlocked of unprecedented levels of capacity on the network to help connect more low carbon technologies (2GW).

- Proactively supported more vulnerable (691,499) and fuel poor customers (11,776) than ever before, achieving huge savings for these customers. Eg:



Stakeholder engagement is embedded in the way WPD operates. There have been five key enablers to achieve this:

- 1. Leadership.** I personally chair every Customer Panel, Connection Steering Group and Parliamentary reception.
- 2. Engagement.** This leads to action because talking shops are a waste of time. We engage on immediate service improvements as well as long-term strategic priorities, and develop clear

action plans as a result.

3. Dedicated resources to deliver. I review WPD's updated engagement strategy annually. It contains budgets, resources, owners and planned outcomes, all overseen by WPD's Stakeholder and Social Obligations Manager.

4. Embedded in our culture. We follow a centrally co-ordinated, locally delivered model. Engagement is everyone's responsibility – as you will see from one of my Network Services Managers below. In 2017, a Customer Service Excellence assessor remarked: "the influence of exceptional stakeholder engagement can be seen at every level of the organisation."

5. Long-term focus. WPD faces the biggest shift in its history as new capabilities and skills are developed as part of its transition to a Distribution System Operator (DSO). It is vital that our strategy is for the long-term and that our stakeholders are involved at every stage.

Robert Symons, WPD Chief Executive

Specifically introducing our Part Two submission



Mark Shaw
Network Services
Manager - West Midlands

I have eight Distribution Managers who are responsible for every aspect of the network in their area. It is vital the managers responsible for maintaining the network, regularly engage stakeholders to understand their concerns and priorities. In the last twelve months I have met with local MPs to discuss network reliability, investment programmes and various smart grid projects. I have met key stakeholders as part of the construction of the HS2 rail line, Severn Trent Water regarding new connections

and generators regarding a new wind farm site.

The key focus of our engagement in 2016/17, as shown in this Part Two submission, has been on the changing role of network operators in a smart future. As well as building relationships locally, it is vital that WPD's network managers engage stakeholders about this transition. In January 2017, eight of my operational managers joined 16 of their colleagues from other WPD regions, to facilitate our annual workshops and hear first hand from a variety of stakeholders.

This submission is full of examples of how engagement is embedded within our teams. It is

structured around our key drivers for 2016/17 - to ensure:

- Our actions deliver value for money.
- Our core programme is fit for the long-term.
- We are effectively addressing stakeholders' top priorities to 'keep the lights on' and 'build a smart network'.
- We collaborate with others where possible.

Success must be defined by the outcomes we deliver. This is not the number of events held or people engaged; it is the positive changes our engagement has delivered and the value stakeholders place on them.

Key outputs we've delivered:



*since 2013

Our stakeholder strategy

Networks are at the start of a significant change programme, working with customers to operate a smarter electricity system. Quality, meaningful stakeholder engagement is the cornerstone of this shift and the new relationships with customers that it will bring.

WPD's engagement strategy (in Part One, pages 2-4) has been in place since 2007 and is embedded in our company's decision-making process. In summary our approach is four-fold:

1. Inclusive and tailored - We set clear objectives before we engage, identify all relevant stakeholders and tailor our approach to suit the topic and organisation/sector's needs.

2. Embedded - Engagement is core to our business decisions and over 24 Operational Managers facilitated events in 2017.

3. Long-term - Engagement is enduring and iterative, not just "business plan and forget".

4. Outputs - Engagement leads to action.

External assessors such as the British Standards Institute continue to rate WPD's strategy as effective and leading; proven by its flexibility to change.

We have a long-term approach. We have engaged with over 3,000 stakeholders face-to-face every year since 2010 and over 6,000 in the current year alone, with the majority led by the operational business. Quantity in itself does not ensure quality, however long-term relationships are a critical factor.

Our 2017 annual workshops saw their largest ever attendance, with the highest return rate of 54% having previously engaged with WPD. Stakeholders see the value of engagement and the improvements it leads to. This continuity enables a deeper exploration of the issues, leading to more strenuous and constructive challenge.

The role of networks is changing

An unprecedented focus on the changing role of networks should not necessarily lead to a change in our strategy. Instead we review it annually, identifying strategic focus areas and principles to achieve it.

Our high-level engagement focus is two-fold:



In 2014/15 stakeholders identified nine key long-term topics and WPD has focused in-depth on two of these at our annual workshops over the last three years. This established focus on future challenges was reinforced in November 2016, by the Government and Ofgem's call for evidence on 'A smart, flexible energy system', which represents a significant re-set moment for the role of networks.

In 2017 stakeholders made it clear that two priorities take primary significance - "keeping the lights on" and "smart networks". The others are influenced by, or contribute towards, these. For instance, WPD's approach to vulnerability is shaped by our number one priority to "keep the lights on", whilst the workforce and skills required

Stakeholders' long-term priorities:

1
Keeping the lights on

2
Smart networks
(becoming a Distribution System Operator)

- 3 Environment & sustainability
- 4 Workforce renewal, skills & training
- 5 Vulnerability (to power cuts)
- 6 Government legislation & policy
- 7 Affordability
- 8 Customer information & data
- 9 Customer awareness

in future will be shaped by the requirements and timescales of building "smart networks" and our transition to become a DSO.

The remainder of this submission will therefore be structured around these two primary long-term priorities. It will explain the crucial role stakeholders are playing to help WPD better understand the issues, develop longer-term plans and deliver immediate outcomes and benefits today.

Updated strategy to 2023

We will:

- Engage on service standards, improvement options and willingness to pay, to drive continuous improvement and measure value for money.
- Involve stakeholders in the ongoing reporting of business plan performance to demonstrate we deliver our promises.
- Seek early input to develop plans for the long-term, rather than "consult" on them.



Measuring the value to customers

WPD’s guiding principle is that “engagement leads to action”. Part One, pages 5-7, evidences that feedback directly led to over 149 positive outcomes in 2016/17. As admirable as these outcomes are, and undoubtedly they have improved service standards, it is critical that we can demonstrate that the quality of these outcomes and the scale of action, is appropriate to the value placed on it by our stakeholders.

Whilst for some outcomes there is a clear financial benefit – eg. a £834k investment in WPD’s fuel poverty outreach programme saved customers £3m – for others the benefits are qualitative. As such, it is vital to consider if customers sufficiently value the outcome to justify the cost of delivering it.

In 2015 we assessed retrospectively the impact of actions in overall service areas (eg. customer satisfaction). In 2016, we built on this, undertaking willingness to pay research to enable cost benefit analysis ahead of undertaking specific, key flagship projects.

Taking the findings of WPD’s previous research, which revealed the value of overall improvement in core service areas, in 2017 we took this a stage further to reveal the value customers place on a range of actions and expenditure propositions we could deliver to achieve these. Working with research experts ‘Accent’, we surveyed 800 domestic and 400 business customers.

What we did

Assessing value for money is a challenge all energy networks are tackling. We therefore invited UK Power Networks and National Grid Gas Distribution (NGGD) to join us to undertake a more in-depth willingness to pay exercise and develop a method that can be rolled-out industry-wide.



The survey was structured around five stated preference exercises, where participants were asked to prioritise and value possible actions for: Customer satisfaction, vulnerability (to a power cut), fuel poverty, connections and smart networks.

Through a number of ‘choice experiments’ 1,200 customers were asked to make a variety of trade-offs to obtain robust willingness to pay values for their preferred levels. **We are not actually asking customers to pay more** – the figures show the intrinsic value to them of the improvements offered and what they would hypothetically be willing to pay to achieve them.

For example, 2016 research showed that in the area of ‘connections’, customers most valued:

A 7% improvement in satisfaction (to 8.8/10)

In 2017, we tested the value to customers of various actions we could take to achieve this:

More network information available, eg. capacity maps to see where best to connect

Improve customer services throughout the connection process

Make it easier to connect low carbon technologies to the network

Increase support for Community Energy schemes and initiatives

Plans for future energy scenarios, to help tackle network constraints

Delivering this value – how it has shaped our programme

This innovative approach is helping us to develop a programme with stakeholders that not only delivers service improvements, but returns maximum value to customers. The network portion of bills is agreed and won’t change, but it helps us to prioritise actions, resources and expenditure, ensuring outcomes are significantly cost beneficial. The table below summarises the value of our core programme:

Improvement level & key action(s) valued by customers		Value to customers	Outcomes/benefits delivered (incl. any additional quantitative savings)	Cost to deliver	Cost benefit
Customer satisfaction	5% satisfaction improvement (to 9.20/10) Improve quality of response to customer contact (eg. speed of response, accuracy of information, variety of ways to access information) Increase proactive contact with customers during emergencies	£2.80-2.60 per customer	2.5% improvement (8.91/10) 80+ outcomes in total. Eg: • 1.03 million proactive contacts to customers in 2016/17. 49% of contact is now proactive (up from 40%) • New two-way text messaging service launched • Number of mobile phone records increased to 60% (from 47%) enabling more targeted messaging • 24/7 webchat service - 24,537 chats (highest ever), with 95% satisfaction and speed of response 40 secs • New policy to keep ramp-up Call Centres open longer in storms (by non-operational staff), to enable core Centres to do proactive calls only - highest satisfaction in every month of named MET-office storm	16p per customer (£1.23m total)	£1.14 per WPD customer <i>(Note: calculated using half the ‘value to customer’ figure, as only half of target achieved)</i>
	7% satisfaction improvement (to 8.8/10) Make it easier to connect low carbon technologies to the network Improve customer services throughout the connection process		6.5% improvement (8.73/10) 25+ outcomes in total. Eg: • Future energy scenarios complete for South West & South Wales • South West regional development plan published. Distribution System operability framework developed with National Grid (TSO) • Interactive online capacity map launched • Average connection cost online calculator launched • 2GW network capacity unlocked via 571 smart connections offers. • New capacity loan trial launched		
Emergency resilience	Emergency response partnerships in place with local communities Improve overall reliability of networks Provide easy access to accurate information during outages	£6.00-£3.80 per customer	• Expanded use of generators to ensure quicker restoration (£1.5m expenditure). 89% of HV faults restored within 1 hour • Meet with every LRF in our footprint each year • 99.96% incidents had an estimated restoration time added within 15 mins • 8.92/10 satisfaction (highest ever) with usefulness of information provided • Power cut notification devices installed in vulnerable customer properties to prompt proactive contact immediately following a power cut • Emergency planning guides to help 50,000 small businesses in power cuts	21p per customer (£1.66m total)	£3.59 per WPD customer

For cost benefits for ‘vulnerability’ and ‘fuel poverty’ activities see Part Three, page 3

A Customer Panel for the long-term

Whilst research provides a vital steer, when it comes to devising our strategy, implementing policies and setting KPIs, ongoing engagement with stakeholders is critical. Overarching our entire approach is WPD's expert Customer Panel.



There are 34 permanent members, representing all key segments, ranging from domestic customers, to businesses and connection representatives, local authorities, utilities, and vulnerable customer representatives.

Average member tenure stands at over four years, enabling members to scrutinise issues in a robust and in-depth fashion. At the same time it is integral that membership evolves to reflect WPD's long-term priorities. In 2016/17 we welcomed Devon & Cornwall Business Council, Citizens Advice, South West Water, Sustain Wales and a new domestic customer.

Every session is led by WPD's CEO and, new this year, a Board Director. This reflects the Panel's vital role to provide key strategic steer and critical evaluation of WPD's future plans.

Now in its 10th year, the Panel is established and enduring. An annual refresh of membership, external benchmarking by the Customer Service Excellence Standard and the scale of outputs the Panel delivers, are all indicators of its effectiveness. That said, we continue to review

alternative approaches and challenge ourselves to identify improvements. To ensure the Panel remains relevant and best placed to influence WPD in the long-term, in 2016 we commissioned independent research with members to review its format, function and form. As a result:

- An independent Panel Leader has been appointed, although members rejected any change to WPD's CEO as Chair, commending the ownership and accountability this brings.
- We have introduced member-only pre-meetings and occasional 'closed' sessions to enhance the Panel's independence.
- Members will develop a forward-looking Challenge Report annually detailing the areas they expect WPD to focus on.
- WPD now funds Panel-commissioned research topics (to aid the above).
- A member-written Spotlight Report will be added to WPD's annual Business Plan commitments report.
- WPD will hold education sessions to improve members' knowledge on long-term issues (eg. energy scenarios and network capacity).

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For example:

- Review of the PSR Policy and creation of a new process to remove 352,046 out-of-date records (where we have had no successful contact in three years).
- Review of social obligations strategy and creation of £90k Innovation Fund.
- Stronger Together fuel poverty conference with Wales & West Utilities and Welsh Water following collaboration with Warm Wales.
- Reviewed and amended WPD's innovation strategy, connections improvement plan and planned connections engagement process.
- New policy to make Key Account Managers available as points of contact for major connections customers.
- New storm bulletins created for stakeholders for use before, during and after events. Over 3,559 stakeholders registered in the first month.
- Added YouTube videos to our social media portfolio.

Stakeholder workshops

Our annual workshops play a crucial role in delivering our two-pronged engagement strategy - to involve stakeholders in the delivery and reporting of our Business Plan, while at the same time identifying long-term strategic priorities and ways we can begin to address these today. In 2017 we engaged the highest number of stakeholders ever – 270 – via six events in locations ranging from rural Cornwall to major cities like Birmingham.

- **This is the fifth consecutive year that attendance has grown.** We engage a wide and balanced cross-section of stakeholders including domestic customers, utilities, DNOs, suppliers, local authorities, developers, charities, businesses and consumer bodies.
- **54% had previously attended a WPD event,** demonstrating the enduring relationships we are successfully building. This enables informed feedback on in-depth issues relating to WPD's future. 100% rated the events useful and felt their views were accounted for.
- **Round-table discussions were facilitated by 24 Operational Managers.** Engagement is everyone's responsibility and is embedded into our decision-making. Those responsible for delivering the outputs that stakeholders influence, are the ones to receive that feedback directly.



Each workshop had four sessions, each with clear objectives. Feedback led to

39 OUTPUTS

1. WPD's Business Plan reporting

Objective: Ensure reporting reflects the preferences of our stakeholders. Identify improvements to our Year One report.

Method: Acting on stakeholder feedback in 2015, WPD was the only DNO to use a three-tier approach to reporting - delivering a one page snapshot, a summary report and a detailed report enabling stakeholders to review, in-depth, their areas of interest.

WPD's approach to reporting was significantly different to other DNOs, with a much more detailed report accompanying the summary report typically produced by all DNOs. We therefore provided detail on performance against all our outputs (76), – as well as the associated

secondary deliverables. Information was shown for WPD as a whole, as well as split by our four licence areas. Detailed tables, trend and forecast data was included to enable scrutiny of our performance and comparison with others.

Stakeholders reviewed and critiqued our existing reports. They were given options to reduce the length and complexity of the detailed report in light of other DNO approaches, and considered alternative styles for WPD's summary report.

Feedback: Wholesale endorsement of WPD's three-tier approach.

- 81% want details broken down per licence area, and even more regionalisation where possible.

For example:

- We will now add more granular local case studies to the data already split by licence area.
- We will add forecast investment for each licence area for the full eight year period with specific project examples.
- WPD's summary report will be "Crystal Marked" for use of Plain English.
- Online reporting will be more interactive to improve navigation.

- The majority prefer a simplification of explanations for technical elements and some reduction in the detailed performance tables.
- 75% rejected a glossier style of more pictures and less detail.

2. Long-term strategic priorities

Objective: Review WPD's existing long-term priorities. Identify improvement levels stakeholders value the highest for accelerated delivery.

Method: Stakeholders were given a total of 10

votes, and asked to use them making trade-offs between various actions WPD can take to begin to address these long-term issues. As many of the outputs are of qualitative benefit, they were then

asked to attribute a notional value to their chosen areas for acceleration. This will be used to guide us on the speed and allocation of resources to achieve them.

Category	As now	1 vote	2 votes	3 votes	Value
Customer satisfaction	Rated 8.90 out of 10	9.1/10	9.3/10	9.5/10	–
Connections	Rated 8.70 out of 10	8.9/10	9.1/10	9.3/10	50p
Smart networks	Active Network Management zones rolled out by 2023	By 2022	By 2021	By 2020	£2
Business carbon footprint	↓5% by 2023	↓5% by 2021	↓7.5% by 2023	↓10% by 2023	0p
Undergrounding	55km by 2023	55km by 2021	75km by 2023	90km by 2023	–
Emergency resilience	20% communities and businesses supported	30%	40%	50%	£1
Customer awareness	50%	55%	60%	65%	–
Safety education	60,000 children educated a year	60,000 & expand scope	70,000 & existing scope	70,000 & expand scope	50p
Vulnerability	125,000 supported during power cuts	150,000	175,000	200,000	50p
Fuel poverty	6,500 supported	10,000	12,500	15,000	50p

■ = Stakeholders preferred option

For example:

- We will develop plans for full rollout of Active Network Management (ANM) zones from 2018, working with stakeholders.
- We will publish a DSO strategy document in 2017 and communicate this to stakeholders.
- Introduced Key Account Managers for customers with multiple connections applications, including local authorities.
- Expand school's safety education programme to include energy efficiency, smart networks and vulnerable customers.
- We will launch a trial scheme working with the Scouts Association to develop a programme for scouts to assist vulnerable customers to join WPD's PSR.

3. In-depth focus: 'Future Networks' and 'Environment & Sustainability'

Objective: Consult on WPD's strategy for becoming a Distribution System Operator and review WPD's Data Privacy Plan (DPP) for smart meters. Explain challenges with WPD's current Business Carbon Footprint and help develop our 2017 action plan.

Method: Round table discussions, plus voting on WPD's draft data privacy plan, and seven proposed environmental improvement actions.

Feedback:

- 91% were comfortable with WPD accessing/using smart meter data as proposed.
- Key concerns are that data is only used for network operating purposes and never sold on.
- Stakeholders' greatest concern is the impact of SF₆ gas (inert insulating gas in switchgear that rarely leaks but when it does has a significant CO₂ impact).

For example:

- DPP endorsed by stakeholders. Extra safeguards relating to the use of data to be added before resubmission to Ofgem.
- WPD will invest £300k on SF₆ gas leak detection cameras to aid the speed of location and repair.

4. Topic-specific surgeries

Objective: Review existing priorities and develop detailed action plans to drive improvements for:

- Connections & Distributed Generation
- Social obligations
- Emergency resilience

Method: Surgery sessions led by the responsible WPD senior manager.

For example:

- £10k business continuity awareness fund launched for Local Resilience Forums.
- WPD's business continuity guide for Small Medium Enterprises (SMEs), rolled out via Chambers of Commerce.
- Agreed our PSR data removal approach for electrically dependent customers.
- Signed off social obligations strategy and expansion of Affordable Warmth schemes.
- Re-ran our East Midlands strategic network investment scenarios event specifically for demand customers.

Government engagement

With networks undergoing such a dramatic change, with new functions, services, responsibilities and interactions with customers, it is inevitable there will be greater Government interest in our operations than ever before. We must proactively engage MPs and regulators on policy, eg. rules on energy storage, and build relationships to enable informed input into our future networks strategy, action plan and innovation programme.

Objectives:

Develop WPD's relationship with MPs to enable more detailed discussions on future energy policy and develop our understanding of the Government's industrial and low carbon strategies and their impact on networks. In line with our overall engagement strategy for 2016/17, the focus of our engagement with MPs has been two-fold:

- **Keeping the lights on:** Seek help from MPs to promote emergency resilience to constituents and support for vulnerable customers.
- **Smart networks:** Inform MPs of WPD's innovation locally and nationally to address grid constraints, enable the transition to a DSO and integrate local energy developments.

Scale up Parliamentary reception

Activities in 2015, including bespoke constituency MP newsletters and an introductory MP event, were driven to build awareness of WPD and enable more in-depth future engagement. In December 2016 we built on this, to move the focus into specific areas of policy and action.

WPD's CEO led a House of Commons event with 70 MPs and key stakeholders, including Ofgem and BEIS. We sought feedback on WPD's future networks strategy, the challenges we are addressing and the impact on constituents locally. MPs were also asked to help promote the Priority Service Register to better support vulnerable customers during power cuts.

The event gave MPs the chance to speak with WPD's Operational Managers and arrange to visit their local depot to find out more about our current activities. Topics covered have included:

- Flexible connections offers.
- Roll-out of Active Network Management zones to enable more dynamic control of demand and generation in real-time.
- WPD's strategic network investment project, modelling the impact of various future energy scenarios, and how this may lead to investment schemes locally.

Utilising social media

Social media is now embedded in our day-to-day communications. We devised a bespoke plan ahead of the event to promote key messages from the day and invite follow-up engagement with us on issues raised. MPs were photographed alongside our CEO and a summary of the key messages, to enable them to tweet their followers. These posts were delivered to over 39,000 individuals, generating considerable reach for people to view our content. MPs were also sent bespoke press releases after the event to aid promotion of the PSR via local press.

Scale up Local, topic-specific engagement

Far from a one-off event, this has enabled in-depth, targeted engagement with MPs. We have developed an ongoing programme to engage with MPs on network innovation as a result of our 2016 event. As part of this we wrote to 204 MPs and MEPs about our innovation programme and DSO strategy. The key is that it leads to action.

For example, a meeting with Alex Chalk MP (Cheltenham) has led to an action plan to better engage local stakeholders in WPD's innovation and network investment programme, which will include an online investment map and bespoke events hosted by local Operational Managers.

Engagement with Thangam Debonnaire MP

(Bristol West) and Lillian Greenwood MP (Nottingham South) led to an initiative to sign up participants to WPD's "Electric Nation" – the world's largest electric vehicle (EV) use trial, to investigate the impact on local networks and the role for commercial arrangements to support "smarter" charging patterns to avoid conventional and potentially costly reinforcement.

An education session with Steve Double MP (St Austell and Newquay) and participation in one of WPD's webinars, led to policy discussions to address Driver & Vehicle Licensing Agency data access issues on electric vehicles, to aid long-term network planning.

Next steps: Our strategic approach in recent years has focused on becoming more proactive and building relationships to help us meet the challenge of future, smart networks.



In 2017/18 we will use this approach to build and publish WPD's full DSO transition plan.

AT A GLANCE

Stage: Scale up

Reach: 204 MPs

Cost: £40k (1p per customer)

Value: £3.80* per customer

Outputs

- 70 MPs and stakeholders consulted on WPD's long-term future.
- 35 in-depth contacts and meetings with MPs, gaining local support for WPD's smart networks plan.
- 56,731 PSR sign-ups in the two months following the MP reception – a 27% increase.

@scottmannmp supports @wpduk's Priority Service Register. For more on how to join: westernpower.co.uk/PSR



- Achieved 593 social media engagements (retweets, shares, clicks on links).
- Influenced a number of new policies, eg. submitted proposals to Ofgem to improve consortium arrangements for generation schemes to provide a fairer apportionment of costs.
- Working with Institute for Public Policy Research on a project for the Welsh Assembly on Welsh energy policy, building future energy scenarios and examining the impact on infrastructure.



*Based on willingness to pay research. Value of identifying new vulnerable customers not already known to WPD.

Stakeholders have told us we must lead the debate around building and maintaining a network fit for the future and take steps to start the process immediately. When doing so, we must engage not just industry bodies and informed stakeholders, but wider stakeholders to understand the likely impact, benefits and opportunities.

Objectives:

- Build an ambitious and pragmatic DSO transition strategy that stakeholders endorse and that reflects their expectations.
- Identify clear actions and deliverables to achieve this.
- Work with others in the energy chain to ensure a whole system approach.

AT A GLANCE

Stage: New

Reach: 4,100 stakeholders

Cost: £446k (6p per customer)

Value: £2.50* per customer

The challenge and building our strategy

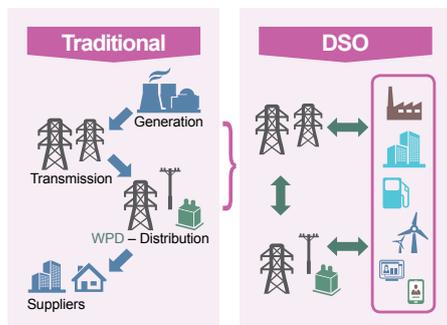
A low carbon future means increased Distributed Generation (DG), electric vehicles, battery storage and other low carbon technologies will increasingly want to use the network. As of May 2016, 28GW of UK generation was made up of smaller generators connected to the distribution network – double since 2011. 7GW is connected

within WPD, with 9GW in the pipeline, totalling 16GW – the equivalent to six Hinkley Point C power stations – for a network designed for a peak winter load of 14GW.

WPD must therefore change the way it works, becoming a Distribution System Operator (DSO) capable of flexibly using smart grid technologies to balance various sources of (often intermittent) supply and demand, in real time.

This presents a massive change to our business, requiring brand new capabilities, such as:

- Understanding real time energy flows.
- Forecasting future energy volumes.
- Real time reconfiguration of the network.
- Commercial arrangements to contract services such as Distributed Generation (DG), storage and demand response.
- Coordinating DSO operations and services with the National Grid TSO (NGET).



Outputs

- Brought forward our roll-out target for ANM zones (enabling real-time control and offering of flexible services).
- Published WPD’s DSO enabling strategy and first stage DSO transition plan, identifying four key areas for action now.
- Aligned our stakeholder engagement and innovation strategies more closely.
- Commenced future energy needs studies and identified areas for strategic network investment as a result.

The transition to DSO is multi-faceted and rapidly changing. Engagement with a variety of stakeholders is critical, helping to devise our strategy, identify priorities and develop the new capabilities and skills needed.

In 2016/17 we hosted over 60 regional and national events, with 4,100 stakeholders, to discuss our transition to a DSO. We have a number of projects underway as a result, focused on actions we can achieve now. These are grouped into the following four areas.

Scale up 1. Flexible connections to unlock capacity

We are applying Active Network Management (ANM) zones to WPD’s higher voltage networks, installing smart grid technology to control demand and DG levels in real time. At our 2017 annual workshops, stakeholders identified an acceleration to this roll-out ahead of 2023 as the highest priority for action, with an intrinsic social value of £2 per customer.

Consequently, we have published a programme for the deployment for ANM zones company-wide by 2021, and on the networks with greatest need.

ANM enables us to provide flexible connection offers as alternatives to conventional offers that

may require network reinforcement. By managing their energy more flexibly at times of network constraint, customers can connect quicker and at lower costs. Feedback through our expert Customer Panel as well as wider workshops has consistently highlighted the issue of congestion on the network. Stakeholders have challenged us to utilise our innovation knowledge to make significant amounts of capacity available through creative solutions, and to offer this as business-as-usual.

Flexible connections are now offered as business-as-usual for all our generation

Outputs

- ANM roll-out plan published and accelerated to 2021.
- 571 smart offers made with potential to unlock 2GW of additional capacity.
- Developed a new Capacity Loan trial to enable customers to borrow capacity committed to other connection schemes that are not yet ready to connect.

customers, and over the next few years we will be extending this concept to demand and storage connections.

New 2. Closer co-ordination with the Transmission System Operator (TSO)

Customers must be at the heart of WPD’s transition to a DSO. Key stakeholders including BEIS, Ofgem and MPs, have highlighted that greater engagement between WPD and NGET is vital. This should focus on key processes including statement of works (notifications sent to NGET to assess the potential impact on the transmission system of generation connecting to our network), integrated approaches to provide network capacity, new shared services, and charging.

In response, WPD is chairing the Electricity Networks Association’s (ENA) ‘TSO-DSO project’ designed to improve customer experience across the boundary of our networks and look at whole system solutions. This complements our wider efforts with NGET to collaboratively engage with common stakeholders. In 2016 NGET’s Director of System Operation addressed WPD’s DG forum, seeking views on our shared challenges, priorities and opportunities for more co-ordination.

Together we have devised an “Operational Tripping Scheme” for the South West which has seen the largest and earliest penetration of DG resulting in both distribution and transmission constraints. This allows control of parameters on one network for the benefit of the other, resulting in the best whole system solution for customers. In conjunction with a £1.2m strategic reinforcement project this has removed a 3-6 year connection delay for connections in the South West.

*Based on willingness to pay research for connections & smart networks actions - see page 3

Future networks - "Becoming a DSO"

New

3. Strategic network investment & regional development plans

Working with Regen SW and National Grid Transmission (NGET), the Transmission System Operator (TSO), we have forecast growth of demand and generation over four future energy scenarios. The aim was to assess the network constraints caused, the impact on new connections and consult with stakeholders on options for reinforcement and 'low regret' investment. We are following a three stage process:

i. Develop Future Energy Scenarios

We have created forecasts for 2015-30 for the growth of Distributed Generation (DG), heat pumps, electric vehicles and battery storage, aligned with NGET's scenarios.

ii. Network modelling

We are modelling the impact of these on the network on a half-hourly basis at different times of the year, particularly where our network interfaces with NGET and reinforcement can therefore be protracted and expensive.

iii. Regional Development Programme

To understand the transmission issues that would arise under the scenarios we improved the exchange of network data between WPD and NGET including trialling a revised application process and ways to redefine network limits to release extra capacity.

Consultation at every stage: Engagement has been critical at every stage to share the findings and seek feedback on the impact and opportunities to interact with the network. On the scenarios alone, we have held 14 events with over 400 stakeholders and have written to every Local Authority and Local Enterprise Partnership. Then taking on feedback from "time poor" stakeholders working in this area, we've diversified our approach by introducing WPD webinars to explore findings in greater detail.

Learning from mistakes: When presenting our DSO strategy to wider stakeholders at our annual workshops in 2017, we received feedback that such a strong focus on DG meant that we had not



sufficiently explained the impact on traditional demand loads (eg. via new housing). We re-ran our East Midlands scenarios launch event as a result.

Outputs

- Future energy scenarios in South Wales and the South West completed, published and consulted on (East and West Midlands due later in 2017).
- Completed a Regional Development Plan for the South West (highest concentration of constraints) and work underway for other licences.
- Developed a DSO operability framework for interactions with NGET.
- Work underway on models for operating energy storage that can be used in the network modelling phase – consultation due summer 2017.
- Identified £15.8m (£11.8m in South West, £4m in South Wales) of strategic reinforcement, which will unlock 865MW of capacity.



Scale up

4. DSO knowledge through innovation

WPD's innovation programme is a critical vehicle to develop our capabilities for a smart future. WPD has 23 major projects underway - the highest of all DNOs. While many of these are funded under the Network Innovation Allowance, and are therefore out of scope for this incentive, stakeholder engagement is integral to:

- Ensure the effective transition of successful innovative ideas into our day-to-day operations to improve the services to customers.
- Gain new knowledge, skills and experience required for a DSO.

Eg. Cornwall Local Energy Market

We are partnering with Centrica, NGET and Exeter University via an EU grant funded scheme, to engage customers regarding new, innovative services required in a low carbon future. We will install smart technology, enabling 150 homes and businesses to sell their flexible energy capacity via a virtual marketplace, to help alleviate constraints on the distribution and transmission systems. It will allow WPD to establish and test new DSO capabilities relating to forecasting, recruitment, despatch and metering and settlement capabilities.

It will also test the role of battery storage, flexible demand and generation and potential commercial relationships with aggregators.

Eg. Utilising smart meter data

Smart meters are a vital enabler to more flexible networks, giving real-time visibility of load on the low voltage network for the first time via half hourly consumption data. This will help us to avoid overloads and assess new connections, as well as immediately notify us of power cuts and voltage issues. However, this is consumers' personal data and requires a Data Privacy Plan (DPP) approved by Ofgem.

WPD was involved in extensive joint-DNO research with Ipsos Mori to test consumer views on DNOs accessing this data. Critically, we have used this to inform our bespoke DPP. We have consulted Ofgem, Citizens Advice and 270 wider stakeholders on our approach, sought views on whether we have sufficiently explained the benefits and if there are any safeguards or areas of concern that have not been addressed. WPD's plan received extensive endorsement with 91% very comfortable with WPD's approach.

Outputs

- First DNO to submit a DPP to Ofgem for approval to access smart meter data.
- We will write to all 7.8m customers via WPD's annual 'Power For Life' newsletter to explain our DPP and how we will use data to help build a smart, future network. New web page and FAQs.
- Shared our policy with other DNOs on connecting electric vehicles via the ENA's ENACT portal, leading to adoption by one other DNO.
- Launched a new interactive online capacity map, to allow customers to access information on Statement of Works offers from NGET, to aid their planning. 3,261 hits in its first three months.



The key outputs this has led to



Accelerated target for roll-out of flexible network control (Active Network Management zones)



DNO to submit stakeholder-approved smart meter privacy plan to Ofgem

2GW* NETWORK CAPACITY unlocked and low carbon future energy scenarios developed



Future energy scenarios & regional development plans developed



Working with NGET to remove South West grid constraint

*since 2013

Stakeholders recognise that power cuts are at their lowest levels ever. Key to improving customer satisfaction further is to make our communications increasingly proactive, provide a wide range of contact options (eg. 85% of mobile users prefer apps to mobile websites) and help to improve the resilience of key vulnerable groups.

Objectives:

- Increase proactive contact during power cuts and provide new methods for customers to access key information.
- Introduce effective storm notifications to aid stakeholder preparations.
- Provide practical emergency planning support to small businesses.

Improved Increasing proactive communication

We introduced a new policy to open our eight ramp-up call centres for longer in storms (resourced by non-operational staff), to enable our main Contact Centres to provide outbound updates only. During Storm Doris we made 5,747 proactive calls in 24 hours as well as handling 37,447 inbound calls.

We introduced a new text message (SMS) service. Historically we would provide blanket SMS messages for faults on the high voltage network and quote maximum restoration times for the whole incident, then message customers when power had been restored, when in practice customers could be restored during different stages of works. We now provide bespoke SMS updates personalised

to individual customers at all voltage levels. It has proved so effective that we have been asked, after sharing it with Local Resilience Forums (LRF) and Welsh Government, to allow emergency services to use our system to communicate to communities during major civil incidents (eg. terrorist alerts).

We've launched an updated Power Cut Reporter App. Acting on feedback from LRFs, multiple site businesses and carers of vulnerable customers, as well reporting power cuts, it now enables customers to register multiple properties to receive proactive updates if power is affected. Listening to our 34 PSR referral partners, (see Part Three, page 6), we added a new feature so they can directly register vulnerable customers.

New Storm bulletins aid preparations

Building on the post-event infographic summaries introduced in 2015/16, we've developed three new types of bulletin to send in advance, during and after storms. With content and thresholds to trigger alerts agreed by our Customer Panel, WPD is now unique in the level of detail provided. We inform stakeholders of the latest weather conditions, areas affected, the number of customers off supply and key steps we are taking to restore power.

WPD then produce an extensive "day after" closedown report for key stakeholders such as Ofgem, BEIS, LRFs and the media, with statistics for specific regions, actions taken and lessons learnt. We purposefully developed these new bulletins in the lead up to winter 2016. They were live in time for the first named storm of the year - Angus, and have been used during three incidents since.

Scale up Resilience support for small businesses

Workshops with Small and Medium Enterprises (SMEs) in 2015 revealed a role for WPD to help them form power cut continuity plans. In 2016 we piloted a new resilience plan and checklist. In 2017, ahead of a full roll-out, we surveyed 107 recipients to identify improvements. This led us to add an A5 poster of the key steps to take and WPD's contact details for quick reference in an emergency. WPD then hosted six events with LRF members and emergency planning

managers to agree the best method to roll-out the redesigned booklet to 50,000 SMEs via trusted bodies such as Chambers of Commerce. Acting on a new idea raised, we launched a £10k fund to support LRFs to devise innovative ways to engage their member networks. For example, Leicestershire Council have produced a series of short videos for social media relaying key power cut tips for SMEs that has been shared for use by all their LRF members.

*Based on willingness to pay research for emergency resilience actions - see page 3

AT A GLANCE

Stage: Scale-up

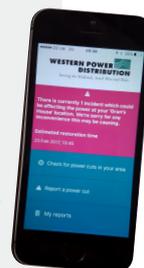
Reach: 1.03m proactively contacted

Cost: £1.01m (13p per customer)

Value: £3.80* per customer

Outputs

- 49% of customer contact is now proactive (from 40% in 2015/16).
- 1.03 million proactive contacts to customers (658,107 texts and 374,953 calls).
- 4,220 Power Cut Reporter App downloads in the first month.
- 24,537 webchats - an increase since launch for tablets and smartphones.
- 10% increase in WPD customer awareness, to 64%, after annual 'Power for Life' campaign, of TV advertising, Twitter, facebook, YouTube and a newsletter sent to all 7.8m customers.
- 3,559 stakeholders registered for WPD's storm bulletins and over 10,000 proactive updates provided since January 2017.
- Rated Number 1 for UK DNO customer satisfaction in every month of a named MET office storm in 2016 and 2017. "I really like these. From a contingency planning perspective I can inform my control room of your capabilities." Avon Police Contingency Planning Manager.



- Launched a £10k LRF support fund to aid business continuity in power cuts.
- Power cut emergency planning support for 50,000 SMEs targeting LRF areas affected by major storm incidents in the last 5 years.



The key outputs this has led to



It is imperative that WPD builds close working relationships with all utility companies and seeks opportunities to collaborate in order to raise standards for all UK customers and tackle common challenges (such as the changing role of energy networks) in a joined-up, efficient way.

Sharing best practice

WPD's philosophy is to offer "full disclosure", sharing action plans, delivery models, costs, resources, and KPIs. We do so proactively - in addition to bi-lateral meetings, we invite every supplier, gas, electricity and transmission network operator, and all water utilities within our region to attend our annual workshops. In 2016/17 British Gas, NNGD and Severn Trent Water were joined at WPD's Customer Panel, by Affinity Water and South West Water. WPD now participates on NNGD and Bristol Water's Panels. As the table shows, we have extensively shared best practice on over 13 separate topics in 2016/17.

Co-delivery

Talking must lead to action. We have held at least eight joint workshops with all DNOs on topics including community energy, network innovation, future energy scenarios, Distributed Generation, vulnerability and fuel poverty. We have shared a platform with suppliers and utility networks at over 50 other events.

Where we identify common challenges, WPD

	x5 DNOs	x4 GDNs	National Grid ET	British Gas	E.ON	EDF	ripower	SSE	Scottish Power	Anglian Water	Severn Trent Water	Bristol Water	South Staffs Water	South West Water	Wessex Water	Welsh Water	Thames water	Affinity Water	N. Ireland Electric	GDN Ireland
BSI standard	✓	✓						✓			✓		✓	✓	✓					
Customer Panels	✓	✓									✓	✓	✓	✓	✓			✓		
Business Plan reporting	✓	✓	✓		✓	✓	✓			✓				✓	✓	✓		✓		
Long-term priorities	✓	✓	✓		✓	✓	✓			✓				✓	✓	✓		✓		
Environment	✓	✓	✓		✓	✓	✓			✓				✓	✓	✓		✓		
PSR services/approach	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓							✓	✓
PSR data sharing				✓	✓	✓	✓	✓	✓						✓	✓	✓	✓		
Joint research	✓	✓																		
Customer service	✓	✓	✓	✓	✓	✓				✓	✓	✓					✓	✓	✓	✓
Fuel poverty approach	✓	✓		✓	✓			✓									✓			
Emergency resilience	✓	✓			✓	✓	✓			✓	✓				✓	✓		✓		
Future role of networks	✓	✓	✓		✓	✓	✓			✓				✓	✓	✓		✓		
Connections and DG	✓	✓	✓		✓	✓	✓			✓	✓			✓	✓	✓		✓		

encourages joined-up thinking and avoids silo-working. For example, we invited NGET to present to our shared stakeholders at WPD's Distributed Generation forum, leading to a joint action plan to aid the transition to smarter networks. Moreover, in addition to sharing with all DNOs our approach to measuring the value for money of the qualitative outcomes our engagement programme leads to, we initiated our largest research exercise yet, delivered in collaboration with both UKPN and NNGD.

Our wider engagement strategy, and the

importance of avoiding talking shops, strongly influences our approach to collaboration. Sharing what we do and listening to the approach of others is easy – the challenge is to do something different as a result. We also put measures in place to demonstrate that these outcomes are beneficial and worthwhile for customers. **Below are a few key examples of how collaboration with DNOs via the ENA stakeholder engagement best practice group (see joint-submission for full details) has improved WPD's services.**

Collaboration	How this has influenced WPD's delivery
Community Energy (CE) <i>DNOs hosted two conferences with 178 stakeholders and produced two best practice guides on 'CE engagement' and 'Energy Storage'. Avoided six separate guides, saved time and money, provided better, more consistent information.</i>	We have held nine local and national events with 603 stakeholders. Our approach continues to evolve to best suit CE groups – they have rapidly shifted from having limited knowledge of DNOs and the connections process, to now exploring opportunities to participate in smarter networks and demand side response. WPD has adopted all of the ENA report's seven key recommendations, including recognising the importance of face-to-face engagement by committing to eight CE surgeries next year, new podcasts and online videos. To help groups assess the feasibility of potential schemes, we have also: <ul style="list-style-type: none"> ✓ Commenced developing a CE resource pack with the Centre for Sustainable Energy to complement the ENA guides. It includes case studies of completed CE schemes, timelines and common dos and don'ts for communities considering new initiatives. ✓ Launched new online capacity heat maps. We are also developing a more tailored system, enabling stakeholders to enter their required capacity and see where that capacity might be available. ✓ Launched an average connection cost calculator to give customers an early indicator of costs and timescales.
Smart meters <i>Joint research to seek customer views on DNOs accessing data and the roll-out process as a whole.</i>	A key concern is to ensure a smooth customer journey during the roll out. Delays can occur when the supplier cannot carry out the installation first time and requires WPD to attend to fix a safety defect. We have therefore: <ul style="list-style-type: none"> ✓ Reduced the number of incorrect call-outs by educating suppliers about defects. ✓ Developed a web tool with EDF to better co-ordinate the re-booking of appointments - ensuring the installation occurs at the same time as WPD's safety fix to avoid a third appointment. WPD is now rolling this out to all suppliers. We have shared this with DNOs via the ENA.
Future workforce and skills <i>Smart networks will require DNOs to develop new skills and address an ageing workforce. Ahead of National Apprenticeship week DNOs agreed co-ordinated promotion and social media messaging.</i>	WPD's apprentice recruitment campaign focused heavily on digital promotion via social media, using videos, case studies and live Q&A sessions with existing apprentices. Potential applicants were signposted to a new online application system to guide them through the process. This led to: <ul style="list-style-type: none"> ✓ 66% annual increase in applications. ✓ 200% increase in Facebook followers. ✓ Best communication campaign award from Midlands Chartered Institute of Public Relations.
National '105' emergency line <i>Collaboration to develop a new national number, jointly notified key stakeholders and statutory bodies, and agreed advertising, press coverage and social media promotion.</i>	WPD re-ran our annual 'power for life' awareness campaign, to coincide with September's 105 launch, writing directly to all 7.8m customers. This led to: <ul style="list-style-type: none"> ✓ 30% of WPD's inbound calls are now via the 105 number. ✓ Customers stating they did not know who to contact reduced to lowest ever rate of 3.17% ✓ WPD rated number one for 'ease of contact' in a power cut at 9.12/10 (industry average 8.85/10).



For details of WPD's collaboration on topics including vulnerability, PSR and fuel poverty, see Part Three

