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WPD Customer Panel

Pegasus Office

Wednesday 6 July 2022

WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

Customer Panel Agenda

6 July 2022 – Pegasus Office

09.45	Closed member session – optional for all members
10.00	Welcome, introductions and an update on stakeholder engagement Richard Allcock, Stakeholder Engagement Manager
10.10	Network Resilience Andrzej Michalowski, Planning & Regulation Special Projects Manager
10.50	**COMFORT BREAK**
11.05	Reviewing outcomes of the Ofgem Investigation Alex Wilkes, External Affairs Manager
11.50	An update from the Chair, inc Community Energy Surgery & 12 month plan Gabby Mallet, Chair, WPD Customer Panel
12.10	AOB and CLOSE followed by lunch (provided) *(Performance slides included for info in slide pack)*
12.45 -13.30	*Optional tour of the contact centre*

Attending

Customer Panel members	
Richard Hellen	The Schumacher Institute
Gabby Mallett	Customer representative - Chair
Matt Neal	National Energy Foundation
Eddie Proffitt	Major Energy User's Council
Kate Robbins	Wessex Water
Alex Spreadbury	B&Q
Cathy Tibbles	Whitwick Parish Council
Beatrice Tooke	British Red Cross
Ellen Wardle	Cadent

Western Power Distribution:	
Alex Wilkes	External Affairs Manager
Richard Allcock	Stakeholder Engagement Manager
Andrzej Michalowski	Planning & Regulation Special Projects Mgr
Nicki Johnson	Stakeholder Engagement Officer

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Stakeholder engagement update

Richard Allcock
Stakeholder Engagement Manager

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June stakeholder workshops

Workshop 1
Connecting to the electricity grid

- Thursday 23 June 2022
- 97 delegates

Workshop 2
Sustainability and the environment

- Friday 24 June 2022
- 69 delegates

Workshop 3
Vulnerability & Affordability

- Tuesday 28 June 2022
- 50 delegates

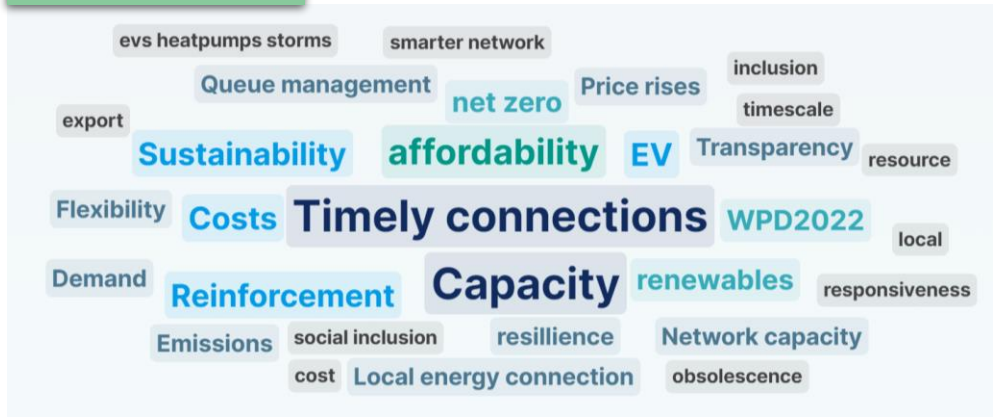
- 216 stakeholders engaged at online events
- Each workshop focused on a specific theme allowing stakeholder input to meaningfully shape and refine our strategies
- At each workshop we wanted to understand current priorities and asked stakeholders about challenges facing WPD such as the uncertainty facing the UK and the energy sector, large increases in energy prices exacerbating the cost of living crisis and growth in low carbon technologies to meet net zero targets

Stakeholder spontaneous priorities

In three words, what do you think are the biggest challenges currently facing WPD and the wider industry, that we should be addressing for our customers?

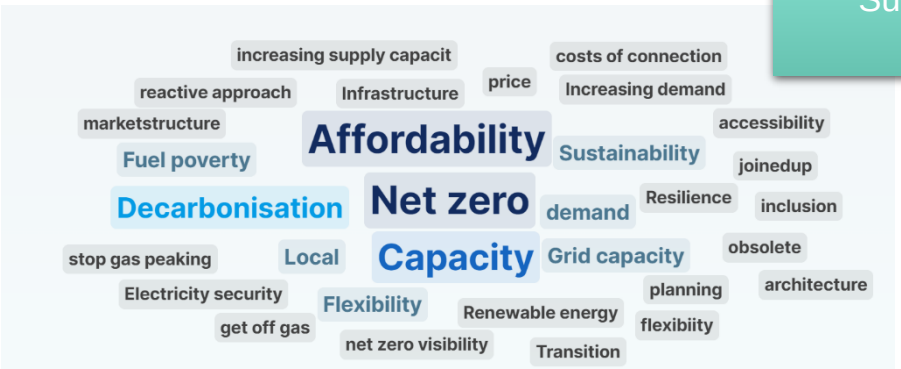
Workshop 1

Connecting to the electricity grid



Workshop 2

Sustainability and the environment



Workshop 3

Vulnerability & Affordability

RIIO-ED2 – an update

- More than 25,000 stakeholders to date have helped us to co-create our vision for RIIO-ED2 as part of a rigorous consultation programme that is continuing beyond the submission of our final Business Plan:

1st December 2021	WPD Business Plan final submission to Ofgem published
29th June 2022	**Ofgem published their draft determinations**
September 2022	Further workshops to consult on the outcomes of Ofgem's draft determinations and to identify how stakeholders would like us to monitor progress against our commitments.
Nov / Dec 2022	Ofgem will publish their final determinations

"RIIO-ED2":
Revenue = Incentives + Innovation + Outputs (Electricity Distribution 2)

Ofgem regulates how much revenue we can earn and what we must deliver in 'price control periods'

"RIIO-ED2" will cover the 5 years 2023-2028

Network resilience

Andrzej Michalowski

Planning and Regulation Special Projects Manager

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Agenda

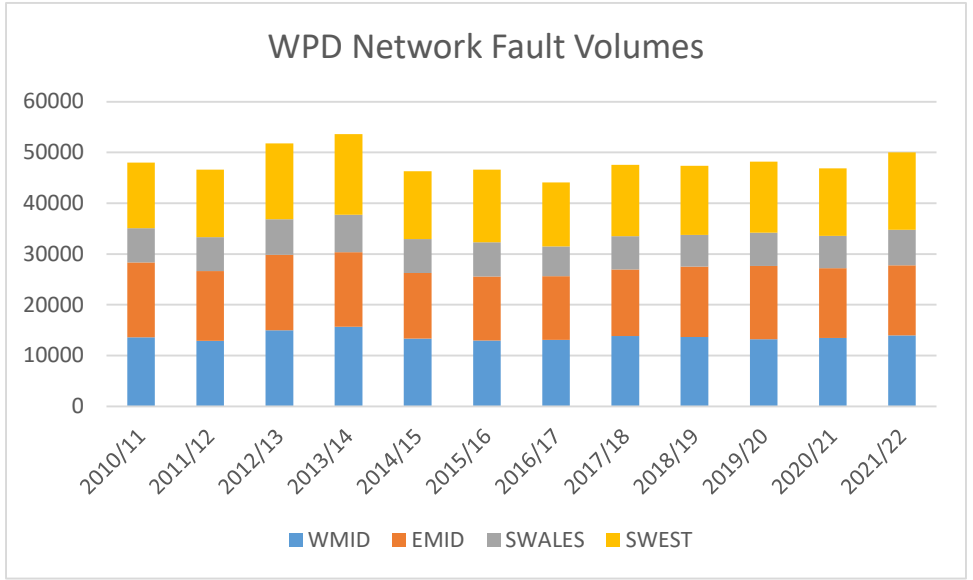
- Network performance
- Network resilience
  - Preventing Faults
  - Reducing customers impacted
  - Reducing duration of power cuts
  - Severe weather/event preventative activities
- Worst served customers
- Technology & innovation

Network performance

Network faults

- Each year WPD deals with around 47,000 incidents (approximately 130 each day)
- Each one impacts customer supplies
- Impact of weather can lead to annual variations
- Performance broadly flat for last 12 years
- Vast network to be managed

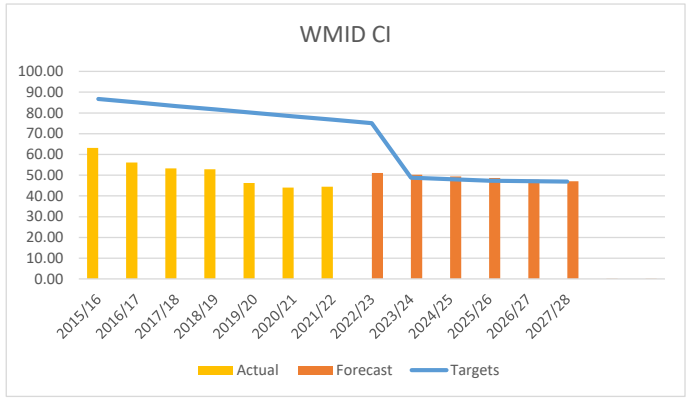
Network Assets	
Asset Type	**WPD Total**
Overhead Lines (km)	89,000
Underground (km)	138,000
Transformers	190,000
Switchgear	304,000
Poles	1,843,000
Towers (Pylons)	15,000

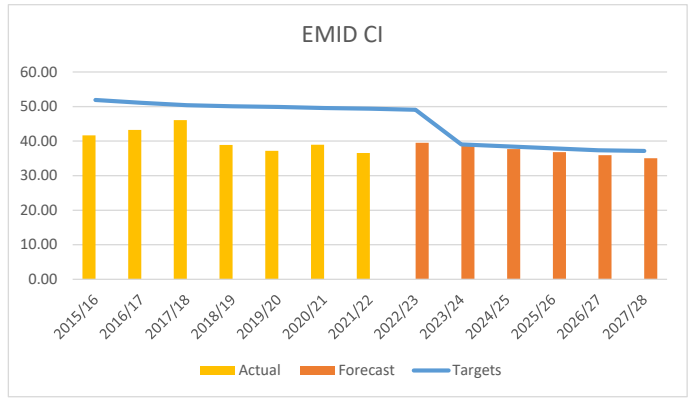


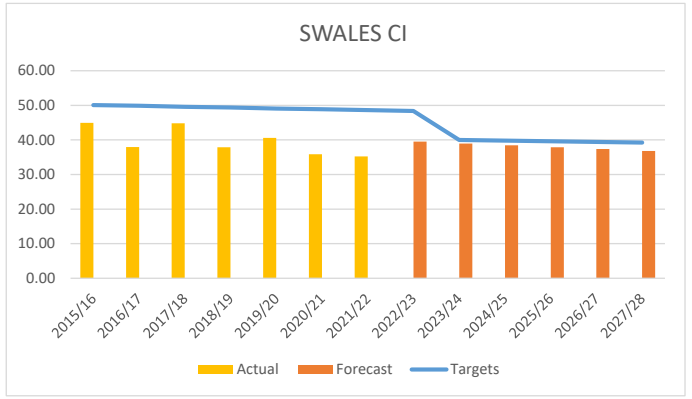
Network performance

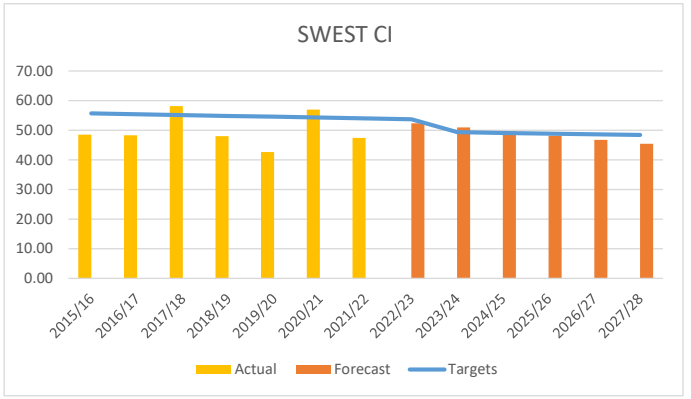
Customer Interruptions (CI)

- Progressive improvements in WMID/EMID
- WMID large outperformance in ED1
- Significant tightening of targets in ED2





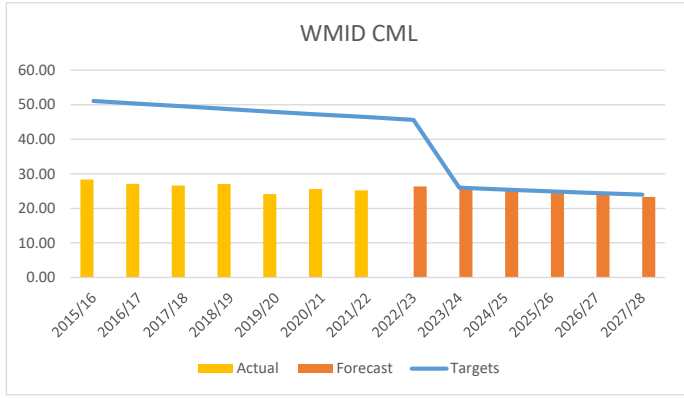


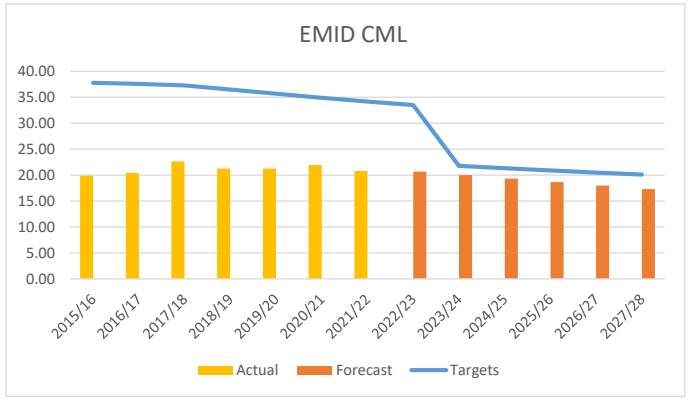


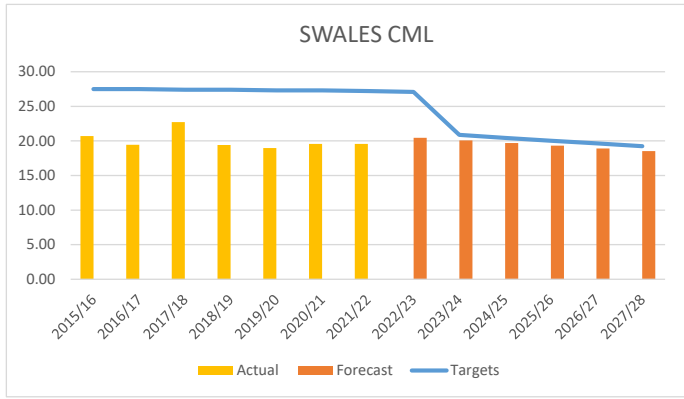
Network Performance

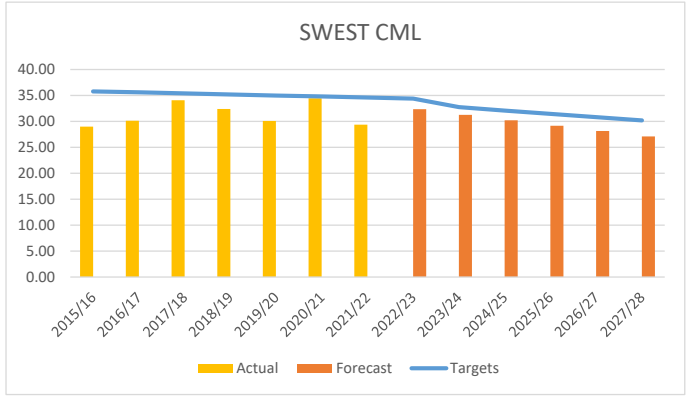
Customer Minutes Lost (CML)

- Performance broadly steady
- Big improvements delivered in DPCR5
- Significant outperformance in ED1 for WMID, EMID.
- Outperformance in SWALES
- More challenging in SWEST
- Significant tightening of targets in ED2









Network resilience

Activities to make the network resilient

Preventing faults	Reducing customers impacted	Reducing duration of power cuts	Severe event preventative activities
Inspection and maintenance	Installing additional protection equipment	Automation of restoration	Resilience tree clearance
Asset replacement	Automation of restoration	T60 switching points	Flood defences
Tree cutting		Focus on restoration	Black start resilience
Defect removal		Use of mobile generation	Revised equipment standards
Providing network capacity			

Preventing network faults

Asset replacement

- Vast network of cables, overhead lines, switchgear, transformers
- Modern replacement value for whole network = **£42.5 bn**
- Proposing to spend **£1.08 bn** across the five years of ED2
- Equivalent to 200 year replacement cycle
- Interventions are targeted according to need
- Assets in poor condition/high fault rate

Condition data
Fault history
→
Health Indices
→
Candidate lists

Preventing network faults

Tree cutting

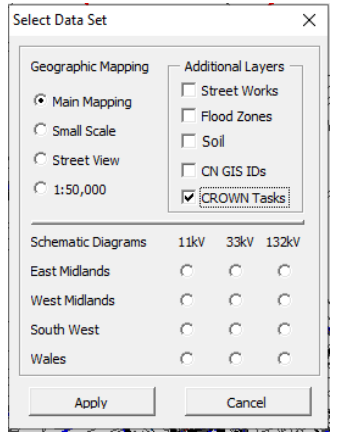
- Routine tree cutting to maintain safety clearances and prevent damage during normal weather
- Cyclical programmes
- Previous approach relied on contractor guarantees
- Moving to using LiDAR* data to direct clearance
  - LiDAR detectors installed on WPD helicopters
  - The data is collected on a routine overhead line inspection
  - Sent to a third party company for analysis
  - Algorithms used to measure proximity and amount of infestation along the line
  - Data presented in tabular form and image visualisation
  - Different contractor rates for different levels of infestation
  - More targeted, enables better auditing, data to be refreshed every four years

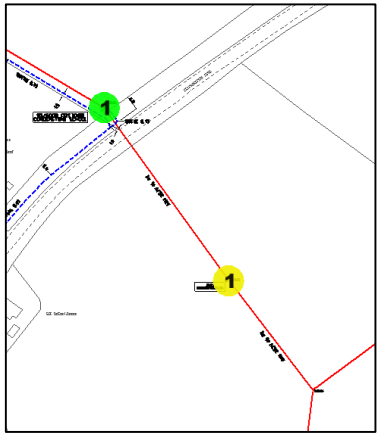
* LiDAR – Light Detection and Ranging

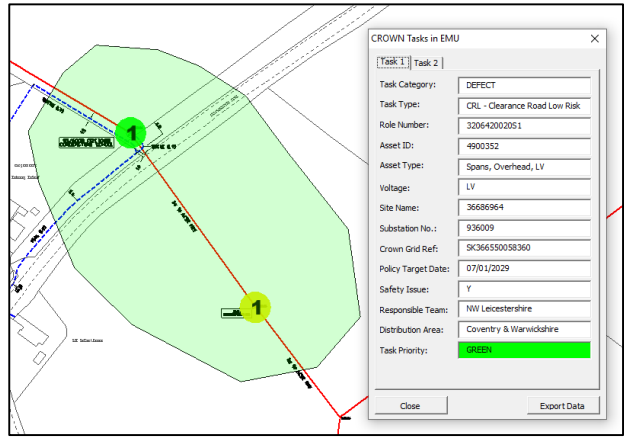
Preventing network faults

Defect removal

- Defects are identified during inspections
- Different types
  - Safety
  - Performance
  - Condition
- Resolution timescales depending on risk
- Tracked through business KPIs
- Mapping system gives visibility in geographic view
- Allows identification of all defects in a geographic area







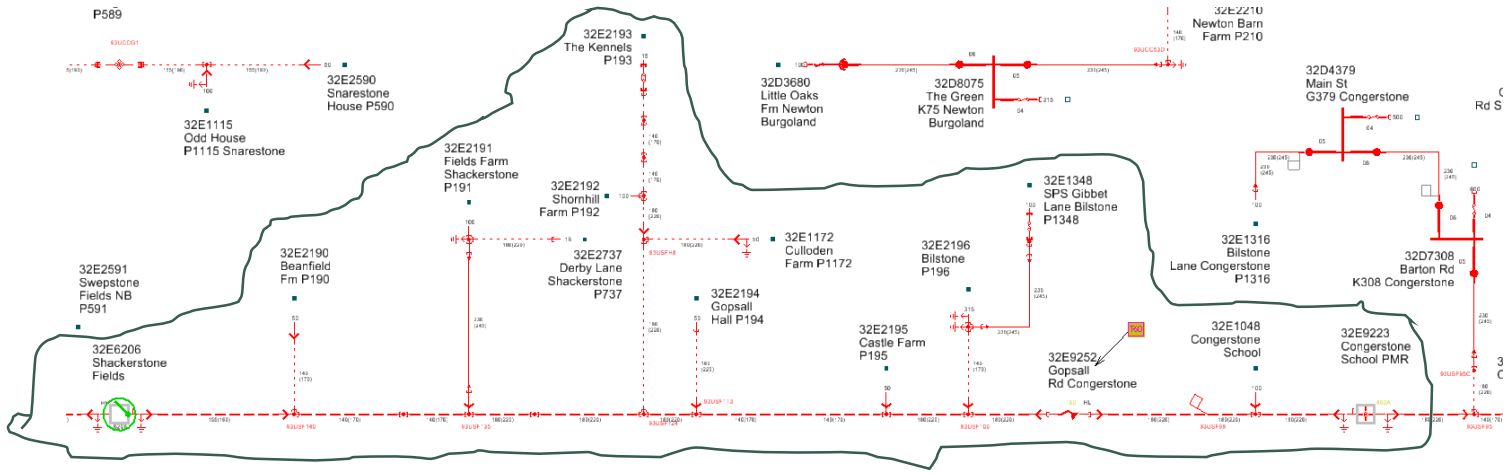
Reducing customers impacted

Additional protection zones

- In ED1, we have targeted limiting the number of customers in a protection zone to **1500**
- This is the number of customers left off supply after automatic switching
- Generally resolved by installing additional remotely controllable protective devices or switches

ED2 proposals

Limit the number of customers in a protection zone to **1000**



Reducing customer impact/power cut duration

Automatic fault restoration system (AFRS)

Remotely controlled devices on the network

- Source circuit breakers with SCADA
- Substation switchgear with actuators
- Pole mounted reclosers
- Pole mounted switches

Fault detection

- Operation of protection devices
- Fault passage indicators
- Earth fault indicators

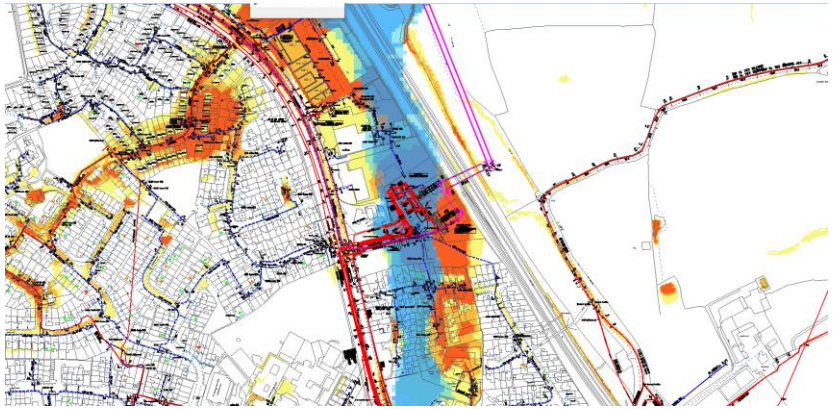
Automatic fault restoration

- Assessment of network status
- Identification of fault zone
- Determination of best source(s) of restoration
- Automatic control of the devices to restore supply
- Only customers in the fault zone remain off

Severe Weather/Event Preventative Actions

Flood defences

- "Resilience to Flooding of Grid and Primary Substations"
  - Industry technical report…
  - Identify all substations located in flood plain
  - Establish the flood risk for each substation
  - Identify societal impacts for at risk substations
  - Investigate options for flood protections
  - Proposed appropriate solution based on flood risk



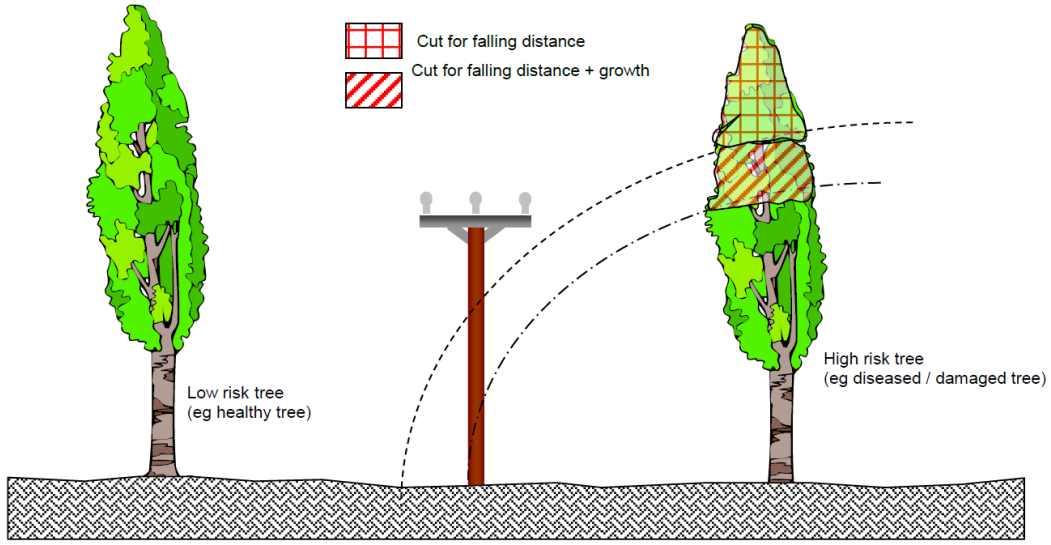
Long List (859) → **Requiring Hydrological Survey (356)** → **Requiring Flood Defence Work (157)**

- **102 Sites (ED2)**
- **55 Sites (ED3)**

Severe weather/event preventative actions

Resilience tree clearance

- Preventing trees falling into lines during storms
- Trees at risk of falling into lines
  - Tall trees near lines
  - Branches above lines
  - Dead, dying, damaged, diseased
  - Root type (weak, extensive)
  - Ground conditions (firm, boggy)
- More extensive site specific clearance
- Whole circuit needs to be cleared to declare the circuit resilient



Severe weather/event preventative actions

Pole replacement policy

- Inspections carried out on a seven year cycle
- Pole condition classified and defects raised
- Poor condition poles “D” are removed from network with 12 months of being identified
- Very poor condition poles “DD” are removed with 3 months
- Fewer poles breaking during severe weather

Worst Served Customers

Worst served customers

- Repeated issues for customers
- Mainly remote ends of the network
- “Churn” of customers that qualify
  - New circuits become worst served
  - Circuits stop being worst served
  - Additional customers affected on known circuits
  - Fewer customers affected on known circuits
- Not a fixed target
  - Data refreshed annually
  - Circuits with highest numbers of WSC customers targeted for investment
  - Consider number of vulnerable customers on those circuits

ED2 Definition

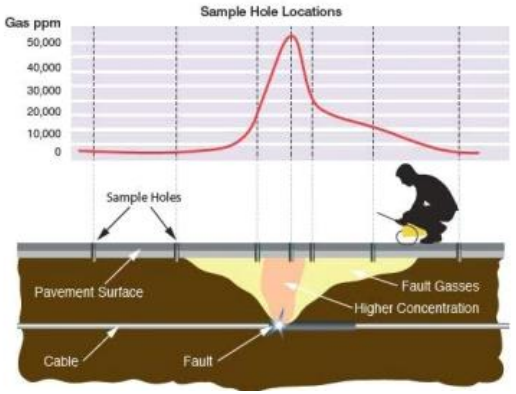
“Customers experiencing on average at least four higher voltage interruptions per year, over a three year period (i.e. ***12 or more over three years****, with a minimum of two interruptions per year).”*

ED2 Proposals
70 schemes

Technology

Fault restoration and detection

- Smart fuses (e.g. Bidoyngs, Weezaps)
  - Can fit in existing LV feeder ways
  - Auto recloser – restoring power automatically
  - Provides notification of operation
  - Captures data that allows calculation of distance to fault
- Fault gas detection (e.g. Snoopi, CableSniffer)
  - Detects the gases that are produced by a fault
  - Allows location without excavation
- Network analysis to identify fault location
  - Utilises data from smart devices
  - Provides an indicative location, to carry out sniffing



Images from Kelvatek and EA technology

Innovation

Project “Pre-Fix”

- Pre-Fix aims to find faults on the network before they happen
- Aims to use existing devices in new ways
- Development of new analytics
- Identification of pre-fault activity (e.g. discharge)
- Identification of location of activity
- Provision of a timeframe to fix before a permanent fault occurs.

- Intended to allow planned activity in advance of a network fault occurring

WPD INNOVATION
Transforming the electricity network

Timescales:

October 2021 – March 2023

Budget:

£1.84M

Summary

- WPD network performance is good, but faults do occur
- Range of initiatives in place to minimise impact
- Programmes are targeted at greatest need
- Technology and innovation utilised to continue improving

Questions?

Reviewing outcomes of the Ofgem investigation

Alex Wilkes
External Affairs Manager

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Agenda

- Ofgem’s press release
- The investigation and its findings
- Our response
- What this means for WPD

Ofgem’s press release

- WPD has agreed to pay £3.7 million for each of the four licences it operates, totalling £14.9 million, after instances of failing to provide information, advice and services to customers on its Priority Services Register.
- The network company’s non-compliance may have meant some of its most vulnerable customers did not always receive the full support they should have, particularly during power cuts.
- Ofgem’s action will help ensure that network companies meet their obligations to their Priority Services Register customers.

The investigation and its findings

- Ofgem launched an investigation into WPD's compliance with its PSR obligations in 2020
- WPD has co-operated fully with extensive requests for information and evidence - including chasing Ofgem repeatedly for progress updates and next steps
- In short, Ofgem's enforcement focuses on the issues of:
  - **Promptness of notifying/updating customers during power cuts, including 24 hour contact**
  - **Promptness of providing power cut advice for newly added PSR customers (via suppliers)**
  - **DBS checks for staff visiting the homes of customers**

Our response

- We made **changes immediately** when Ofgem clarified their licence expectations - this clarity took a long time to receive
- **All DNOs revealed they had interpreted the licence in the same way** – in fact in terms of 24/7 contact WPD had historically gone further than most
- However Ofgem decided only to investigate and enforce against WPD
- We have been the **leader in vulnerable customer support for many years**, as recognised by Ofgem's incentive scheme, and have shared these practices across the industry
- We are **very disappointed other networks were able to resolve this via constructive engagement**, whereas WPD did not have the same opportunity
- **We now contact PSR customers proactively 24/7.** We have had feedback from stakeholders and customers that this is not what they want, however it is a regulatory obligation. If customers do not wish to receive this contact there is no opt-out option – they must ask to be removed from the PSR altogether

What this means for WPD

- We have agreed to make a voluntary payment of £14.9 million to Ofgem's Redress Fund
- Following the investigation and lengthy engagement with Ofgem, WPD has acted to address all areas of concern, changing its policies, procedures and processes, e.g.
  - Previously we did not proactively contact PSR customers during what our stakeholders considered to be unsociable hours (between 8pm and 9am) to inform them of a power outage. Most power outages are resolved on average within less than 24 minutes. **However, following clarification of Ofgem's requirements, we will now proactively contact PSR customers via their preferred method at all hours to offer updates and advice during any power cuts**
  - While basic DBS checks for our field staff are not a compulsory obligation under our licence, Ofgem has now clarified that it believes basic DBS checks are reasonable in addition to the background checks WPD already conducts. **We have introduced basic DBS checks as an additional measure for all of our staff who may be working on customers' premises**
- We plan to deliver further enhancements to our vulnerability services in the coming years. For example, as the UK to transitions to a smarter, low carbon energy system, we want to ensure our most vulnerable customers are not left behind. From next year, we'll offer 600,000 customers a bespoke smart energy action plan every year

Community Energy Surgery
- An update following the May 2022 Customer Panel Surgery

Gabby Mallett

Chair, Customer Panel

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History of Community Energy

- Ky Hoare – Regen (worked with WPD for years)
- Communities taking collection action to address climate change, energy efficiency and just transition
- Some innovation projects with WPD, especially looking at flexibility

- 44 events held, over 1,500 community stakeholders since 2014
- 20+ online resources
- 6 community innovation projects
- Many community groups quite professionalised and want to do more

Q&A - discussion

- How do we get more people involved?
- Are there minimum population sizes to make it worthwhile?
- What is scale of sector?
- Can we ensure cross learning?
- Note Community Energy England have practitioners forum

➢ Can WPD look at areas with grid availability and actively promote CE there?

➢ Could WPD connect with Local Authorities in those areas to encourage?

Innovation projects

- Open LV – local energy substation data – modelled demand shifting – time of use tariffs
- BEIS funded – with Carbon Coop – smart EV charging and immersion flexibility
- Note income from flexibility projects does stack up financially yet, but getting ready

WPD

- Community Energy Engineer for each region
- Connect at least 30 communities/yr
- Doesn’t want to be a blocker to uptake of LCTs
- £60m investment 2021-23
- 73 projects identified
- New resources on website - new CE dedicated mailbox
- Map on website is interactive
- Network development plan published 1st March 2022
- Better visibility on website so new applications can spot problems early

Community for Renewables

- Jake Burnyeat
- CE is small part of UK production, but not insignificant
- Grid restraints most significant barrier
- WPD is easiest DNO to deal with
- Most community groups they work with are similar – geographical remit – mostly solar, but some wind, not for profit cos – local directors – keep financial value in the community
- Specific examples

Outcomes/actions

- WPD investigate how they can increase awareness of Community Energy Opportunities (esp. in deprived communities)
- WPD investigate how they can promote places where there is grid capacity and would welcome community energy projects
- Ky Hoare to share report to provide information on different approaches
- WPD consider communication to rural communities
- Jake Burnyeat to join panel – potential to buddy with Faithful Chandra

12 month plan – latest draft

Date	Agenda items	Presenter
Panel Meeting	Network Resilience	Andrzej Michalowski
6th July 2022	Feedback from CE surgery	Gabby Mallett
face to face	Review outcomes of OFGEM investigation	Alex Wilkes
	Network resilience	
	Review and update 12 month plan	Gabby Mallett
Surgery	Publications review	
Date TBC - Face to Face	Review all leaflets and other comms to check PSR info and other info regarding panel	
Panel meeting	Feedback from Surgery	Gabby Mallett
29th September 2022	Major connections strategy - Code update	Kester Jones
Remote	Maintenance and replacement	
	National Grid update - Brand, Team etc	
Surgery	WPD plans for Net Zero by 2028	
Date TBC	Buildings, transport, offsetting	

Date	Agenda items	Presenter
Panel meeting	Feedback from Surgery/ buddying system discussion	Gabby Mallett
15th December 2022	Digitalisations	
Face to Face	Innovation	
	Cyber security	
Surgery	Customer Service	
Date TBC	Statistics and KPIs	
	Aims and effects	
Panel Meeting	Feedback from Surgery	Gabby Mallett
TBC March 2023	Smart Energy Action Plans	Nicki Johnson
Remote	PSR Current statistics. Report on eligible numbers and plans to extend	Richard Allcock
	Vulnerability Hub	Nicki Johnson
Surgery	Working with other utilities	
Date TBC	Joint PSR - information sharing	
	Connections for other utilities - Esp. re storms etc	

Appendices

- 2021/22 Regulatory Year
- YTD performance

IIS Outturn - year end 2021/22

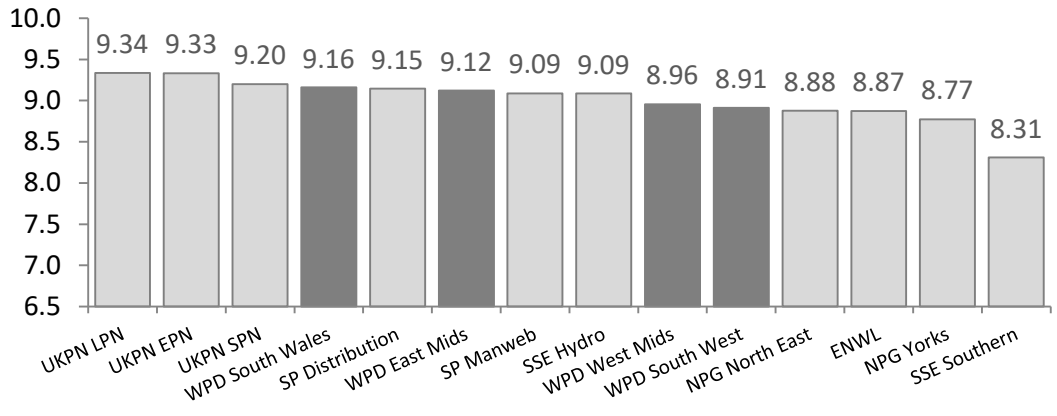
	WPD West Midlands		WPD East Midlands		WPD South Wales		WPD South West	
	CI	CML	CI	CML	CI	CML	CI	CML
Ofgem IIS Target 2021/22	79.1	51.2	50.2	35.7	51.9	32.4	57.6	42.8
IIS Outturn 2021/22	46.7	29.8	37.2	22.2	39.0	24.8	50.6	36.7
% Out Performance	40.9%	41.9%	25.9%	37.9%	24.9%	23.4%	12.2%	14.2%
*Potential reward (£m†)	17.7		16.1		4.7		4.6	

*Subject to Ofgem audit †At 2021/22 prices

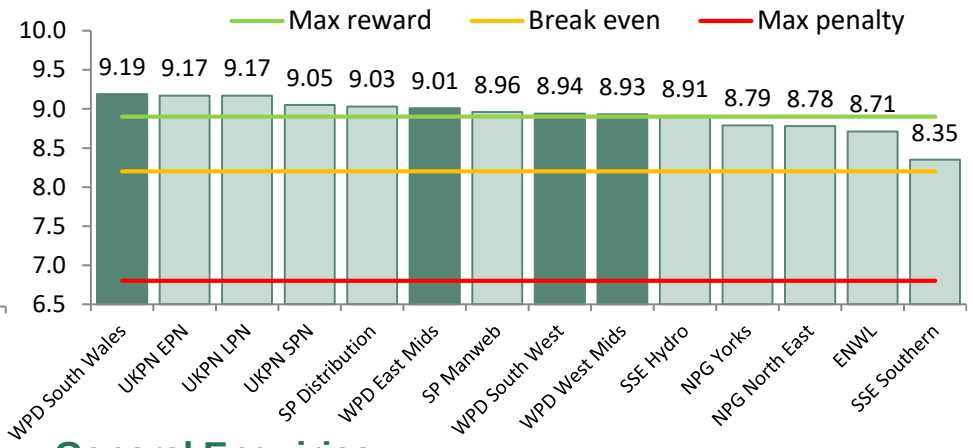
Broad Measure Survey

2021/22 regulatory year

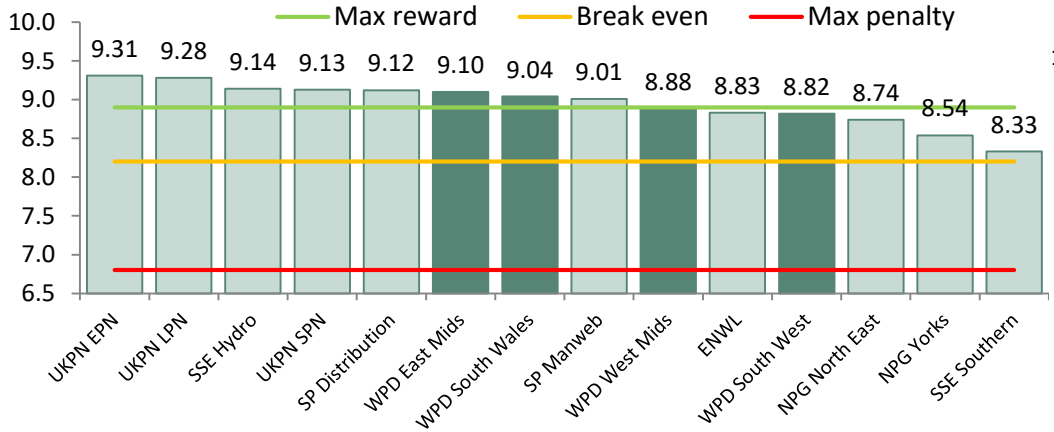
Overall Combined



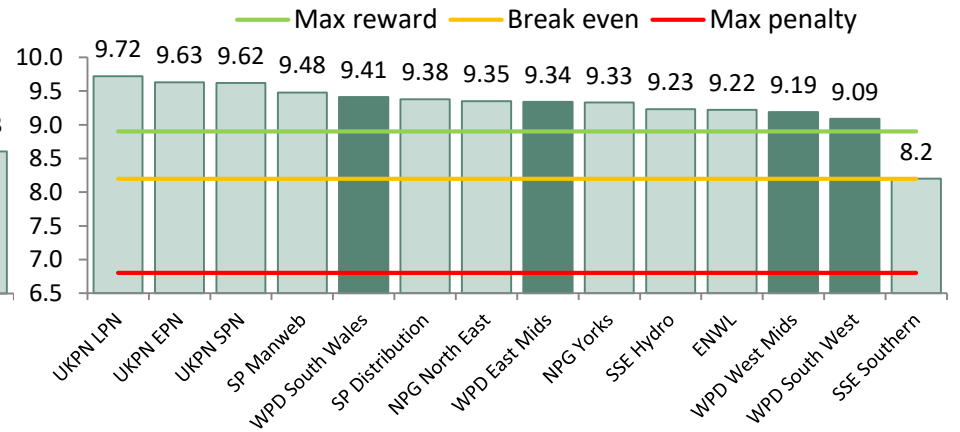
Interruptions



Connections



General Enquiries



Note: Ofgem's incentive only considers individual performance in the 3 categories. An overall score is generated for summary purposes, using Ofgem's weightings of : 30% Interruptions; 50% Connections; 20% General Enquiries

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Contact Centre Performance

2021/22 regulatory year

Inbound

Service	Total calls
General enquiries	191,288
No supply	1,021,968

Average speed of response - Calls 16.56 seconds

Average speed of response - Twitter 35 mins 39 secs

Average speed of response - Webchat 59 seconds

Calls to 105 (included above)	**480655 (47%)**

Outbound – Proactive

	Total call backs	Total to vulnerable customers
During fault	782884	770211
When ETR changes (Estimated Time of Restoration)	156553	62273
Post fault	346345	144443
Total	**1285782**	**976927**

Total proactive text messages sent	2,193,041

Priority Service Register data cleanse

	Total contacts
Customers attempted to contact	1,794,278
Success rate	17%
Onward referrals made (e.g. for fuel poverty support)	11,455 (including 4,650 referrals to fire service)

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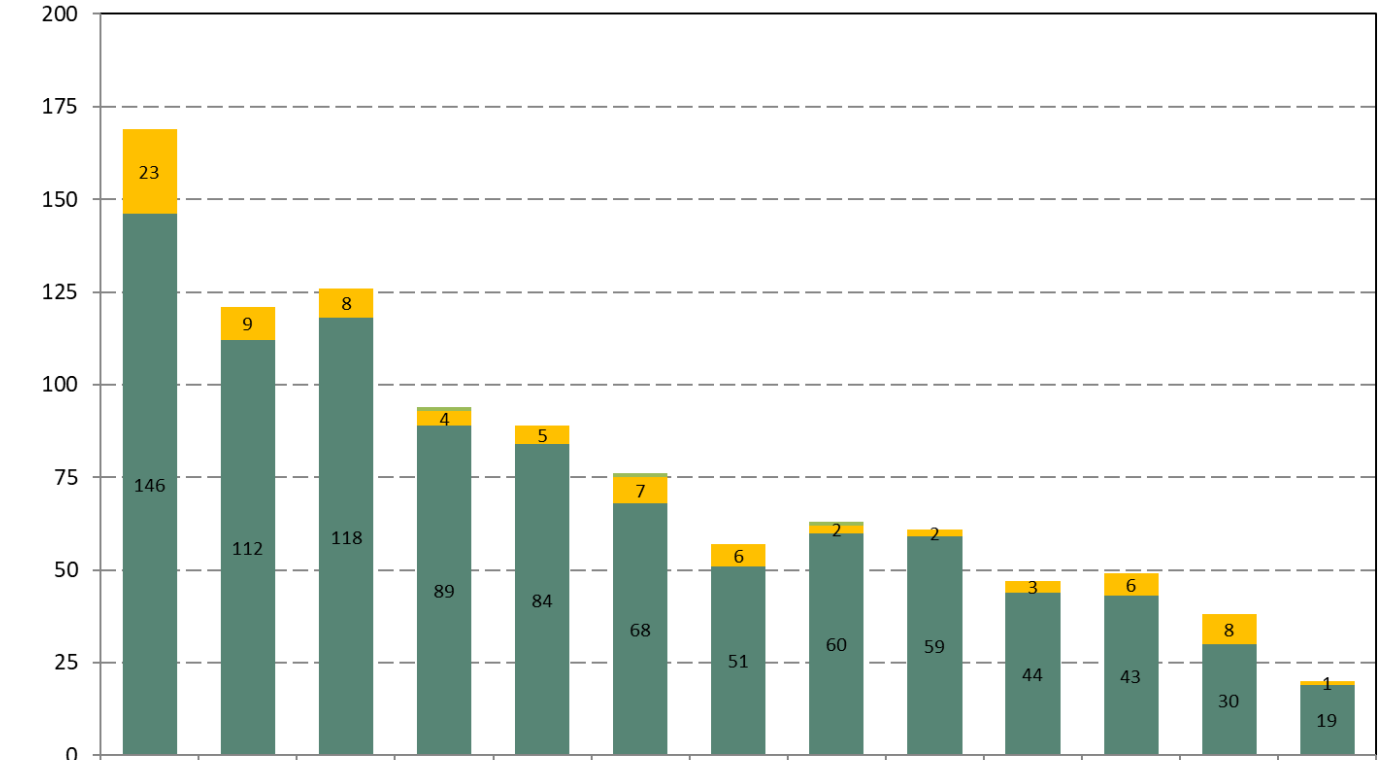
Safety Incidents



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fatality	0	0	0	1	0	1	0	1	0	0	0	0	0
LTA	23	9	8	4	5	7	6	2	2	3	6	8	1
NLTA	146	112	118	89	84	68	51	60	59	44	43	30	19

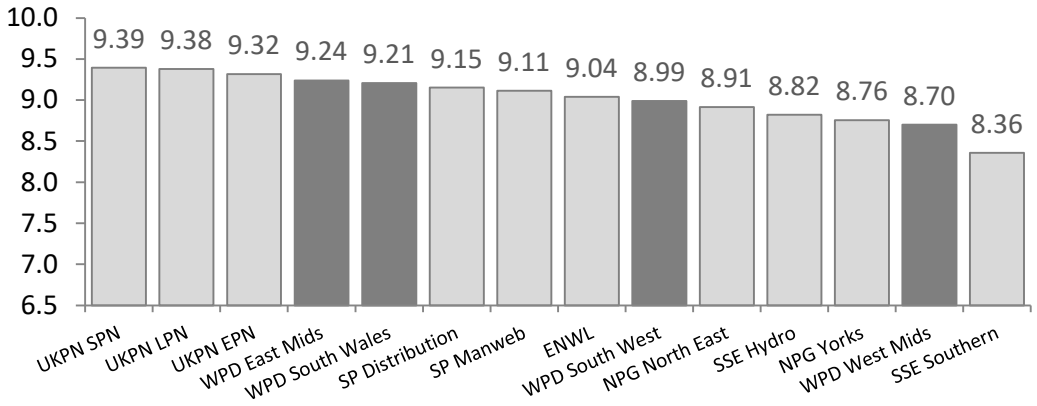
As at end of May 2022

*Loss Time Accident / Non Loss Time Accident

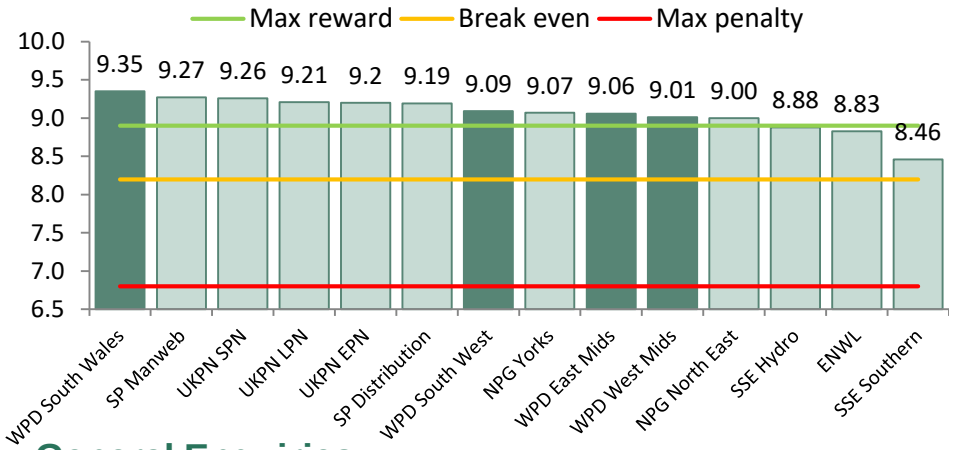
Broad Measure Survey

2022/23 regulatory year (to April 2022)

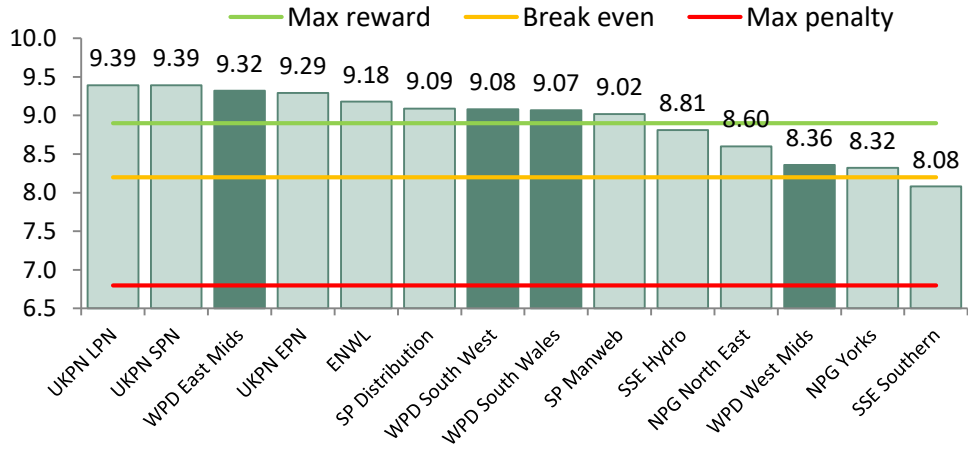
Overall Combined



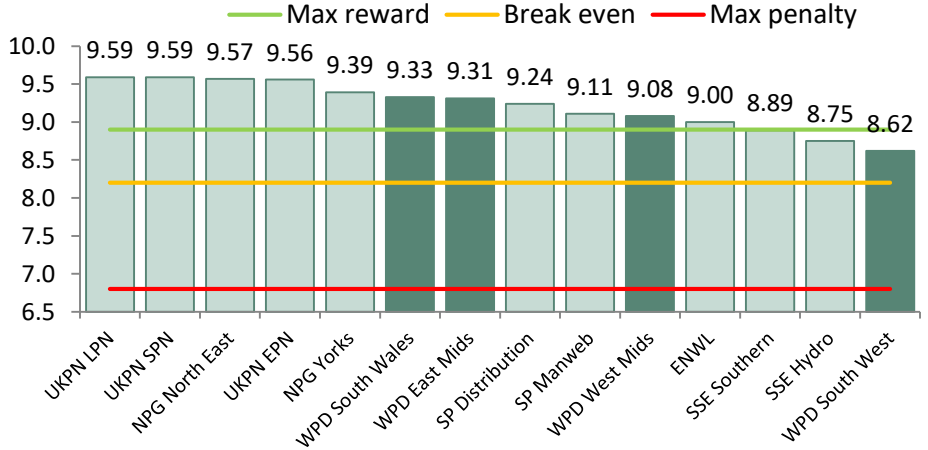
Interruptions



Connections



General Enquiries



Note: Ofgem's incentive only considers individual performance in the 3 categories. An overall score is generated for summary purposes, using Ofgem's weightings of : 30% Interruptions; 50% Connections; 20% General Enquiries

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IIS Outturn 2022/23

	WPD West Midlands		WPD East Midlands		WPD South Wales		WPD South West	
	CI	CML	CI	CML	CI	CML	CI	CML
Ofgem IIS Target 2022/23	77.3	50.3	49.8	34.9	51.5	32.0	57.1	42.1
IIS Outturn 2022/23	30.7	23.6	23.0	16.7	33.4	22.1	37.8	33.8
% Out Performance	60.3%	53.2%	53.8%	52.3%	35.2%	31.1%	33.8%	19.8%
*Potential reward (£m†)	24.0		23.2		8.5		11.2	

As at May 2022

*Subject to Ofgem audit †At 2022/23 prices

Contact Centre Performance

2022/23 year to date – to May 2022

Inbound

Service	Total calls
General enquiries	**29,612**
No supply	**96,788**

Average speed of response - Calls 2.6 seconds

Average speed of response - Twitter 4 mins 28 secs

Average speed of response -Webchat 43 seconds

Calls to 105 (included above)	**50062 (51%)**

Outbound – Proactive

	Total call backs	Total to vulnerable customers
During fault	113135	111853
When ETR changes (Estimated Time of Restoration)	14047	6683
Post fault	37816	16571
Total	**164,998**	**135,107**

Total proactive text messages sent	**87,448**

Priority Service Register data cleanse

	Total contacts
Customers attempted to contact	49,011
Success rate	127.9%
Onward referrals made (e.g. for fuel poverty support)	2598 (including 1002 referrals to fire service)

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