



2015-2023

RIIO-ED1 BUSINESS PLAN

Summary of draft Business Plan for stakeholder consultation
April 2013

WPD Draft Business Plan - Overview

- Our business plan covers the period 2015-2023 and has been developed with our stakeholders
- The plan sets out our best view of the future, the outputs we will deliver over this period and what this will cost our customers
- Our objectives are to keep the business simple, deliver our promises and ensure we continue to provide the highest levels of customer service
- The plan will be submitted to Ofgem in July 2013 and will be further updated before this date:
 - To reflect Ofgem’s March decision document and subsequent policy decisions
 - To incorporate further stakeholder feedback

Outstanding customer service combined with technical excellence, innovation and a clear business structure have made WPD the UK's best electricity distribution business.

WPD is the Distribution Network Operator (DNO) for the Midlands, South Wales and the South West

Our purpose is to make sure the electricity network of poles, pylons, cables, wires and substations safely delivers power to 7.7 million homes and businesses around the clock

- Our network is the largest in the UK, covering densely populated residential areas and widely dispersed rural communities

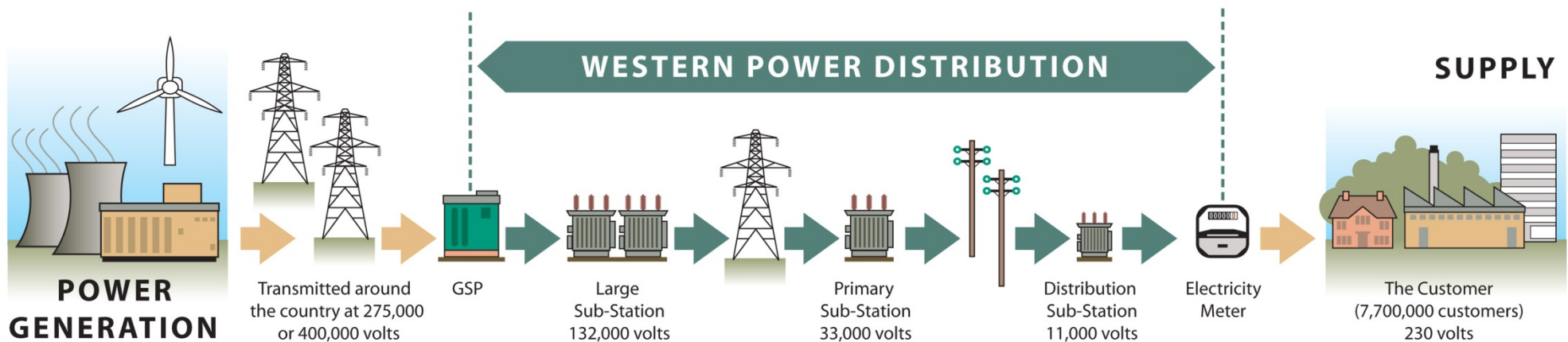
WPD's network:

- Serves 7.7 million customers
- Covers 55,500 km²
- Consists of:
 - 92,000km overhead lines
 - 129,000km underground cables
 - 185,000 transformers



WPD's role is simple and comprises four key tasks:

1. We operate our network assets effectively to 'keep the lights on'
2. We maintain our assets so that they are in a condition to remain reliable
3. We fix our assets if they get damaged or if they are faulty
4. We upgrade the existing networks or build new ones to provide additional electricity supplies or capacity to our customers



WPD have clear business objectives

Our business objectives are:



To minimise the safety risks associated with WPD's distribution network



To meet the needs of vulnerable customers



To improve the reliability of electricity supplies and to make the distribution network more resilient



To engage with our stakeholders and act on their feedback



To reduce WPD's impact on the environment and to facilitate low carbon technology



To be efficient, effective and innovative in everything we do

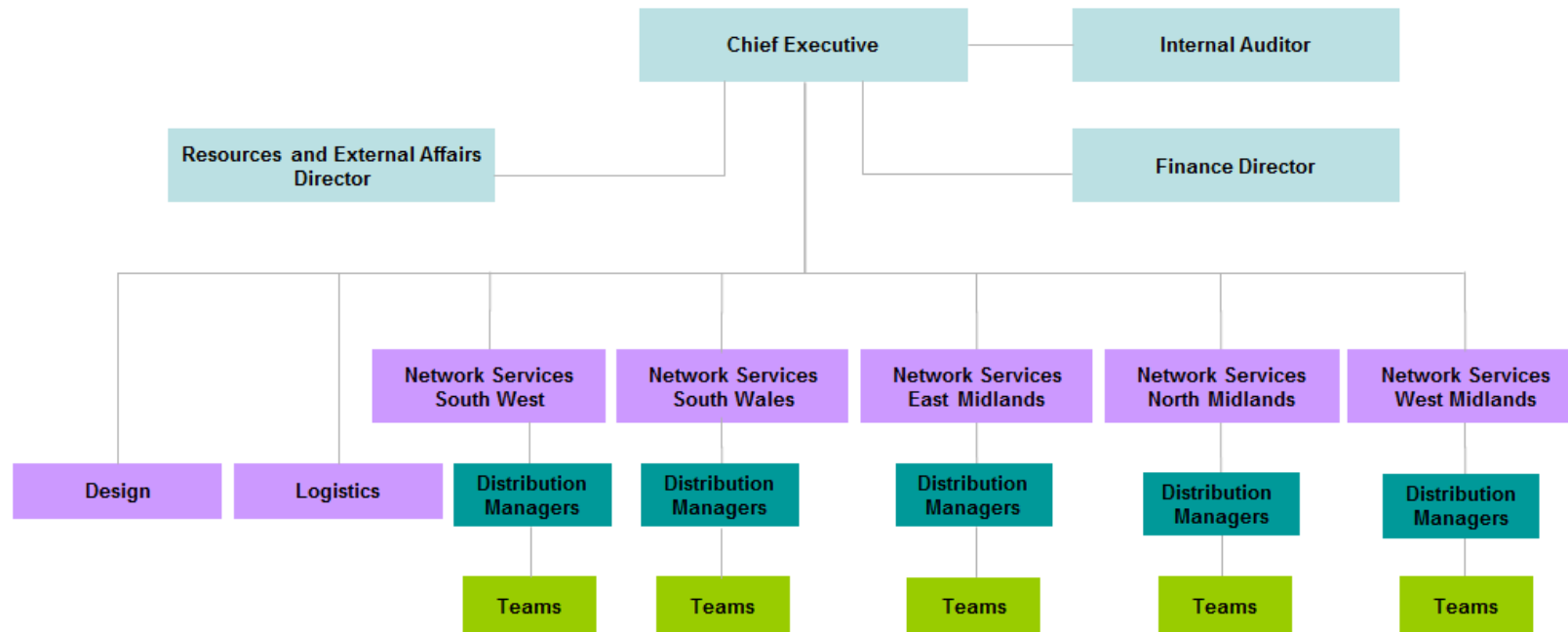


To consistently deliver outstanding customer service

WPD operates a flat organisational structure with locally based, insourced teams

Our successful business model gives responsibility to front line staff to deliver work programmes, whilst the absence of multiple layers of management minimises costs

- The key benefit of the model is that it is flexible: it is quickly scalable to respond to increased work volumes



We deliver our promises.

Whilst our Business Plan sets out our forward thinking and the outputs we will deliver, it is important to recognise that this is a continuation of excellent performance within WPD.

WPD has a proven track record of efficient cost of delivery

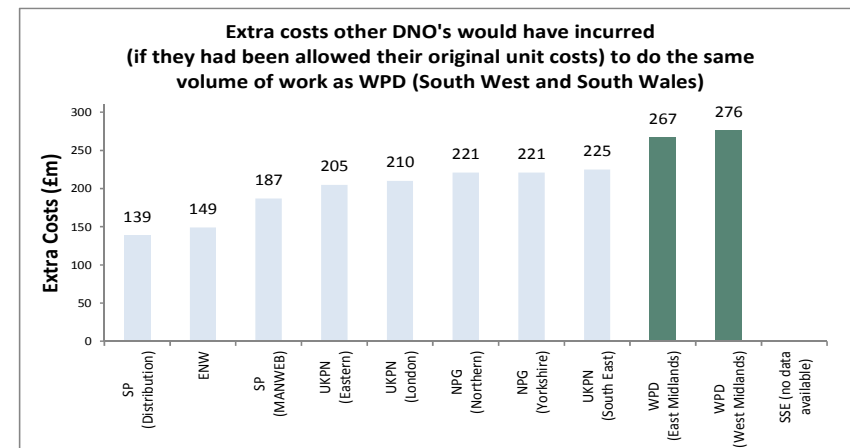
Since acquiring the Midlands businesses on 1st April 2011 we have significantly reduced operating costs

- Within eight months we changed the organisation to the WPD team structure
- We exited from expensive 'Alliance' & 'Turnkey' contracts, reduced overall staff numbers by 800, whilst increasing the number of direct field staff employed by over 200

Annual cost savings following acquisition of the Midlands businesses	
Cost Activity	Savings Per Year
Engineering management	£42m
Corporate activities	£20m
Network operating costs	£7m
Network investment	£50m
Total cost saving	£119m

WPD's business model leads to work being delivered at low costs

- Within Ofgem's benchmarking, South Wales and South West were assessed as having the most efficient unit costs for capital replacement works
- The same work, if completed at the unit costs of other DNOs would have cost significantly more:



WPD is the leading DNO in the UK because we have a proven track record of delivering our promises

Our history of setting out high quality, accurate plans and then demonstrating that we deliver on our commitments should create confidence in this Business Plan and our ability to deliver it

Network Performance

WPD has consistently delivered improved network reliability
Current % out-performance of Ofgem targets:

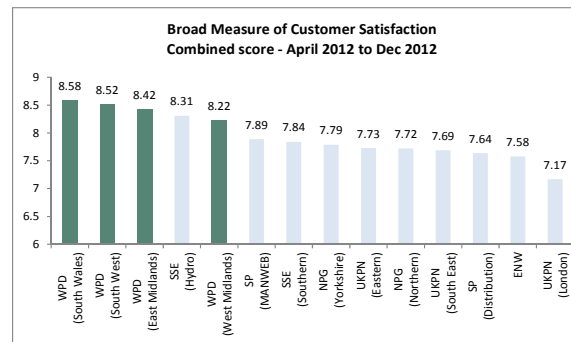
South West		South Wales		East Mids		West Mids	
CI	CML	CI	CML	CI	CML	CI	CML
18%	9%	39%	33%	36%	56%	26%	53%

Customers Interrupted (CI) = how many times customers are without electricity over 3 minutes per 100 customers

Customer Minutes Lost (CML) = the average number of minutes a customer is off supply

Customer Service

WPD's 4 businesses are consistently in the top 5 places of Ofgem's Broad Measure of Customer Satisfaction



Circa 16,000 WPD customers are surveyed annually

Innovation

Under Ofgem's Low Carbon Network Fund, WPD has secured the most innovation trials of any DNO

Tier 2 Large scale innovation projects	5 out of 16
Tier 1 Smaller demonstration projects	11 out of 31

In the first 12 months of WPD ownership in the Midlands, we delivered significant improvements

20% reduction

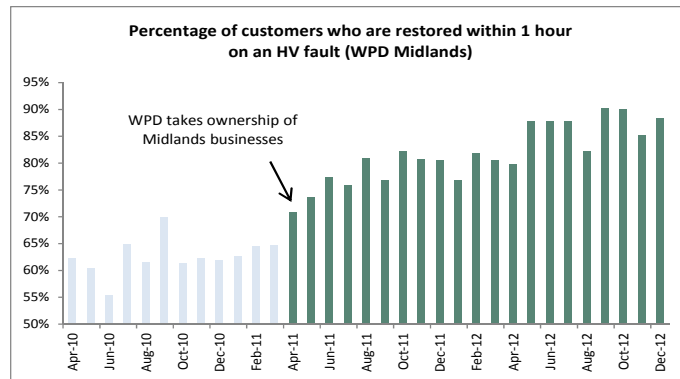
in operating costs

70% reduction

in the number of customer complaints to the industry ombudsman

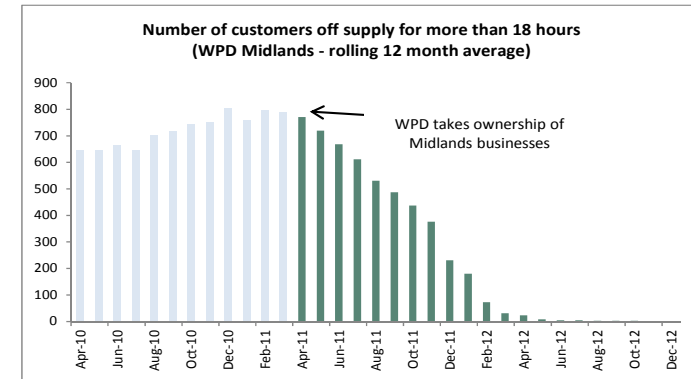
40% reduction

in the average amount of time a customer is without electricity



96% reduction

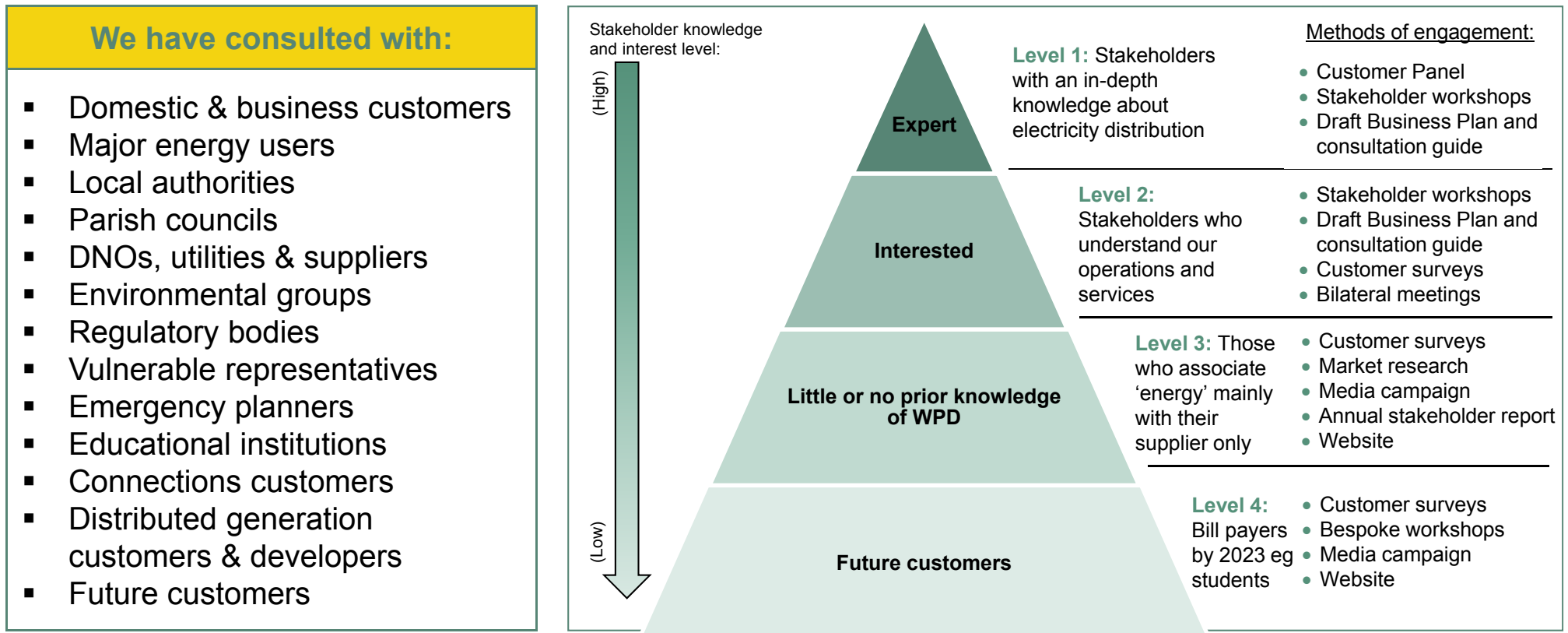
in the number of customers who have a power cut in excess of 18 hours



Stakeholders have influenced and shaped our Business Plan. Their feedback is the foundation of key decision making at WPD.

WPD have carried out comprehensive and inclusive engagement with a wide range of stakeholders

We tailor our approach to use the most appropriate method of engagement to suit the knowledge and interest level of our stakeholders



WPD have engaged with over 3,000 stakeholders on our RIIO-ED1 business plan alone

We have achieved this via:

- 20 stakeholder workshops
- 6 customer panel meetings
- 2 'future customers' workshops
- 2 'social obligations' workshops
- 8 focus groups
- 1,208 'willingness to pay stated preference' interviews (domestic)
- 434 'willingness to pay stated preference' interviews (business)
- 6 connections and distributed generation surgeries
- 374 distributed generation customer interviews

Our RIIO-ED1 engagement programme has 5 phases:

1 - Preliminary engagement	Jan 2010 – Dec 2011	To identify: <ul style="list-style-type: none"> ▪ All stakeholders ▪ Their preferred method of communication ▪ The issues that most concern them
2 - Willingness to pay research	Jan 2012 – Aug 2012	<ul style="list-style-type: none"> ▪ To group stakeholders' priorities into common areas ▪ To identify specific levels of service improvement achievable under each priority ▪ To understand customers' 'willingness to pay' for improved performance
3 - Business Plan consultation	Sep 2012 – July 2013	<ul style="list-style-type: none"> ▪ To communicate the key aspects of our draft Business Plan and the impact on customers ▪ To present stakeholders with: <ul style="list-style-type: none"> - Options for network investment - Service improvements each would deliver - The overall costs and impact on bills
4 - Business Plan outcomes	July 2013 – Feb 2014	<ul style="list-style-type: none"> ▪ To communicate how we have incorporated stakeholder feedback into our Business Plan ▪ To highlight any significant changes from our draft proposals ▪ To identify the key performance measures stakeholders would like us to use to monitor our delivery
5 – Review of our delivery	Feb 2014 - Mar 2023	<ul style="list-style-type: none"> ▪ To provide an update on our investment delivery and performance against key output measures ▪ To identify areas of emerging stakeholder interest

Stakeholders have given clear feedback about what they would like WPD to deliver

- **Reliability – No.1 priority for customers**
 - Continue to reduce the number and duration of power cuts
 - Improve service for remote, worst served customers
 - Improve network resilience to severe weather events
- **Customers**
 - A quicker connections service
 - Multiple communication channels
 - Enhanced services to vulnerable customers
- **Sustainability and Environment**
 - Continue undergrounding schemes in AONB
 - Future proof the network by taking sensible incremental steps



All of the above must be delivered efficiently and demonstrate value for money

WPD's innovation strategy is already delivering new ways of working and improved efficiency.

2015-2023 will bring many new challenges including the facilitation of new Low Carbon Technologies. WPD's Business Plan sets out our view of this future.

WPD are using their innovation expertise to adapt the network to the Government's Carbon Plan

If large volumes of Low Carbon Technologies (LCT) connect to the network - specifically heat pumps, solar photovoltaic panels and electric vehicle charging - it will increase electricity demand and change the way networks are operated

- Our current portfolio of five Tier 2 Low Carbon Network Fund projects covers a broad area of research:

Area of Interest	Project 1: LV Templates	Project 2: Low Carbon Hub	Project 3: FALCON	Project 4: BRISTOL	Project 5: FlexDGrid
Voltage Constraint		✓	✓	✓	✓
Thermal Constraint		✓	✓		
Fault Level Constraint					✓
Design Tools	✓				✓
Demand Side Response			✓	✓	✓
LV Monitoring				✓	
HV Monitoring			✓		
Automation			✓		✓
LV Estimation	✓				
Weather and Climate Effects	✓				
Generation	✓	✓	✓	✓	✓
Storage				✓	

WPD have developed a 'best view' of the future to plan for the impact of LCTs

- The Department of Energy & Climate Change (DECC) has produced national scenarios of the uptake of LCTs necessary to meet the Carbon Plan
- An industry model developed by EA Technology has regionalised these scenarios to determine the volumes in each distribution licence area
- To help us develop our best view scenario, we commissioned the Centre for Sustainable Energy in Bristol to create a database of customers and the substation they are connected to together with information about the age of the property, tenure, property type, number of bedrooms, proximity to gas mains and mosaic group
- This work has derived the likely volume of LCTs and provided a more detailed view of the way LCTs will group together ('cluster') on the network and the impact this will have on investment

WPD's 'best view' low carbon scenario:

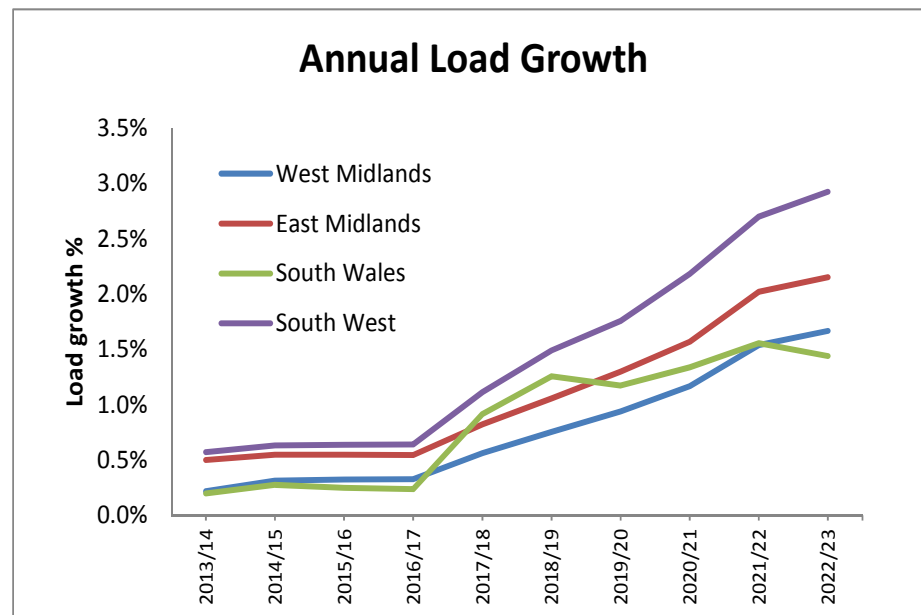
Cumulative number of retro fit domestic <u>heat pumps</u> at the end of RIIO-ED1				
	WPD 'Best View' based on CSE data	Regionalised DECC LOW case	Regionalised DECC MEDIUM case	Regionalised DECC HIGH case
West Midlands	53,683	39,403	105,300	100,579
East Midlands	50,708	47,136	127,152	121,426
South Wales	19,492	78,596	158,996	152,895
South West	72,162	27,074	71,647	68,454

Cumulative kW of retro fit <u>solar photovoltaic</u> installations at the end of RIIO-ED1				
	WPD 'Best View' based on CSE data	Regionalised DECC LOW case	Regionalised DECC MEDIUM case	Regionalised DECC HIGH case
West Midlands	135,909	120,608	268,268	467,825
East Midlands	191,506	129,028	291,320	510,403
South Wales	54,234	51,645	117,396	206,455
South West	225,281	106,608	221,373	372,558

Cumulative number of <u>electric vehicles</u> charged at existing premises at the end of RIIO-ED1				
	WPD 'Best View' based on CSE data	Regionalised DECC LOW case	Regionalised DECC MEDIUM case	Regionalised DECC HIGH case
West Midlands	66,761	103,703	184,773	277,613
East Midlands	77,022	114,022	199,862	305,241
South Wales	28,887	35,420	62,084	94,819
South West	45,014	77,581	135,989	207,688

WPD are forecasting increases in electricity load growth over the period 2015-2023

This load growth incorporates LCTs in new properties, the retro-fitting of LCTs and energy efficiency measures



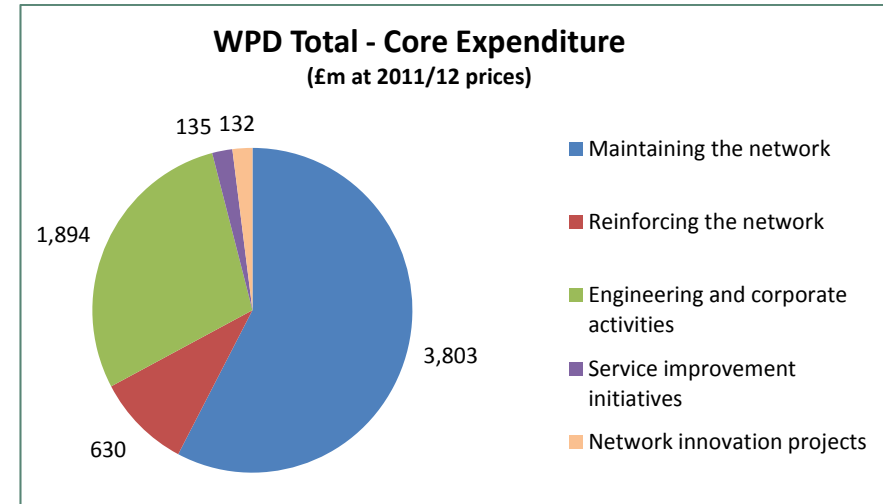
The need for LCT-related reinforcement and 'smart' solutions results in the following investment forecast compared against the DECC scenarios

LV & HV Reinforcement Expenditure 2015-2023 – Comparison of WPD Best View and DECC Scenarios (£m at 2011/12 prices)					
	WPD 'Best View' forecast	DECC Scenario 1 – high emissions abatement in heat provision	DECC Scenario 2 – high emission abatement in transport	DECC Scenario 3 – high electrification of heat and transport provision	DECC Scenario 4 – International Carbon Credit purchases needed to meet targets
West Midlands	53.4	60.1	74.3	82.1	4.8
East Midlands	84.7	117.3	116.3	127.6	23.7
South Wales	18.1	95.5	92.7	97.9	11.9
South West	70.3	49.5	44.6	51.4	3.4
Total	226.5	322.4	327.9	359.0	43.8

WPD's Business Plan will deliver the most all-round efficient package and achieve multiple measurable outputs, whilst lowering customer bills.

WPD will invest £6.6 billion in core distribution business activities

- **£3.8bn will be for maintaining the existing network**
 - through replacement of assets, maintenance of assets, repairing faults and other associated activities
- **£630m will be for reinforcing the network**
 - to accommodate load growth and the impact of low carbon technology on the network
- **£1.9bn will be used for running the business**
 - including the costs of call centres, stores, purchasing, finance, human resources, maintaining IT systems, engineering management, and the costs for recruiting and training our workforce
- **£135m will be spent on service improvement initiatives**
 - improving the resilience of the network and reducing our environmental impact
- **£132m will be invested in innovation projects**



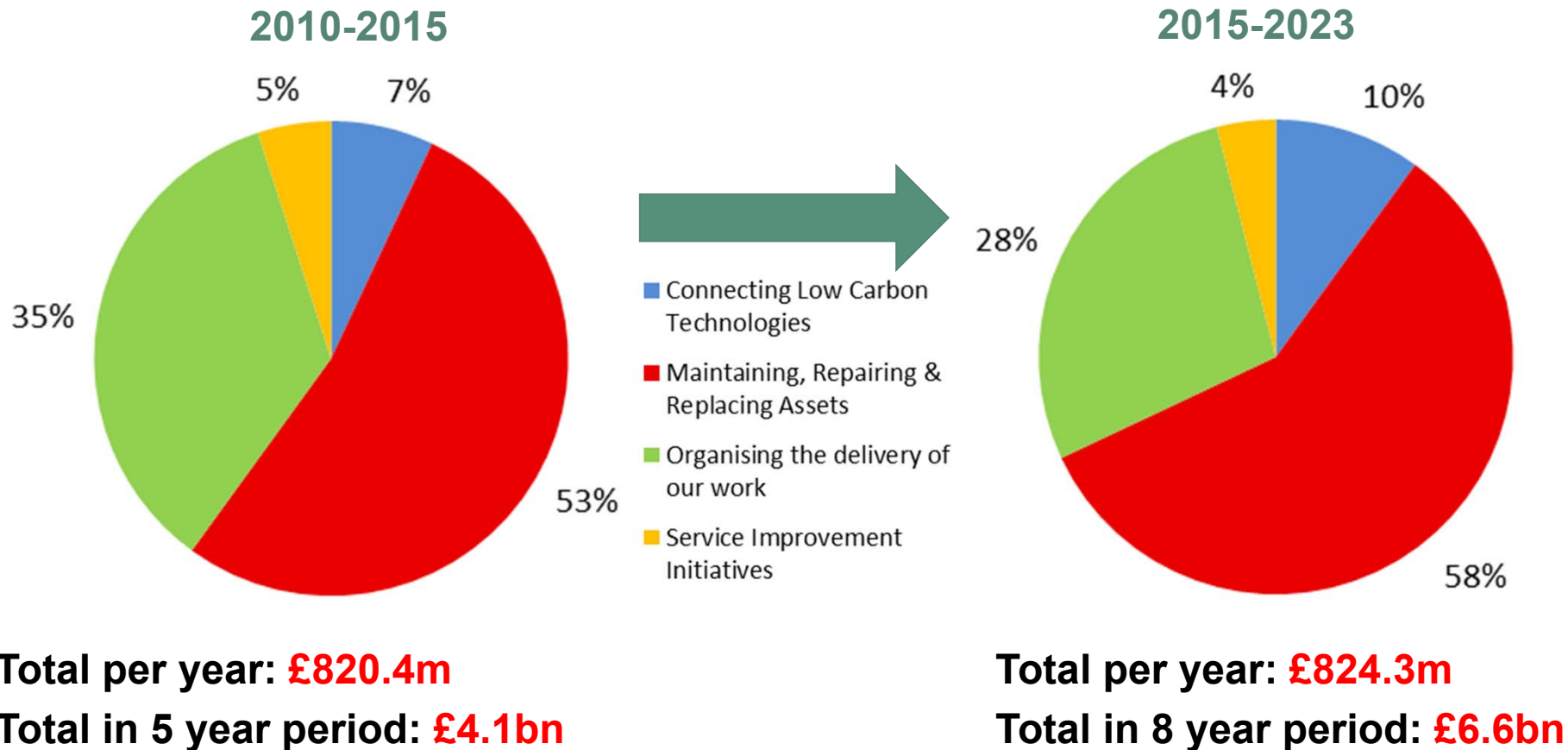
WPD's total planned expenditure can be divided into pure network costs and other regulated costs

Pure network costs (£m at 2011/12 prices)					
	West Mids	East Mids	South Wales	South West	WPD Total
Maintaining the network	1,177	1,069	605	952	3,803
Reinforcing the network	207	256	57	111	631
Managing the business	533	548	305	509	1,895
Service improvement initiatives	82	77	51	58	268
Total	1,999	1,950	1,018	1,630	6,597

Other regulated costs (£m at 2011/12 prices)					
	West Mids	East Mids	South Wales	South West	WPD Total
RPEs - Efficiency	57	55	30	47	188
Smart Metering	42	45	20	28	135
Rates and Licence fees	276	359	151	154	940
Transmission Charges	104	90	74	68	336
Pension Costs	348	311	293	415	1,367
Total	827	860	568	712	2,966

WPD will deliver significant service improvements whilst keeping annual expenditure broadly constant

Average annual expenditure



WPD's Business Plan commits to provide frontier performance in 67 key output measures

- We commit to additional voluntary output measures within each of the six categories:

Category	Safety	Reliability	Environment	Connections	Customer Satisfaction	Social Obligations
<i>Measures</i>	8	7	12	11	16	13
<i>Stakeholder View</i>	▶	▲	▲	▲	▶	▲
<i>WPD's focus in RIIO-ED1</i>	Reduce staff accident frequency rate by 10%	Reduce the duration of power cuts by 20% Implement flood defences at 75 substations	Reduce business carbon footprint by 5% Underground 40km of line in AONB	Target zero Guaranteed Standard failures Better engagement with large customers	Maintain top position for customer satisfaction and complaints	Improve data on vulnerable customers Provide practical support during power failures
<i>Voluntary</i>	Educate 400,000 children on electrical safety	Reduce number of power cuts lasting more than 12 hours by 20%		Improve overall time to deliver a connection by 20%	Double Guaranteed Standard Payments	Contact vulnerable customers every two years

▲ = Improve current performance; ▶ = Maintain current performance; ▼ = Do less than current performance

WPD's plan is designed to be flexible and deal with uncertainty

- The bulk of the work that we do in RIIO-ED1 will be 'business as usual'
- The key uncertainty is the connection of low carbon technologies
- In addition to our 'Best View' low carbon scenario the plan includes:
 - An innovation strategy to identify cost effective alternatives to conventional reinforcement
 - The impact on our business of all of the four DECC scenarios
 - A manpower and skill base plan to support any scenario
 - Identified trigger points in order to allow movement between scenarios

WPD's plan delivers the most efficient financial package consistent with RIIO-ED1 financial principles

- Our expenditure proposals will require WPD to raise around £1.7bn of new debt
- Shareholders will re-invest £800m
- In addition £900m of long term debt matures and will need to be re-financed
- To calculate our allowed revenues and cash flows we have assumed:

Parameter	Value	Details
Cost of Debt	2.3%	Based on forecasts by RBS and Lloyds banks
Cost of Equity	6.7%	The same as DPCR5 and GD1
Gearing	65%	The same as DPCR5
Vanilla WACC	3.8%	Derived from cost of debt and cost of equity
Capitalisation	80%	The same as DPCR5 after taking into account changes in definition.
RAV Depreciation	35 years	For RIIO-ED1 we transition from the DPCR5 20 year life to a 45 year life

Over RIIO-ED1 WPD's charges will reduce by an average of 10% (before inflation)

- The total cost forecast and the financial assumptions determine the impact on customer bills

WPD group – Impact on domestic bills



Note : 2011/12 prices

Summary

WPD's Business Plan delivers:

- A network driven by customer and stakeholder requirements
- Efficient expenditure plans which include significant investment in the network
- Numerous measurable outputs
- Charges that reduce in the first year of RIIO-ED1 and remain broadly flat thereafter

Detailed overview of the 67 outputs in WPD's Business Plan.

Outputs – Safety

WPD will:

Reducing accidents:

- reduce our accident frequency rate by 10%;
- maintain active participation in ENA SHE 'Powering Improvement' initiatives that improve safety performance;
- work with our trade unions to enhance safety performance including the provision for additional 'Behavioural Safety' initiatives;
- investigate all accidents involving members of the public, contractors or our own staff to ensure that learning points are quickly understood and communicated.

Compliance with health and safety law:

- target zero improvement notices, prohibition notices and prosecutions from the Health and Safety Executive;
- complete work programmes to meet the requirements for increased clearance to structures or the ground;
- complete 100% of inspection and maintenance programmes every year.

Substation security:

- enhance security measures at higher risk substation sites to reduce the number of repeat break-ins.

Educating the public:

- organise and run school days to provide safety information to over 400,000 schoolchildren;
- continue to publish literature on maintaining safety around electricity apparatus and send over 500,000 copies of our booklets to targeted landowners, businesses or leisure operators.

Outputs – Reliability

WPD will:

Network performance:

- improve network performance by the end of RIIO-ED1 so that on average customers will have 13% fewer power cuts and have their electricity supplies restored 20% quicker;
- ensure that a minimum of 85% of customers have their power restored within an hour on HV faults.

Guaranteed Standards of Performance:

- reduce by 20% the number of customers experiencing a power cut lasting 12 hours or more;
- target zero failures on all other guaranteed standards.

Worst served customers:

- reduce by 20% the number of customers classified as worst served.

Enhancing network resilience:

- apply flood defences to 75 major substations, reducing the risk of both damage to equipment and power cuts due to flooding;
- accelerate the programme of tree clearance for resilience by 40% with the objective to deliver the programme five years earlier than suggested by Government guidelines, clearing 700km of overhead line per annum;
- enhance substation battery life to be resilient for 72 hours in the event of major power losses.

Outputs – Environment

WPD will:

Facilitate increased volumes of Low Carbon Technologies (LCTs):

- improve the time to provide a response to customers wanting to use LCTs by 20%;
- reduce costs for future customers by developing smart solutions to provide alternative and innovative techniques for network management;
- identify LCT hotspots using data from smart meters, expert organisations and local authorities and use this to inform decision making on whether to:
 - carry out asset replacement using larger sized assets; or
 - provide additional network capacity through utilising traditional methods or smart intervention.

Reduce the carbon footprint of the business:

- ensure all replacement vehicles have lower CO2 emissions than those they are replacing;
- ensure all new or substantially refurbished buildings meet, as a minimum, the 'excellent' standard under the Building Research Establishment Environmental Assessment Method (BREEAM);
- reduce the amount of waste sent to landfill by 5% per annum.

Reduce the environmental risk of leaks from equipment:

- reduce by 75% the volume of oil lost through leaks from oil filled cables;
- reduce by 17% the volume of SF6 gas that is lost from switchgear;
- install effective oil containment 'bunds' around plant containing high volumes of oil.

Improve visual amenity in National Parks and Areas of Outstanding Natural Beauty:

- underground 40km of overhead lines in areas of outstanding natural beauty.

Outputs – Connections

WPD will:

Provide a faster and more efficient connections service:

- improve the overall time to deliver a connection by 20%;
- provide excellent customer service so that WPD are the top performing DNO group in customer satisfaction surveys;
- conduct surveys with DG customers to gauge their satisfaction and identify improvements to our service.

Improve communication with customers:

- host quarterly 'surgeries' for connection customers to better understand processes;
- develop and enhance online connections processing and progress tracking;
- ensure information provided in documentation and online is effective.

Enhance engagement with Major Customers:

- work with major customers to identify where processes can be improved and quickly implement changes.

Guaranteed Standards of Performance:

- target zero failures of the connection guaranteed standards.

Facilitation of competitive market:

- improve customer awareness of third party connection providers and carry out regular checks with customers so that they understand the options available to them;
- work with 3rd party connection providers to extend the scope of contestable work to HV and reinforcement work;
- deliver service improvements to third party connection providers in-line with other outputs.

Outputs – Customer Satisfaction

WPD will:

Customer service:
<ul style="list-style-type: none">▪ continue to be the number one performing DNO across all elements of the Broad Measure of Customer Satisfaction;▪ maintain certification to the Customer Service Excellence Standard.
Telephone response:
<ul style="list-style-type: none">▪ respond to telephone calls quickly, answering them within 2 seconds;▪ have a low number of abandoned calls (less than 1%);▪ always provide customers with the option to talk to a WPD call taker.
Communication with customers:
<ul style="list-style-type: none">▪ provide a restoration time for every outage;▪ call back all customers who have been in contact about a fault;▪ contact customers within two days of receiving a non-fault enquiry;▪ provide messaging via text and social media, and develop 'self-service' options to find information online.
Stakeholder engagement:
<ul style="list-style-type: none">▪ continue to host a Customer Panel where the CEO meets with them four times a year;▪ continue to host a minimum of 6 stakeholder workshops per annum;▪ continue to produce an annual stakeholder report providing an update of actions taken as a result of engagement.
Complaints:
<ul style="list-style-type: none">▪ resolve at least 65% of complaints within one day;▪ continue to have the lowest number of complaints where the Ombudsman has to get involved.
Guaranteed Standard awareness:
<ul style="list-style-type: none">▪ continue to send the 'Power for Life' publication to all 7.7 million customers, including promotion of the GS.

Outputs – Social Obligations

WPD will:

Improve the data held on the Priority Services Register:

- proactively contact vulnerable customers at least once every two years;
- improve the quality of Priority Services Register data by working with other agencies and sharing information;
- coordinate meetings with suppliers to agree criteria for vulnerability.

Improve the services provided for vulnerable customers:

- continue to provide practical support via the Women's Royal Voluntary Service and the British Red Cross;
- contact all medically-dependent customers every four hours during power cuts;
- make 10,000 crisis packs available;
- seek feedback from vulnerable customers to improve service;
- develop mechanisms for sharing information with local resilience forums.

Address fuel poverty by supporting customers to access key information:

- build a database of regional agencies we can refer customers to for assistance;
- work with partners to develop links to/from WPD's website;
- develop joint information, awareness campaigns and co-ordinated assistance with partners;
- provide bespoke training to WPD front line staff;
- develop local outreach services.