## SP Energy Networks 2015–2023 Business Plan — Highlights

SP Distribution Ltd SP Manweb plc July 2013







## A Message from Frank Mitchell CEO

To build our plans we have learned from our stakeholders and customers, reinforcing our top priorities as your regional electricity network company: Safety, Customer Service and Value for Money.

Over the last few years we have focused on the fundamentals that are important to our customers and our wider stakeholders. This has resulted in us delivering continuous service improvements, lower cost contracts and accelerated outputs. We remain on track to deliver all of our 2010-15 commitments.

By 2023 we intend to lead the industry by continuing to apply our guiding values to be:

- A customer service focused company trusted by our communities and stakeholders.
- An engineering company with strong stewardship of assets and world class safety credentials.
- A company that attracts and develops skills for the future from the communities we serve.

The UK energy industry is entering the most exciting period for half a century. We have an unprecedented opportunity to play a major part in the UK's low carbon transition and help set the industry blueprint for the next 50 years.

The future network and its users will require a different approach, and our ambition is to transform the way you think of us.

- Access to Smart metering data will allow us to revolutionise our customer relationship to be much more proactive.
- We will use innovation to reduce costs, improve service, and lay the foundations for a smart network.

Our stakeholders have told us they want us to:

### Manage our ageing network to maintain public, staff and contractor safety

Much of our network was installed in the 1950-70s so is approaching the end of its operational life. We will continue our programme of renewing our assets over several price controls to minimise the impact on customer bills.

We will continue our industry leading approach to manage the replacement of end of life cables in high-rise and tenement flats.

We are ahead of the industry in making sure old overhead lines meet modern height and clearance standards. Our overhead lines across roads will be brought up to modern standards by 2015, and in all other areas by 2020.

### Reduce the number and length of power cuts

Our customers already enjoy 30% fewer power cuts than the UK average, and a reliability in excess of 99.999%. By 2023 we plan to reduce the number of customer power cuts by 7%, the average length of those power cuts by 16%, and the time that our average customer is without electricity by 25%.

### Improve customer service

Our goal is to lead the industry in the delivery of customer service. We have laid out a comprehensive set of customer commitments and will pay higher levels of compensation where we fail.

### Continue to invest to reduce power cuts during major storms

Since the late 1990's we have rebuilt and cleared trees from more than 10% of our rural high voltage overhead lines, helping to reduce power cuts during storms by 75%. By 2023 we will make more than 25% of our rural high voltage overhead lines more resilient to storms.

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### Improve service to poorly served customers

A very small number of our customers receive a service which is much worse than others. We will continue to improve service to our poorly served customers and collaborate with other agencies to help our most vulnerable customers.

### Prepare the network for low carbon technologies

While the 2020 UK carbon emission reduction target is 34%, both Scotland and Wales have more ambitious targets of 42% and 40%. Our network will be 'low carbon ready' sooner than the UK average.

### Delivering value for money

We are acutely aware of the economic pressures on all of our customers. Since we published our draft plan highlights every component of our plan has been optimised for efficiency, taking into account real price effects, cost benefit analysis and industry benchmarking.

As a result we have reduced our forecast costs by over £700m compared to our May 2013 Draft Business Plan

- Removing inefficient sub-contract margins
- Identifying scope for greater co-ordination
- Identifying other scope for efficiencies

 Including ongoing productivity of 1% p.a. compounding, reducing our forecast costs by 4.6% (£170M).

As a result the cost of our final plan has reduced from £5.9bn to £5.2bn whilst our output commitments have increased and secondary deliverables have been maintained.

This means that on a like for like basis, whilst increasing our outputs and commitments to customers, our business will spend marginally less than allowed in DPCR5. We believe that the plan now represents best value for our current and future customers.

#### Our total plan

We plan to create more than 2,500 jobs across our supply chain, investing up to £90m in recruitment and training (the customer impact of which will be £60m after taking account of efficiencies elsewhere).

Our forecast costs of £5.2bn include £2.5bn to renew and maintain our network, £600m to accommodate customer future energy usage, £1bn of supporting activities and £1.1bn of external costs including UK corporation tax and local business rates.

### Customer bill impact

The latest analysis from Ofgem shows that electricity distribution charges represent 16% of an average UK customer electricity bill.

Using the UK average consumption 3,300kWh, as required by Ofgem:

- Our customers in Central and Southern Scotland will see an 8% reduction in our bills from £99 p.a. to £91 p.a.
- Our customers in England and Wales will see a 12% decrease from £126 p.a. to £111 p.a.

These numbers are expressed in 12/13 prices and will vary depending on actual inflation and consumption.

### Conclusion

We have set out a plan to satisfy our stakeholder needs and to transform the way you think of us as your electricity network company.

I would like to thank you for your input in developing our plan and encourage you to give us your feedback both on our final plan and ongoing service.

We look forward to providing you updates on our progress, and obtaining your ongoing input to our priorities through our various stakeholder engagement activities over the next decade.

/ Model

Frank Mitchell



## Our network

We are a proud engineering company with a strong heritage in asset stewardship and world class safety credentials. Our priorities are:

- The health & safety of the public, our employees and contractors.
- Maintaining high levels of security of supply.
- Providing complete customer satisfaction — getting it right first time every time.
- Delivering appropriate levels of capital investment and maintenance activities to modernise the network and meet customers new needs,
- Innovating to reduce costs and improve services to customers.
- Playing our part in facilitating the Energy Policies of the UK, Scotland and Wales.
- Leveraging the strengths of being part of the Iberdrola group for the benefit of our customers.

132,000 volts

33,000 volts

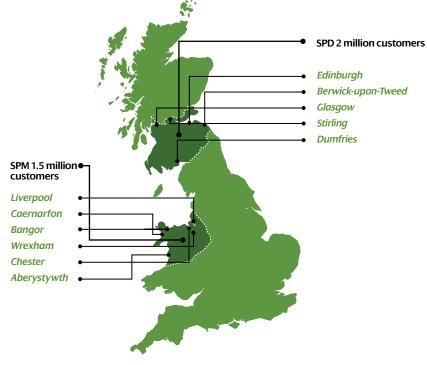
275,000 or

400,000 volts

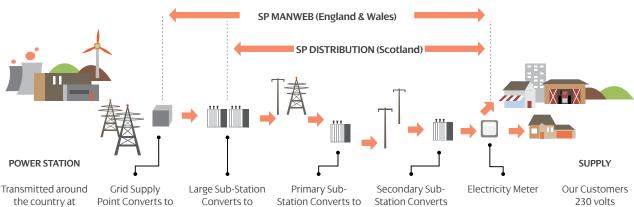
We are the licensed Electricity Distributor (DNO) for the South of Scotland and the Borders (SP Distribution, SPD).

We are the licensed Electricity Distributor for Merseyside, Cheshire, North Wales and North Shropshire (SP Manweb, SPM). We have 30,000 substations (one substation for every 100 customers), more than 40,000km overhead lines (once around the globe), and 65,000km of underground cables.

Our network is vast and to replace it today would cost more than £10bn.



to 415 / 230 volts



11,000 volts



## Our organisation and communities

We are a substantial employer with a workforce of 2,500 internal employees based at 17 locations in the South of Scotland and 17 locations in England and Wales. We utilise around 2,500 contractors across these areas.

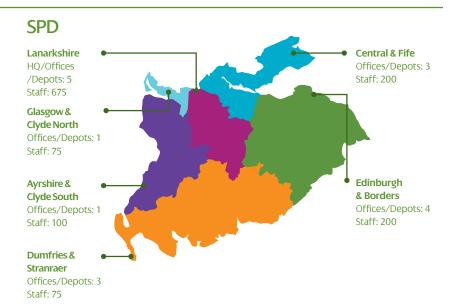
We operate in three of the UK's largest cities (Glasgow, Edinburgh, and Liverpool) accounting for 1.6m (43%) of our customers, as well as three significant rural areas (Scottish Borders, Dumfries and Galloway and North Wales).

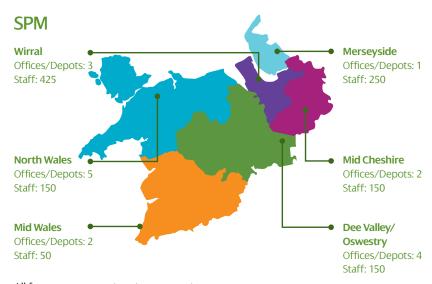
Within our licensed areas are a range of communities, from some of the UK's most deprived and fuel poor locations to remote rural communities, some of which are not on the gas grid and solely reliant upon electricity for energy.

We operate to international standards across all aspects of our business operations. Our systems are audited and certified by Afnor UK Ltd, who in turn, are a United Kingdom Accreditation Service (UKAS) certified company.

### SPEN are certified to:

- ISO9001: 2008 Quality Management Systems.
- ISO14001: 2004 Environment Management System.
- OHSAS18001: 2007 Occupational Health and Safety Management Systems.
- PAS55: 2008 Optimal Management of Physical Assets.





All four management systems operate together as an integrated management system.

We plan to add the Business Continuity Standard, ISO 2230, to our portfolio of standards, becoming part of our integrated management system during 2015.





## How do we compare with others?

## Our goal is to be the best electricity network company in the UK

We compare our performance against our peers, we recognise we can always improve, and we take steps to achieve this aim. We are relentless in our pursuit of excellence.

SP ENERGY

## Our focus on public safety

Safety, whether public or employee, is our top priority, and is at the forefront of everything that we do. During the last 5 years, we have led the industry in addressing two significant public safety risks:

- End of life cables in high-rise and tenement flats.
- Old overhead lines that do not meet modern height and clearance standards.

### Replacing end of life cables in high-rise and tenement flats

Some common areas of high-rise and tenement flats contain very old cables. It's not always clear whether the responsibility for the maintenance and eventual replacement of these cables lies with the building owner or the electricity distributor.

We believe that this poses an unacceptable safety risk to the buildings' occupants and we are proactively replacing these cables where no clear ownership can be easily established.

In 2010-12 we invested more than £20m to address this public safety risk.

We were the only UK distribution company to seek and obtain approval from Ofgem for additional works in the period 2012-2015.

We will invest over £30m in this area from 2012-2015.

We will continue this unique approach in ED1, spending in excess of £100m to further address this risk for more than 200.000 of our customers.

### Ensuring old overhead lines meet modern height and clearance safety standards

One of the ways we manage public safety is by making sure old overhead lines meet modern clearance standards. This minimises the risk of accidental contact with our live power lines. We have measured our entire overhead line network (40,000 km) and prioritised work to bring it up to modern standards. We will eradicate all high risk low overhead line clearances including those over roads by April 2015 and we are committed to resolving all other high risk issues by 2020.

### As well as protecting the public, we are also protecting our employees and contractors from harm

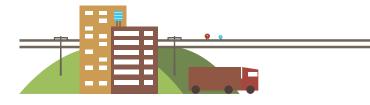
The UK electricity industry has a safety record that is envied the world over. SP Energy Networks safety performance is something of which we are rightly proud, but we are not complacent.

We reach beyond legal requirements, something that we see as a basic minimum and are passionate about investigating all incidents so that lessons can be learned quickly and improvements to our business become enduring.

This approach allows us to explore all incidents that cause harm, not just those that result in time away from work. This relentless approach has borne great results, seeing our total accident rate improve by 70% over three years.

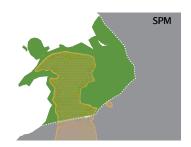
Within Chapter 8 of our business plan, we have outlined how we intend to deliver even greater levels of safety performance during the ED1 price review period.

By 2015 we will have eradicated all high risk overhead clearences including 'low' clearances over roads











## Our focus on network resilience

### Severe weather resilience

We are acutely aware of the hardships customers experience when they are without supplies for several days after major storms, and that this is more significant for vulnerable customers. With this in mind, we will deliver a voluntary standard to reconnect our customers within 36 hours after storm events.

### **Case Study**

- The Boxing Day Storm in 1998
  - 1 in 30 year storm event.
  - affected more than 230,000 customers.
  - Took 8 days to fully restore power.
  - 55% of customers restored within 1 day.

After this experience, we commissioned a comprehensive review of our overhead line network and its capability to cope with extreme weather events, including risk of falling trees.

This review identified that large proportions of our networks in Scotland and Wales are in areas classified by the Met Office as particularly at risk of severe weather. As a result:

- We have adopted an industryleading approach of rebuilding overhead lines with specifications matched to expected weather conditions.
- We led the industry in developing a specification for tree clearance to make lines resilient to falling trees.
- We have installed more than 3,000 remote control switches to speed up the restoration of customer supply.

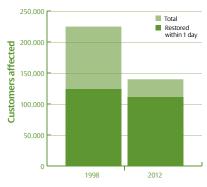
This has lead to significant improvements for our customers relative to other electricity network companies. In both of our network areas our performance in reducing power cuts is significantly ahead of the UK average, both including and excluding storm data.

### Case study — Jan 2nd Storm 2012

- A 1 in 30 year storm event comparable to 1998.
- Affected 135,000 customers.
- No customers off longer than 4 nights.
- 85% of customers restored within 1 day.

We have reduced the number of network power cuts in major storms by 75% since 1998





We will build upon this by targeting our investment to make 25% of our High Voltage rural overhead network resilient to severe weather by 2023 and we will double investment in our Low Voltage overhead line networks, making a further 32% resilient by the end of 2023





Our priority is to deliver a reliable supply of power to our customers. We have significantly reduced power cuts over recent years, and we will further reduce the number and duration of power cuts by 2023. Our targets cover the number of Customer Interruptions (CI) and the time that those customers are off supply (Customer Minutes Lost, CML). These targets take into account:

- The topography of our network

   the Manweb network design
   delivers industry leading
   performance.
- The geography of our service area.
- Improvements already achieved.
- Improvements of other companies.

As we embrace the low carbon future, our customers will become increasingly reliant upon electricity for heating and transport. This means that our network must perform to a higher standard. We are investing and innovating to ensure we meet this challenge.

SP Energy Networks customers currently have 30% fewer interruptions than the UK average.

- Currently, an average customer in our SPD area experiences 5.3 power cuts every 10 years. Each of these power cut lasts an average of 93 minutes.
- Currently, an average customer in our SPM area experiences 3.6 power cuts every 10 years. Each of these power cuts lasts an average of 121 minutes.

To further improve the level of service our customers receive we will:

 Reduce the average number of times our customers lose their power supply by 7% and reduce the length of time those customers are without power by 16%. This means that:

- By 2023, our customers in SPD will experience an average of 4.9 power cuts every 10 years.
- By 2023, our customers in SPM will experience an average of 3.4 power cuts every 10 years.
- This means that by the end of the ED1 period, the average amount of time that a power cut lasts will be reduced to 78 minutes in SPD and 102 minutes in SPM.
- As a result of these improvements, reduce the average time off supply for our whole customer base by 25%.

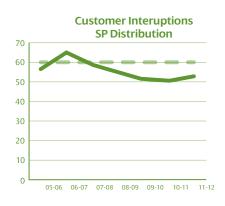
On average we have around 10,000 customers off supply each year for more than 12 hours across both our networks. We will:

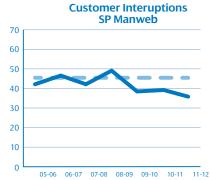
- In the first year of ED1, reduce by 70% the number of customers experiencing a power cut of greater than 12 hours.
- Double our compensation payments for customers experiencing a power cut greater than 12 hours in the ED1 period (excluding major storms).
- Aim to have zero customers experiencing a power cut greater than 12 hours (excluding major storms) by the end of ED1.



SP Energy Networks customers currently have 30% fewer interruptions than the UK average.<sup>1</sup>

<sup>1</sup> Based on last publicly released data 2010/11







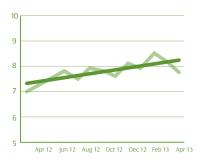




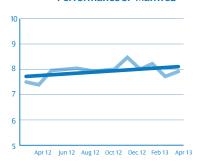


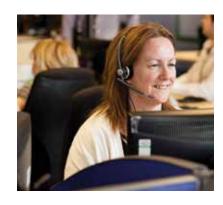
We are so resolute in attaining our goal of excellent customer service that we will pay double Guaranteed Standards payments and introduce a range of new voluntary compensation payments

#### Broad Measure of Customer Service Performance SP Distribution



#### Broad Measure of Customer Service Performance SP Manweb





## Our focus on customer service

Our goal is to become one of the leading DNOs for the delivery of excellent customer service.

We appointed an experienced Customer Service Director who has driven improvements through all levels of our organisation in recent years. This has led to the introduction of greater accountability and a renewed focus on the fundamentals by working to:

- Improve our performance in reducing the effects of power cuts on customers.
- Answer 100% of calls and never force disconnect a customer call.
- Give our customers good quality information.

We ensure that customers always have a clear route towards the resolution of their complaint. We've engaged with our customers and worked with the Institute of Customer Service to benchmark across the service industry, sharing best practice on how to improve customer service.

Feedback from customers is important in helping us better understand how we can meet the needs of the people we serve, and so we wanted a forum through which we could regularly test our customer service initiatives and gain feedback on a variety of topics.

### Our Online Community was launched

in 2011 and now has 724 members. It provides us with honest, unfiltered feedback, and includes online focus groups, polls, surveys, and discussions. For this reason, we are keen to extend the community to a wider number of customers. We pro-actively recruit people to the community, and details of how to join are provided on our customer letters and website.

By talking openly, listening carefully and taking a proactive approach, we will achieve a 20% improvement in our overall customer service scores by 2023, placing us among the best in the industry.

Our customer service scores are increasing month by month and year by year.

- Our concerted efforts are paying off.
- Our customer service metrics are showing the fastest rate of improvement in the industry.
- Our customers can feel the difference.

Our goal is to become one of the leading DNOs for the delivery of excellent customer service. We have developed a comprehensive range of Customer Commitments, which cover all aspects of our business and far exceed the minimum guaranteed standards set by Ofgem. Added to this, we are investing in multi-channel communications systems to further benefit our customers now, into the ED1 period and beyond.

You can find more information about our online community:

http://www.spenergynetworks.co.uk/ serving\_our\_customers/online\_ community.asp?NavID=1&SubNavID=5



## Why is RIIO-ED1 important?



Regional electricity network companies, like SP Energy Networks, are natural monopolies. As a result we are regulated by the UK government in the form of the Office of Gas and Electricity Markets (Ofgem).

RIIO-ED1 is the name that Ofgem has given to the process of agreeing our contract for 2015 until 2023, which covers:

- The investments we will make in our networks and the outputs we are committed to deliver.
- The incentives that have been agreed, for example incentives to improve customer service or to be more efficient.
- The revenues we will be allowed to collect from customers through their Electricity Suppliers.

RIIO-ED1 is the first price control in electricity distribution (ED1) to use the RIIO model, and is designed to:

- Encourage us to deliver safe, reliable and sustainable network services that deliver long-term value for money to customers.
- Enable us to finance our required investment in a timely and efficient way.
- Remunerate us according to our delivery for customers.

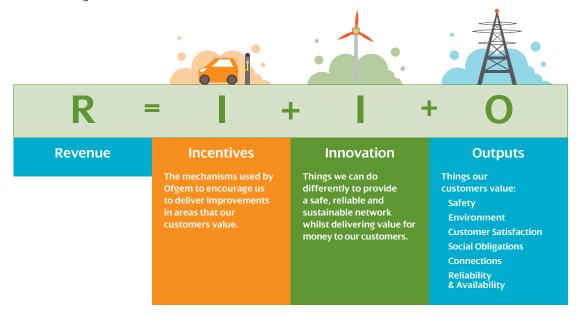
RIIO-ED1 encourages us to play our part in facilitating the transition to a low carbon economy in a sustainable way that brings value for money to customers now and into the future

RIIO ED1 is important to customers and stakeholders because:

- The investments we make will maintain public safety and improve customer service.
- We have a key role in facilitating economic growth and recovery.
- We have a key role to play in facilitating the uptake of low carbon technologies.
- Distribution network company charges typically represent 16% of a customer's electricity bill.

For more information on the RIIO-ED1 framework visit:

http://www.ofgem.gov.uk/Networks/ ElecDist/PriceCntrls/riio-ed1/Pages/index. aspx.







## Planning for 2023 and beyond



### Our plan sets out our vision and commitments to transform the way you think of us as your electricity network company

The UK energy industry is entering the most exciting period it has faced in half a century. We recognise that SP Energy Networks has a critical role in facilitating the transition to a low carbon economy at a time when we need to replace increasing numbers of end of life assets.

This presents an unprecedented opportunity for SP Energy Networks to play a major part in the UKs low carbon transition, and help to set the blueprint of the energy industry for the next 50 years.

By 2023 we intend to lead the industry by continuing to apply our guiding values to be:

- A customer service focussed company trusted by our communities and stakeholders.
- · An engineering company with strong stewardship of assets and world class safety credentials.
- · A company that attracts and develops skills for the future from the communities we serve.

We are acutely aware of the economic challenges our customers face:

- We have benchmarked internationally to target costs amongst the lowest in the industry.
- We have set a further productivity improvement target of 1% p.a. across key areas.
- Innovation within our plans will deliver more than £100m benefits for customers.
- We have reduced our costs by £700m compared to our May 2013 published draft plan highlights, but increased our proposed outputs.

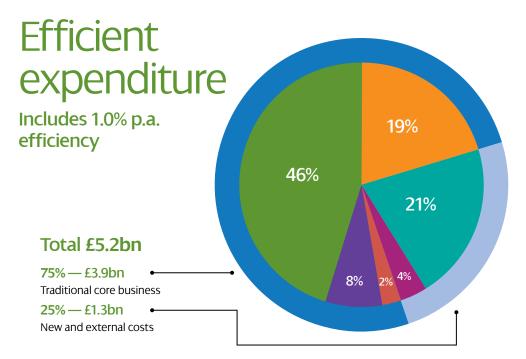
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- Smart meters will allow us to revolutionise our customer relationship, allowing us to be much more proactive.
- We will innovate further to reduce costs, improve service, and lay the foundations for a smart network.

We have set out a plan to address our stakeholders' priorities:

- Managing our ageing network to maintain public and staff safety.
- Reducing time off supply for our average customer by 25%. Funded through incentives.
- Fewer customers affected by storms & a voluntary standard to restore customers within 36 hours afterwards.
- Being amongst the top performing network companies in customer service. Paying additional voluntary compensation if we fail.
- Improving service to poorly served customers & playing a role in addressing energy social issues.
- Preparing the network for low carbon technologies.
- An appropriate and efficient financial package that delivers long term value for customers and stakeholders.

In addition to our business plan we will make further investments to deliver customer value, funded and rewarded through incentive mechanisms



46% — £2.4bn of our costs relate directly to managing our ageing network, including:

- Repairing more than 180,000 network faults.
- Inspecting and maintaining 30,000 substations, 70,000km of underground cables and 40,000km of overhead lines including:
  - Completing circa 3.5million asset inspections.
  - Cutting trees away from more than 300,000 spans of overhead lines (public safety).
  - Clearing trees away from 5000km of overhead lines (storm resilience).
  - Maintaining around 900,000 items of network equipment.
- Replacing 30 major substations each supplying 19,000 customers (average).
- Replacing 84 large substations each supplying 3,000 customers (average).
- Extending the life of 84 large substations each supplying 3,000 customers (average).
- Replacing more than 2,500 small substations each supplying up to 500 customers.
- Replacing more than 250,000 services inside customers homes & buildings.

 Making 25% of our high voltage network, and an additional 32% of our low voltage network resilient to storms.

**4%** — **£0.2bn** of our non-core costs relate to facilitating the uptake of low carbon technologies by 2023:

- Smart network innovation trials.
- Facilitating smart metering roll out by electricity suppliers and using the data from the meters.
- Enabling customers to use up to:
- 620,000 solar panel installations (3% of households).
- 310,000 heat pump heating systems (9% of households).
- 130,000 electric vehicles (4% of households).

**8%** — £0.4bn of our costs allow us to accommodate customers' future requirements:

- Upgrading 125 major substations (each supplying between 1,000 and 20,000 customers) creating up to 500MW of local capacity for future customer needs.
- Connecting up to 5GW of new renewable generation.
- Connecting up to 2.5GW of housing, commercial and industrial customers.

• Accommodating 1% load growth.

**21%** — £1.1bn of our costs are other non-core costs, including:

- Corporation tax paid to UK government.
- Business rates paid to local government.
- Transmission charges paid to National Grid.
- Legacy pension costs.

19% — £1.0bn of our costs are engineering and corporate support activities, including:

- Recruitment and training of up to 100 apprentices and graduates per annum.
- Project management.
- Vehicles for our staff.
- Control rooms and call centres.
- Network design and management.
- Operating 34 offices & depots.

**2%** — £0.1bn of our costs relate to Real Price Effects

 An independent economic view of the increased costs above the Retail Price Index.



## Outputs

## Our commitments to transform the way you think of us as your electricity network company

### **Outputs**

Our Outputs are the things that our customers and stakeholders directly experience and value. We have laid out our comprehensive outputs package within Chapter 8 of our business plan.

Output Area	We will		
Safety Minimising the risks associated with distributing electricity	Achieve zero employee lost time accidents     Work with contractors to reduce their accident rates by 75%     Remove high risk 'low' lines including those across roads by 2015 and all others by 2020     Continue our industry leading approach to renew end of life cables in flats     Increase our extensive public education programmes		
Reliability & Availability Ensuring our network is resilient to extreme events and reliable under normal circumstances	<ul> <li>Reduce the average number of times customers lose power by 7%</li> <li>Reduce by 16% the length of time those customers have no power</li> <li>Reduce by 25% the average time all customers are without power</li> <li>Improve service to 40% of our poorly served customers</li> <li>Improve service to 25% of our worst served customers</li> <li>Reduce customers without power for more than 12 hours by 70% by 2016 and 100% by 2023.</li> <li>Pay double Guaranteed Standard payments, excluding storms, where we make other arrangements</li> <li>Introduce a voluntary Guaranteed Standard for restoration after storms</li> </ul>		
Environment Reducing our impact on the environment and playing our part in the low carbon transition	<ul> <li>Install lower loss transformers to reduce Electricity Supplier costs by up to £60M over the next 50 years</li> <li>Reduce the carbon footprint of the business year on year</li> <li>Reduce cable oil leaks by 50%</li> <li>Buy equipment that far exceeds IEC international standards for SF6 insulating gas leakage rates</li> <li>Underground 85km of overhead lines in areas of visual importance</li> </ul>		
Connections Providing excellent service to all customers who want new connections	<ul> <li>Continue to facilitate industry leading competition in our network areas</li> <li>Improve our communication channels with customers</li> <li>Improve availability and transparency of connection information and costs</li> <li>Connect our new customers in time scales that are amongst the industry best</li> <li>Pay customers double compensation for any Guaranteed Standard failure</li> </ul>		
Customer Satisfaction Continuously improving	<ul> <li>Improve our overall customer satisfaction scores by 20% by 2023</li> <li>Never force disconnect calls, always give the option to speak with a person</li> <li>Communicate with customers proactively and in ways that they prefer</li> <li>Pay compensation of £10 where we do not deliver an agreed action on your enquiry.</li> <li>Continue to offer hot meals and accommodation to vulnerable customers after 12 hours in exceptional events, and within 48 hours to all customers*</li> </ul>		
Social obligations Recognising and meeting the needs of vulnerable customers	Roll out an awareness campaign for our Priority Services Register (PSR)     Contact PSR registered customers every 2 years (minimum)     Contact PSR registered customers more frequently before planned outages and during emergency power cuts customer service     Train our people to recognise and deal with vulnerable customers sensitively     Establish a specific network fund within the framework of the existing Energy People Trust to target initiatives to help vulnerable customers		

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## Secondary deliverables

## Efficiently maintaining network safety and performance

Secondary deliverables are critical activities that form part of our regulatory contract and include management the health of our assets (Health Index) and the relative loading of our network (Load Index).

#### **Health Index**

Our plan is to prevent the deterioration of our network over the next two decades, and manage increased risk during the intervening period through:

- New programmes of life extending asset refurbishment to complement asset replacement.
- More frequent inspections and intrusive maintenance of assets with higher risk of failure.
- Introduction of on-line monitoring in major substations to identify potential failures before they occur.

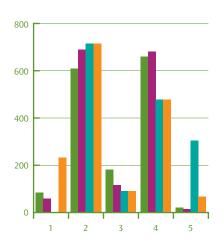
Our investment plans to manage our network are set out in detail within Chapter 9 of our business plan and our secondary deliverables are detailed in Annex 2.2 — Health Index Graphs

#### **Load Index**

Increasing load on our network will trigger reinforcement when it reaches a certain level. Our plan, supported strongly by stakeholders, is to adopt a reduced trigger point for reinforcing our network. This 20% reduction (explained in more detail in Chapters 5 and Chapter 9 of our business plan), does not go as far as some other electricity distributors, but we believe strikes the right balance of cost and risk for existing and future customers.

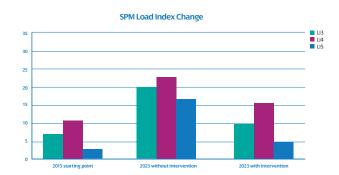
More detail of our proposed asset investments and their impact upon both Health and Load Index are detailed in Chapter 9 of our business plan and set out in detail within Annex 2.2 — Health Index Graphs showing the impact across our range of asset categories. Our Zonal Maps within our Annex 2.9 provide a geographical display of our investment plans.

#### 33 kV Circuit Breakers





# SPD Load Index Change 35 30 25 20 15





## Financing our plan efficiently

Our financing proposals are efficient and strike an appropriate balance of risk and reward between stakeholders

In any price control review the regulator allows network operators to collect money from customers in order to pay dividends and interest charges. These account for around 20% of our charges to suppliers (3% of customers' bills).

Ofgem challenge network operators to prove that their financing plans are efficient. In other words, we must show that we are asking our customers to pay enough, but no more than we really need, to attract and retain funding from investors. If we receive too little, we won't be able obtain sufficient funds from investors to allow us to maintain the network. If we receive too much, our shareholders will receive higher returns than they deserve. Neither is in the interests of customers.

We have prepared an efficient financing plan which meets this challenge. Scottish Power Transmission was 'fast tracked' at the RIIO-T1 review. We have learnt from that process and have further improved the quality and transparency of our evidence to demonstrate the efficiency of our financing plan.

### Cost of debt (The cost of borrowing to fund investments) — Indexed

Ofgem prescribe a mechanism which links this to an index. The purpose is to ensure that customers will only pay for efficient debt costs. Our financing plan uses Ofgem's proposed simple 10 year trailing average for this index without adjustment.

### Cost of equity (The cost of financing investments from shareholder equity) — 6.7%

We have carried out a thorough analysis which takes account of theoretical models, market evidence, stakeholders' views and relevant regulatory precedent. We are also took into account risk, after mitigation from uncertainty mechanisms.

### Notional gearing (The proportion of investments funded by borrowing) — 65%

Our work on setting the notional gearing fully takes into account interactions between cash flow volatility and the cost of equity, again taking into account the risks and opportunities afforded by the overall package and their impact on the return on regulatory equity.

### Other financing parameters and policies

Our plan fully reflects Ofgem's prescribed policies including those applicable to the treatment of pensions and tax.

### **Financeability**

We tested that our financing plan is efficient by carrying out an assessment similar to that used by credit rating agencies including qualitative factors such as the regulatory environment. We targeted a credit rating that is consistent with that built in to the cost of debt index and with our licence obligation to maintain an investment grade credit rating. We have not included financeability adjustments under our fast track assumptions.

We have set out our approach to financing and provided supporting analysis in Chapter 12 of our business plan and Annex 3.1 — Efficiently financing our plans and our detailed financeability scenarios.

Parameter	Electricity Distribution DPCR5 2009	SPEN July 2013
Cost of Debt	3.6%	Indexed
Cost of Equity	6.7%	6.7%
Notional Gearing	65%	65%
Dividend Yield	5%	5%
Capitalisation	85%	80%
Asset Lives	20 years	45 years for new investments
Financeability	Investment Grade	Investment grade

### •

## Our revenues and customer impact

## The makeup of average UK customer's electricity bill

58% — Wholesale energy, supply costs and profit margin

16% — Distribution charges

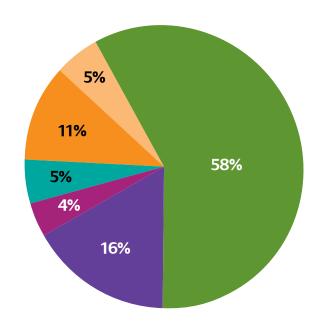
11% — Environmental charges

5% — Other costs

5% — VAT

4% — Transmission charges

Ofgem customer bill fact sheet January 2013.



### Our charges and customers' electricity bills

Ofgem publishes information on the components of customers' electricity bills. The latest information shows that electricity distribution charges make up 16% of customer's electricity bills on average across the UK.

## Base allowed revenues that we charge to suppliers

The impact of our plan and financial modelling results in the following base allowed revenue profiles for our two network companies:

The **total** allowed revenues we will be allowed to recover from suppliers will be subject to the outcome of the RIIO ED1 settlement by Ofgem and our performance against the incentives we outlined earlier.







SP ENERGY

**NETWORKS** 

## What do our current draft plans mean for our customers?

We are acutely aware of the financial pressures on customers and the other factors that increase electricity bills. We have built our investment plans to maintain safety and network reliability while minimising costs, and we have increased our plans from this point only when supported by our stakeholder engagement in terms of concept and willingness to pay.

In order to provide comparability across network companies we are required to present the bill impact as movement relative to typical 2014–15 charges and using UK average domestic consumption 3,300 kWh.

We have also included average 2010–15 domestic customer charges (updated to 2012–13 price basis) consistent with the information at our stakeholder events.

The average domestic customer in Merseyside, Cheshire, North Wales and North Shropshire (SPM) will see our component of their bill drop 12% from £126 p.a. to £111 p.a. average (2015-2023).

The average domestic customer in Central and Southern Scotland (SPD) will see our component of their bill drop 8% from £99 p.a. to £91 p.a. average (2015-2023).

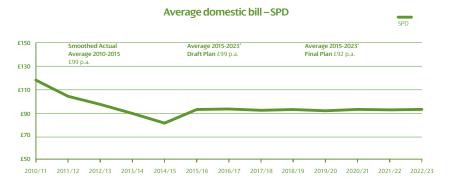
These numbers are expressed in 12/13 prices and will vary depending on actual inflation and consumption.

### Why is the SPM bill higher?

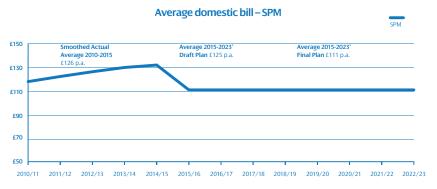
There are two reasons for this, firstly this is a consequence of differences between when assets were installed in SPD and SPM.

Secondly, our distribution network in England and Wales includes the 132kV network, in Scotland this part of the network is owned by the Transmission companies and therefore these costs are included within the charges SPD customers receive via their energy supplier.

Our customer bills, based on UK average consumption will reduce by an average 8% in Scotland and 12% in England and Wales



\*Based on UK average consumption



\*Based on UK average consumption

SPD 12/13 Prices	Average bill 2010-2015	Average bill 2015-2023	Change %
Small business	£399	£381	-5%
Medium business	£8,993	£8,520	-5%
Large business	£53,645	£51,113	-5%
Unmetered	N/A	N/A	-5%

SPM 12/13 Prices	Average bill 2010-2015	Average bill 2015-2023	Change %
Small business	£403	£387	-4%
Medium business	£6,864	£6,577	-4%
Large business	£44,056	£42,238	-4%
Unmetered	N/A	N/A	-4%





### **SP Energy Networks**

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