

Stakeholder workshop report: Bristol

15th November 2012



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2. Introduction

2.1. Date and location

The stakeholder workshop took place on 15th November 2012 at At-Bristol, Anchor Road, Bristol BS1 5TT

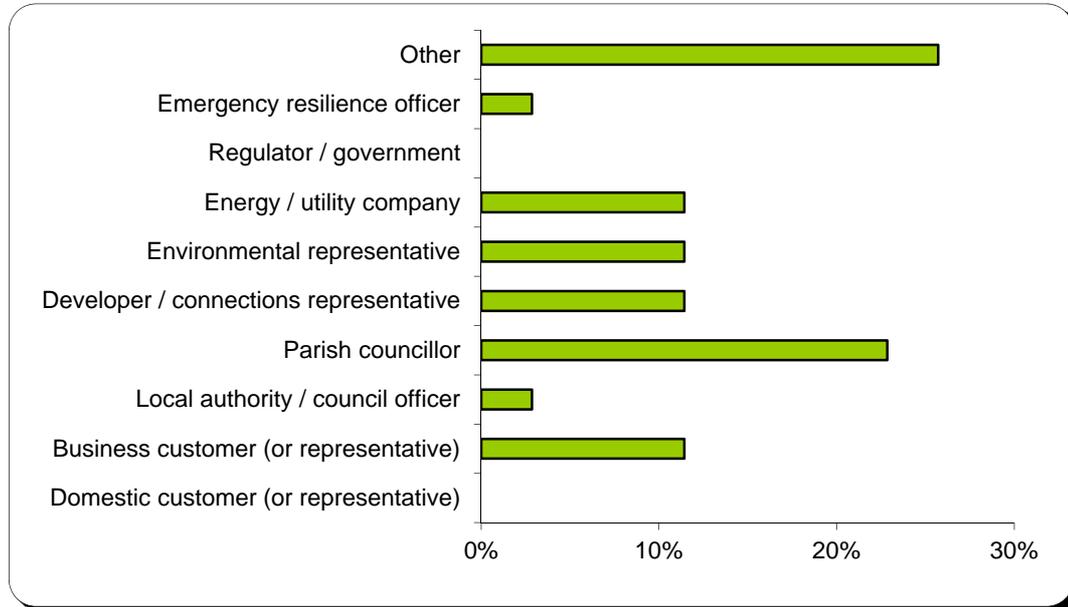
2.2. Attendees:

- 44 stakeholders attended the Bristol workshop. The details of all attendees are shown below:
- Professor Alan Champneys - Professor of Applied Nonlinear Mathematics, University of Bristol
- Mr Andy House - Head of Estates, Royal United Hospital Bath
- Mr Andy Smith - Emergency Planning Manager, Wolverhampton City PCT
- Mr Ashton Broad – Chairman, Whitchurch Parish Council
- Caroline Power - Historic Environment, Adviser English Heritage
- Chloe Tingle - Engineering Design Student, University of Bristol
- Mr Chris Lambart - National Trust
- Cllr Chris Sampson - Councillor, Winscombe & Sandford Parish Council
- Christopher J Thomas - Clerk to the Council, Farmborough Parish Council
- Mr Daniel Almind - System Expert, PowerSense A/S
- Mr David Lee - Chairman, Westerleigh Parish Council
- Mr David Pitcher - UK Manager, Power Plus Communications
- Francesca Lemon - Ecologist, ADAS UK Ltd
- Professor Furong Li - Professor in Electrical Engineering, University of Bath
- Cllr Geoff Lockett - Councillor, Winscombe & Sandford Parish Council
- Cllr Geoff Coombs - Councillor, Barrow Gurney Parish Council/North Somerset District Council
- Mr Graham Clark - Rural Surveyor, Country Land and Business Association

- Mr James Northcote-Green - Executive Consultant, PowerSense A/S
- Mr James Gunn - Compliance Engineer, National Grid
- Jill Cainey - Senior Consultant, Electricity Storage Network
- Cllr Keith Sullivan - Councillor, Oldbury on Severn Parish Council
- Cllr Martin Quaile - County Councillor & District Councillor, Portfolio Holder for Environment, Gloucestershire County Council & Forest of Dean District Council
- Mr Matthew Cotton - Technical Director, National Energy Foundation
- Mr Mike Kirk - Business Manager, Sentec Ltd
- Mr Mike McCloy - Business Development Manager, J.Murphy and Sons Limited
- Muhammad Chris Short - Sales Manager, The Expanded Metal Company
- Mr Nigel Hutchings - Director, Chambers of Commerce, Business West
- Mr Nigel Moorcroft – Chairman, Long Ashton Parish Council
- Cllr Pat Hockey - Lead Member for Communities & Planning, Transportation and Strategic Environment, South Gloucestershire Council
- Mr Paul Harding - Energy Engineer, South West Water Ltd
- Mr Peter Macro - Account Director, GE Energy
- Cllr Peter Mills – Councillor, Combe Hay Parish Council
- Cllr Robin Bradbury – Councillor, Coleford Parish Council
- Mr Rhodri Williams - Technical Manager, Barratt Homes
- Mr Richard Jones - Technical Coordinator, Barratt Homes
- Mr Simon Vicary - EDF Energy PLC
- Dr Simon Blond - University of Bath
- Mr Stephen Stead - Business Development Director of Smart Community Systems and Solutions, Toshiba International (Europe)
- Mr Steve Baldwin - Balfour Beatty
- Mr Steve Kear - Programmes Director, AND Technology Research Ltd.
- Mr Terry Proffitt - Wickwar Parish Council
- Cllr Tony Lyndon – Councillor, Banwell Parish Council

- Mr Vince Bowler - Group Electrical Manager, J.Murphy and Sons Limited
- Dr Weijia Yuan - University of Bath

The split of stakeholders according to the type of organisation they were representing on the day is shown below:



Western Power Distribution

- Alison Sleightholm - Regulation and Government Affairs Manager
- Nigel Turvey
- Bob Parker
- Alex Wilkes - Stakeholder Engagement Regulatory & Government Affairs
- Paul Jewell
- Phil Mann
- Gwyn Jones
- Adrian Shepherd
- Neil Patten

Green Issues Communiqué

- James Garland - Director (workshop facilitator)
- Nick Bohane - Executive Director (workshop facilitator)
- Richard Sutcliffe-Smith - Director (workshop facilitator)

- Harry Hudson - Associate Director (workshop facilitator)
- Lorna Campbell - Associate Director (workshop facilitator)
- Nick Osborne - Consultant (workshop facilitator)
- Nick Carthew - Consultant (workshop facilitator)
- Alice James - Account Manager (scribe)
- Laura Edwards - Account Executive (scribe)
- Alex Coleman - Account Executive (scribe)
- Farah Pasha - Account Executive (scribe)
- Fiona McAra - Account Executive (scribe)
- Lottie Whyte - Account Executive (scribe)
- Robert De Angeli - Account Executive (scribe)

3. Executive summary

3.1. Feedback from participants

- Every stakeholder who left feedback after the event stated that they had sufficient opportunity to express and discuss their views
- All stakeholders who attended the workshop and submitted their comments told us that they found the event to be 'useful' or 'very useful'. None of the stakeholders who left comments said that they had found the event to be 'not useful'
- 23 of the 25 stakeholders who answered the question said that we covered the right topics on the day

3.2. Topics for discussion

- Power cuts
- Severe weather / emergency resilience
- Flooding
- Oil and gas leaks
- Worst served customers
- Undergrounding in national parks and AONB's
- New connections – process speed
- Innovative customer communications
- Low carbon investment

3.3. Feedback summary

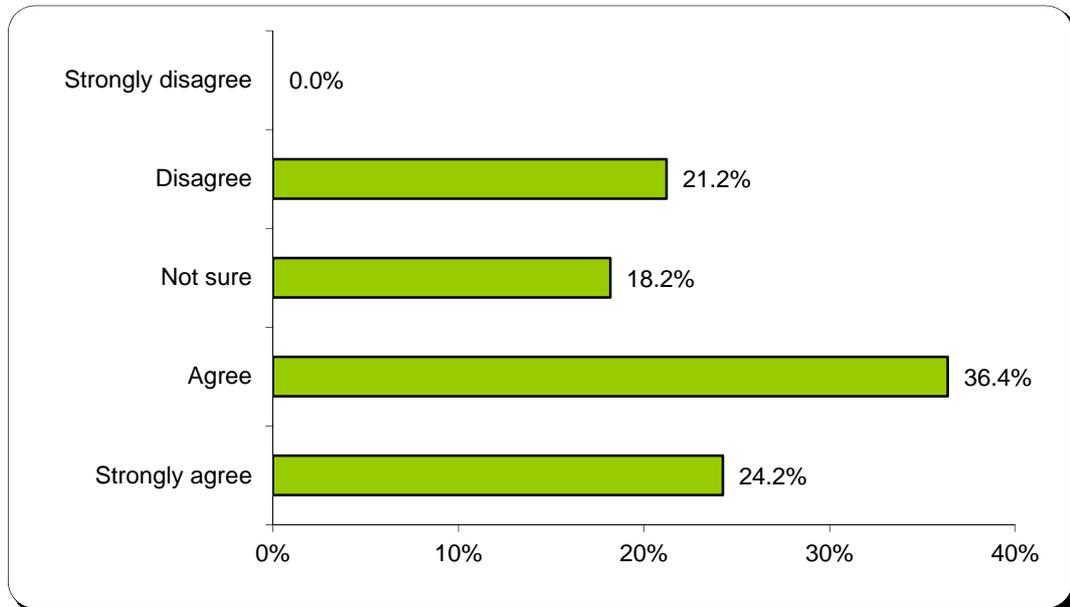
- With regard to power cuts, the most popular option for the business plan period was that proposed by WPD (to reduce the average frequency to 7.75 per 10 years and the average duration to 52 minutes), almost one third of stakeholders were of the view that WPD should do less, although it was commented that power cuts can seriously affect certain customers such as business users
- The majority of stakeholders either 'agree' or 'strongly agree' that a tree trimming programme to reduce the risk of power cuts during storms should be a high priority for WPD. Approximately 45% of stakeholders agreed with WPD's proposed approach for a resilience tree trimming programme of 20 years at no additional cost, although a similar proportion were of the view that WPD should accelerate this

- Over four fifths of stakeholders polled either 'agree' or 'strongly agree' that protecting substations against the risk of flooding should be a high priority for WPD. The point was made by a number of stakeholders that instances of severe weather were becoming more and more prevalent. Just over 40% of stakeholders supported WPD's proposals to remove the 100 most at risk substations from the risk of flooding. However, over half were of the view that WPD should go even further
- Although over 50% of stakeholders polled either 'agree' or 'strongly agree' that acting to reduce the risk of oil leaks from fluid-filled cables and SF6 gas leaks from equipment should be a high priority for WPD, almost one third disagreed with this statement. Over half of stakeholders polled agreed with WPD's proposed approach to replace the worst 1% of equipment with the highest leakage rate
- The majority of stakeholders (over 60%) either 'agree' or 'strongly agree' that improving levels of service for our worst served customers should be one of WPD's high priorities. It was noted that customers living in rural areas do pay the same as those living in urban areas. When asked to vote, the most prevalent view was that reducing the number of 'worst served' customers from 10k to 6k was appropriate
- With regard to replacing overhead lines with underground cables in national parks the majority of stakeholders did not think this was a high priority issue. It was noted that wooden poles are not regarded as being particularly intrusive. There was a good deal of support for WPD's approach to underground 40k of overhead lines in national parks and AONB's. One third of stakeholders told us that WPD should go further, although a significant proportion (20%) believed that the company should actually 'do less' on this issue
- Three quarters of stakeholders either 'strongly agree' or 'agree' that the current process speed for new connections is acceptable. There was praise for how WPD works alongside local authorities and representatives of developers were generally of the view that the current process speed is acceptable as long as prior notice is given in order to help them plan. WPD's current view that the average time from first contact to completion should remain at 30 days for a small scheme and 90 days for a large scheme was supported by 80% of stakeholders polled. The overwhelming majority of stakeholders believed that new connections customers should be the ones to pay for this
- Innovating the methods of communication with customers was deemed to be important. There was specific support for online job tracking for new connections customers and real time information, although there was not a great deal of support for the increased use of social media channels
- There was a good deal of debate on future low carbon scenarios but the overriding view was that government needs to take a lead in order to encourage take-up of new, low carbon technologies
- Some stakeholders could see how smart meters may positively impact customers' behaviour with regard to energy consumption, although others were sceptical. It was widely felt that financial incentives would be necessary in order to make a real

difference and the point was made that demand side response may be appropriate for business customers

4. Issue 1. Power cuts

4.1. Q1. Reducing the number and average duration of power cuts should be one of WPD's highest priorities



4.2. Comments

Table 1

- A developer/connections representative stated *'I live in an urban area and have experienced a couple of power cuts, and they have been resolved very quickly and in fact I have had only 1 or 2 power cuts in the last 10 years'*
- An energy/utility company representative wanted to know if WPD would separate the issue of duration from frequency because they *'have a generator for when the power goes and it doesn't matter how long it goes out for because of this'*
- An energy/utility company representative held the view that *'frequency is a lot more important than duration'*
- A developer/connections representative said that *'only the very long duration power cuts are an issue and I don't think a change of a few minutes is that important or necessary'*
- A developer/connections representative wanted to know *'what level of investment is going on duration and on frequency as frequency should get more instead of duration'*
- A stakeholder said *'I don't think there is a serious problem with service, I haven't had any problems'*

- A stakeholder commented *'I do think that you should spend as much money as possible on reducing the levels of service to worst served customers to bring them to the same level of service as people with the best service'*
- A stakeholder stated *'personally I am prepared to pay money so that everyone gets the same service'*

Table 2

- A business customer representative stated that *'many of the figures mentioned during the presentation were related to domestic customers'; s/he asked 'whether WPD has any figures for business users'*
- A developer/connections representative stated that *'average figures are not meaningful, I live in an urban area where we don't really have power cuts so why should I pay for 0.2%?'*
- A parish councillor felt that keeping costs down was important and added that s/he *'did not suffer greatly from power cuts and could see no great benefit from paying more money'*
- An energy/utility company representative suggested that *'WPD should include figures on how outages affect businesses as well as domestic customers'*
- A business customer representative stated that *'the more WPD helps businesses, the more it will help stimulate the local economy'*
- A stakeholder was of the view that *'it depends on who you ask, ask those that suffer, they want something to be done – I don't suffer personally but there should be a more balanced view about this matter'*
- A business customer representative stated that *'for businesses, outages can result in lost opportunities, we've suffered from very few outages but WPD's response has been fast. The figures proposed don't look like good value to me'*
- An energy/utility company representative commented that value for money depends on the trade-offs
- A developer/connections representative discussed how there was generally incentive to improve the network and the international standards that need to be met
- A business customer representative stated that WPD should not merely work to *'a token gesture to hit a target someone's set'*. S/he added that *'if you're going to do it, do it properly to get it down to something measurable'*
- A stakeholder stated that WPD needed *'a bigger average jump'*

Table 3

- A business customer representative stated that s/he was *'interested in how much WPD is going to spend on flooding?'* S/he added as a customer spending an extra 2p to get better service is a *'bargain'*

- An environmental representative stated that his / her main interest *'was WPD's impact on the environment and habitat and species'*
- A developer/connections representative explained that his / her company *'works with monitoring and controlling systems for the network'*
- A stakeholder explained that s/he is studying at a local university and has *'a specific interest in electric vehicles and EV storage'*
- A local authority/council officer stated that s/he was in attendance as a consumer
- A parish councillor stated that as far as s/he is concerned *'power cuts are fairly minimal'*. However, s/he is interested in *'the difference between rural and urban customers'*. S/he explained that *'power cuts are less of a problem now, particularly with new electrical equipment, but small power cuts have a big impact on large commercial customers'*
- A local authority/council officer added that it is not only the *'long power cuts'* that are disruptive, the power cuts that are less than 3 minutes are just as much of an annoyance
- A business customer representative stated that power cuts had never been an issue for him / her but understood how they are difficult and disruptive for customers. S/he felt what customers would find most useful is the knowledge of whether the outage is a wide-spread power cut, an issue with the network or something to do with his / her house
- A stakeholder wanted to know what causes power cuts over 3 minutes
- A business customer representative wanted to know what causes power cuts less than 3 minutes

Table 4

- A local authority/council officer said s/he experiences *'no problems'* in relation to power cuts and option 1 is the best
- A local authority/council officer felt the biggest issue is how power cuts affect businesses. S/he asked *'how resilient are computers as in a short duration power cut the loss of data is critical?'*
- A parish councillor agreed and stated *'power cuts have a big effect on businesses, especially shops as they may have to close'*
- A business customer representative commented the *'loss of heating and electricity in business needs to be addressed.'* WPD needs to address this issue now and go further than planned by investing more
- A parish councillor questioned the average duration. S/he stated for *'domestic and business customers having a power cut reduced from 60 to 40 minutes will not make a big difference to anyone'*. S/he felt WPD should be looking beyond the average and instead looking at those customers who experience regular power cuts that are longer than 60 minutes

- A local authority/council officer was of the view the *'statistic is misleading'*. S/he also felt that power cuts of long duration are very serious and need to be addressed rather than WPD focusing on bringing down the average
- A local authority/council officer commented the amount of *'compensation paid out to customers from WPD is not a big enough penalty to the company and therefore is not a good incentive for the company to strive to improve'*
- A parish councillor agreed and felt changes/savings on the customer bill needs to be made. S/he pointed it is *'a time where people cannot afford an increase in their bills'*
- A local authority/council officer was of the opinion that if a customer's power supply goes off then *'frankly if it has gone off does a few minutes make a difference? If it has gone off it has gone off'*. S/he stated the *'duration is less important than the frequency'*
- Another local authority/council officer also felt the average figures are *'misleading'*. S/he said those who have large power outages need to have the help rather than the average customer
- A local authority/council officer agreed it is the worst served customers *'who need help'*

Table 5

- A parish councillor said *'we do have power cuts, I'm from a farming community and when we have power cuts it impacts on milk provision. Do you make any provision for this?'*
- A parish councillor added s/he had recently experienced *'a power cut of 15 hours due to a pole being knocked down'*
- Another parish councillor commented *'it is the short breaks in supply that occur frequently and are less than three minutes that have a real impact.'* S/he noted that *'for the spend listed the improvement is relatively modest.'*
- A parish councillor continued *'when you go further down the options I'm concerned about the ever-rising bills for old age pensioners. We shouldn't agree to any increases unless there is a considerable improvement'*
- A business customer representative stated *'power cuts have an impact on farmers and other rural workers.'* S/he commented *'farmers are reasonably resilient but there is an animal welfare issue as well as a business one'*
- An energy/utility company representative commented *'the money WPD are going to spend here will only pay for a temporary generation as technology is constantly changing'*
- A parish councillor was of the view *'short interruptions should be a big priority, frequent short outages can be just as bad as infrequent long cuts'*
- A parish councillor stated *'regarding customer satisfaction there is a lot more irritation with the short cuts than a long outage because you accept that these happen sometimes'*

- A business customer representative explained *'for people who have long cuts it doesn't matter whether its 60 minutes or 52 minutes, it's the fact that it happens'*
- A business customer representative added *'most people in that situation will accept that maybe we have to wait for a long time for things to come back on but we don't want to wait three days for this'*
- A parish councillor felt WPD was *'very half-hearted about doing anything at all, WPD are going to spend £38 million over 8 years compared to your annual expenditure. This is nothing, WPD should be going for higher targets or if you are in such a good position to do nothing at all this is amount almost an insult'*

Table 6

- A developer/connections representative commented that s/he *'has no experience of disruptions'* in his / her area
- A parish councillor said s/he *'had experienced no major power cuts in memory, a few blips but nothing major'*
- A business customer representative made the point that *'urban areas have the technology available to reduce the risk of power cuts'. S/he stated 'if there is a fault the problem is diverted whereas more rural areas generally suffer as there isn't the provision if a line fails'*
- A business customer representative stated that *'by and large service is very good but some customers get a couple of power cuts a year'. S/he said s/he 'gets a few living at the end of the line but generally service is good and power is out for less than an hour'*
- A business customer representative has experienced power cuts in his / her business. S/he thought *'the proposal is planning to fail'* as his / her job does not allow for any power cuts as s/he works in a hospital.
- A business customer representative was of the view that *'the cost to business is low if the power cut is short as businesses can cope'. S/he pointed out 'if power cuts are long then businesses will have to shut as no power affects catering, lighting etc'*
- A business customer representative commented that morning cuts had really impacted his / her business *'as IT systems need to catch up, phones need to be reset'. S/he felt 'businesses should be able to recharge the cost to WPD and there is expectation that if bills increase then a better service level should be incorporated'*
- A business customer representative countered that *'WPD's performance against other companies is much better than the rest of the country'*

Table 7

- A parish councillor said that s/he was recently flooded and has a *'unique, recent experience'* of power cuts from flooding
- A stakeholder stated that his / her organisation are equipped with generators so it does *'not have many issues'*

- A parish councillor enquired as to how the figures would be audited
- An energy/utility company representative made the point that *'what customers are prepared to pay depends on the customer'* and *'the more prices go up, the more people enter fuel poverty'*
- A parish councillor commented that everyone *'has their own priority'*
- An energy/utility company representative said that *'many people in the South West and Wales rely on electricity for heating so this would be more important to those customers'*
- A parish councillor declared that power cuts are *'not currently an issue'* to him but it might be if s/he lived more rurally
- A business customer representative commented, that, prior to the tsunami, *'people in Japan had shown no interest in electricity needs'*. However, after the tsunami, a home battery costing £10,000 *'has now taken off dramatically'*
- A parish councillor stated that people *'need to take care of ourselves, but the Government needs to educate people how to do that'*
- A parish councillor admitted that power cuts had not been highlighted as an issue to him / her. S/he is *'only concerned about possible future power cuts through lack of production'*

4.3. Q2. Power cuts: Which of the following options would you like to see in WPD's plan?

Option 1: Reduce the average frequency to 7.75 per 10 years and the average duration to 52 minutes at a total cost of £39m over the 8 year period (40p on each domestic bill per annum)

Option 2: Reduce the average frequency to 7.5 per 10 years and the average duration to 51 minutes at a total cost of £59m over the 8 year period (55p on each domestic bill per annum)

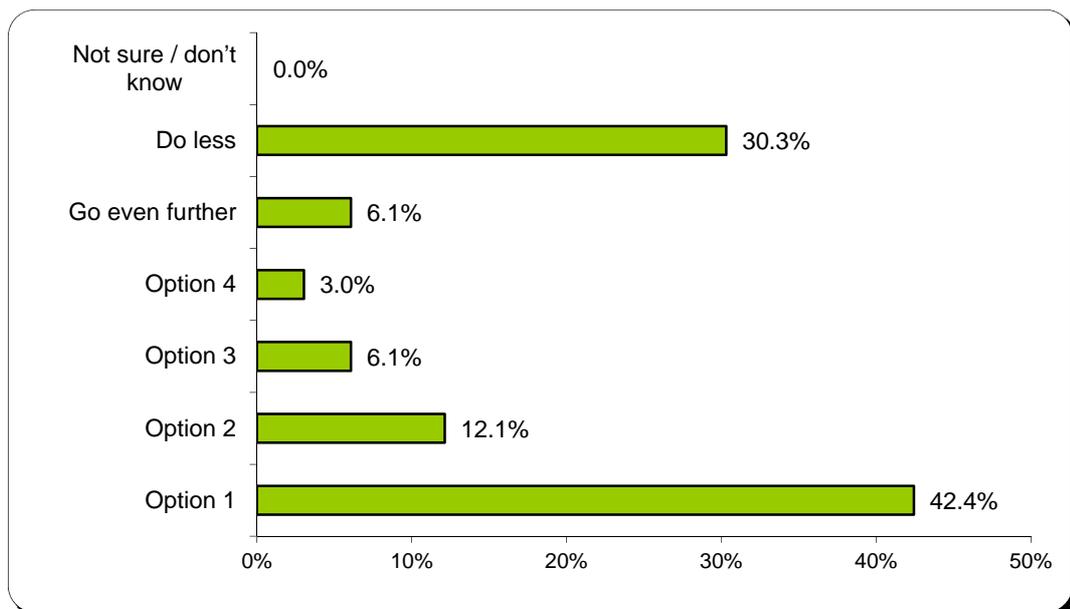
Option 3: Reduce the average frequency to 7 per 10 years and the average duration to 48 minutes at a total cost of £130m over the 8 year period (£1 on each domestic bill per annum)

Option 4: Reduce the average frequency to 6 per 10 years and the average duration to 41 minutes at a total cost of £310m over the 8 year period (£2.20 on each domestic bill per annum)

Option 5: Go even further

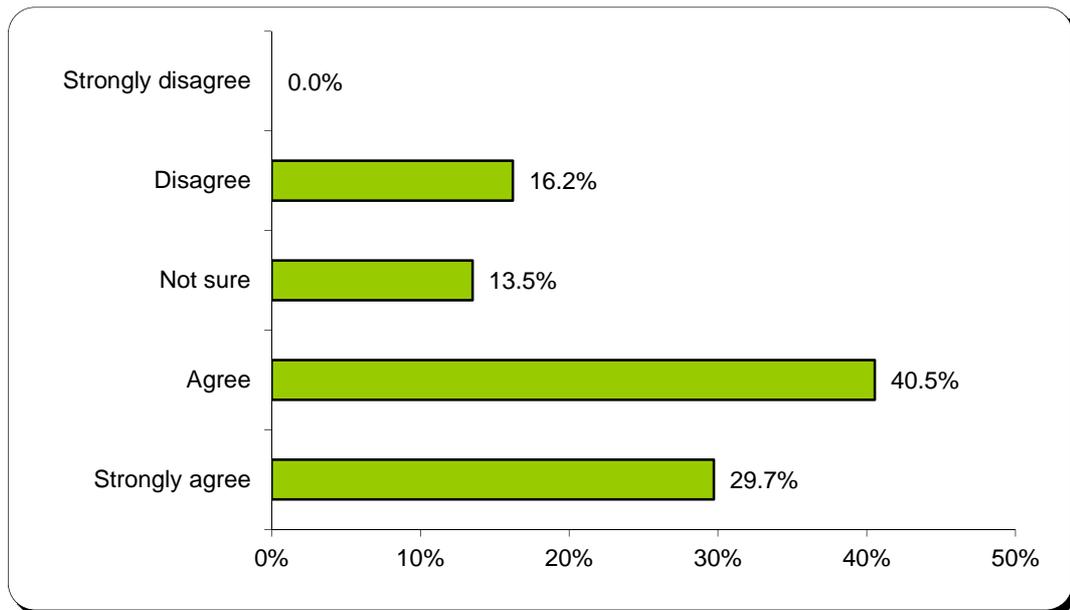
Option 6: Do less

Option 7: Go even further



5. Issue 2. Severe weather / emergency resilience

5.1. Q3. A tree trimming programme to reduce the risk of power cuts during storms should be a high priority for WPD



5.2. Comments

Table 1

- A developer/connections representative thought a more progressive option rather than WPD's current view is the best idea stating, *'my background as a climate scientist suggests that it is better to move things forward as weather is changing'*
- An energy/utility company representative agreed, adding *'this would address the fact that we want less interruptions rather than shorter duration'*
- A stakeholder agreed with WPD's current view stating, *'you already have a 25-year programme, my gut feeling is that 2033 is the right date to end this programme'*
- A stakeholder said of WPD's current view, *'I think it's about right'*
- An energy/utility company representative believed that the investment in power cuts should be dropped in favour of the tree-cutting programme, saying *'the 45p from power cuts is better spent on the tree-cutting programme as it improves the frequency of power cuts rather than the duration'*
- An energy/utility company representative emphasised his view that *'duration is less of a worry and frequency is more important to me'*

Table 2

- A parish councillor asked whether WPD could work on a '*present basis*' accounting for worsening of severe weather
- A stakeholder stated that '*severe weather was likely to impact on a larger customer base*'; s/he felt that '*option 3 would be best and that it was an area worth extra investment*'
- A business customer representative asked, '*what is tree trimming?*'
- An energy/utility company representative felt that tree-trimming '*is definitely worthwhile*'. S/he asked about its wider benefits
- A business customer representative said '*option 1 seems value for money to me. If you don't see the effect of investment if it's done then WPD is doing its job*'
- A parish councillor commented that s/he was of the view that it was an appropriate way to save money '*as the risk is increasing and we've got no control over it*'
- A stakeholder stated that '*an increase in risk was occurring worldwide and that WPD needs to learn from this and invest to mitigate its region*'

Table 3

- A parish councillor stated that '*the tree-felling programme must have an impact on power cut figures*'
- An environmental representative explained that s/he is '*not concerned about the cutting of trees and it is important to stop them from falling on cable lines*'
- A business customer representative wanted to know '*if WPD have carried out a survey of what trees and what type of trees need cutting*'
- A parish councillor queried '*whether WPD have powers to mandate a landowner to cut their own trees if they are a concern*'
- A local authority/council officer wanted to know what WPD mean by '*accelerate the programme*' and what the programme entails
- A parish councillor pointed out that '*the figures are for the whole of the WPD region but the issue must be more of a problem in certain areas, such as rural areas in the South West of England*'
- A developer/connections representative queried '*whether changing overhead lines to underground is an option*'
- A stakeholder stated that '*undergrounding would cause a lot more disturbance*'

Table 4

- A parish councillor felt unsure on what should be done and asked *'what does resilience mean?'*
- A parish councillor said s/he didn't understand the programme options of 15, 20, 25 years and asked *'how much of a benefit is there to customers with the different options?'*
- A local authority/council officer stated during bad weather *'customers truly rely on power supplies more than ever'*. S/he went on to point out the situation of *'severe weather becoming more frequent'* and we are now experiencing 1-in-100 year events every year
- A local authority/council officer asked if *'WPD are able to look at moving money to different options if circumstances change?'*
- Another local authority/council officer commented s/he *'hates the idea of cutting trees down'* but accepted it needs to happen if it is likely they will blow down anyway
- A parish councillor was of the view *'trimming trees is very important'*

Table 5

- An energy/utility company representative asked *'how many of WPD's power cuts are caused by trees?'*
- A business customer representative asked *'how many customers could this affect?'*
- A business customer representative commented *'most land owners are farmers'*
- A business customer representative stated *'it depends on the implications of accelerating changes, if it involves less communication then I wouldn't be in favour but as long as there is good communication I'm in favour'*
- A parish councillor stated s/he was of the understanding *'the programme has been running for 3-4 years and as I understand it so far there have been good results and therefore I'm in favour'*
- A parish councillor commented *'it is all a bit of guess work'* but s/he thought WPD are *'doing quite well at the moment'*
- A parish councillor commented that s/he was *'happy with how things are at the moment as well'*

Table 6

- A business customer representative said *'the money is just going to be spent once; is it not beneficial to spend it sooner rather than later?'*
- A developer/connections representative made the point s/he was affected at the start of each year *'as bouts of severe weather affect services available'*. S/he stated *'we are*

experiencing more extreme weather’ and therefore his / her preference was ‘to spend money sooner rather than later’

- A parish councillor stated s/he wants to be sure of a good supply but his / her *‘constituents might not want to take the financial hit all at once’*. S/he felt *‘if the situation and reasoning were explained, people would be happier to pay’*

Table 7

- A parish councillor stated that there had recently been a tree-cutting programme in his / her area and it was *‘generally seen as without pain’*. S/he went on to say that s/he was *‘not aware of the replanting and wished to know more about it’*
- A parish councillor enquired as to *‘whether the tree-cutting programme would be accelerated with the recent ash tree problems’*

5.3. Q4. Severe weather resilience: Which of the following options would you like to see in WPD’s plan?

Option 1: (WPD’s current view). A resilience tree trimming programme of 20 years at no additional cost

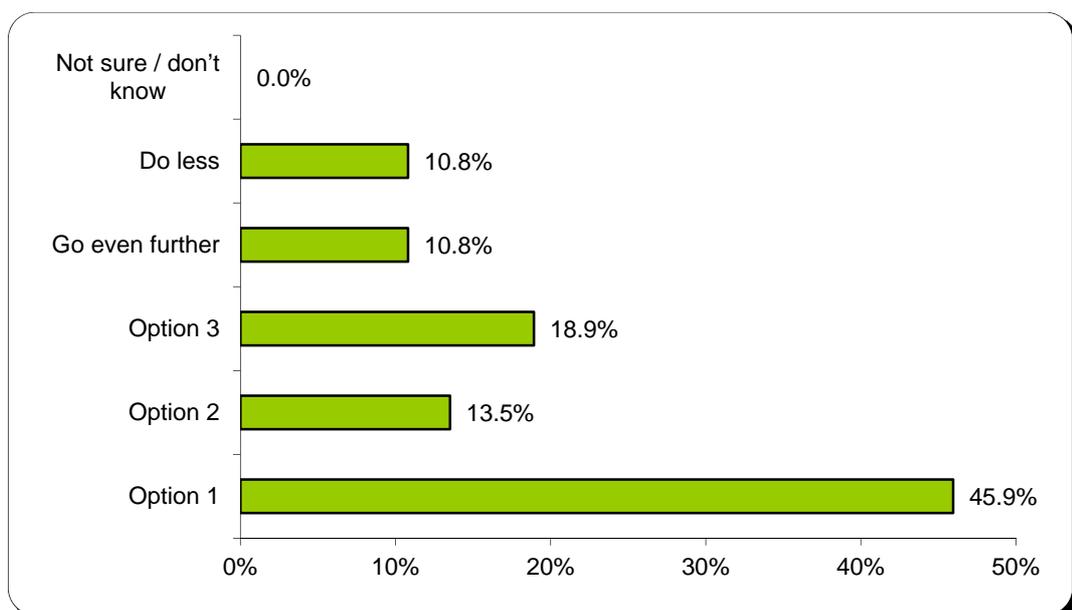
Option 2: The duration of the tree trimming programme accelerated to 20 years at an additional cost of £14.7 (14p per domestic customer, per annum)

Option 3: The duration of the tree trimming programme accelerated to 15 years at an additional cost of £45.7 (45p per domestic customer, per annum)

Option 4: Go even further

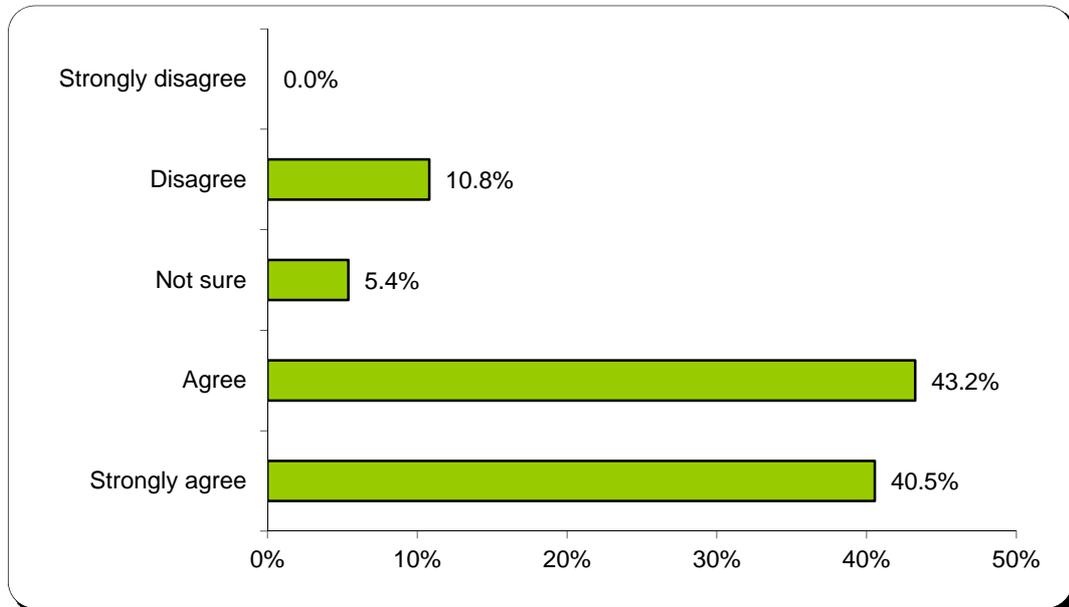
Option 5: Do less

Option 6: Not sure / don’t know



6. Issue 3. Flooding:

6.1. Q5: Protecting substations against the risk of flooding should be a high priority for WPD:



6.2. Comments

Table 1

- A developer/connections representative believes that events which are a 1-in-100 years risk may become more frequent, and therefore *'WPD needs to be more progressive and flexible to lower the chance of being caught out'*
- A developer/connections representative made the point that *'this is a longer price control period, and there are a lot of things going on that may change the nature of electricity use and this makes it difficult for WPD'*
- An energy/utility company representative said his organisation had invested highly in this and thinks it would be nice if WPD could match their investment. S/he commented *'we already have flood protection ourselves and we have back-up supply so it makes it less important to us as we are protected'*
- An energy/utility company representative believed that other DNOs could work together to make sure that all essential networks are protected at a lower cost
- A stakeholder agreed, saying that *'flood defence is not just a WPD problem, it also applies to town planning and the council. I would stick to option 1 due to the law of diminishing returns'*

Table 2

- A developer/connections representative stated that *'I don't know how dangerous it is for substations when it comes to flooding; it depends on the risks of flooding, the impact on customers and security of supply is important'*
- A business customer representative posed the question, *'have you based your figures on the total number of customers affected? Did you differentiate between business and domestic?'*
- An energy/utility company representative asked *'do you know how these figures compare to the Environment Agency's own investment? Is that money better spent elsewhere to prevent flooding at source?'*
- A business customer representative commented on the difficulties encountered by a local substation near Bristol harbour and how it faces flooding issues
- A parish councillor stated that *'if WPD has already analysed the severe risks, the programme does not need to be taken further'*
- A developer/connections representative said *'most of these scenarios are difficult to contextualise, severe weather is a major issue for those regions affected and it's important to protect the areas affected'*
- The table agreed that WPD is doing enough to mitigate flooding

Table 3

- A stakeholder explained that his / her family home was impacted by flooding and *'was without power for a whole month, which resulted in people having to move out of their homes for this period'*
- An environmental representative added that flooding is something that is *'happening more and more'*
- An environmental representative and parish council representative wanted to know if WPD's 200-year incident forecast is based on Met Office predictions on climate change, and if these predictions have been built into WPD's business plan
- A business customer representative stated that *'National Grid has already started a flood defence programme for fewer but higher priority stations'*
- A business customer representative explained that *'National Grid uses Environment Agency figures based on postcode locations. A flooding consultant at a seminar had found a percentage of substations were not at risk as stated in Environment Agency figures'. S/he felt that the money could have been spent elsewhere'*
- A stakeholder stated that *'in comparison flooding should be considered more important than the previous option and WPD should go a little further'*

- A local authority/council officer added that if s/he *'has to choose between 50p on power cuts and 50p on flooding then s/he would go for flooding'*. S/he explained that s/he may not be directly affected at the moment but it future proofs WPD's network
- A business customer representative asked if there is a cap on how much you can increase a customer's bill

Table 4

- A local authority/council officer commented on the Gloucester/Tewkesbury floods and thought there is an *'increasing period of poor weather occurring every year'*. S/he therefore feels it is now *'crucial power is resilient at times of flooding as people are relying on power more than ever to do tasks such as drying out their house'*
- A local authority/council officer asked how reliable is the information given on areas that may flood
- A parish councillor went on to point out *'flood areas are often changed'*
- A business customer representative felt that in order to gain the extra investment needed the charges in option 2 for the average bill do not buy a lot more and thought *'the number of people who are paying the extra charge will not receive a good benefit'*

Table 5

- A parish councillor said *'I can't comment as there are no substations in the areas where I live'*
- A parish councillor said s/he thought *'the current target was realistic.'* S/he stated s/he *'was keen to keep costs down'*
- A business customer representative also agreed but pointed out that *'a lot of this is guesswork'*
- An energy/utility company representative said *'no one worries or understands until it happens to them'*
- A business customer representative pointed out that *'WPD needs to have strong data, particularly with regards to summer flooding and weather predictions.'* S/he stated *'flooding is becoming more unpredictable'*
- An energy/utility company representative said *'considering this is over an 8 year period there are going to be several that need changing within that period'*
- A business customer representative asked *'does WPD have an obligation with the Environment Agency on flood risk?'*
- An energy/utility company representative said s/he would *'select option 1'*

Table 6

- A parish councillor made the point that *'flooding was not an issue'* for him / her

- A developer/connections representative stated that s/he couldn't build in areas where flooding is an issue. S/he pointed out in some developments the switchgear is much smaller and less powerful so wouldn't apply to his / her area and 200 is negligible compared to 40% that need doing
- A business customer representative was of the view that WPD needs to plan for all eventualities as surely all areas might be affected in the future. S/he commented for his / her job they could not plan for everything as sites can't be prioritised as it's unfair
- A business customer representative asked *'are sites categorised on customers or flood risk? What is the damage?'*
- A business customer representative estimated the cost of flooding could be between £30-60 million
- A business customer representative countered *'WPD should look at the cost of flooding and spend the £60 million and improve as many sites as possible to reduce the risk without raising the bill'. S/he said WPD should 'adopt a risk-based approach which will help drive what needs to be targeted first'*
- A business customer representative asked how many sites have flooded in his / her lifetime
- A business customer representative pointed out that *'WPD is reducing the impact which is good but needs to stop the initial problem'*

Table 7

- A parish councillor reiterated that s/he was a recent victim of flooding and would encourage an acceleration because *'power is very important during a flood'*
- A parish councillor said that there is a secondary substation local to him / her in Flood Zone 3A. S/he believes it *'would be a good idea to place a barrier at the door'* of this substation and all others in Flood Zones 3A and 3B
- An energy/utility company representative made the suggestion that there should be *'some scope for smaller scale improvements. Floods may be rare but the effects could be just as catastrophic'*

6.3. Q6. Protection against flooding: Which of the following options would you like to see in WPD's plan?

Option 1: (WPD's current view) to protect the 100 most at risk substations at a total cost of £34m but at no additional cost to customers over the 8 year period

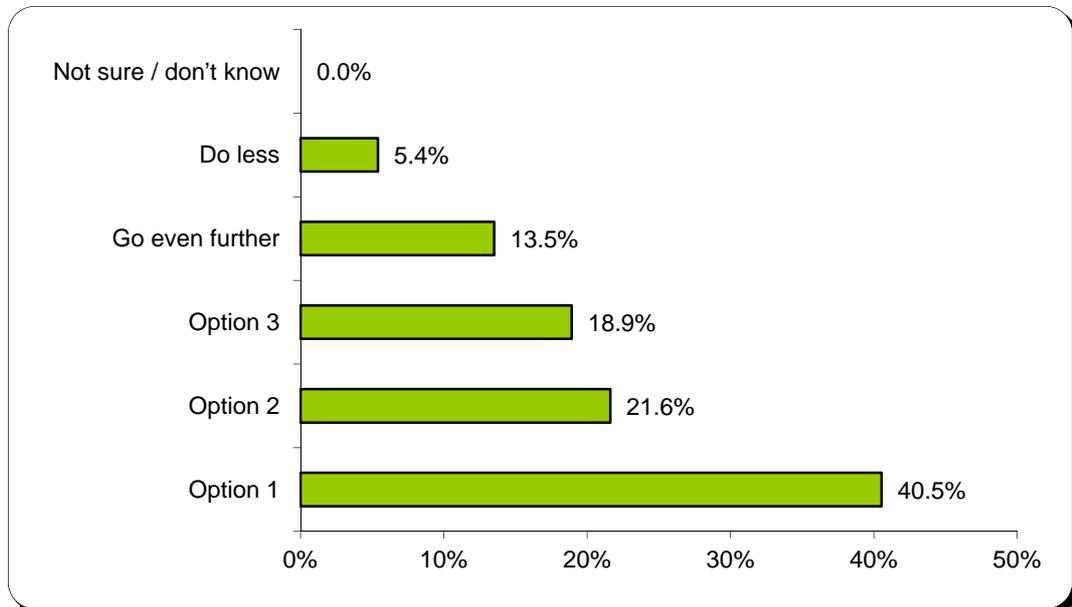
Option 2: To protect the 150 most at risk substations at a total cost of £50m (20p per domestic customer, per annum)

Option 3: To protect the 200 most at risk substations at a total cost of £67m (50p per domestic customer, per annum)

Option 4: Go even further

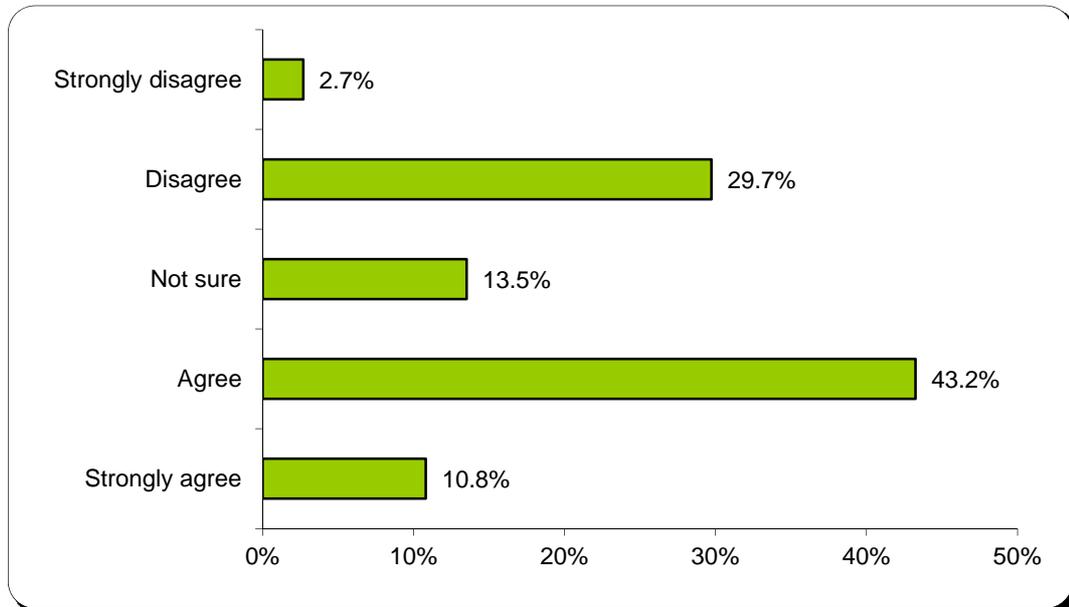
Option 5: Do less

Option 6: Don't know / not sure



7. Issue 4. Oil and gas leaks

7.1. Q7. Acting to reduce the risk of oil leaks from fluid-filled cables and SF6 gas leaks from equipment, should be a high priority for WPD?



7.2. Comments

Table 1

- A stakeholder was of the view that WPD is skipping the more important issue of electricity loss as if it were in the carbon footprint diagram it would dwarf everything else. S/he said *'they shouldn't focus on this and instead they should work on electricity loss if they want to have a real impact on their carbon footprint'*

Table 2

- An energy/utility company representative posed the question *'what is the benefit of reducing the carbon footprint and the oil and gas leak reduction as well? That was one thing that wasn't picked up in the presentation'*
- A business customer representative asked *'what is the issue with SF6?'*
- An energy/utility company representative asked whether leakage detection was fitted to SF6

Table 3

- A developer/connections representative pointed out that s/he has started to see energy companies and other DNOs using EVs and suggested that if WPD saved from the transport segment/figure then that money could be focused elsewhere

- A parish councillor felt that it wasn't clear if SF6 is being *'phased out'* and whether there is a technical alternative
- A business customer representative explained that *'the issue of more importance is how would this gas have an impact on people if it leaked, for example is it lethal?'*
- A parish councillor wanted to know how WPD are proposing to reduce it
- A local authority/council officer queried *'why the consumer has to pay for WPD to improve its efficiency?'* S/he stated that as a company WPD should be replacing its old network anyway and this will improve SF6 leakage

Table 4

- A parish councillor viewed option 1 as being a *'really good step'* and also thought SF6 is a major advance from what it was before
- A local authority/council officer asked if oil is still used in terms of insulation or is it *'completely out of action?'*
- A local authority/council officer asked when is WPD doing this. Is it over a *'set area and can it be done in small chunks?'*
- A parish councillor asked *'how is WPD sure new gases being used are better than the old ones?'*
- A local authority/council officer pointed out *'something better'* may come along before all changes need to occur

Table 5

- A business customer representative pointed out that s/he *'can see it from WPD's point of view.'* S/he asked *'why are they doing this, how much do their customers know about this and how much of a benefit would this have to them?'*
- An energy/utility company representative asked if *'leaks have an effect on power supplies?'*
- A business customer representative was of the view *'it's a priority for WPD's reputation and perception and it's not a customer benefit'*
- A parish councillor thought that as a humble customer s/he *'didn't really care, and I find it very difficult to understand how oil leaks are going to affect myself and others'*
- An energy/utility company representative pointed out *'the only benefit to you is maybe they wouldn't be digging up your street'*
- A parish councillor commented that *'the main sub transformer blew up a couple of months ago and the whole village just got on with it.'* S/he felt *'WPD needs to maintain steady work but there is no need to spend over the odds. Overall I think option 1 is good'*

- A parish councillor agreed

Table 6

- Two business customer representatives were aware of the problem
- A developer/connections representative commented that the oil leak damage is negligible and focus should be on the gas
- A business customer representative wondered whether SF6 will contaminate the environment and acknowledged that although it does not damage water it is no good as it's a greenhouse gas
- A business customer representative said WPD had not factored in the cost of the impact and asked *'if it's a greenhouse gas then will it cost us with a rise in skin cancer? How biodegradable is the oil? Is it gone within 6 days/weeks/months? Will it take out a patch of grass/river of fish?'*
- A business customer representative made the point that SF6 is used in switchgear. S/he felt the leakage should be minimised as WPD can't measure the impact of it so hard to gauge
- A parish councillor asked, if there was an oil leak would it just go into the ground and degrade?

Table 7

- A business customer representative enquired as to how WPD is looking to reduce SF6 leakage
- A business customer representative said that s/he realised that it is a *'balance between the use of SF6 for safety reasons and trying to lower environmental impact'*
- A parish councillor commented that s/he *'never had SF6 leakage headlined as a problem'* before today
- A stakeholder made the point that his / her organisation *'moved away from oil-based switchgear for the same reasons WPD did'*. The organisation is now *'stuck with SF6 for the same reasons'*

7.3. Q8. Reducing oil and gas leaks: Which of the following options would you like to see in WPD's plan

Option 1: Replace the worst 1% of equipment with the highest leakage rate at a total cost of £14m (10p per domestic customer, per annum)

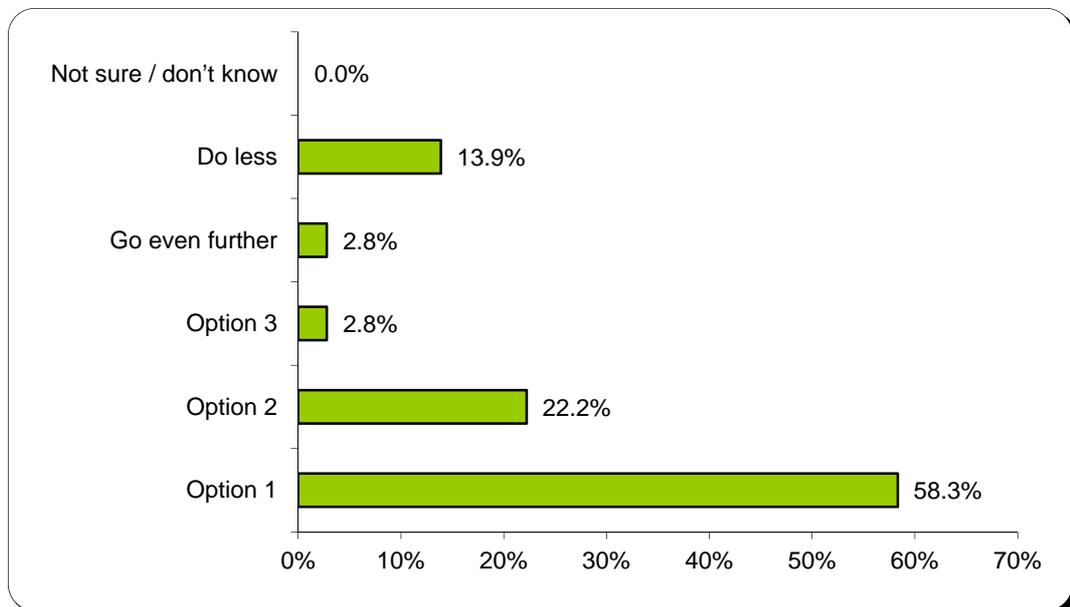
Option 2: Replace the worst 5% of equipment with the highest leakage rate at a total cost of £65m (50p per domestic customer, per annum)

Option 3: Replace the worst 10% of equipment with the highest leakage rate at a total cost of £132m (£1 per domestic customer, per annum)

Option 4: Go even further

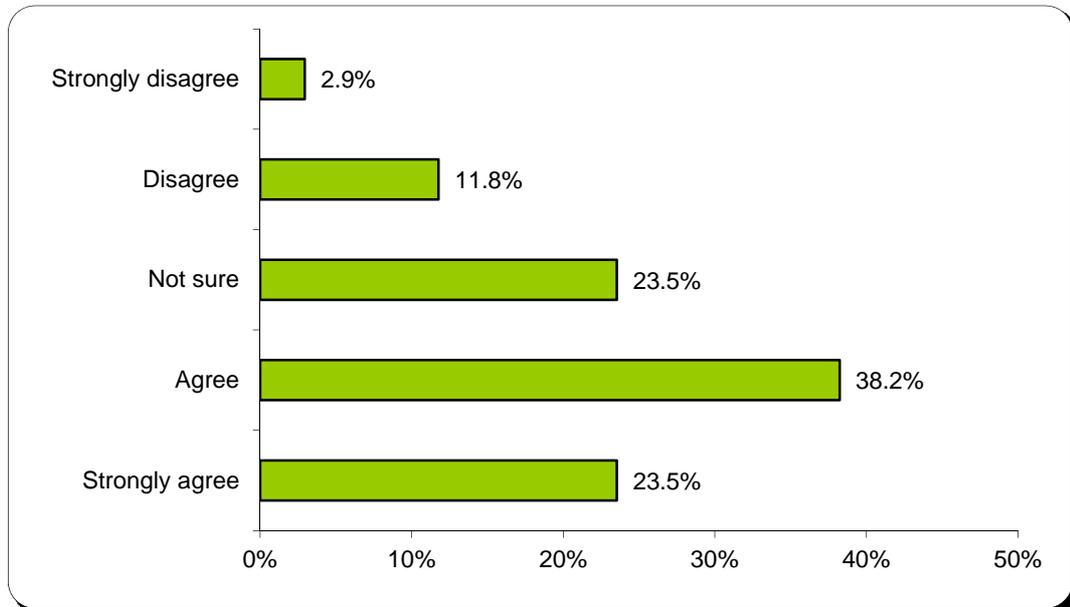
Option 5: Do less

Option 6: Don't know / not sure



8. Issue 5. Worst served customers

8.1. Q9. Improving service for our worst served customers should be one of WPD's high priorities:



8.2. Comments

Table 1

- An energy/utility company representative pointed out that *'it should be done as it's not only customers but also businesses that are affected'*
- A developer/connections representative felt that *'the costs are all so small, so it makes very little difference to the customer'*
- A developer/connections representative qualified his view by saying *'as long as you don't keep loading these prices on every year, and as long as benefits can be seen I don't disagree with the price increases'*
- A stakeholder was of the view that *'if we are going to be renewable, there is a lot of potential in remote areas and this could be a benefit for all customers'*
- A stakeholder likened the issue to customers receiving bad service in terms of water or education and commented that if it happened in these situations *'there would be a public outcry and therefore the issue must be addressed'*
- A stakeholder further emphasized his backing for improvements by stating *'it's not a lot of money to address the issue'*

Table 2

- No-one on the table had had any contact with or represented worst served customers
- A business customer representative said *'just because you live remotely doesn't mean you shouldn't expect the same kind of reliability, you pay the same amount of money after all'*
- A parish councillor stated that *'we have a communal responsibility for worst served customers, we should have some commitment to help the worst served'*
- A stakeholder said *'WPD should ask them to contribute extra towards services as a community, almost like a community charge'*
- A business customer representative asked whether WPD's worst served customers were based in the same areas where broadband access was also difficult. S/he added that the South West of England has the highest percentage of people of different trades working from home and that were broadly affected by uncertainty of utility services
- A developer/connections representative countered that people in this region were used to having different levels of services *'imposed on them'*
- A business customer representative said *'personally, I'm not going to miss 5 pence on top of my electricity bill. There is some disconnectivity in the figures, I suspect that's because it becomes a more expensive process with more remote customers'*
- A stakeholder stated that *'15 pence is good value for money'*
- A parish councillor was of the view that 5 pence was a good compromise; s/he felt that people that live in a remote area are likely to have a generator and other measures in place to tackle problems they encountered
- The table agreed that a 5 pence increase was appropriate

Table 3

- A local authority/council officer stated that his / her parish is not considered remote or worst served
- A stakeholder stated that a majority of customers are getting electricity all of the time so why shouldn't worst served customers, and why shouldn't customers share the cost
- A business customer representative questioned whether WPD's remote customers are located in AONBs. S/he added that *'customers choose to live in a difficult to reach area and that's their choice but they are paying the same price for not the same service'*
- A local authority/council officer pointed out that with this priority *'discussions will begin to focus on the issue of subsidising that cost for worst served customers'*
- An environmental representative agreed that *'customers shouldn't pay extra for a poor service'*

- A business customer representative pointed out that *'whilst stakeholders around the table are not considered worst served they may want to go to these areas to visit and still expect the same service that they enjoy at home'*
- A parish councillor added that *'most people who live in these areas are aware of the issue and option 1 is reasonable'*. S/he suggested that *'the money should be spent, but not a vast amount, to get them back on power'*
- A local authority/council officer felt that *'there is an element of self-help in this issue'*

Table 4

- A stakeholder asked *'what is the £900 figure?'*
- A parish councillor was of the view there are lots of customers who cannot afford to pay the bills any more. S/he felt *'the benefit is too small for the amount of customers who will have to pay the extra charge'*. S/he went on to point out the worst served probably have a generator and are *'self-sufficient'* and therefore may not need to be a high priority for WPD
- A local authority/council officer suggested that due to bills already being so high *'would anyone notice an extra 15p?'* S/he felt that those who live in the rural area will cope as a community and this is not the case with city power outages. S/he concluded that therefore in *'rural areas people will not be happy to pay the extra charge'*
- Another local authority/council officer felt *'WPD needs to improve over time as people are increasingly dependent on electricity supplies'*
- A local authority/council officer pointed out if the bills increase it will *'greatly affect the economy in rural areas'*. S/he felt farmers will *'suffer a financial loss,'* as will business and domestic customers
- A parish councillor pointed out *'all little extras will add up to a lot'*

Table 5

- A business customer representative said *'WPD has got it about right, it's about commitment;'* s/he was of the view *'option 3 is great and everyone should pay for this'*
- A business customer representative said *'even I would agree with that, I think it's reasonable'*
- A parish councillor said *'we all agree, option 3 is the right option'*
- An energy/utility company representative stated *'the point is 5p on this-how much does this equate to overall?'*

Table 6

- A business customer representative commented that *'when customers get many power cuts they accommodate but would welcome a more reliable service'*. S/he thought WPD should share the cost across everyone *'as that is fair'*

- A developer/connections representative said s/he is *'happy to pick up the cost'* and was of the opinion *'those who get uninterrupted service should pay more compared to those who are disrupted who should pay less'*
- A parish councillor asked if this includes the cost of insulation as that costs money
- A business customer representative *'doubted the worst affected customers were represented at the workshop'*. S/he lives in a more rural area and thus expects cuts. S/he has a generator to cope *'but this has an environmental cost'* but with fewer cuts s/he wouldn't need the generator; but *'self-interest is always going to be a priority'*

Table 7

- A parish councillor said *'if you live there, that is the price you pay'*
- An environmental representative commented that the *'current pricing structure does not allow WPD to charge more for different places'*
- An energy/utility company representative stated that while people pay the same *'there will always be a difference in service worst served customers should have to pay a little extra'*
- An energy/utility company representative made the point that s/he would *'like to see more innovation in how services are monitored and controlled in the next price control'*

8.3. Q10. Service to remote customers: Which of the following investment options would you support?

Option 1: (Now) Keep the number of 'worst served' customers at 10k, at no extra cost to customers

Option 2: Reduce the number of 'worst served' customers from 10k to 8k at a total cost of £1.2m (2p per domestic customer, per annum)

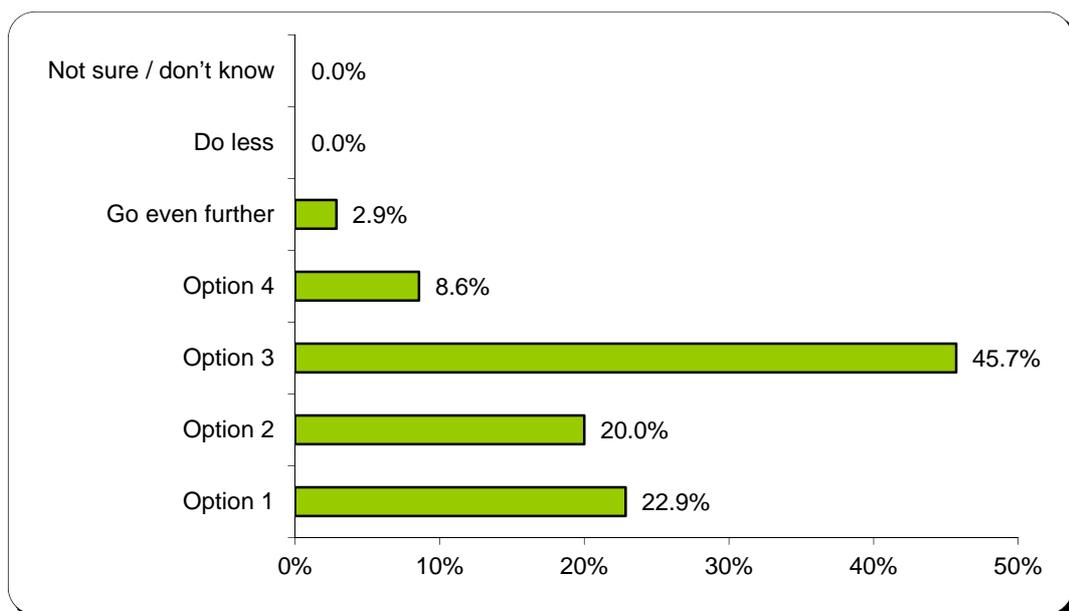
Option 3: (WPD's current view) Reduce the number of 'worst served' customers from 10k to 6k at a total cost of £3.6m (5p per domestic customer, per annum)

Option 4: (WPD's current view) Reduce the number of 'worst served' customers from 10k to 4k at a total cost of £8.1m (15p per domestic customer, per annum)

Option 5: Go even further

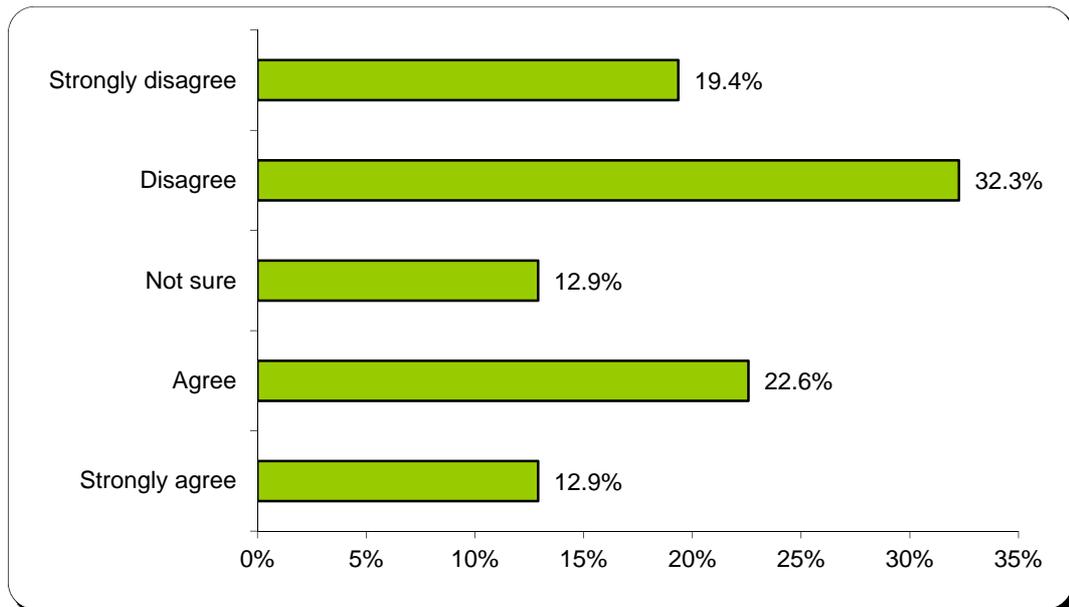
Option 6: Do less

Option 7: Don't know / not sure



9. Issue 6. Undergrounding in national parks and AONBs

9.1. Q11. Replacing overhead lines with underground cables in National parks should be a high priority for WPD (no supply reliability or carbon reduction benefits)



9.2. Comments

- A developer/connections representative commented *'I thought it was a very good price and it was worth it, adding 'it has a beneficial impact to the area'*
- An energy/utility company representative said *'this is the most expensive option, and I'm less inclined to see this as value for money'*
- An energy/utility company representative was of the view that compared to the other issues *'it is not as important to me'*
- A developer/connections representative commented *'I wouldn't say it was a priority, I would leave it till the equipment needs replacing'*
- A stakeholder made the point that *'either option 1 or 2 is a good investment as tourism is important for the local area'*
- A developer/connections representative wanted to make the point that s/he believed that *'the locations should be discussed properly so that residents are aware of plans'*

Table 2

- An energy/utility company representative was of the view that *'undergrounding is nice to have but not necessarily a priority, climate change is more of a priority'*
- A parish councillor stated that *'it would be nice to have nothing, pylons are horrendous in areas, it's nice to do a bit but not a high priority'*
- A business customer representative asked whether WPD was *'adding new lines in AONBs'*
- A parish councillor asked *'whether undergrounding makes WPD's services more reliable'*
- A parish councillor asked *'whether WPD had considered undergrounding in cities around attractive landmarks'*
- A business customer representative said *'there is a danger of nimbyism coming in here, I've always thought we were looking at countryside, urban undergrounding didn't even cross my mind'*
- A parish councillor commented that WPD should only pursue this programme in significant AONBs s/he was of the view that WPD needs to be very selective *because 'it was not a high priority'*
- A business customer representative stated that *'70 km is quite small for the area you serve'*
- A business customer representative felt that WPD's current view was correct
- Another business customer representative stated *'I think you should do less, especially if it's purely aesthetic. I think my views are influenced by the current economic climate'*
- A parish councillor commented that *'people get more annoyed about pylons than they do about wooden poles'*
- A developer/connections representative said *'if you're going to do something on a bad piece of network, you have to do something other than bury it. If you're going to bury it you might as well make it pay back by fixing it'*
- The table agreed that maintaining undergrounding schemes on very sensitive sites was important

Table 3

- A stakeholder found this priority interesting. S/he worked for a wind turbine company and during this time found many people were upset by the power cables going from the wind turbines
- A business customer representative felt that this priority is out of balance and only one option costs more on the option list and that is reducing power cuts. S/he added that undergrounding is a lot of money and is it value for money

- A local authority/council officer wanted to know why option 1 is going to cost customers 9p more
- A parish councillor wanted to know what the total length of overhead that might be undergrounded
- An environmental representative added that undergrounding is important in certain places as it can make a difference, but agreed that there needs to be a balance. However, s/he wouldn't go much further than what WPD are suggesting
- A business customer representative stated that digging a trench may have more of an impact to AONBs and national parks than the overhead cables. S/he added that the short term impact may not outweigh the long term benefit

Table 4

- A local authority/council officer stated initially s/he *'imagined big pylons but having seen a picture it is no longer such a big priority'*
- A local authority/council officer asked if the question was *'only in relation to poles or did it include pylons as well?'*
- A parish councillor asked if *'only a select few customers could pay towards undergrounding if they are unhappy with the existing poles?'*
- A parish councillor asked *'what is the cost per km to place the cables underground?'*
- Another parish councillor felt there are *'lots of alternatives to undergrounding.'* S/he asked if WPD can look to improve the area *'another way'* rather than to just have *'an extreme option of removing lines and putting them underground?'*
- A local authority/council officer was of the opinion *'undergrounding cables is of no advantage and just offers a cosmetic benefit'*
- A business customer representative agreed with the above point and also pointed out that there would have to be *'a cross-over of lines underground'*
- A parish councillor discussed his / her parish plan and stated there is a strong opinion that *'undergrounding lines in rural villages will have more of a benefit than if it were to happen in AONBs.'* S/he went on to say in his / her village one road had all its poles replaced and thinks the *'money should have been spent on putting them underground'*
- A parish councillor pointed out the parishioners would have been *'happy to pay extra costs'*
- A local authority/council officer agreed *'undergrounding was the best option'* and commented it will benefit all residents in villages as it could increase property prices
- A parish councillor made the point *'broadband in rural areas is coming and all those cables will be underground'*

- A local authority/council officer asked when poles needed to be replaced if *'residents of a village could be given the option as a community to pay the extra'* amount to put the cables underground rather than just replacing the poles
- A local authority/council officer was of the opinion that undergrounding *'132kv high voltage lines will have a physical effect on people'* and this could include health problems. S/he felt *'the top priority is to get cables undergrounded in residential areas where lines are going over houses'*. S/he stated this need was more important and beneficial than being placed underground in AONBs there was only a nice benefit available
- Another local authority/council officer pointed out if residents want underground cabling then *'they should pay for it themselves and not expect everyone else to do so'*
- A local authority/council officer agreed residential areas need to be looked at first *'due to health problems and the problems with selling houses'*. S/he said *'it should be a top priority'*
- A local authority/council officer was of the view *'in the long term more land will need to be released for development as house developers know they will be unable to sell houses if there are a lot of visible power lines in the area'*
- A parish councillor commented that *'overhead networks are usually in rural areas not urban ones'*. S/he expressed the view that *'overhead cables should only be placed underground only if the cables need to be replaced'*

Table 5

- A business customer representative commented *'part of this project is to improve WPD's current and existing service, so we are really just talking about poles'*
- A parish councillor stated that his / her local church had *'managed to have cables undergrounded so it improved the view'*
- An energy/utility company representative pointed out *'this is purely a visual benefit, if there is a problem in the future it will have to be dug up which will cause a lot of disturbance'*
- A business customer representative said *'if it becomes more problematic to make changes and improvements then it is not beneficial'*
- A business customer representative said s/he would *'stick with the current option'*
- A parish councillor noted *'it would be helpful if you had a specific view'*
- A parish councillor said *'you've only got to see with Hurricane Sandy the number of poles and wires in the street; we are already much better than that, the amount you are doing now is fine'*

Table 6

- A business customer representative said WPD should *'definitely do more'*. S/he felt it was hard to comment without background knowledge but s/he does, so has an informed opinion. S/he stated *'sometimes undergrounding might not be possible due to sensitive archaeology, for example, so there needs to be a good case for undergrounding. It also has to be co-ordinated with telecommunications companies as a big project'*
- A parish councillor was of the view that most people would like to see undergrounding but it is not completely possible due to the cost but the aesthetic pay-off is good. S/he commented *'long term it would be nice to get rid of poles but cost is important'*. WPD should try to put as much underground if financially viable
- A business customer representative stated s/he lives in AONB and *'has been bombarded with telephone lines'* and is aware of their presence and wants to get rid of them
- A business customer representative stated that *'it is a priority in terms of the environment as overhead lines can go wrong which causes havoc'* but customers might feel differently with the cost implications

Table 7

- An energy/utility company representative pondered whether or not there is a positive economic benefit to tourism from an improved landscape
- A parish councillor stated that s/he had never understood *'why we have linear poles. Nature is not linear and the linear nature is often the cause of their problems. That is why the eye picks them up. If it was zigzag they may blend in more. This must be a cheaper option than undergrounding'*
- A business customer representative discussed his / her concerns about undergrounding on archaeology and its effects on ecology as it *'can make the area very sterile'*
- The general consensus around the table was that they were not really affected by this issue and they did not see it as a priority

9.3. Q12. Which of the following options would you like to see in WPD's plan?

Option 1: (Now) Underground 40k of overhead lines in national parks and AONB's at a cost of £6m (9p per customer, per annum)

Option 2: (WPD's current view) Underground 70k of overhead lines in national parks and AONB's at a cost of £10.5m (16p per customer, per annum)

Option 3: (Now) Underground 120k of overhead lines in national parks and AONB's at a cost of £18m (28p per customer, per annum)

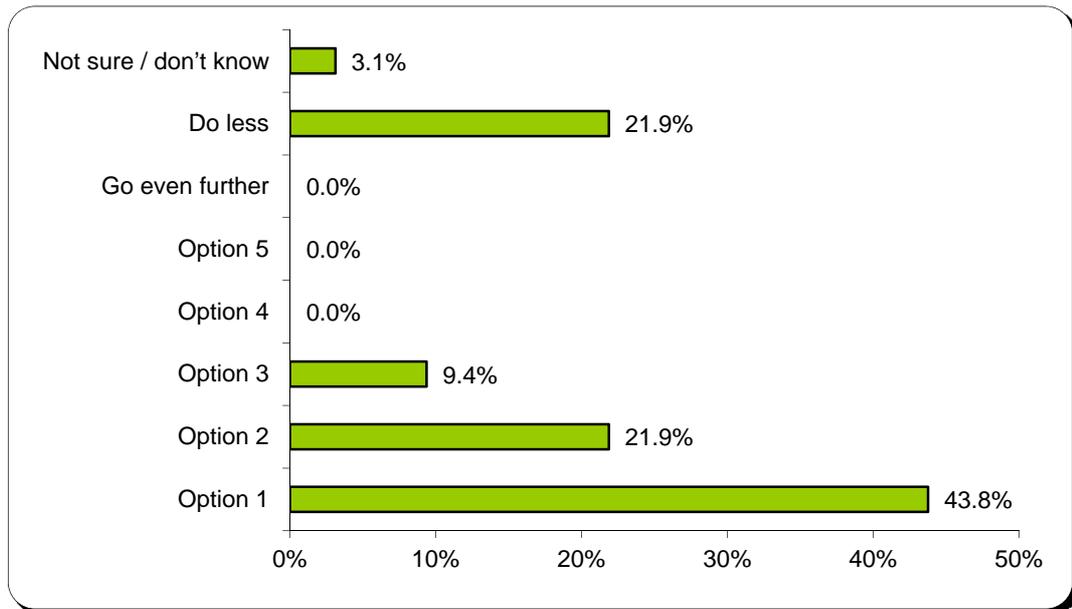
Option 4: Underground 240k of overhead lines in national parks and AONB's at a cost of £36m (56p per customer, per annum)

Option 5: Underground 480k of overhead lines in national parks and AONB's at a cost of £72m (£1.12 per customer, per annum)

Option 6: Go even further

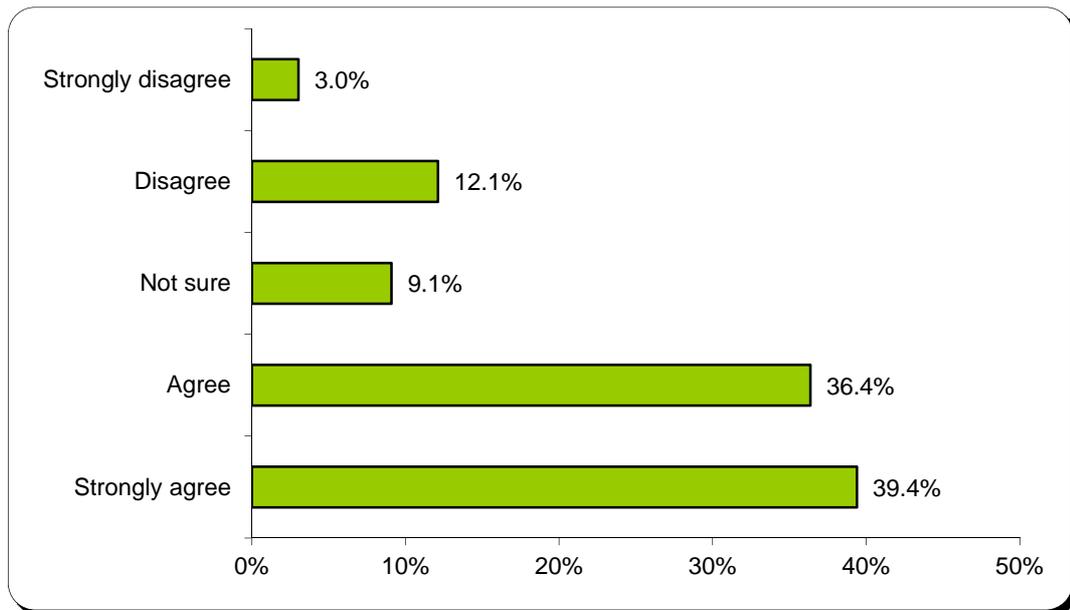
Option 7: Do less

Option 8: Don't know / Not sure



10. Issue 7. New connections – process speed

10.1. Q13. The current time taken from first contact to completed connection is acceptable



10.2. Comments

Table 1

- A developer/connections representative commented *'I would say WPD has got it about right'*, adding that s/he believed *'WPD is easier to deal with than gas suppliers'*
- A developer/connections representative also stated *'we have a smoother working relationship with WPD than other organisations'*
- A developer/connections representative was of the view that *'as long as we know it's going to take 90 days and as long as it comes in on time there is no problem'*
- An energy/utility company representative stated *'90 days seems quite good'*
- An energy/utility company representative was of the opinion that online tracking would be a really good idea
- Another energy/utility company representative made the point that s/he felt *'there is no problem speaking to different people on different issues but I would prefer if we had a direct contact'*

- An energy/utility company representative proposed the idea of linking with other DNOs *'if we could link WPD with ourselves so that we know how long it will take to connect to the network; this would be better and more efficient plan'*
- An energy/utility company representative was of the opinion that *'the average person doesn't care about new connections as it has little or no effect on them'*
- A stakeholder suggested that *'an idea would be if customers had an incentive to adding a generator to the network'*
- A developer/connections representative questioned the plans, asking *'is it fair that I have to pay for people going on the network and seeing no benefits?'*

Table 2

- A developer/connections representative stated that *'the faster you can do it the easier it will be for us'*
- A business customer representative asked for the definition of 'small' and 'large' in the context of the options listed
- A business customer representative commented that *'I can't help thinking that developers should build in enough time to ensure that a connection is made on time'*
- An energy/utility company representative stated that *'the problem is the planning phase, it's so uncertain and frankly, the bugbear of the development sector, it's very difficult to call'*
- A stakeholder felt that *'it might be better for developers and WPD to bring forward a more accurate assessment beforehand in order to guide both parties more quickly through the process'*
- An energy/utility company representative said *'once the application has been submitted it's a waiting game. We get regular updates from WPD and feedback on delay if there is any'*
- A stakeholder stated that WPD should hire 20 extra people to conduct an extensive analysis on this
- A developer/connections representative was of the view that out of the options proposed, an extra 35 pence *'wouldn't be worth it'*
- An energy/utility company representative believe that an extra 35 pence could be worthwhile if both parties were given a clear idea of timescales
- A stakeholder stated that *'sharpening up this process could help the wider economy'*
- A parish councillor stated that improving the connections process would not help the domestic customer and that *'businesses should pay for it'*
- An energy/utility company representative said *'businesses would pay more for clarity because if you're a developer time is money'*

- A developer/connections representative stated that options 2 and 3 would work best
- A business customer representative said *'having an account manager telling you it'll be 90 days is pointless, options 2 and 3 have to be interlinked'*
- The consensus was that job tracking and speeding up the process was more important than a single point of contact

Table 3

- A business customer representative stated that s/he has found it to be *'a pretty good process'* and out of all DNOs WPD was the fastest and best to deal with
- A business customer representative would like there to be *'more flexibility and more manpower to deal with problems'*
- An environmental representative queried whether customers should pay for this
- A parish councillor wanted to know if the times stated are if WPD is doing the work or HVs are doing the work
- A parish councillor wanted to know if WPD charge people up front for the connection
- A business customer representative explained that *'most of the investment money would go to employ more people to speed up the process and have more equipment'*. However, s/he questioned why customers should pay for this and not the developer
- A stakeholder felt that *'job-tracking is a good idea and would be useful'*. S/he explained that *'this would be useful, instead of having to constantly phone WPD, the information would be ready available'*
- A business customer representative agreed that tracking would be useful, *'the people who will need this will be project managers and this would be ideal for them'*
- A local authority/council officer felt that *'this priority is asking stakeholders to increase investment in WPD's product offer that will not be to the benefit of all'*. S/he suggested that the cost to existing customers should decrease if the developer pays for this priority
- A parish councillor suggested that *'these options would be of more benefit to large customers rather than domestic customers'*
- A parish councillor stated that options 1 and 2 seem a *'good idea'* but not options 3 and 4
- A business customer representative wondered whether Ofgem is trying to get WPD to pay for this *'so that housing developers do not increase the cost of a house and therefore prop up the housing market'*

Table 4

- A parish councillor was of the view the current situation looks *'pretty good'*

- A business customer representative agreed with the above point and stated s/he has *'not experienced any problems'*
- A parish councillor felt new connections should not be a *'high priority'* for WPD
- A parish councillor was of the view that if *'a large developer doesn't contact WPD 90 days before the connection is required then it is the developer fault if new connections are not made in time'*
- A local authority/council officer felt that *'it should be known'* developers have to give 90 days' notice
- A parish councillor pointed s/he has never seen a house or business that has been built *'without an electricity supply'*
- A local authority/council officer asked if WPD *'could provide a dedicated contact'*. S/he stated s/he would not like touchpad options remaining in place
- A business customer representative asked if the £2 million budget *'includes the training of staff'*
- A parish councillor questioned the need for WPD to employ staff. S/he also commented the difference between options 1 and 2 is unclear
- A parish councillor asked *'why does one person cost more than four?'* S/he would like to see WPD introducing a main person who provides a *'more direct service'*
- Another parish councillor felt the option to have an account manager *'offered no gain to the customer'*
- A parish councillor agreed and stated *'the current system is frustrating as you can't always find out the required information and the touch pad is not useful'*

Table 5

- A parish councillor asked *'could you explain the procedure of how the charge is not levied against the people who are building or developing?'*
- A business customer representative was of the view *'the majority of new connections with developers shouldn't be picked up by everyone, it's a large amount of money for everyone to pay 22p when the majority won't benefit'*
- A business customer representative said *'if people know where they are then they will accept that they need to provide finance to connect themselves'*

Table 6

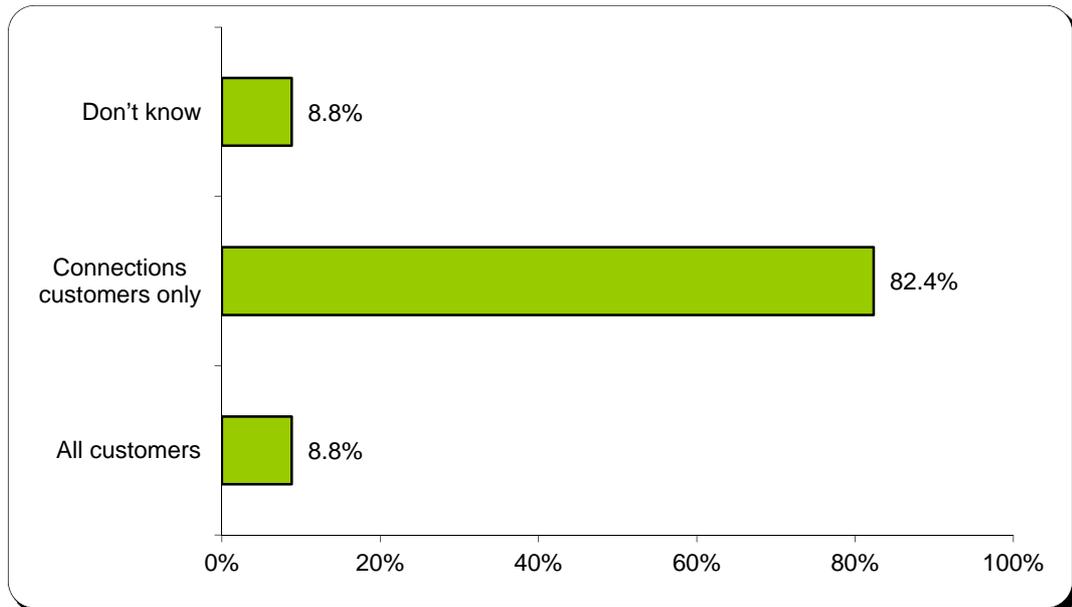
- A developer/connections representative voiced no qualms with his / her experience of service from WPD after 7 years. S/he mentioned WPD is faster than other providers s/he deals with, *'more expensive but the service is better'*. S/he continued that *'other services have hidden costs, whereas WPD has no problem with turnaround times'*

- A business customer representative mentioned s/he had experience of quite a few new connections and that WPD is *'by far the best for connections'*
- A developer/connections representative said option 1 *'is acceptable'*
- A business customer representative stated *'if developers want to build new structures they can pay for the connection'*
- A parish councillor thought *'big developments should pay as the developer should contribute'*. S/he stated the cost must not be passed on to the end consumer
- A developer/connections representative countered that *'this problem is not a high priority as service is fine'*

Table 7

- A parish councillor said that in his / her experience *'WPD has been very good in terms of connections times'*
- An energy/utility company representative questioned *'why if you build something, should the general customer pay for it?'*
- A parish councillor commented that it *'seems ludicrous that WPD has to provide supply to developments that do not even have planning permission'*
- A stakeholder stated that as a commercial customer in his / her experience *'WPD's connections are adequate'*
- A parish councillor agreed saying that the current system seems *'perfectly adequate'*
- Another parish councillor agreed, with the parish councillor, adding it *'sounds fine to me'*
- An energy/utility company representative made the suggestion that WPD should charge for quotes to prevent a developer *'getting 1,000s of quotes when they are really always only going to go for one'*
- A parish councillor was of the opinion that a *'nominal charge for a quote would reduce the number of quotes'*
- An energy/utility company representative said that requests for quotes is like *'FOI requests clogging up the system'*
- An energy/utility company representative questioned *'is it right for the existing customers to pay for future customers' enquiries?'*

10.3. Q13a: Who do you think should pay for new connections improvements?



10.4. Q14: Which of the following options would you like to see in WPD's plan?

Option 1: (WPD's current view) The average time from first contact to completion at 30 days for a small scheme and 90 days for a large scheme at no extra cost

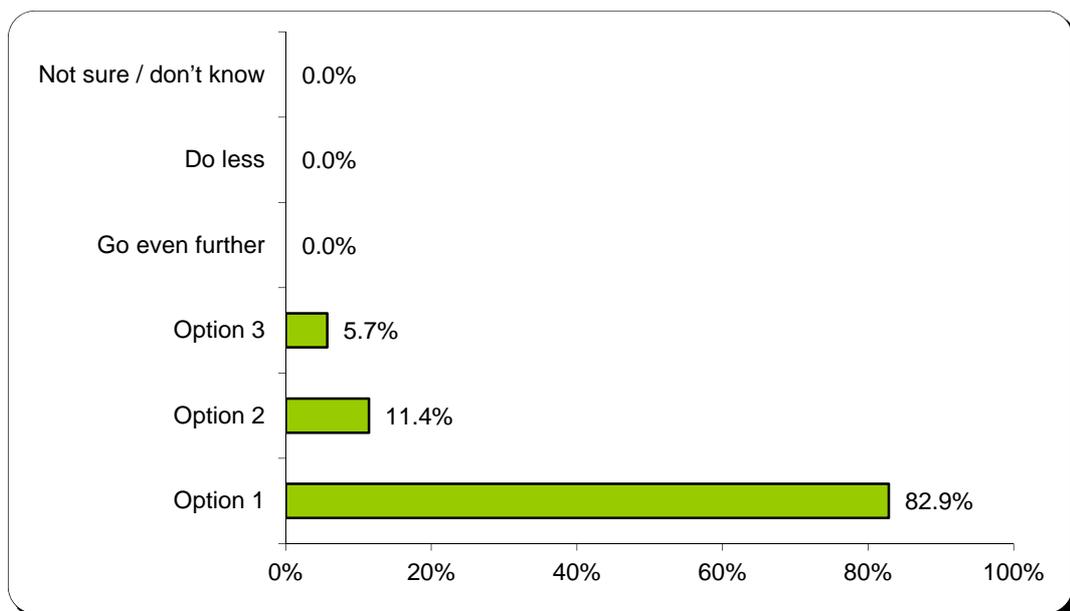
Option 2: The average time from first contact to completion reduced to 20 days for a small scheme and 60 days for a large scheme at a cost of £28.3m (22p per domestic customer per annum)

Option 3: The average time from first contact to completion reduced to 10 days for a small scheme and 30 days for a large scheme at a cost of £56.6m (44p per domestic customer per annum)

Option 4: Go even further

Option 5: Do less

Option 6: Don't know / not sure



11. Issue 8. Innovative customer communications

11.1. Q15. Which of the following options would you like to see in WPD's plan?

Option 1: (Now) A separate point of contact at each stage: enquiry, application, wayleaves / consents, on-site works/construction at no extra cost

Option 2: Now plus a dedicated contact number (with better expertise at first contact) at a cost of £3.2m (3p per domestic customer, per annum)

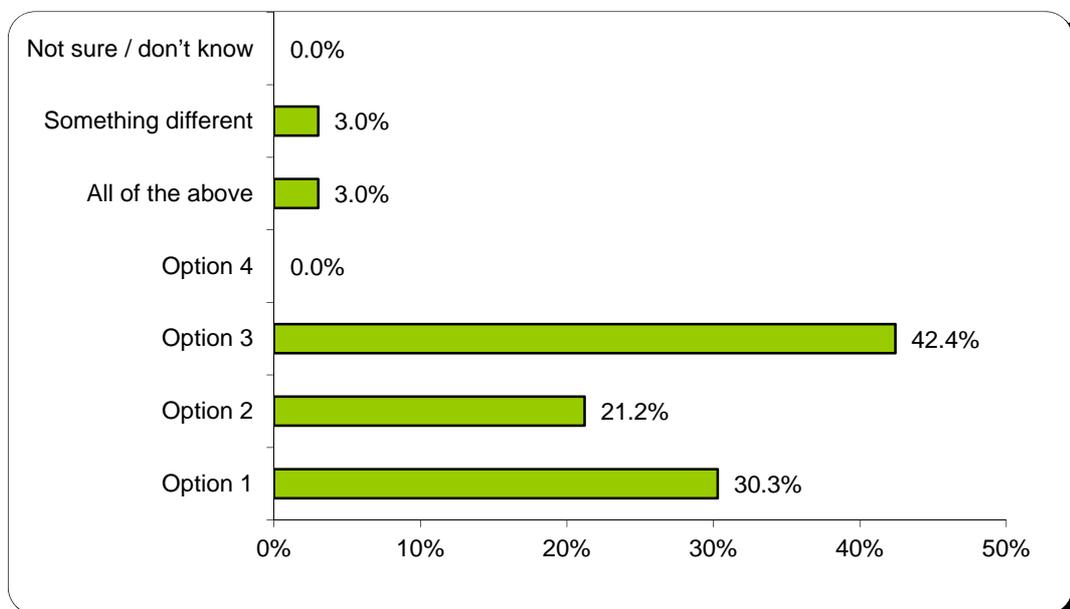
Option 3: Now plus applications, payments, job tracking etc online at a cost of £2m (1p per domestic customer, per annum)

Option 4: Now plus a single account manager at a cost of £50m (35p per domestic customer, per annum)

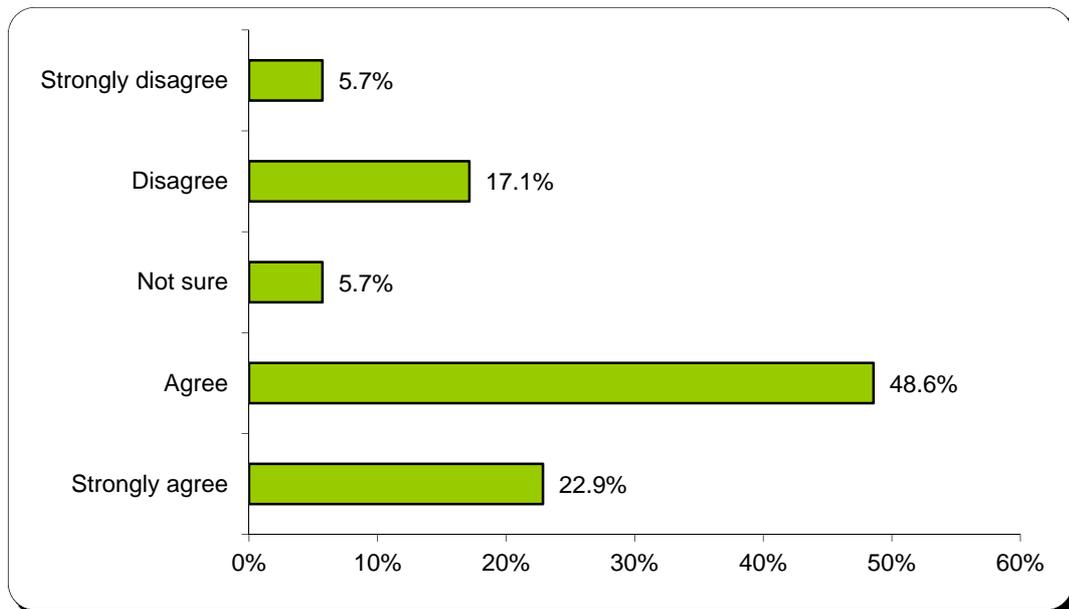
Option 5: All of the above

Option 6: Something different

Option 7: Don't know / not sure



11.2. Q16. Innovating the methods by which customers can communicate with us should be a high priority for WPD



11.3. Comments

Table 1

- An energy/utility company representative said *'I definitely like the idea of Twitter' but 'there needs to be a separate Twitter account for emergencies and for PR'. As long as people are only contacted with information on emergencies rather than promotional material, it's a good idea'*
- A developer/connections representative made the point that *'I agree with social media but the specifics may be different in 10 years as Twitter and Facebook may not be around anymore'*
- An energy/utility company representative was of the opinion that *'having a more strategic and technological link between WPD and themselves, so that there can be more real time information, would be a very good idea'*

Table 2

- A stakeholder was of the view *'that customers tended to be more accepting of power cuts if they were warned in advance'*
- A developer/connections representative stated that *'acceptance was dependent on costs'*
- An energy/utility company representative thought that social media should be *'part of a broader strategy to engage with customers about CO2 usage and the realities of the cost of energy to customers'*

- A parish councillor said *'at the age of 80, I don't want to use Twitter to communicate but I know it's going to grow anyway'*
- A business customer representative stated that *'the service at the WPD call centre is superb. Social media is a nice extra but web-based information would be ideal'*
- A business customer representative commented that *'social media will grow regardless of whether WPD decides to adopt it as part of its communication methods'*
- A developer/connections representative asked the question *'why would you pay £8 million for stuff that's already available through your network provider anyway?'*

Table 3

- A parish councillor felt that *'what customers want at the moment is a confirmation that there is a power cut and that it is affecting more customers than just you'*
- A parish councillor explained that what *'customers ultimately want to know is why there is an outage and how long it will be for'*
- A stakeholder pointed out that with the social media option it depends on how that service is advertised and making customers aware that it is an option
- A local authority/council officer added that *'the UK's ageing population won't know how to use these additional services'*
- A local authority/council officer explained that in the community s/he lives in *'just one person needs to contact WPD and it will be disseminated to the rest of the community'*
- A stakeholder stated that *'a text messaging service would be useful as most people his / her age do not want to call and queue up for information'. S/he would like to know instantly if s/he is affected, especially if not at home when the power cut happens*

Table 4

- A local authority/council officer supported option 2 as the benefit was that it can be used at any time and it *'gets picked up instantly'*
- A parish councillor pointed out the only time people want to speak to WPD is when *'there is a problem'*
- A local authority/council officer felt to get through the whole process of communication *'without any lights is a problem', especially if your call is not answered. S/he therefore felt 'the option of text offers many good benefits and to charge an extra 3p for the service is a good price'*
- A business customer representative questioned the effectiveness of social media if WPD invest in it. S/he commented on the recent storm in New York and pointed out *'only people affected by the storm reported it on social media and the distributor did not; therefore, is there a need for WPD to get involved?'*

Table 5

- A business customer representative said *'we know the system and we are pretty adept at this, from a company point of view there are improvements that could be had. From a customer's view option 2 would be the most important thing, having someone there who understands'*
- An energy/utility company representative noted *'an account manager is a huge cost and too much'*
- A parish councillor said s/he would select option 3
- A business customer representative could not decide between options 2 and 3. *'When someone is trying to negotiate it is a different language and most people do not understand it, there are several people involved and links in the chain. People need help to navigate this minefield, and a reasonable level of service is to have a dedicated contact who is reasonably clued up. That is a reasonable expectation and it's a reasonable cost'*
- A business customer representative said s/he *'didn't think it was unreasonable as a socialised cost'*
- A parish councillor said *'I'm not convinced, unless there have been a huge amount of complaints, is this not a matter of training? You should employ people that have the ability to deal with it'*
- A parish councillor said *'you have to accept that, yes, you could tolerate calling several people, it's not something you have to do every day, it's a rare call that you have to make. I think WPD ought to take this on board as a training cost so they provide adequate levels of service'*
- Another parish councillor commented that *'WPD need to be aware that customers don't understand your industry jargon and they won't understand your internal organisation; you want to improve the customer service to be a loved organisation for not very much money'*
- A parish councillor said *'I like to be able to track online and option 4 is very straight forward'*
- A parish councillor stated *'this is a generational issue, I'm into a telephone and don't mind the website but I'm not into Twitter, we are making an assumption that when your power cuts happen you can access these anyway'*
- Another parish councillor pointed out *'what WPD is trying to do is cover all the bases, different people have different needs'*
- A parish councillor said *'most people have mobile phones'*
- An energy/utility company representative asked *'how can WPD justify £3 million for free social media?'*

- A business customer representative pointed out *'it's fine to say you can track on website but if this is about your power being down you can't do this'*
- A parish councillor said *'I'm of the view that what we are talking about here is most important in times of crisis; some older people are dependent on the equipment that they've got. Universally the best idea is to engage in option 1. I don't see why the consumer should have to pay for them to improve their communications'*
- A business customer representative pointed out that in five to ten years' time all mobiles will be smart phones. S/he said *'I'm not there now but I'll probably be there in ten years'*
- An energy/utility company representative commented *'to me it seems strange that you aren't doing this already to my generation'*
- A business customer representative asked *'why WPD aren't absorbing the costs'*
- A parish councillor suggested *'you should just be able to go onto the website, put your postcode in and it will tell you how long you'll be out for'*
- An energy/utility company representative noted that s/he *'couldn't see the benefit of Facebook for WPD, but Twitter and text are vital. Twitter should be done efficiently; it's one way they can inform you and find you'*
- A business customer representative said that s/he has natural scepticism and a lot can change in the time frame, but option 1 did seem reasonable
- An energy/utility company representative stated scenario 4 is *'what is actually going to happen, we will just have to pay for it'*
- A parish councillor commented that *'at the moment everyone is getting worked up about costs because the aims are unachievable'*
- An energy/utility company representative was of the view that *'you have to do the carrot and the stick'*
- A local authority/council officer said that s/he agreed that it would have an impact on children because *'if you could actually show kids something that is physical, they could be educated about energy use'*
- An energy/utility company representative stated that *'a lot more education is needed in schools'*
- A local authority/council officer was of the opinion that WPD is going to penalise those who work normal working hours. S/he went on to say that this is not practical because *'you have to do certain tasks when you have to do certain tasks'*
- A developer/connections representative commented that s/he *'would be too scared to leave appliances on overnight'*
- A local authority/council officer said that s/he wanted to be able to pay a standard tariff for his / her electricity use because *'electricity is a basic human right'*

- A developer/connections representative made the point that this is a *'huge cultural change'*
- A local authority/council officer said that *'if you are doing a more normal 9-5 job it's going to be very ugly. How is this ever going to work?'*
- A developer/connections representative stated that s/he had quite a few properties that are on the grid. S/he added that this is a particular problem for the elderly as it has implications on public health
- A parish councillor commented that s/he was *'from a generation that if you want to save energy then you turn the light off'*
- A parish councillor made the point that if everyone was charging at the same time then this would become peak overnight
- An energy/utility company representative said that *'the cars and technology are out there but they are extremely expensive'*
- A parish councillor said that s/he is *'mindful that you are trying to work to a scenario that has been given to you by the Government. The danger is when you get a new Government they may have a different policy'*
- A parish councillor stated that there is *'a danger that people promise the earth but cannot deliver'*
- Another parish councillor was of the opinion that a factory owner would look at their bills and want to cut costs anyway; they do not need a meter to tell them that
- An energy/utility company representative commented that with a *'smart meter you are paying for what you use'*
- A parish councillor said that smart meters are a *'novelty thing, you don't go out every 20 minutes to check it'*
- A business customer representative was of the opinion that *'we will see more renewable heat and energy because there are incentives for people to use them'*
- An energy/utility company representative said that *'everybody wants to save money so everyone wants to be more efficient'*
- A business customer representative commented that *'while there is a recession these are a priority but when times get better the gains you make through some of these things might tail off'*
- A parish councillor questioned who would pay for smart meters and asked *'what would WPD do with the data collected from smart meters?'*
- A parish councillor thought that the roll-out of smart meters *'is a fantasy'*

Table 6

- A business customer representative thought it would be beneficial to have a text-based service as many providers have this opportunity. S/he felt WPD does not need any more than that as the majority of customers do not understand more and therefore it has *'got to be simple'*
- A parish councillor said that telephone contact is still very important, as you can get more from speaking to someone than from emails. S/he felt a specific question should be answered so WPD needs trained staff to save time; WPD can always revert to email
- A business customer representative made the point that customers don't know who to contact and if specific job roles were covered *'it would save everyone time'*
- A business customer representative commented that a large proportion of the population think the supplier they pay their bill to is the one who should be contacted
- A business customer representative said frequent customers need something to give them a little data just to inform them of the situation. S/he stated if the power is out it is likely they won't be able to get onto their computer
- A developer/connections representative asked will customers know the new service is available to them? S/he said WPD might *'invest all this money and the service won't be used which is a waste people might need educating which will cost money'*
- A business customer representative was of the opinion that technology used by WPD tracks usage so when a power cut occurs, WPD can schematically see where the primary/secondary problem is so it already has a good amount of information available and can update its information quickly. S/he also made the point that *'if customers don't have phone reception they can't report a problem'*
- A business customer representative agreed, stating if the power is out for several days then mobiles will run out of battery, adding to the problem

Table 7

- A parish councillor made the point that *'the most vulnerable, the elderly will not be catered for under these plans'*
- An energy/utility company representative responded, saying you *'cannot ignore social media because those teenagers that are driving its use at the moment are the bill payers of tomorrow'*
- A stakeholder was of the opinion that WPD can use *'young people connected via social media to spread information on WPD issues'*
- A parish councillor stated that s/he *'would have no problem with all these changes'*. However, he was there to represent his parish and *'the landline is their preferred method'*
- An energy/utility company representative pointed out that these options are on top of the phone line

- An energy/utility company representative commented that WPD need to *'look to the future'* because if WPD *'do not build it into this price control, then we all have to wait until the one after'*
- A parish councillor made the request that WPD keep all of its call centres in the UK. His / her experience of BT is that *'their foreign call centres do not understand the UK culture'*
- An energy/utility company representative agreed with the parish councillor, pointing out that his / her experience of BT suggests that *'one part of it cannot talk to the other'*
- A parish councillor made the point that if something fails the *'supplier should pay the cost'*

11.4. Q17. Which of the following options would you like to see in WPD's plan?

Option 1: (Now) Telephone operators and automated messages to respond to calls at no extra cost

Option 2: Now plus 2-way text messaging (report a problem & receive information) at a cost of £3m (2p per customer per annum)

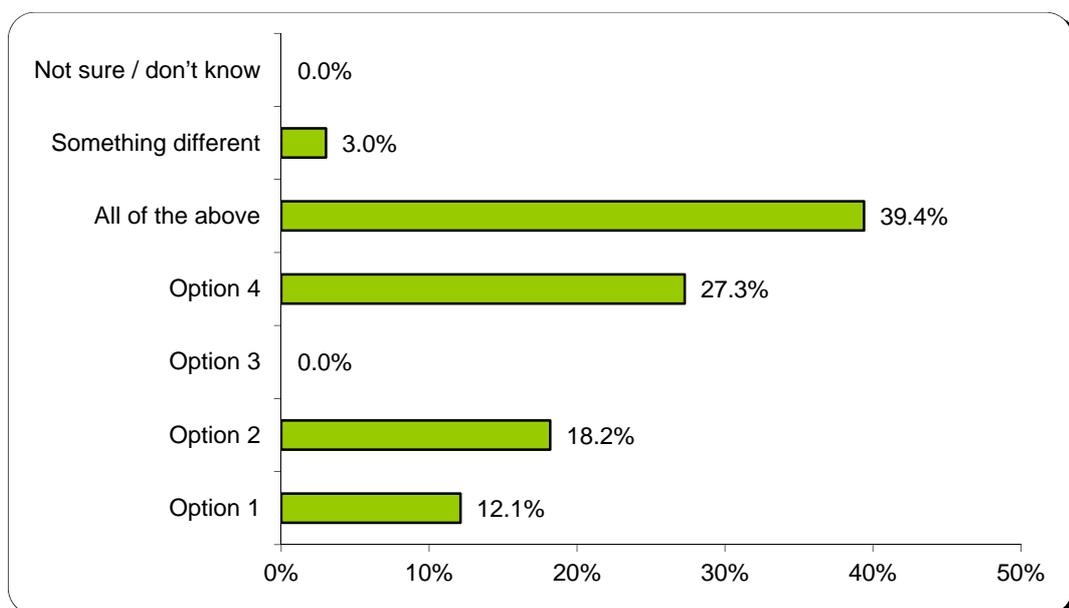
Option 3: Now plus social media channels at a cost of £3m (2p per customer per annum)

Option 4: Now plus real-time outage info on the website at a cost of £2m (1.5p per customer per annum)

Option 5: All of the above

Option 6: Something different

Option 7: Don't know / not sure



11.5. Additional comments

Table 6

- A developer/connections representative said *'no extra money should be spent on communications than is already spent'*
- A business customer representative interjected that *'70km is a very small distance for undergrounding'*
- A business customer representative made the point *'that WPD does not need planning permission for undergrounding'*
- A parish councillor said s/he has three planning applications for 500 houses and new developments and that *'the lines would automatically go underground'* as this is the *'obvious preference'*
- A developer/connections representative stated that small and considered efforts are best
- A business customer representative mentioned that delivery is the result s/he needs so WPD needs to do it well

12. Low carbon investment

12.1. Issue 1. Are our assumptions reasonable for a 'best view' scenario?

Table 1

- An energy/utility company representative commented *'insulation is a very important issue to start with'*
- An energy/utility company representative was of the opinion that *'I think that electric cars will be taken up'*
- A stakeholder stated *'I think take-up will be slower if the economic situation stays the same'*
- A developer/connections representative made the point that *'the cost of buying certain electric cars is not cost-effective or realistic'* and that *'government subsidies would be the best way forward for uptake'*
- A stakeholder said that for the uptake in green technology WPD would *'have to take the lead and WPD has to assume that it will happen or you stop it yourself'*
- A stakeholder made the point that *'most new builds don't have large enough gardens for heat pumps, there are also legal issues involved with heat pumps'*
- Another stakeholder commented *'it is a government issue as they have to direct the change through incentives and guiding law and regulations'*
- A stakeholder stated *'security of supply is equally an important issue for me'*
- A stakeholder commented *'one thing surprised me is that there is no talk of marine renewables; if wave power is ever going to take off it will be in the south west'*
- A stakeholder made the point that *'South West Marine Energy Park; would like to see more participation with WPD'*

Table 2

- A business customer representative stated that *'best view'* depends on what the Government *'imposes'* on suppliers. S/he was of the view that DNOs were also dependent on which way government steers them. S/he could not see an appetite for smart meters among the general public, especially if they are expected to pay for them. S/he concluded that it was difficult to judge
- A developer/connections representative said *'it's a double whammy because DNOs don't own meters, they might be asked to install them but the customer will end up paying for them'*. When discussing alternative energy sources, s/he was of the view that CHP sources could be useful if it was easier to get planning permission for them and that PV

added to council properties offered a realistic benefit, although s/he felt that there was less of an incentive for private owners to adopt this technology

- A parish councillor was of the view that WPD's ambitions were *'optimistic'*
- A business customer representative suggested that WPD should adopt Scenario 1
- A parish councillor commented that *'this was dependent on the development of technology'*
- A business customer representative stated that WPD *'needs to worry about urban areas when it comes to electric car charge points'*
- Another business customer representative said *'I think you should introduce charge points slowly'*
- A business customer representative was of the view that *'saving energy was more attractive for businesses if it boosts profit margins and that businesses have sustainability on their agenda much more than before'*
- A parish councillor commented that *'we use far too much electricity, too many gadgets, people need to get back to reality'*

Table 3

- A business customer representative explained that s/he recently saw an electrical vehicle charging point for the first time in Bristol
- A stakeholder added that there are 16 charging points in Bristol
- A business customer representative wanted to know what WPD's responsibility is with electric vehicles: *'does WPD have a remit to put in so many charging points per head?'*
- A stakeholder explained that s/he has currently seen free public charging points. However, if more and more people take up electric cars it won't stay free for long. S/he felt that free charging points are an incentive to use electric vehicles at the moment
- A developer/connections representative felt that *'there has to be an incentive to buy an electric vehicle'*
- A developer/connections representative explained that Denmark has the same low carbon goals and *'there hasn't been a high uptake of electric vehicles there?'*
- A stakeholder added that s/he has driven a Prius Hybrid as a company car
- A parish councillor stated that *'there are high capital costs with heat pump stations and few people will put them in by themselves without subsidies'*
- A local authority/council officer added that s/he installed PV when an incentive was introduced

- Another local authority/council officer pointed out that *'electric vehicles will not take off as the Government get a lot of revenue from petrol taxation which will leave a huge revenue hole for the Government'*
- A local authority/council officer stated that *'there needs to be joined-up thinking between the different government departments and a longer-term target rather than the 5 year term of a government'*

Table 4

- A parish councillor commented that on his / her property which is a cottage with solid walls and holds heat well. S/he stated that having the windows replaced *'greatly improved the level of insulation'*
- A local authority/council officer was of the view while double-glazing does improve insulation s/he hates *'the lack of air available in properties'*
- A parish councillor asked if occupants still need to *'gain planning permission for outside changes to be made on the property'*
- A local authority/council officer pointed out in urban areas solid walls are a problem as they are built with *'poor or no foundations'*. S/he also stated old Victorian terraces are poorly insulated
- A local authority/council officer commented in the future there will be *'a lot of high technology advances made due to so much government funding being available'*
- A business customer representative asked if the *'same incentives'* were available for those who have solid walls compared to cavity walls. S/he was aware only cavity walls can be insulated for free
- A local authority/council officer was of the view that by 2030 option 1 would to have to have been completed otherwise *'houses would have to be demolished'*
- A parish councillor stated s/he was *'very sceptical'* about the targets issued and whether or not they will be met. S/he said targets in the past 50 years have been revised again and again. S/he felt *'despite electric cars being in existence for more than 40 years they have not come far in terms of technology or use'*
- A business customer representative commented *'heat pumps are good in rural areas as there is lots of room for them to set up and this is not do-able in urban areas'*
- A local authority/council officer said s/he had received *'good feedback'* from those with heat pumps. S/he stated there is an incentive of saving on fuels that are going up in price
- A parish councillor was of the opinion some people in villages are not happy to see solar panels being placed on properties as they are *'an eyesore and residents fear it could harm property prices'*
- A parish councillor pointed out in some cases *'new build are built with solar and the look and appearance of them has greatly improved'*

- The table felt overall WPD is being *'overly optimistic'* and asked how it is possible to achieve such high levels of insulation
- A local authority/council officer stated the optimism of targets does not take into consideration *'fuel costs and efficacy'*. S/he felt people are opting for solar panels to save money
- A local authority/council officer was of the view *'electric vehicles are improving'*
- A business customer representative suggested electric cars *'aren't as environmentally friendly as they appear due to nasty chemicals in the car batteries'*. S/he went on to point out *'batteries need to be disposed of every 10 years'* and another problem is the availability of electric charging points
- A parish councillor asked *'how will the customer pay for the charging of an electric vehicle?'*
- A business customer representative stated that people who have electric cars are *'charging at them at businesses and place of work'*
- A parish councillor felt that the *'smart card idea is good for smart meters'*
- A local authority/council officer commented that electric buses in Rome take *'10 minutes to become recharged as the battery is changed'*
- A parish councillor pointed out s/he is always hearing about lots of things that will happen but questions *'when they will actually occur'*
- A parish councillor suggested that the smart meter won't take off as it has been around since the 1980s and still hasn't taken off
- A local authority/council officer was of the view there is *'no money-saving bonus'* in using heat pumps as they use electricity to run so the question arises, *'where is the incentive?'*
- A parish councillor disagreed and stated *'a heat pump produces more electricity than it uses'*
- A business customer representative said s/he was wary of electric vehicles and had lots of questions but thought that heat pumps will take off
- A business customer representative was of the view scenario 2 should be a topic on its own. S/he acknowledged electric vehicles offer a lot of benefits but felt the *'biggest flaw is if you were to use it as a normal car it won't work'*
- A local authority/council officer commented electric lines from the rail network will always be more efficient than electric cars
- A business customer representative asked if rail networks can be used as distribution points for recharging smart cars

- A parish councillor felt that from all these scenarios it really depends on how many generations of electricity we have left. S/he stated if we carry on as we are we will be *'burning carbon to run electric cars'*
- A local authority/council officer pointed out importing electricity is a possibility and commented on the system in Spain which is *'transporting power out to rural parts of the country'*

Table 5

- A parish councillor felt that *'a lot of the scenarios depend on the level of subsidies the Government provides'*
- A parish councillor stated that s/he is cynical about electric vehicles as *'what is currently available will not produce the levels of uptake WPD predict'*
- A stakeholder suggested that there should a mix of all the scenarios as a final option as *'there are too many factors affecting the outcome'*

Table 6

- A developer/connections representative questioned the differing exposure to renewable energy, as Wales is being pushed towards it before England. S/he continued that *'developers are nervous about committing to renewables as they are not sure if it will work long-term'*. As a result they are adopting a wait-and-see attitude as they do what they have to but don't want to push ahead
- A parish councillor was of the opinion that *'any new building now should adhere to new regulations and be as environmentally sound as possible'*
- A business customer representative said his / her company has an energy policy to cut carbon use and is trying to get the message to its members that technology is available to help, such as smart meters. S/he stated *'some are not so willing to believe the benefits'*. S/he pointed out *'smart meters work as they expose usage, whereas some places use storage heating which is bad and boost buttons are more appropriate'*
- A developer/connections representative stated this progression is inevitable and option 1 is a good approach, it's just when Britain starts moving into this new era. S/he thinks *'there will be an increase in emphasis on rented properties as people will not be able to afford all the energy saving measures in houses as these devices will need to be retrofitted'*. S/he felt therefore there will be an *'explosion in rented properties needing energy-saving equipment'*
- A business customer representative said that *'bad heating systems cause people to move out as heating is important and landlords need to cater for people's needs'*. S/he commented *'heat pumps plug the hole'* but the cost of fitting them will put people off due to the low return
- A parish councillor mentioned s/he has a full range of constituents and the newer properties have technology and insulation. S/he has cavity walls and insulation and thinks they are beneficial

- A business customer representative interjected that other heat generators are available so the renewable effect has to be attractive to consumers for them to take it up willingly
- A business customer representative voiced that by 2023 it is very unlikely electric cars will have been taken up
- A developer/connections representative made the point that battery life needs to be extended for people to take electric cars up
- A parish councillor asked *'will there be three-phased supplies for electric cars as single-phasing supplies are possible but it's the volume of supply that will be the problem?'*
- A developer/connections representative said the complication is that scenario 4 is begging for failure: very lofty ambitions but too ambitious. S/he also queried who would purchase the carbon credits. S/he commented *'if consumers will have to purchase the credits they might be more willing to adopt energy-saving measures'*
- A business customer representative agreed, *'especially with inflation squeezing bills then anything to reduce bills is worthwhile'*
- A parish councillor commented that with solar and PV people s/he had spoken to are *'quids in'* thanks to the feed-in tariff and those who took it up early benefitted

Table 7

- An energy/utility company representative said that *'whichever one you pick it's going to be wrong'* and that *'scenario one is as reasonable as any other'*. S/he went on to say that *'this far out you cannot say what's going to happen, not least if the Government plans to incentivise something'*
- A business customer representative made the point that *'there are things that can be done that are not grid related'* and that WPD need to be *'thinking outside of its remit'*
- A business customer representative was of the opinion that WPD's LCNF trials were *'very prescriptive'*
- A business customer representative stated that s/he thinks that *'if WPD see an issue, I expect them to push Government to deal with it'*
- A stakeholder commented that his / her organisation is *'making major changes and winning awards for the work they are doing'*. However, the organisation cannot *'get payback on insulation'*
- A stakeholder was of the opinion that the Government is *'being populist on energy prices and it should be making it more expensive so that customers see larger benefits'*
- An energy/utility company representative discussed the point that WPD is exposed to not just what the national Government does but also local government. For example, in London it is cost-effective to have an electric car because of the congestion charge

- A business customer representative stated that the social housing market is where his / her organisation will be targeting its sales of LEDs and heat pumps. S/he suggested that WPD will therefore have the *'problem of clustering'*
- A stakeholder articulated the view that builders are going to have to look at ways of setting as they do not currently have the technology to make their homes zero carbon
- A business customer representative was of the opinion that *'heat pumps may be more successful in areas where PV has failed because of difficulties with mortgage owners'*
- An energy/utility company representative concluded that it is *'ultimately national or local government that will drive the growth of these through incentives'*

12.2. Issue 2. If you had greater visibility of your energy use (e.g. smart meters), what impact do you think it would have on your behaviour?

Table 1.

- A developer/connections representative said *'I installed a monitor in my home, and it has changed my lifestyle'* but did concede *'If did change my life for a little bit but eventually I lost interest and only made very small changes'*
- A stakeholder commented *'my suspicion is that this will help customers save a bit of money but won't affect the amount of peak demand'*
- A developer/connections representative made the point *'I think it is too complicated to have a tariff system but if a tariff was in place then it would need to be very simple'*
- An energy/utility company representative pointed out that *'demand side response is difficult, as people have regular work and come back at a certain time, it would unfairly punish someone for having a certain job and others would get unfair benefits'*
- A stakeholder stated *'it's reasonable that the current view in terms of demand side response is correct and it will take 20 years before they might turn in to a useful system'*
- A developer/connections representative questioned smart meters, saying *'I don't know how useful a smart meter will be in driving change'*
- A stakeholder was of the view that *'in around 2020 you may just start getting these smart fridges and so on but in the short term there will be very limited take-up'*
- An energy/utility company representative made the point that *'the only way is to get manufacturers to change via regulation'*

Table 2

- A business customer representative stated that *'I have a smart meter and I'm always worried about what's making it tick, it's made me much more aware of what consumes energy'*

- Another business customer representative stated that *'I think it'll have a limited impact because people have a higher standard of living generally, it will have a huge impact on people at the lowest level due to the costs, it's those people that will watch their usage the most'*
- A business customer representative added that *'if you're in a house where you're watching expenditure, maybe a smart meter would make a difference'*
- A developer/connections representative thought that the situation was *'more complicated than that'*
- A business customer representative stated that *'smart meters are a bit like electric cars, they're a gimmick to start with but after a while they'll become the norm'*
- The table concluded that the response to smart meters depends on income, supply and demand

Table 3

- A business customer representative stated that if WPD can get more power going through a cable it will make the price cheaper
- A parish councillor explained that s/he was involved in a project with a local university where they asked *'would customers change behaviour if they could see how much they were using'*. The project found that customers would only do it for a short period of time
- A parish councillor stated that s/he is concerned about demand control on domestic consumption as *'WPD may be able to ask someone to do their washing at a different time but customers can't be forced in all aspects of their life'*
- Another parish councillor felt that *'there is an incentive to change your behaviour if there is an off-peak tariff'*
- A parish councillor suggested that for most people they *'can't be bothered'* to change their behaviour as electricity isn't a major cost for them or if it is *'they just accept that they need electricity so have to pay'*
- A parish councillor felt that it is difficult to ask commercial customers, particularly manufacturers, to change the times that they use electricity
- Another parish councillor felt that very few commercial / industrial customers will change their energy behaviour as electricity cost are not a massive overhead for them

Table 4

- A parish councillor felt *'people's behaviour will change'*
- A local authority/council officer asked *'what does a smart meter do?'*

- A parish councillor commented in order for customers to really benefit they will need to manage the times that electricity is used to benefit from the cheaper tariffs. S/he stated s/he was not sure if technology is advanced enough for all tariffs to work

Table 5

- A local authority/council officer said that s/he agreed that it would have an impact on children because *'if you could actually show kids something that is physical, they could be educated about energy use'*
- An energy/utility company representative stated that *'a lot more education is needed in schools'*
- A local authority/council officer was of the opinion that WPD is going to penalise those who work normal working hours. S/he went on to say that this is not practical because *'you have to do certain tasks when you have to do certain tasks'*
- A developer/connections representative commented that s/he *'would be too scared to leave appliances on overnight'*
- A local authority/council officer said that s/he wanted to be able to pay a standard tariff for his / her electricity use because *'electricity is a basic human right'*
- A developer/connections representative made the point that this is a *'huge cultural change'*
- A local authority/council officer said that *'if you are doing a more normal 9-5 job it's going to be very ugly. How is this ever going to work?'*
- A developer/connections representative stated that s/he had quite a few properties that are on the grid. S/he added that this is a particular problem for the elderly as it has implications on public health
- A parish councillor commented that s/he was *'from a generation that if you want to save energy then you turn the light off'*
- A parish councillor made the point that if everyone was charging at the same time then this would become peak overnight
- An energy/utility company representative said that *'the cars and technology are out there but they are extremely expensive'*
- A parish councillor said that s/he is *'mindful that you are trying to work to a scenario that has been given to you by the Government. The danger is when you get a new Government they may have a different policy'*
- A parish councillor stated that there is *'a danger that people promise the earth but cannot deliver'*
- Another parish councillor was of the opinion that a factory owner would look at their bills and want to cut costs anyway; they do not need a meter to tell them that

- An energy/utility company representative commented that with a *'smart meter you are paying for what you use'*
- A parish councillor said that smart meters are a *'novelty thing, you don't go out every 20 minutes to check it'*
- A business customer representative was of the opinion that *'we will see more renewable heat and energy because there are incentives for people to use them'*
- An energy/utility company representative said that *'everybody wants to save money so everyone wants to be more efficient'*
- A business customer representative commented that *'while there is a recession these are a priority but when times get better the gains you make through some of these things might tail off'*
- A parish councillor questioned who would pay for smart meters and asked *'what would WPD do with the data collected from smart meters?'*
- A parish councillor thought that the roll-out of smart meters *'is a fantasy'*

Table 6

- This question was not discussed

Table 7

- A business customer representative said that the slow uptake of smart meters has been because of *'indecision by the government'*
- An energy/utility company representative declared that his / her company has a *'number of people'* on a smart meter trial programme and that there have been *'lots of interesting results on other trials'*. S/he gave a trial in Ireland as an example where customers *'shifted their load, but their overall consumption went up because they were using the dishwasher more as they felt they had to use it every night'*
- A stakeholder commented that with a smart grid *'electricity prices will vary. Whether that will change the load or just shift it, time will tell'*
- An energy/utility company representative made the point that if suppliers are funding smart meters, s/he would be *'interested to hear what they are going to get in return'*
- A parish councillor stated that a local school has a smart meter and that *'the children are totally on board'*
- A business customer representative discussed the results of a European study which showed smart meters *'went in to a drawer after six months but the behaviours had been learnt so there was no need for it anymore'*
- An energy/utility company representative was of the opinion that the *'older generation are already quite astute when using electricity'*

- Another energy/utility company representative articulated that *'most of the cars on the market at the moment are either plug-in or hybrid'*. For him / her and the journeys s/he makes the vehicle *'would have to be a mixture of petrol and electricity'*
- An energy/utility company representative commented that *'if you go around London there has been an effort to make changes to the infrastructure to deal with electric cars'*
- A business customer representative responded, saying that *'charging points are not the problem though, it's dealing with the loads'*

12.3. Issue 3. Do you agree that customers should not see an increase in power cuts as a result of introducing smart grid technologies?

Table 1

- An energy/utility company representative said *'I don't think we would want power cuts'*
- A stakeholder made the point that *'the majority of people get no power cuts, if it moved to the average of one power cut a year, I would be okay with that, if we are benefiting the environment'*
- A developer/connections representative commented, *'I thought a smart grid was supposed to fix it rather than cause more problems'*

Table 2

- A developer/connections representative said *'the smart network should mitigate a lot of the problems with heating networks and billing regimes will incentivise good behaviour'*
- A business customer representative stated that *'presumably businesses are the biggest user of electric energy, it makes sense to implement a demand-side response'*
- Another business customer representative was of the view that *'it depends on where wind generators are, they're more popular in rural areas, less in urban and I'm surprised at how many solar panels are going on roofs'*
- A parish councillor commented that there was a lot to be gained from tidal energy and asked about what was happening with the Severn barrage
- A parish councillor added that *'we're sitting on the second highest tide in the world, it seems ludicrous to waste it although tidal is more difficult to achieve than solar and wind'*. S/he commented on the level of opposition towards wind farms and that broadly renewable will not be an easy measure
- A business customer representative stated that *'the technical issue with solar is trying to get it when it's needed'*
- The consensus was that WPD was optimistic about the take-up for renewables and electric cars. Most agreed that it depends on the provision of incentives

- Everyone agreed that people that were less well-off would be more aware of metering and that demand-side response was useful for businesses

Table 3

- This question was not discussed

Table 4

- This question was not discussed

Table 5

- A local authority/council officer said that *'as a general rule we should embrace new technologies'*
- A developer/connections representative commented that s/he presumed that *'it will be piloted anyway'*
- A developer/connections representative stated that if it poses a risk to the end-user then *'this risk should be communicated without a doubt'*
- An energy/utility company representative said that *'going forward you can expect fewer power cuts but whilst WPD making the changes there may be more power cuts'*

Table 6

- A developer/connections representative was of the opinion that it is unfair for WPD to have one rule for commercial customers and one for residential. S/he can see the benefits of testing it commercially but it would not be fair
- A business customer representative countered that South Staffordshire Water turned off water to save money on electricity. S/he said if there was a good monetary benefit then consumers might consider it
- A business customer representative said s/he was looking at LED lighting, which conservationists *'love'* as it produces a better light for reading as it also comes on quickly and it is bright
- A developer/connections representative thought it should be possible to have remote-controlled lighting so lights are only on when people are in the rooms. S/he also felt low-level lighting in the evening should also be enforced. S/he said these efficiencies are possible and technology helps; as Wi-Fi libraries *'which allow consumers to switch their downstairs lights off with their phones should be investigated'*
- A business customer representative was of the opinion that *'consumers should be able to borrow money to implement green systems'*
- A parish councillor made the point that the public will be against change if costs will go up as a result. S/he was of the view *'most people are environmentally conscious but there is a line due to cost or inconvenience'*. S/he pondered whether voltage could be reduced during quiet times and whether WPD could do this on some networks?

- A business customer representative said *'there is a significant outlay upfront so people should be able to spread the cost'*
- A parish councillor commented the change in street lighting from orange to clear shows the environmental push
- A parish councillor stated that *'some areas are being forced to use renewables more than others and this will save money for those customers who will experience renewable energy compared to those who don't?'*
- A developer/connections representative said it was hard to comment about WPD's plans as it is too hard to predict as new technologies and population growth will affect these plans
- A business customer representative said *'WPD needs to make sensible plans to meet demand'*

Table 7

- This question was not discussed

12.4. Any other comments?

Table 1

- An energy/utility company representative said *'I would definitely change my behaviour if there was smart technology that could do the work for me'*
- A stakeholder was of the opinion *'if my bill was going up and I was told it was because we are leading the way on carbon issues I would be pleased and have no issue'*

Table 3

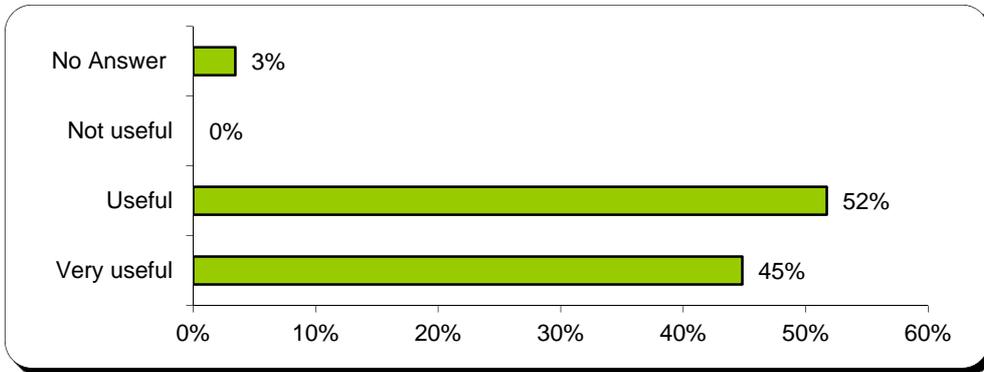
- A local authority/council officer pointed out that in a city like Bath with Georgian buildings *'residents will not get the go-ahead to carry out solid wall insulation'*
- A parish councillor added that *'most of the problem buildings are old buildings and people are not going to change the appearance of their house'*
- A parish councillor felt that *'heat pumps and PV are not comparable'*
- Another parish councillor suggested that *'PV is a win-win situation as it doesn't cost much for a customer to do'*
- A local authority/council officer stated that low carbon technology take up is *'all about subsidies'*
- A local authority/council officer stated that s/he has PV panels which has changed his / her behaviour

- A stakeholder felt that *'low carbon technology usage is all about culture, for example Economy 7 affected customers' behaviour*. S/he also drew comparisons between recycling now being the norm and the take-up of low carbon technologies in the future
- A business customer representative suggested that if WPD charges different tariffs which customers can recognise via a smart meter, then *'that will incentivise people to use energy at different times of the day'*
- A parish councillor pointed out that different tariffs could be a social issue as the fuel poor would be disproportionately affected by different charging tariffs
- A business customer representative suggested that people should just change their behaviour, *'such as putting a jumper on'*
- A developer/connections representative pointed out that with PV *'you get money back for the energy you generate'*

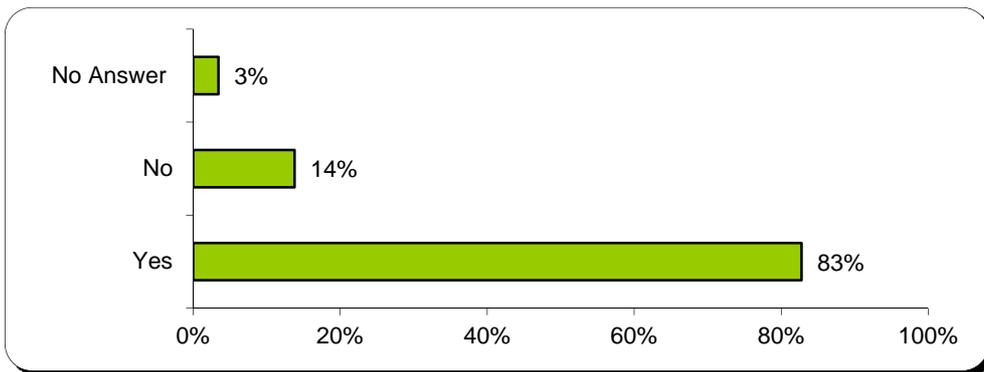
A developer/connections representative felt that take-up is dependent on making it easy for the customer to understand the smart meter and how it will benefit them. S/he felt that *'saving money is a good incentive'*

13. Stakeholder feedback

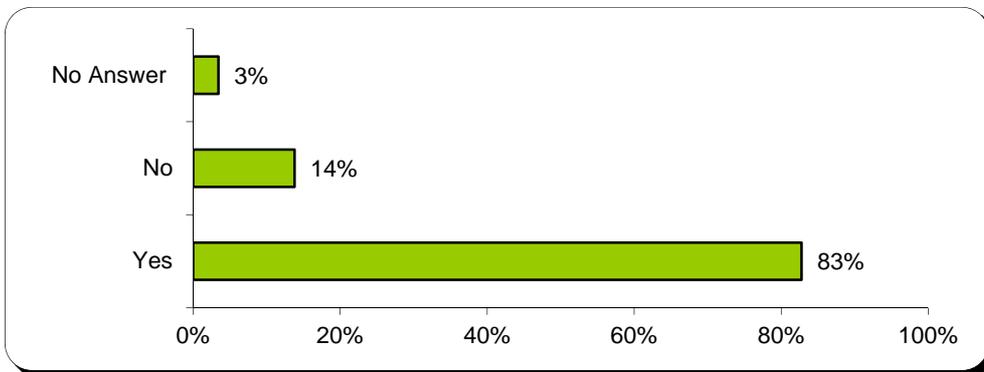
13.1. Q1. Did you find the workshops useful?



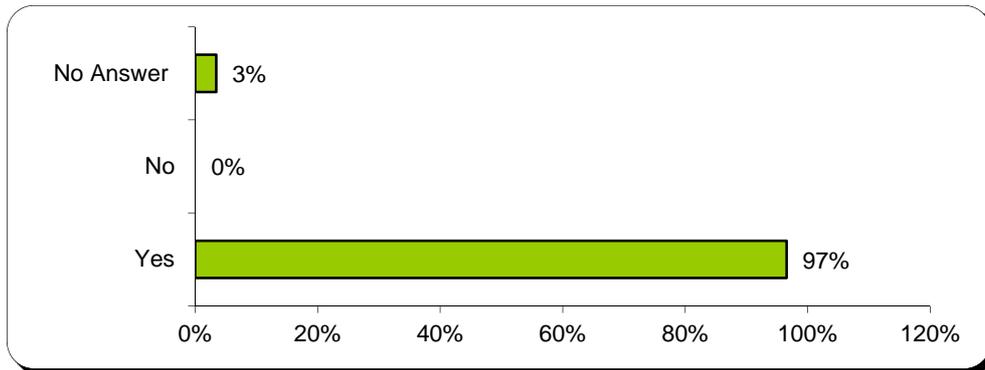
13.2. Was the venue conveniently located for you?



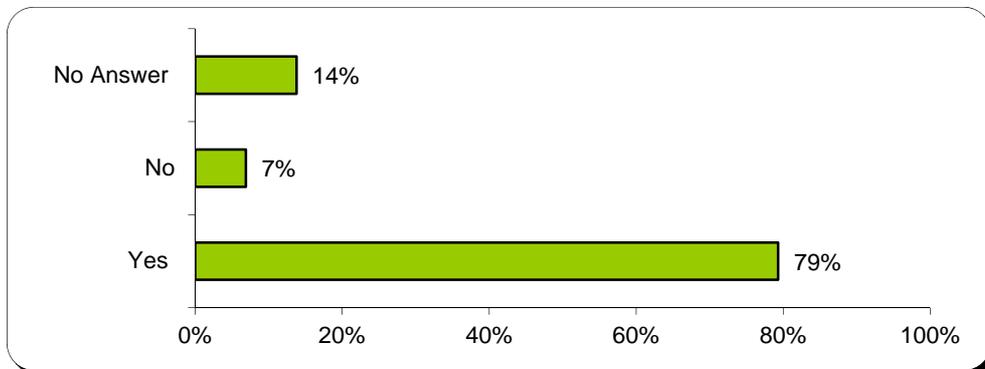
13.3. Did we provide enough information at the workshop?



13.4. Did you feel you had sufficient opportunity to express and discuss your views today?



13.5. Did you feel we covered the right topics?



13.6. Written feedback

A number of stakeholders left written comments on their feedback forms. A selection of these comments is shown below:

- *"Great discussion sessions, well facilitated"*
- *"Alex Wilkes is very good at engaging stakeholders"*
- *"Just the right balance"*
- *"Good range of topics to be considered. Pleased to see unplanned interruption question was extended"*
- *"Good cross section of industry present. Differing and valid viewpoints"*
- *"Very informative and very helpful"*
- *"Some of the questions were posed too simplistically for me to make an informed judgement e.g. result of speed on power outages"*
- *"Informative of future progress of WPD in region, national issues and best way forward"*
- *"Excellent chairing and sufficient time given"*

- *"Well structured"*
- *"WPD decisions on key invest areas-could have done with a bit more preamble/build-up"*
- *"Overall an improvement on the 2 previous 2 events I attended"*
- *"More break downs rather than everything 'average' is needed"*
- *"Discussions and electronic voting good"*
- *"Covered all of the areas I expected with much greater depth"*
- *"Habitats and species impact-as an ecologist would have been a useful, interesting topic for myself"*
- *"Would have been useful to know what is covered in RIIO"*
- *"Good coverage, varied and thorough context"*
- *"Enjoyed the interaction"*