

Stakeholder workshop report: Birmingham

7th November 2012



1. Contents

1.	Contents.....	2
2.	Introduction	4
2.1.	Date and location.....	4
2.2.	Attendees:.....	4
3.	Executive summary.....	8
3.1.	Feedback from participants	8
3.2.	Topics for discussion	8
3.3.	Feedback summary	8
4.	Issue 1. Power cuts	10
4.1.	Q1. Reducing the number and average duration of power cuts should be one of WPD's highest priorities	10
4.2.	Comments.....	10
4.3.	Q2. Power cuts: Which of the following options would you like to see in WPD's plan?.....	16
5.	Issue 2. Severe weather / emergency resilience	17
5.1.	Q3. A tree trimming programme to reduce the risk of power cuts during storms should be a high priority for WPD	17
5.2.	Comments.....	17
5.3.	Q4. Severe weather resilience: Which of the following options would you like to see in WPD's plan?.....	21
6.	Issue 3. Flooding:.....	22
6.1.	Q5: Protecting substations against the risk of flooding should be a high priority for WPD:	22
6.2.	Comments.....	22
6.3.	Q6. Protection against flooding: Which of the following options would you like to see in WPD's plan?.....	25
7.	Issue 4. Oil and gas leaks.....	26
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?	26
7.2.	Comments.....	26
7.3.	Q8. Reducing oil and gas leaks: Which of the following options would you like to see in WPD's plan	28
8.	Issue 5. Worst served customers	30
8.1.	Q9. Improving service for our worst served customers should be one of WPD's high priorities:	30
8.2.	Comments.....	30
8.3.	Q10. Service to remote customers: Which of the following investment options would you support?.....	36
9.	Issue 6. Undergrounding in national parks and AONBs.....	37

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)	37
9.2.	Comments	37
9.3.	Q12. Which of the following options would you like to see in WPD's plan?.....	40
10.	Issue 7. New connections – process speed	42
10.1.	Q13. The current time taken from first contact to completed connection is acceptable	42
10.2.	Comments	42
10.3.	Who do you think should pay for new connections improvements?	46
10.4.	Q14: Which of the following options would you like to see in WPD's plan?	47
11.	Issue 8. Innovative customer communications.....	48
11.1.	Q15. Which of the following options would you like to see in WPD's plan?.....	48
11.2.	Q16. Innovating the methods by which customers can communicate with us should be a medium priority for WPD.....	49
11.3.	Comments	49
11.4.	Q17. Which of the following options would you like to see in WPD's plan?.....	52
12.	Low carbon investment	53
12.1.	Issue 1. Are our assumptions reasonable for a 'best view' scenario?	53
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?	58
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??.....	62
12.4.	Any other comments?.....	65
13.	Stakeholder feedback.....	66
13.1.	Q1. Did you find the workshops useful?	66
13.2.	Was the venue conveniently located for you?	66
13.3.	Did we provide enough information at the workshop?	66
13.4.	Did you feel you had sufficient opportunity to express and discuss your views today?.....	67
13.5.	Did you feel we covered the right topics?	67
13.6.	Written feedback.....	67

2. Introduction

2.1. Date and location

The stakeholder workshop took place on 7th November 2012 at Villa Park (Aston Villa FC), Trinity Road, Birmingham B6 6HE

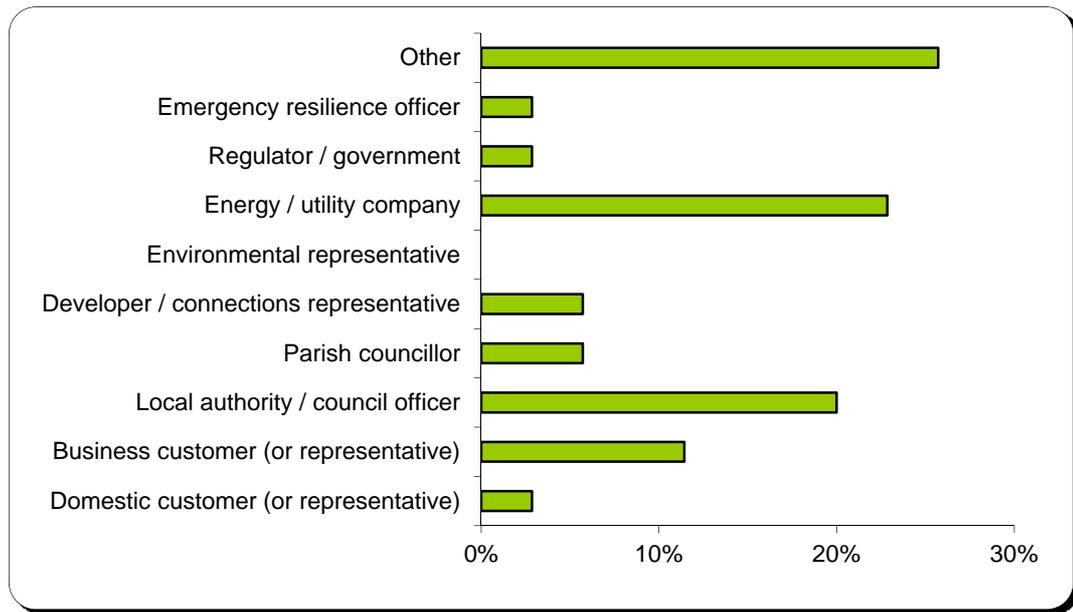
2.2. Attendees:

37 stakeholders attended the Birmingham workshop. The details of all attendees are shown below:

- Cllr Adrian Colwell - Head of Strategic Planning and the Economy, Cherwell and South Northants District Councils
- Mr Alan Higginson - Senior Electrical Engineer, Wessex Water
- Mr Alastair Lawry - Engineering Design Manager, Estate Office@Warwick University
- Mr Andrew Bryers - Energy Manager, Aston University
- Mr Andrew Cross - Lecturer, Aston University
- Anne Walker - Assistant AONB Officer, Cannock Chase AONB
- Mr Anthony Langhorn - Quality and Standards Manager, Scotia Gas Networks
- Mr Bernard Dunn - Engineering Manager, Barratt West Midlands
- Mr Chris Flynn - Divisional Director, Riverside Group
- Mr Chris Waller - Sales and Marketing Director, Applied Superconductors Limited
- Mr Colin Strong – Director, New World Solar Installations Ltd
- Mr Daniel Hickman - Forecasting Analyst, RWE Npower Plc
- Mr Darren Oakley - Principal Planning Officer, Telford & Wrekin Council
- Mr Dave Whittle - Emergency Planning Officer, Coventry City Council
- Mr Graham Muir - Procurement & Contract Manager, MES Environmental Ltd
- Helen Ewing - Energy Support Advisor Energy Advisor, Severn Trent Water
- Mr Hugh Conway - Electricity Group Chairman, MEUC Ltd

- Kirstine Wood - Community Liaison Manager, Scottish and Southern Energy Power Distribution
- Prof. Lee Chapman - Senior Lecturer, University of Birmingham
- Dr Luis Ochoa - Lecturer, The University of Manchester
- Lynn Wilson - Stakeholder Engagement Manager -SP Energy Networks
- Cllr Mike Pengelly - Chairman, Tutnall and Cobley Parish Council
- Mr Mike Whittingham - Customer
- Mr Nick Dunn - Business Development Manager, S&C Electric Europe
- Mr Nigel Sprouston - Sales Manager, Acrastyle Limited
- Mr Oliver Burstall - Chief Operating Officer, Sentec
- Mr Owen Turrell - Business Development Manager, Electralink
- Mr Paul Hemsley - Regulation Manager, Scottish and Southern Energy Power Distribution
- Mr Pete Johnson - Resilience & Emergencies Division (Central), Department for Communities & Local Government
- Mr Peter Simpson - Strategic Planning Officer, Sandwell Metropolitan Borough Council
- Mr Richard Clemson - Street Lighting Supervisor, Ringway Infrastructure Services
- Cllr Rob Parry - Councillor, Steeple Langford Parish Council
- Sarah Evans - Strategic Infrastructure Delivery Manager, Milton Keynes Council
- Mr Simon Connor - Business Development Manager, Encraft
- Cllr Stephen Clarke - Chairman of Development Control, Cherwell and South Northants District Councils
- Mr Steve Jones - Sales Director, S&C Electric Europe
- Mr Richard Clemson - Street Lighting Supervisor, Ringway Infrastructure Services

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
- Lee Wallace
- Neil James
- Dave Park-Davies
- Nicki Johnson

Green Issues Communiqué

- James Garland - Director (Workshop Facilitator)
- Nick Bohane - Executive Director (Workshop Facilitator)
- Emma Webster - Associate Director (Workshop Facilitator)
- Harry Hudson - Associate Director (Workshop Facilitator))
- Ian Biddulph - Consultant (Workshop Facilitator)

- Lorna Campbell - Consultant (Workshop Facilitator)
- Richard Coleman - 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

- 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'
- 24 of the 26 stakeholders who answered the question told us we had provided enough information on the day and 25 of the 26 stakeholders who left feedback told us we had covered the right topics

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

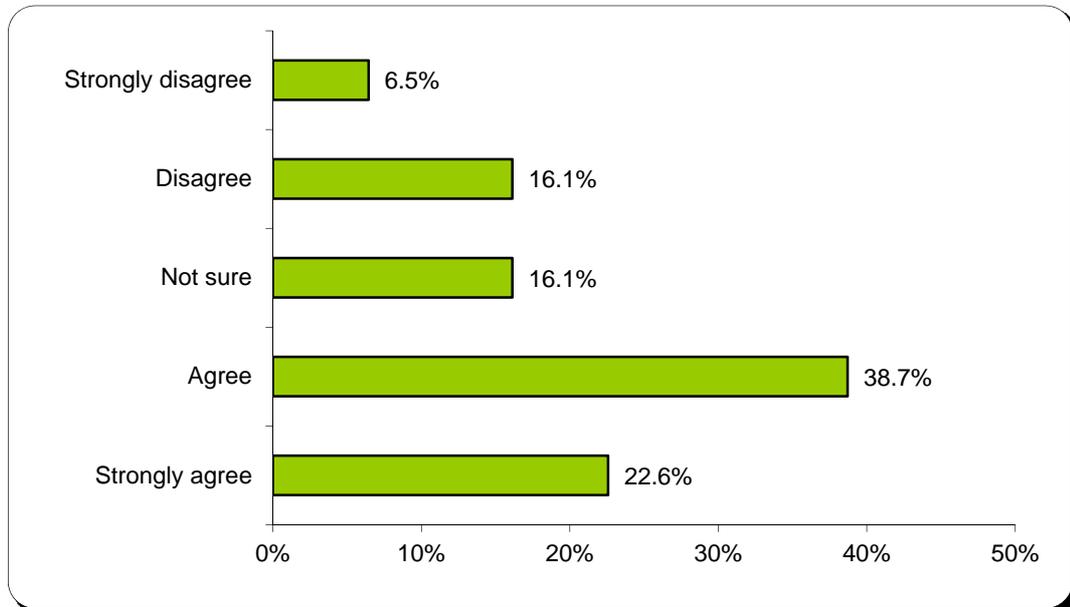
- Almost two thirds of stakeholders were of the view that reducing the number and average duration was a high priority for WPD. There was considerable support (almost 80% of stakeholders polled) for WPD's proposals to reduce the average frequency to 7.75 per 10 years and the average duration to 52 minutes
- It was widely agreed that severe weather resilience is an important issue and it was noted that unpredictable weather is likely to be more of a problem in the future. Although over 40% agreed with WPD's proposed approach with regard to tree trimming, over half of stakeholders polled were of the view that the company ought to go further
- Over 80% of stakeholders polled either 'agreed' or 'strongly agreed' with the statement: 'protecting substations against flooding should be a high priority for WPD'. It was commented that including better flood defences in future assets would be necessary. Half of stakeholders polled agreed with WPD's proposals to remove the worst affected

100 substations from risk, although almost the same proportion were of the view that the company should go even further

- With regard to the issue of oil leaks from fluid-filled cables and SF6 gas leaks from equipment a high proportion of stakeholders told us that this was not an issue that directly affects them. 60% of stakeholders stated that WPD's proposals to replace the worst 1% of equipment with the highest leakage rate was the most appropriate approach
- Almost two thirds of stakeholders either 'agreed' or 'strongly agreed' that improving service for our worst served customers should be one of WPD's high priorities. It was commented that rural customers are more accepting of lower levels of service than urban customers although it was not agreed that rural customers should be expected to tolerate this. Although opinion was divided on this issue, WPD's proposal to reduced the number of 'worst served' customers from 10k to 6k was the most popular option when stakeholders were polled
- Over two thirds of stakeholders polled 'disagreed' or 'strongly disagreed' with the statement: 'replacing overhead lines with underground cables in national parks should be a high priority for WPD'. For many, this was not a pressing issue when placed in the context of all the other topics for discussion. Fewer than 20% of stakeholders agreed with WPD's proposals to underground 70k of overhead lines and 40% were of the view that the company should actually do less
- The majority of stakeholders were of the view that current process speeds for new connections are acceptable. It was noted that, as long as timeframes were communicated well to developers and local authorities, the current process speeds of 90 days for large connections and 30 days for small connections should remain as they are. It was widely agreed that new connections customers should pay for new connections themselves
- There was a good deal of support for the introduction of online job tracking for new connections. It was broadly agreed that innovating the methods by which WPD communicates with its customers was very important. When asked to choose which service they would like to see included (such as telephone operators and automated messages to respond to calls; two-way text messaging; social media channels; and real-time outage info on the website), 50% of stakeholders polled said 'all of the above'
- When asked to comment on WPD's best view with regard to the transition to a low carbon economy, a number of stakeholders were of the view that projections for the take-up of electric vehicles, especially, were overly optimistic. It was commented that improvements to insulation in new build homes was very important
- There was a certain amount of scepticism from stakeholders with regard to the take-up of smart meters. The view was widely supported that these would have a greater impact if customers could see the financial benefits
- There was a good deal of support for the introduction of smart grid technologies and stakeholders were of the view that the levels of service to customers should not suffer as a result of their introduction

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 local authority/council officer commented that *'people call us first, we are their first line of contact'*
- A local authority/council officer made the point that *'it's extremely difficult for schools not knowing when power will return'*
- A domestic customer representative was of the view that *'interruptions of less than 3 minutes have a major effect on us.'* S/he also stated a *'domestic customer wouldn't notice a change but businesses will suffer the most'*
- A domestic customer representative stated that s/he *'wouldn't think power cuts is a big issue'*
- A local authority/council officer agreed, saying *'how they are dealt with is the major issue'*

Table 2

- A business customer representative was of the view that attitudes towards power outages and service levels were dependent on *'the type of customer'*. S/he said *'as a domestic customer, when I've had power cuts I can normally handle them, if it lasts an*

hour it's fine. However, industrial customers would take a completely different view. Different customers have different expectations'

- An energy/utility company representative agreed that the maintenance of good service levels was more important for business customers than domestic customers *'as they have to fund the duration of any outages'*
- Another energy/utility company representative added that *'I've lived in both rural and urban locations and I've only ever been offline twice in 16 years'*
- A parish councillor felt that the importance of service level depends on whether stakeholders prioritise duration or frequency. S/he added that the longest s/he had experienced an outage was 1 day. However s/he believed that *'ultimately it comes down to whichever investment option is most cost-effective'*
- A business customer representative said *'I would vote for frequency because duration is not half as important'*. S/he added that a cost increase in this area would be unacceptable and that s/he did not see a big difference between the proposed frequency options
- A stakeholder added that *'the difference between 7.5 and 6 hours is negligible'*
- A business customer representative asked WPD *'how much of this is outside of your control?'*
- A local authority/council officer said *'the actual difference seems negligible, but the priority is to maintain existing service standards. As extreme weather events become more frequent, maintaining current service standards will become increasingly difficult'*. S/he felt that for this reason, Option 1 was the preferable choice
- A business customer representative made the point that it is not just power cuts that affect service levels. S/he that felt that the discussion did not address other important services such as related issues like voltage dips and fluctuations. S/he asked, how WPD *'define a power cut?'*
- The table agreed that WPD should maintain its current regime when it comes to power cuts and some of the improvements suggested are negligible

Table 3

- A parish councillor was of the view option 1 was the best. S/he said *'10 years is a long time and having 3-8 power cuts is not a problem'*
- An energy/utility company representative asked what version of average has been used, *'mode, medium or mean?'*
- An energy/utility company representative was of the view *'it is not a good reflection if the majority have no power cuts and a small minority suffer 50 power cuts as the mean average will be low and will therefore only reflect the majority of customers'*

- A stakeholder commented s/he was unclear what the question was as the time scales range from 10 minutes to 10 hrs. S/he was of the opinion that *'power outages of 10 hours should be reduced to 2 hours'*
- A stakeholder asked if most people are *'susceptible to these levels of outages'*
- An energy/utility company representative stated the *'quality of power rather than the number of power outages is the problem'*
- An energy/utility company representative agreed the quality of power is a concern but felt *'power outages sit alongside the quality issue'*. S/he commented that *'if power cuts are reduced the sacrifice should not be that power is of a poorer quality as this will not solve any problems'*
- An energy/utility company representative commented on the current problems being experienced in the USA and asked *'what direction is the UK moving in?'* S/he was of the opinion that when planning up to 2025 WPD needs *'to start looking at other parts of the world and their precedents'*
- An energy/utility company representative felt that the power cuts and the quality of power needs to be looked at on an *'individual basis'*
- An energy/utility company representative asked *'how much flexibility does WPD have to change and be flexible within 5 years if they needed to adjust future plans?'*
- A parish councillor asked *'if it is worse or more extreme weather that is having an impact over time?'*
- A parish councillor questioned *'whether or not WPD was going to be able to cope with the changes in the weather?'*
- A parish councillor commented option 1 should be in place now but felt there was an option missing between 1 and 2
- Another parish councillor said that *'it is only a priority for modern establishments'*
- A parish councillor stated *'it was not an issue for where s/he lived'*
- An energy/utility company representative stated in rural areas power outages were a pain, i.e. *'freezers defrosting'*, but concluded it was not a *'massive problem'*
- A stakeholder commented suffering several outages between 10 minutes-1 hour was something s/he *'could live with but 6-7 hours was too much'*. S/he felt that the average of outages should also highlight the *'extreme cases'* as they need to be tackled more rather than the average as a whole. S/he pointed out s/he *'suffered from major problems but they are categorised as being in an area with a low average'*
- A parish councillor was of the view *'people who live in rural areas have a higher tolerance towards power outages and they accept it as they appreciate the country life perks'*. S/he commented *'those who live in towns have a different attitude'*

- An energy/utility company representative stated *'urban and rural customers need to be shown the split of figures/averages'*
- An energy/utility company representative said option 4 was good
- A stakeholder said s/he would like to see *'the average figure be split into the standard average and deviation'*
- An energy/utility company representative asked *'what happens if WPD don't deliver, would they have to pay the money back?'*

Table 4

- An energy/utility company representative explained *'that the main issue for them is if they lose supply there is a major disruption to their water service, which then becomes a big risk for them'*
- A local authority/council officer said it's more a case of *'ensuring you have the right infrastructure in place.'* S/he was of the view that power cuts are not a result of new housing demand and they *'are not a huge problem in their area'*
- A stakeholder asked if Ofgem is getting a monetary incentive to reduce this and if so *'why are they increasing costs to the consumer and not picking these up themselves?'*
- A stakeholder reasoned that these costs are actually very little to pass on to the consumer. S/he felt the costs were actually *'minimal when you look at the actual increase'*
- An energy/utility company representative recognised that what customers want is for bills to be reduced along with the number of power cut but also a reduction in the duration of power cuts
- An energy/utility company representative said s/he thought customer's levels of tolerance have changed
- Another energy/utility company representative felt that it was between option 1 and option 2 as there is a big disparity in cost but not much difference / improvement in the length of time the power will be off; so not really much difference in the choices
- A local authority/council officer was of the view that whilst it's not a big difference between the cost in option 1 and 2 when you look at the reduction in time difference this doesn't really justify the investment, so on that basis s/he chose option 1
- An energy/utility company representative mentioned that s/he found it difficult to make a choice as s/he *'didn't know how this would impact on total cost with the rest of the choices that might be made throughout the course of the day'*
- A stakeholder said that if we didn't consider the cost we would choose option 4. S/he thought to really make an informed decision *'there should be a split between urban/rural areas because the proposed changes have a greater impact and are therefore more significant in rural areas'*

- The overall consensus from the table was option 1 was preferred

Table 5

- A stakeholder commented it is difficult to make a decision as customers won't distinguish between power cuts and severe power cuts so WPD need to distinguish. S/he stated changes are negligible and continuing dependence on electricity means people will pay
- A parish councillor said *'40p doesn't sound a lot to a customer but the reduction is negligible'*. A rural customer, who is last in the chain, will still suffer. S/he said *'in order to improve the current situation new transformers and equipment are needed'*. S/he was of the view that *'urban customers who don't experience disruptions are less likely to want to pay for rural customers to be the only beneficiaries from an extra cost spread across all customers'*
- An energy/utility company representative mentioned that over the coming years the dependency on electricity will increase. S/he was of the opinion the frequency of power cuts being stated is not a true figure and felt it should be lower. S/he commented *'a bigger improvement is needed as customers are used to a high level of performance'*
- A developer/connections representative disagreed and stated current service levels are fine
- A stakeholder agreed with the above point

Table 6

- A local authority/council officer wanted to know how the increase in investment would help customers in rural areas. *'Will the rise in investment see an increase in help for these communities?'*
- A local authority/council officer asked whether the Government's priorities regarding the 'dash for growth' are reflected in WPD's investment proposals
- A local authority/council officer stated that his/her concern is *'sufficient power supply for new businesses and university technical colleges'*
- An energy/utility company representative queried how WPD classifies a *'customer'*, as someone who represents 1,000 customers is still considered a single *'customer'*. S/he explained when they have a power outage happens and his / her company tries to chase further information from WPD, found WPD to be evasive. S/he added that it is hard for companies to put contingency plans in place *'especially when they are not getting sufficient information from WPD during an outage'*
- A local authority/council officer wanted clarification that the figures being discussed were in relation to *'domestic customers'*
- A business customer representative stated that during an outage his / her company does not have a *'special contact'* from WPD; the only point of contact is an answer

phone message. S/he added that *'the longer that they are without information about the outage the longer the company is wasting power'*

- An energy/utility company representative added s/he *'can appreciate where WPD having recently taken over Central Networks, customers are having to get used to the difference and changed working methods between the two companies'*
- A local authority/council officer explained that WPD could have separate targets for domestic customers, businesses and other *'suppliers'*. S/he wondered if 1 target is sufficient
- An energy/utility company representative explained that *'the 1 given target is a Government target'*
- An energy/utility company representative raised the point that *'WPD aren't discussing planned outages in the workshops and these have a horrendous impact'*. S/he explained that *'the lack of forewarning from WPD about planned outages is an issue; switching has an impact on sensitive equipment'*
- A business customer representative added that WPD needs to be able to get *'people back on quicker'*. S/he went on to discuss G59 Generation connections and their impact on power supply. WPD hasn't explained what they need from his / her company, how it is implemented and where it affects their area. S/he stated *'the company's equipment isn't able to cope with the sensitive changes, which results in it being tripped'*
- A local authority/council officer wanted to know whether the 40p increase is in relation to the domestic bill
- An energy/utility company representative stated that s/he *'would be willing to pay more as reliability is very important for my company'*

Table 7

- An emergency resilience officer said *'as a customer this is something that is measurable to companies but I cannot see me going to my wife: "do you realise that we've had half as many power cuts in this past 10 years". Cutting a bit of time is not relevant either as the annoyance comes from it being off'*
- An energy/utility company representative was of the opinion that *'it was not worth the extra 15p to go from option 1 to option 2'*
- The general consensus on the table is that option 1 is adequate
- An energy/utility company representative stated his / her support for any of the options would *'depend on where investment is going to go'*. S/he suggested looking into *'making those in rural areas more self-sufficient'*
- An energy/utility company representative queried whether or not the statistics on power cut numbers include outages caused by the rest of the other scenarios in the morning session

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)

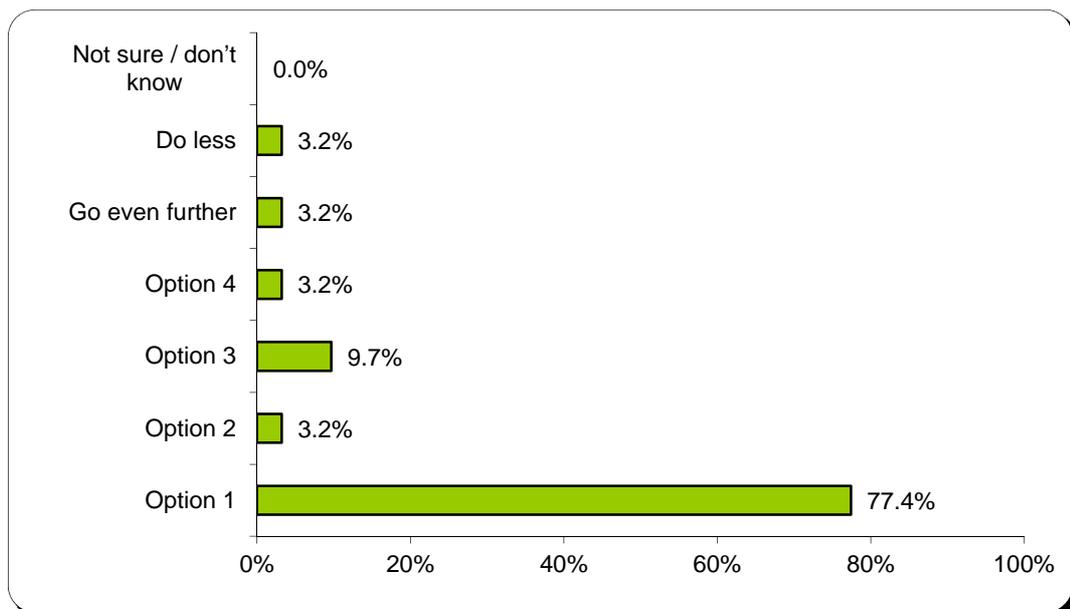
Option 3: Reduce the average frequency to 7 per 10 years and the average duration to 48 minutes at a total cost of £130m over the 8 year period (£1 on each domestic bill per annum)

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

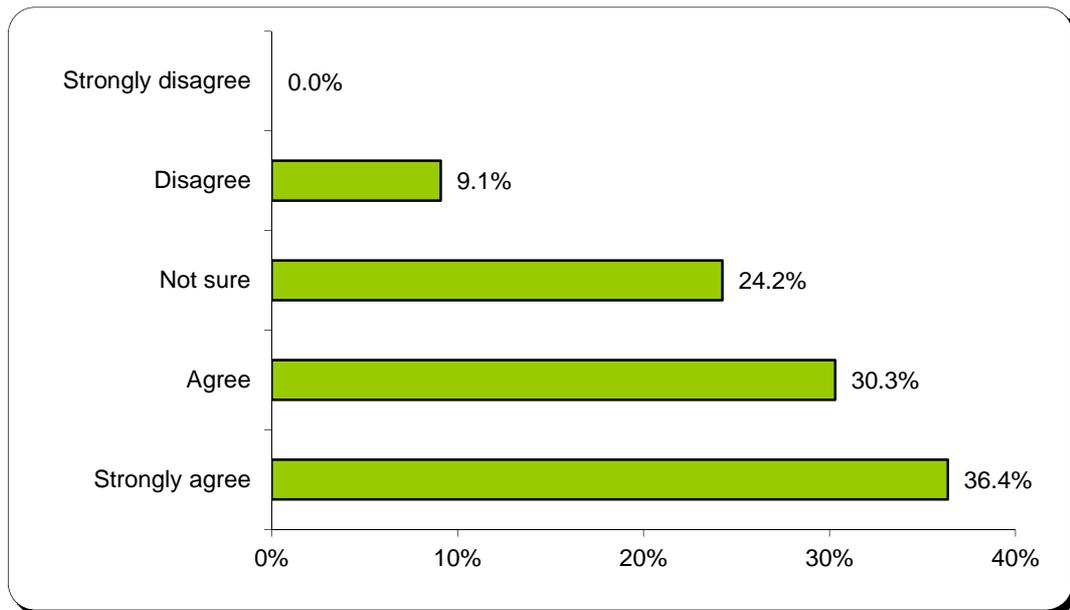
Option 6: Do less

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 questioned *'are there not any laws preventing the placement of trees near lines?'*
- A developer/connections representative commented *'we have to pay to divert if there are any overhead lines that need redirecting'*
- A local authority/council officer stated that the *'quality of power is something we have problems with, particularly over voltage causing equipment failure.'* S/he also said they have had to invest in their own monitoring equipment
- A local authority/council officer backed up his claim saying *'we get complaints about TV's and fridges blowing and tradesmen have informed us of the over voltage problems'*

Table 2

- A local authority/council officer said *'we've got loads of trees, as I understood this was resilience tree-trimming to ensure branches that snap don't come into contact with overhead lines'*

- A local authority/council officer stated that *'given the increase in extreme weather events and if you look at the distribution chart of power cuts, for me either extending or accelerating investment is a priority'*
- A business customer representative posed the question *'if you did the whole of the 25-year programme at once, what would WPD get for it?'*
- A parish councillor added *'we've had a few trees cause power cuts, but very few'*
- A business customer representative commented that *'surely there's a safety issue here and that's completely outside of today's discussion anyway'*
- A stakeholder posed the question *'how many tree surgeons have WPD got and how many can WPD employ over the next few years?'*
- A stakeholder said *'I used to work for a community forest; when you planted a tree you'd be mindful of what might happen in the future, it's about taking this into account'*
- A local authority/council officer stated that s/he favoured option 2
- A business customer representative came to the conclusion that option 1 would be best, although s/he added that *'we're listening to your advice here as we don't have enough knowledge on the topic'*

Table 3

- An energy/utility company representative was surprised the issue was not already a *'high priority'*
- An energy/utility company representative stated the benefits of the options not shown. S/he asked if a saving will be made on the operational side when there is work being done
- A parish councillor was of the view that *'if high-risk situations are dealt with early on it won't make a big difference over time'*
- A stakeholder felt that *'the average is bringing down the extreme statistics'*. S/he was of the opinion that those extreme situations need to be *'identified and tackled'*

Table 4

- An energy/utility company representative said *'I'm assuming this would be a non-linear type of investment'*
- An energy/utility company representative said *'I remember our guys had to once trample through the snow with WPD to turn the generator back on, we need real investment in this area'*
- A local authority/council officer explained *'What is missing from this information is quantifying what number of people would benefit and how many fewer interruptions there would be if the proposed changes were implemented'*

- A local authority/council officer asked WPD if the trees are screening power lines *'have they looked into this'*
- A local authority/council officer made the point that *'if you cut down a line of trees this could have a big impact on people; do you risk assess the impact?'*
- An energy/utility company representative said s/he would choose option 2 as *'I'd like to see an acceleration in this bearing in mind its front-end-loaded'*
- A stakeholder asked *'what is the split between overhead and underground?'*
- An energy/utility company representative said *'I think we should prioritise for those who would have the most benefit so I would also go for option 2'*
- A stakeholder asked *'how can we correlate this to the previous section?'*
- An energy/utility company representative stated, *'if Ofgem were to mandate option 4 this might be the one to go for'*

Table 5

- A stakeholder asked whether climate change projections are accounted for. S/he felt the tree-cutting programme is surely cyclical so until WPD removes them all it is a problem. However, trees keep lines in the shade. S/he pointed out the planet is warming up so there will be a higher concentration of sunlight on lines which increases the likelihood of fire damage
- A developer/connections representative asked *'how does this relate to future cables and would it be possible to put them underground?'*
- A stakeholder made the point that the increase in the growth of trees is a concern due to climate change. S/he stated WPD should look at research into tree growth inhibitors and asked *'is there a tie-in with green waste for sustainable use?'*
- An energy/utility company representative stated that severe weather is *'just accepted and people put up with the consequences'*
- A stakeholder was of the view that WPD's plan is fine now but in the future, with the increase in frequency of bad weather, it will become unacceptable
- A parish councillor asked whether *'it was a big problem'*
- A parish councillor pointed out that some lines are cleared but others are left

Table 6

- An energy/utility company representative stated s/he has differing opinions about tree pruning; *'some of the area WPD covers is very rural and therefore trees have a big impact, there are also seasonal variations that WPD have to take into consideration'*
- A local authority/council officer added that *'tree-pruning is mainly a rural issue'*

- An energy/utility company representative queried whether *'putting more cables underground is an alternative option to simply tree-pruning'*
- An energy/utility company representative thought that tree-felling would also be an environmental issue
- An energy/utility company representative stated s/he would opt for *'whatever it takes'* to improve supply, particularly as a representative of a major utility supplier
- A local authority/council officer wanted to know *'to what extent are falling trees a nuisance for rural and domestic customers?'*
- An energy/utility company representative queried *'if an increase in the tree-felling programme is WPD suggesting that the existing programme is not robust enough?'*
- A local authority/council officer wanted to know if this investment priority referred to the *'last leg of delivery'* and which areas WPD are targeting
- A local authority/council officer pointed out that WPD already carries out tree-cutting and protection of power lines, and considered WPD's current programme to be effective enough at the moment
- An energy/utility company representative suggested that all energy companies could do more to reroute cables underground, *'particularly as an increasing rural population will mean this will become more of a problem in the future'*. S/he added as it is becoming more difficult to get landowners' agreement for tree-felling WPD will have to consider other resilience options. S/he queried why WPD is not exploring other approaches to severe weather resilience, not just tree-felling, as other energy companies are
- An energy/utility company representative stated s/he *'would like more money spent on this priority'*
- An energy/utility company representative agreed with the above point

Table 7

- An energy/utility company representative said that *'as weather is going to become more unpredictable it is going to become more of an issue'*. S/he was *'inclined to accelerate the programme'*
- An energy/utility company representative was of the view that *'option 2 does not sound like a large chunk of money but to accelerate to 15 years seems like too large a jump in cost'*
- An emergency resilience officer stated that *'option 3 seems like a good deal. It almost halves it'*
- An emergency resilience officer commented that s/he was not *'being flippant, but what effect is the current issue with ash trees going to have on the amount of trees in the country?'*

- An energy/utility company representative enquired about whether or not WPD had looked at putting overground cables underground when the time comes to replace them
- An energy/utility company representative asked '*what constitutes as severe weather?*'

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

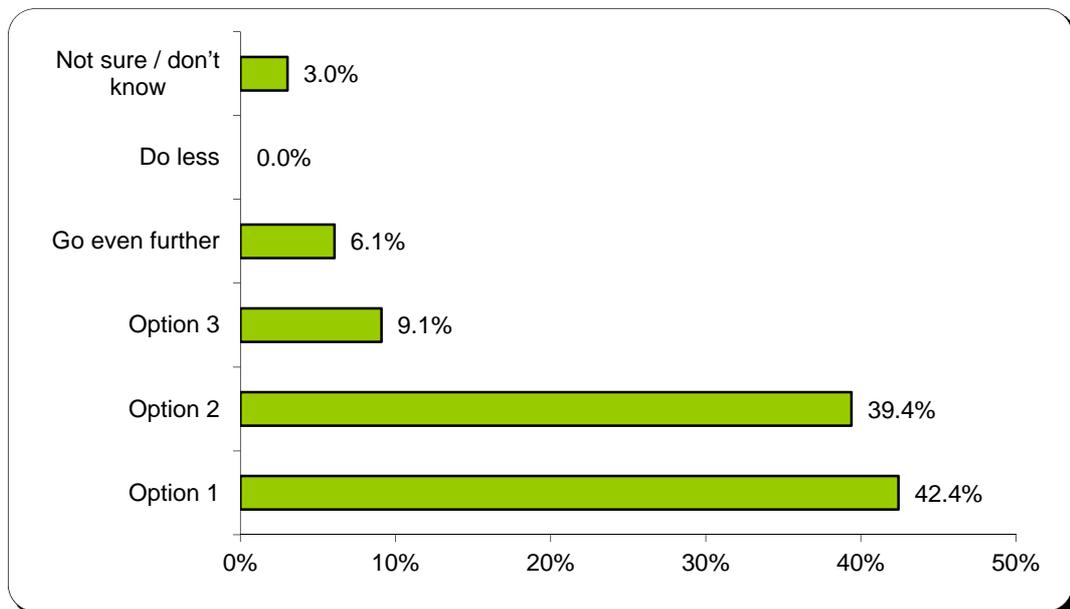
Option 2: The duration of the tree trimming programme accelerated to 20 years at an additional cost of £14.7 (14p per domestic customer, per annum)

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

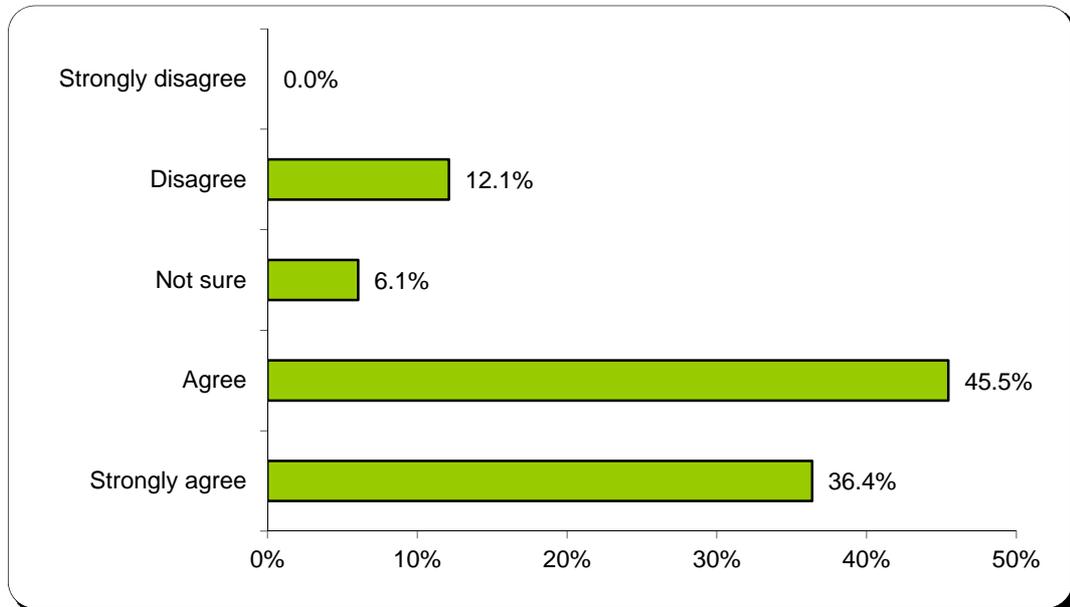
Option 5: Do less

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 local authority/council officer stated *'personally, I live in a flood prone area, but I would rather the power go than be electrocuted'*
- A local authority/council officer commented on how s/he has suffered from flooding in the past and was surprised by the short period the power was off, commenting *'I was amazed the power was on so quickly'*
- A domestic customer representative made the point that the speed in which power is restored may not be important if there are other issues the customer is facing due to flooding
- A local authority/council officer thought that WPD's current view was *'quite sensible'*
- A developer/connections representative believed that *'future assets should be fitted with flood defences'*
- An energy/utility company representative commented that *'essentially, you can't make a call until you know how many substations are affected'*
- A domestic customer representative said that this issue will *'create many different views due to experiences'*

- A domestic customer representative stated that *'common sense would be that the 100 units must be coded for risk'*

Table 2

- A local authority/council officer stated that *'I think flooding is extremely important. Out of the options you have, 1.5 million down to 1 million, what does that leave un-tackled? You're not looking at 1-in-100 and 1-in-50 events here, are you?'*
- A business customer representative said *'if substations are flooded, it might take the area offline for a week. Are there strategic substations that take priority over others?'*
- A local authority/council officer commented that *'I think WPD needs to increase the number of substations it has. There has been a sequential increase in floods in unexpected places and WPD should remodel all substations accordingly, particularly those likely to be at risk in the future'*
- A business customer representative said *'50 pence a year is peanuts, why wouldn't anyone opt for it?'*
- A stakeholder stated that *'I think the programme should be expanded; if it isn't it will go on for another 20 years'*
- A stakeholder was of the view that the figures given were *'arbitrary'*, and for this reason s/he was unable to *'visualise'* what this might mean in practice. S/he stated that *'we're talking about places that need to be protected – what does that equate to against the number of substations on your network?'*
- The majority of the table agreed that WPD needs to spend more money to mitigate flooding as it is a growing risk and that there is more analysis needed on what type of substations could be affected in the future

Table 3

- An energy/utility company representative asked how many people are at risk in their homes. S/he questioned *'what is the percentage of the 7.8 million customers identified?'* S/he said the figures need to be put in context
- An energy/utility company representative asked *'how does WPD account for the asset replacement costs?'* Is it something WPD can claim off insurance?
- A regulator/government representative said the main concerns of those in the emergency planning area are *'power cuts and major flooding'*. S/he was of the view vulnerable people and their needs should be taken into account
- A parish councillor commented on the plan to focus on 10 of the 100 sub-stations. S/he was of the opinion that *'targeting 10 that are most at risk is perfectly acceptable if they are going to be improved'*. S/he acknowledged WPD don't know where the flooding will arise from but that it can and should be prioritised
- A parish councillor was of the view that to have 1-in-50 year flood risk is better than to have 5 years of disruption of WPD trying to prevent floods and the replacement of

drains. S/he felt that his / her local constituents *'would prefer to endure a flood rather than the prevention measures'*

Table 4

- An energy/utility company representative asked if WPD is referring to most of the primary sub stations
- An energy/utility company representative stated that his / her reaction would be that this is not a priority because we would expect you to reconfigure so you turned the most vulnerable customers back on
- An energy/utility company representative was of the opinion that adding an extra charge to the bill would not benefit a significant number of people
- An energy/utility company representative explained that as you only get 30% of value for not a lot of investment s/he would go for option 1
- The general consensus on the table was option 1

Table 5

- A stakeholder queried whether it was primary or distribution. 100 presumably covers a good area
- A parish councillor wondered what the 100 is as a percentage of the number of substations (roughly 15%)
- A stakeholder specified it is a very important issue but as there are not many at risk reductions need to be made due to diminishing returns
- A stakeholder agreed; if the sites are well targeted then it should be done by need

Table 6

- A business customer representative wanted to know if this investment option referred to existing assets
- An energy/utility company representative stated that the floods of 2007 had an effect on his / her company's supply and as a supplier they would fully support what WPD is trying to achieve
- A business customer representative suggested it would be useful for WPD to inform those customers that are in an area that would possibly be affected by floods that they may be at risk, as most people don't know where their substations are
- A local authority/council officer stated that in terms of resilience protection from flooding is more important
- A local authority/council officer pointed out that most people don't care about WPD's assets until it affects *'keeping the lights on'*

Table 7

- An emergency resilience officer said it is *'an easier fix to send an engineer to repair a line brought down by a tree than it is to fix a flooding issue'*
- An emergency resilience officer commented that because of the *'saturation of the ground, we are more likely to get flooding in the next year'*
- Another emergency resilience officer stated that because of his / her experiences with residents s/he *'would automatically go for option 3'*
- An energy/utility company representative articulated that s/he *'was pleased to hear that flooding is a priority'*. His / her company will benefit from directly from the investment made
- An energy/utility company representative declared that s/he agreed that *'of the topics so far this is the closest to me and I would go for option three'*

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

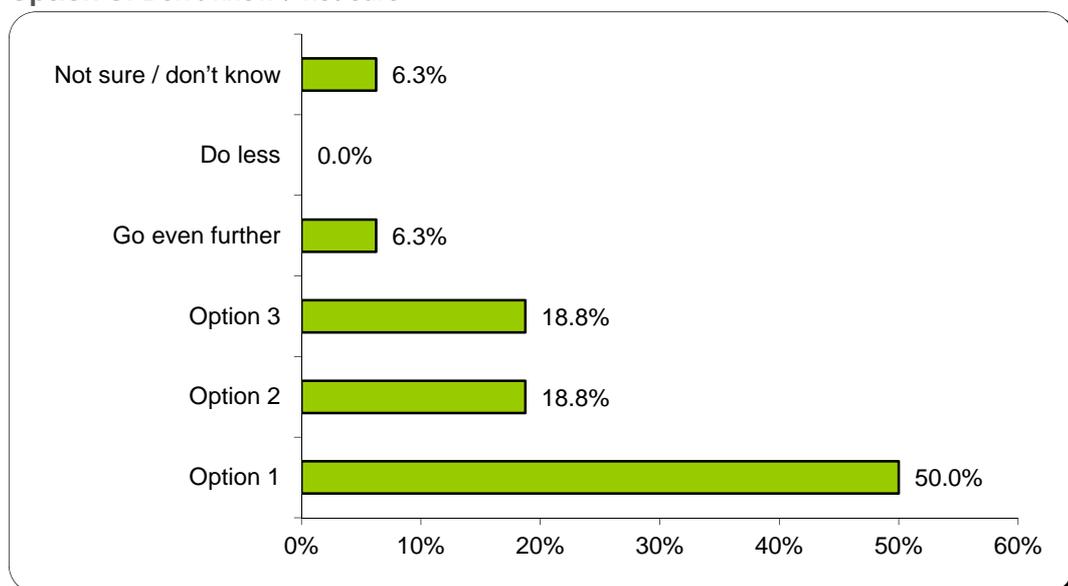
Option 2: To protect the 150 most at risk substations at a total cost of £50m (20p per domestic customer, per annum)

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

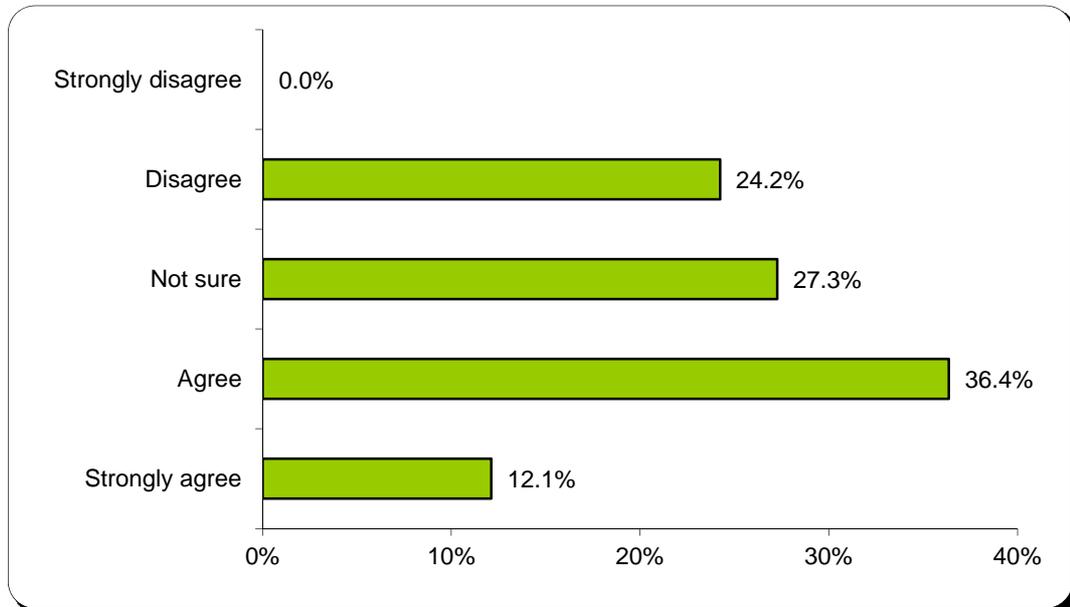
Option 5: Do less

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 local authority/council officer said that it's *'not really a major issue or something I am faced with often'*
- A local authority/council officer commented that *'it's tricky, as it's a big cost and has little benefit for our direct clients but it is something that probably should be done'*
- An energy/utility company representative stated *'we are looking at the same thing and asking the same questions'*
- A domestic customer representative was of the view that it might be the right thing to do but *'people won't want to pay for it'*
- A developer/connections representative stated option 1 was the one he favoured
- A domestic customer representative made the point that *'there has been no mention of obsolete or end-of-life equipment'*
- A local authority/council officer was of the view that *'there is a difference between managing a known problem and neglect which allows a problem to get worse'*

- A local authority/council officer believed that it is more *'cost-effective to manage things properly rather than to react to individual issues'*
- A local authority/council officer stated that s/he believed it was all about *'smart maintenance, we are doing some work here, why not take the opportunity to change another piece of equipment?'*

Table 2

- A stakeholder asked whether there was an alternative to SF6
- A local authority/council officer added *'yes that it's an issue, but the gains and costs don't seem that significant, the caveat would be no investment in technology that will introduce a step- change'*
- An energy/utility company representative commented that leakage issues were concerned with gas and *'nothing to do with oil'*
- A stakeholder was of the view that it depends where the leakage occurs
- A stakeholder asked whether leakages have an impact on power outages
- The table agreed that gas/oil leaks were not significant in terms of costs

Table 3

- An energy/utility company representative asked *'can the money be better spent elsewhere, e.g. hybrid vehicles?'*
- An energy/utility company representative commented the direction in which WPD will have to take is governed by EU law directives

Table 4

- An energy/utility company representative was aware of the issue because s/he was involved in it, but s/he was more concerned about supply resilience, getting to the leaks faster
- A local authority/council officer made the point that it really depends on where the leaks happen because if it were to occur in an urban area it would have a bigger impact than in a rural area. S/he was of the view *'I think an improvement of 4% doesn't justify cost'*
- An energy/utility company representative explained that *'the oil and gas leaks are bio-degradable so the leaks are not actually an environmental issue'*

Table 5

- A stakeholder commented that these are low figures for leakages; *'is this in line with other companies? Does WPD have sensitivity areas?'*

- A stakeholder asked *'what is the impact on customers? Little but it is the environmental impact'*
- A stakeholder enquired if there was no alternative to gas
- An energy/utility company representative pointed out that *'SF6 has improved efficiency compared to previous methods so it has benefits but there is an environmental pay-off'*
- A developer/connections representative wondered why customers would see it as a problem. *'They would have to be environmentally conscious to be bothered so will want to pay as little as possible'*
- A stakeholder was of the view that *'WPD should target the gas as that is more of the problem and reducing it won't improve resilience'*

Table 6

- A local authority/council officer stated that oil and gas leaks were not something that s/he was particularly aware of, and is not sure if s/he can get excited about it now
- A local authority/council officer suggested it is important that WPD is aware of oil and gas leaks and considers it as an issue to address and seek alternatives; however, s/he is *'unsure whether it is necessary to increase investment'*
- Reducing oil and gas leaks was not considered a particularly significant issue for the group

Table 7

- An energy/utility company representative said that with option 1 *'you are getting a great return with the oil leaks but not a great return on investment from any of the options with SF6 leaks'*
- An energy/utility company representative stated that s/he did not agree that customers are not directly affected. *'If SF6 is leaking switchgear will eventually fail and if oil is leaking the cables will fail'*
- The general consensus on the table is that option 1 is adequate

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)

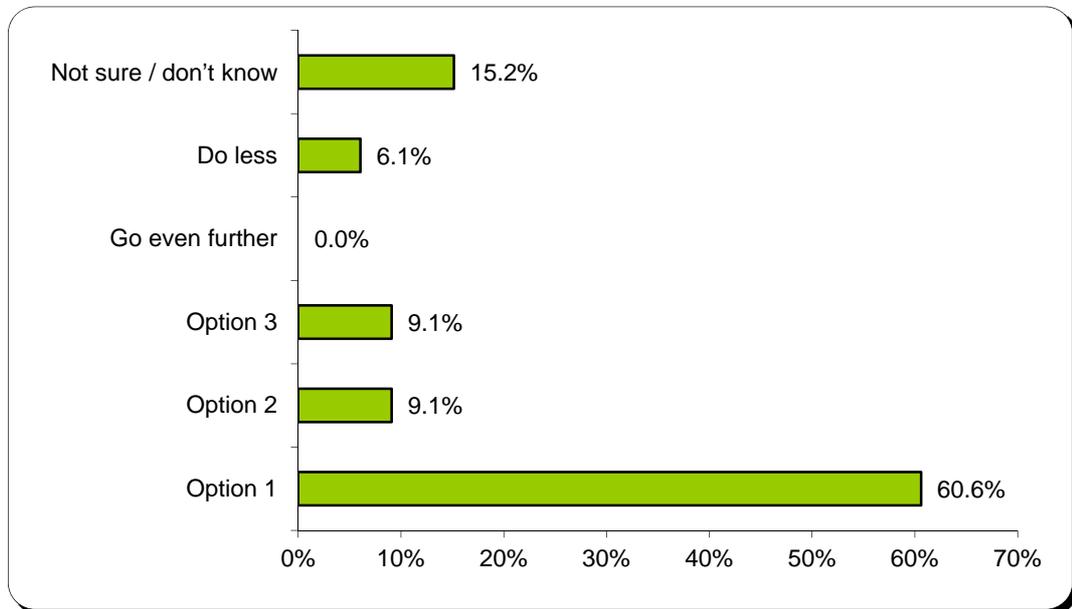
Option 2: Replace the worst 5% of equipment with the highest leakage rate at a total cost of £65m (50p per domestic customer, per annum)

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

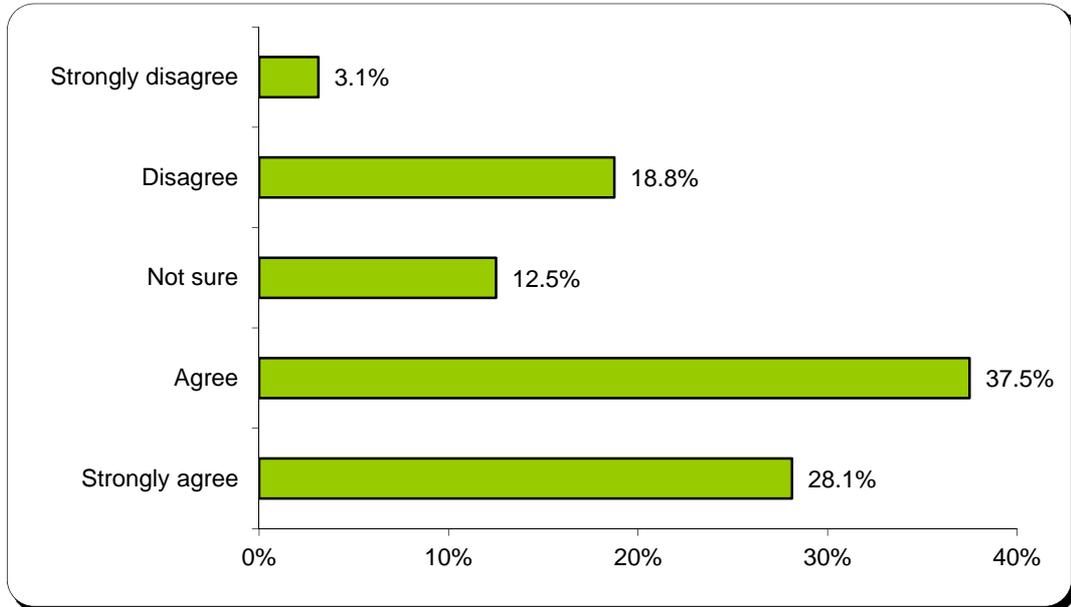
Option 5: Do less

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

- A developer/connections representative commented *'we get a power cut every month'*
- An energy/utility company representative was of the view that *'we have to apply the same rule across the board, if we don't think it's appropriate to have that many power cuts we shouldn't have anyone having that amount'*
- A domestic customer representative agreed, stating that *'the rules should be the same across the board; and the service should be the same for all'*
- An energy/utility company representative questioned the duration of some of the cuts and asked *'if it's a long time you can ask the question if they should be paying the same as customers with better service?'*
- An energy/utility company representative made the point that *'fuel poverty can make this a larger issue'*

Table 2

- A business customer representative commented that *'you're not allowed to charge individually for worst served customers; farmers might be willing to pay more but generally costs for these customers are socialised on everyone'*

- A local authority/council officer stated that *'I don't agree with option 3, I think option 4 would be best'*
- Another business customer representative argued that WPD should be allowed to put an individual cost to a customer; s/he added that *'if people were aware of these numbers I think they would start to question them. I think a farmer knows and accepts that s/he is a worst served customer'*
- A local authority/council officer said *'I'm happy to stick with option 4, there's a marginal gain with the other whereas with option 4 there's material, economic and social gain to be had'*
- A business customer representative pointed out that people on low incomes living in rural and remote areas are worst served customers for many other utilities and services and that people should be made aware that *'worst served customers don't always choose where they live'*
- A domestic customer representative added that people that live in remote areas are generally worst served in comparison to urban customers and for this reason *'tolerance levels to outages are higher'*
- A business customer representative said *'I think that there is a big difference between acceptance levels in rural and urban areas and across different parts of the country. A London outage is headline news. I think that rural customers are much more accepting of such incidents'*
- The table reached the consensus that generally people accept that there might be more problems with remote supply
- A parish councillor commented that s/he had 1 or 2 remote customers within his / her parish
- A business customer representative said *'I don't understand the significance of reducing from 8 to 4. If you put forward a proposal, Ofgem will cut it up anyway - so just include it!'*
- Everyone agreed that the issue of supporting worst served customers is a critical societal issue which also serves to highlight a broader requisite to develop a more balanced economic development

Table 3

- A parish councillor asked whether people in rural areas should pay for improvements to the service. S/he highlighted *'it would be a heavy cost which would be disproportionate to the benefits gained'*. S/he identified rural customers as being *'more tolerant of the problems they encounter and they were aware of them when they purchased the property and happily accepted to build these factors into their way of life'*. S/he pointed out *'it is not as big an issue as those with constant power think it is'*

- A parish councillor felt option 1 or 2 would be his / her preference. S/he commented s/he would *'like to talk about a real minority of people experiencing problems rather than general ones that affect all customers'*
- An energy/utility company representative commented that *'a power outage 3 to 4 times a year in rural areas is not a problem'*. S/he commented one of his / her relatives uses a generator for such events
- A stakeholder was of the view *'WPD have a moral duty to help worst served customers'*
- An energy/utility company representative felt there was *'not enough information'* given to make a decision. S/he stated *'there is a need to look at where the money can be best spent'*
- A parish councillor thought that *'the money is not being well spent and can be better spent elsewhere'*
- A stakeholder said it should be *'a moral obligation for WPD to help the worst served customers'*. S/he stated that when s/he moved to a village s/he discovered there is a need for regular power and a generator is needed by all residents
- An energy/utility company representative asked if a secondary substation is something WPD would/could be interested in

Table 4

- An energy/utility company representative said that *'the majority of customers live in urban areas and are therefore unable to appreciate the difficulties and problems rural customers face'*
- An energy/utility company representative commented that *'the disruption in rural areas can be very damaging'*
- An energy/utility company representative made the point that a company suffering from disruptions in supply comes at a cost but also supply affects resilience. S/he felt it would be value for money if the changes were made
- An energy/utility company representative commented that *'the worst served customers from WPD can subsequently be the worst served customers from a water point of view'*
- An energy/utility company representative noted that *'increased resilience is necessary not only in electricity but also water which highlights the benefits of AQ6'*
- A local authority/council officer was of the view that some people are more in need of power in rural areas because in cold spells they have fewer alternatives to seek out a warm area, e.g. a community centre
- An energy/utility company representative pointed out that it is going to become an increasing problem as people work from home with high speed broadband improving and therefore *'energy connectivity becomes more important'*

- An energy/utility company representative commented that *'this has wider implications than just business supply'*
- Another energy/utility company representative pointed out that *'when you start looking at 900 people to help 1 affected customer it is not value for money'*
- A stakeholder commented *'if we put the problem into context and compare it to other investments the result is it's not a lot of money but it isn't really value for money'*
- An energy/utility company representative stated that s/he thinks there is a need for investment. S/he said *'you wouldn't say it wasn't value for money if you were a worst served customer'*
- A stakeholder suggested *'let's go for 15p then, that's nothing in monetary terms, I'd like to help'*
- A stakeholder said *'we are really generalising, it's only 10,000 people that are affected, why should I pay when I don't suffer?'*
- The general consensus was staying at option 1 represented value for money
- An energy/utility company representative commented that s/he would favour option 3 and s/he pointed out *'I am looking beyond the community and thinking about wider water supply'*
- An energy/utility company representative pointed out that s/he would move to do more and stated *'there has to be an improvement'*

Table 5

- A parish councillor said WPD is not going to get to some customers, and most of them have back-up plans (such as generators). S/he made the point option 3 would be most appropriate
- A developer/connections representative questioned *'how is it determined which properties of the 10,000 will be fixed? Is it by clusters, such as villages/communities?'*
- A parish councillor stated *'it doesn't affect that many people and people learn to make do'*
- A parish councillor made the point that *'alternative sources often won't work without the use of electricity; there is a snowball effect'*
- A developer/connections representative asked whether it could be reduced to zero customers
- A parish councillor mentioned *'it is a priority but has to be put into context compared to other subjects such as flooding'*
- A developer/connections representative thought *'it is unfair on the remaining 6,000 customers'*

Table 6

- A local authority/council officer questioned whether WPD know where the worst served customers are if they were to choose option 3
- A business customer representative stated his / her company *'were experiencing problems with weekend disconnections with the company's plant and office in Wolverhampton'*. S/he said after raising the issues with WPD the problem was resolved. S/he suggested WPD needed better knowledge of its system's problems
- An energy/utility company representative added, as WPD doesn't have the *'insight'* across the whole network, unless they are not notified about a problem they won't know
- A local authority/council officer wanted to clarify if this is about stability of supply
- A business customer representative suggested that *'WPD need to inform customers when it is switching power, so customers can prepare their equipment so it doesn't go "bang" when switching back on'*
- A local authority/council officer stated s/he was *'surprised that the number of worst served customers is so low and would have expected more'*
- An energy/utility company representative wanted to know if the number of worst served customers is based on complaints received
- A local authority/council officer explained that even though s/he is one of those worst served s/he doesn't want *'to put the bill up'*
- A local authority/council officer suggested with this investment priority there is *'give and take'*. S/he added that customers *'understand that there is difficulty in supplying certain areas'*
- An energy/utility company representative wanted to know *'what actions would be involved in improving the number of worst served customers'*
- An energy/utility company representative discussed his / her company's experience of *'wanting to improve its supply when the company was under Central Networks, and how expensive that improvement was for the company'*
- A local authority/council officer wanted to clarify that *'there are more than 10,000 customers that experience an interrupted supply but this investment priority is focused on the high end of those customers'*
- A local authority/council officer questioned whether the proportion of WPD's rural customers has increased with the Central Networks takeover

Table 7

- An energy/utility company representative admitted that s/he *'just cannot get particularly emotional'* about worst served customers because it does not affect him / her

- An energy/utility company representative said that s/he agrees with WPD's current position as it has the *'right cost benefit ratio'*
- An energy/utility company representative made the suggestion that *'a different approach could be through securing their energy through alternative sources'*
- An energy/utility company representative commented that his / her organisation had worked with villages with poor supply by *'supplying them with solar farms'*. However, s/he went on to say that you *'cannot just rely on solar, you need a variety'*
- Another energy/utility company representative said that s/he would not support giving the worst served a discount because s/he would have to pay for it
- An energy/utility company representative questioned *'putting a lot of effort in to such a small number of customers'*
- A local authority/council officer made the point that many of these worst served may well be affluent and that *'it is not right to ask deprived urban areas to cross-subsidise wealthy rural customers'*

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)

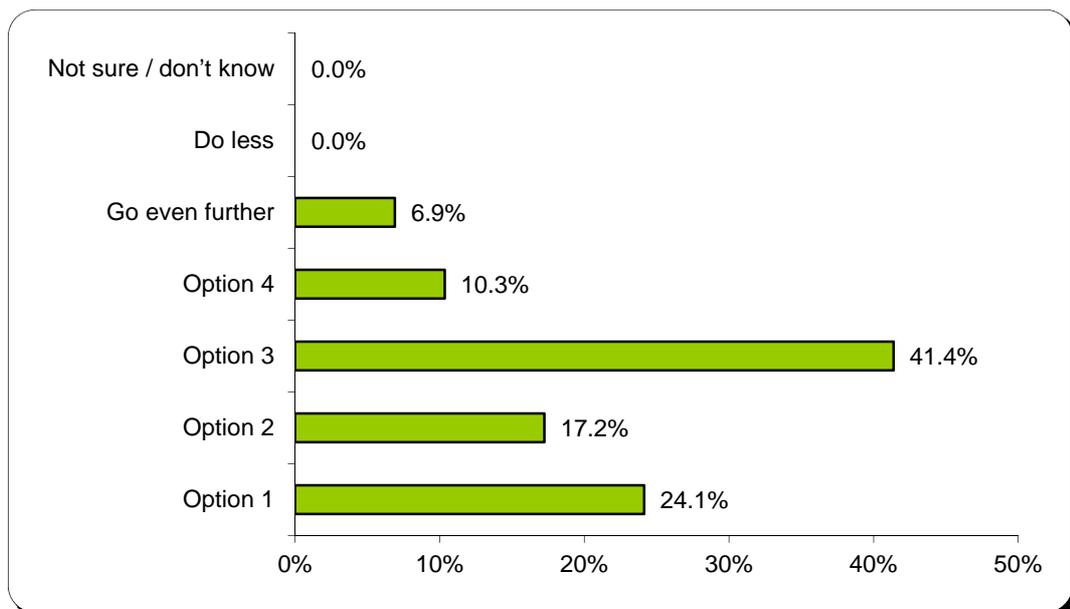
Option 3: (WPD's current view) Reduce the number of 'worst served' customers from 10k to 6k at a total cost of £3.6m (5p per domestic customer, per annum)

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

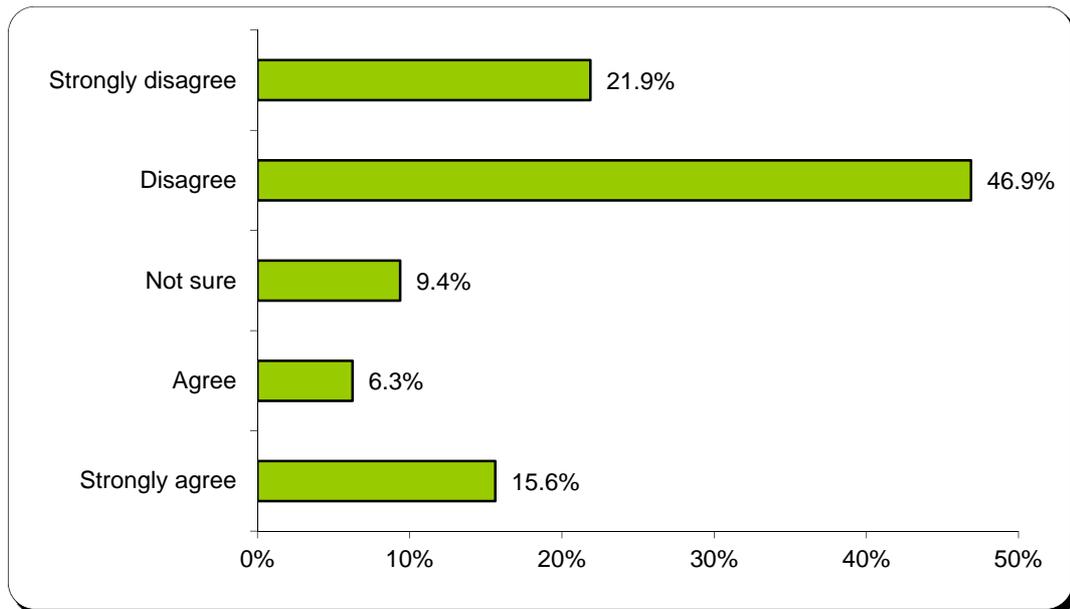
Option 6: Do less

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

Table 1

- A developer/connections representative said *'I don't think it's a pressing issue nowadays, but in an ideal world, yes, it would be done'*
- A domestic customer representative questioned the need: *'my first thought would be get rid of them, but they have been around for a long time and therefore what difference would it make?'*
- An energy/utility company representative made the point that *'WPD should consider the impact it has on wildlife when undergrounding cables in national parks'*
- A local authority/council officer queried whether it was *'an aesthetic problem or undergrounding was for the protection from trees'*
- An energy/utility company representative questioned, *'would it improve the quality of the power supply?'*
- An energy/utility company representative wanted to know *'how are decisions made on who is going to get the benefits from undergrounding?'*. S/he believed that there should

be a ranking system, in which the customer would be able to see who is benefiting such as small villages and/or tourist areas

Table 2

- A stakeholder commented that *'WPD aren't organising this consultation because they're fluffy and nice, they have to do this because Ofgem has told them to. Don't you get money back off Ofgem for these schemes anyway?'*
- A business customer representative asked, *'how much of this work is done due to local pressure?'*
- A stakeholder pointed out that undergrounding options vary greatly according to different areas. S/he argued that it was important for WPD to continue to maintain undergrounding in the *'most important'* areas. S/he asked *'why can't you do undergrounding straight away with new developments?'*
- A local authority/council officer was of the view that changes within the planning system may hinder the deliverability of undergrounding proposals and that there was *'no point in committing if you can't do'*. S/he argued that implementing programmes need to be *'realistic'* or these will undermine the whole system

Table 3

- An energy/utility company representative stated they have *'no issue with overhead power lines'* and s/he accepts the power cables that are there are being used. S/he supports the notion that *'all new connections should be underground'*
- An energy/utility company representative was of the view that personal opinions are the *'biggest factor'*
- A stakeholder asked *'how much cabling is overground?'*
- A stakeholder asked *'what is the total length of cables in national parks?'*
- An energy/utility company representative pointed out *'undergrounding cables will have a tiny impact'*
- A parish councillor felt it was more of a *'moral obligation rather than a necessity felt and people will accept the cables which are already there'*. S/he felt if some cabling is removed every year it would be *'an acceptable move'*
- A stakeholder questioned why WPD are looking to lay cables underground. S/he asked *'what is the benefit?'*
- A stakeholder stated *'as long as WPD is doing something it's good'*
- An energy/utility company representative said in one hundred years everything will be a lot different

Table 4

- An energy/utility company representative explained that s/he would be against *'paying a single dime for it'*. S/he stated *'we're going through an economic crisis and that money could be better spent elsewhere. S/he went on to acknowledge 'there is an argument for tourism but this is a very small argument'*
- A local authority/council officer stated that any improvements are nice but felt the best option was to *'just maintain the investment as it is'*
- An energy/utility company representative said that s/he would go for doing less: *'let's spend that money on worst served customers'*
- An energy/utility company representative said s/he thought it was about the reliability and availability of supply: *'these are much higher priorities'*
- Another energy/utility company representative noted that WPD used not to spend money on this issue in the past, and asked *'why are they now?'*

Table 5

- A parish councillor had no personal view but stated it should not be done unless it needs doing as it is very expensive. S/he thought *'targeting specific sites would be the best approach'*
- A developer/connections representative did not know if it is an issue and it would need investigating, ranked by priority
- A stakeholder asked if WPD balanced visual impact against habitats and the environmental impact: *'undergrounding and directional drilling will upset the ecosystem?'*
- The table was of the consensus that as this problem is visual, there are other, more pressing areas of concern

Table 6

- A local authority/council officer suggested that *'undergrounding should be extended to include sensitive countryside and villages'*
- A business customer representative queried if this was for high voltage power cables
- A business customer representative also wanted to know *'how many miles of high voltage power cables are above ground?'*
- A local authority/council officer *'felt the activity of undergrounding would be lost with the introduction of wind farms'*
- A local authority/council officer pointed out that there is a limited population in national parks and AONBs

- An energy/utility company representative asked *'why should national parks and AONBs be treated differently to people to urban areas?'*
- A business customer representative added that *'urban areas have a larger population who are visually impacted by cable lines'*
- A local authority/council officer would like to see rural areas protected and reduce the *'clutter'* of views
- An energy/utility company representative and a local authority/council officer added that they are not offended by power cables
- An energy/utility company representative explained that s/he could understand this being a priority if it has an impact on health but s/he does not consider visibility as a high priority

Table 7

- An energy/utility company representative said that the *'little wood poles are not that intrusive'*
- An energy/utility company representative agreed, saying *'it was not like they are being added to'*
- An emergency resilience officer made the point that *'visitors to AONB are not going there and saying how the wooden poles are blighting the landscape'*
- An energy/utility company representative stated that it should be *'definitely a low priority'*
- An emergency resilience officer concurred with the energy company representative, asking *'is there an option nil?'*
- An energy/utility company representative was of the view that this is *'a very expensive scheme. If this was dropped we could solve the issue of worst served'*

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)

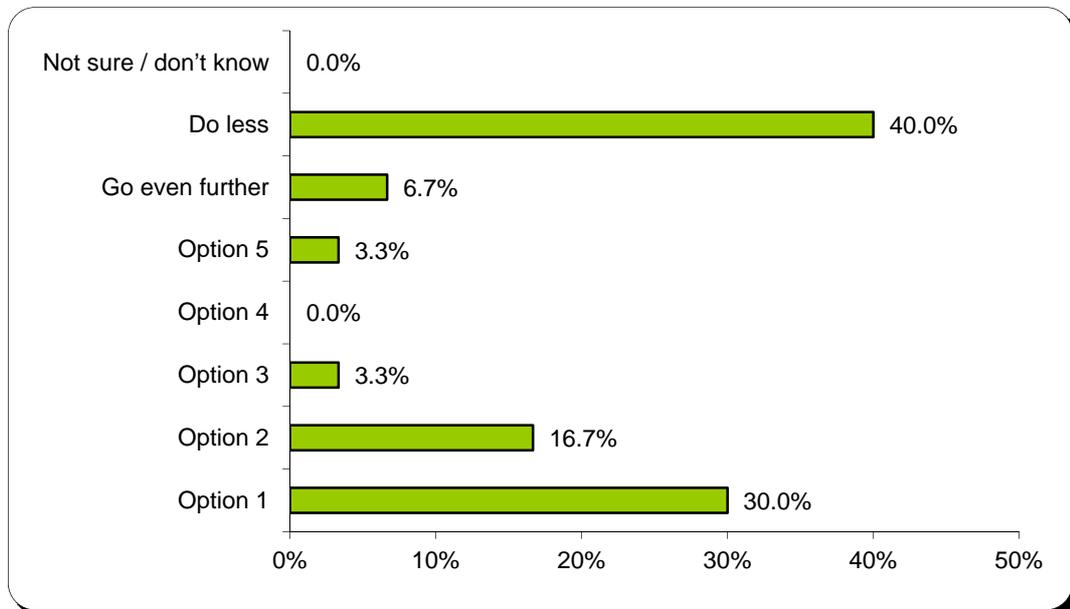
Option 4: Underground 240k of overhead lines in national parks and AONB's at a cost of £36m (56p per customer, per annum)

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

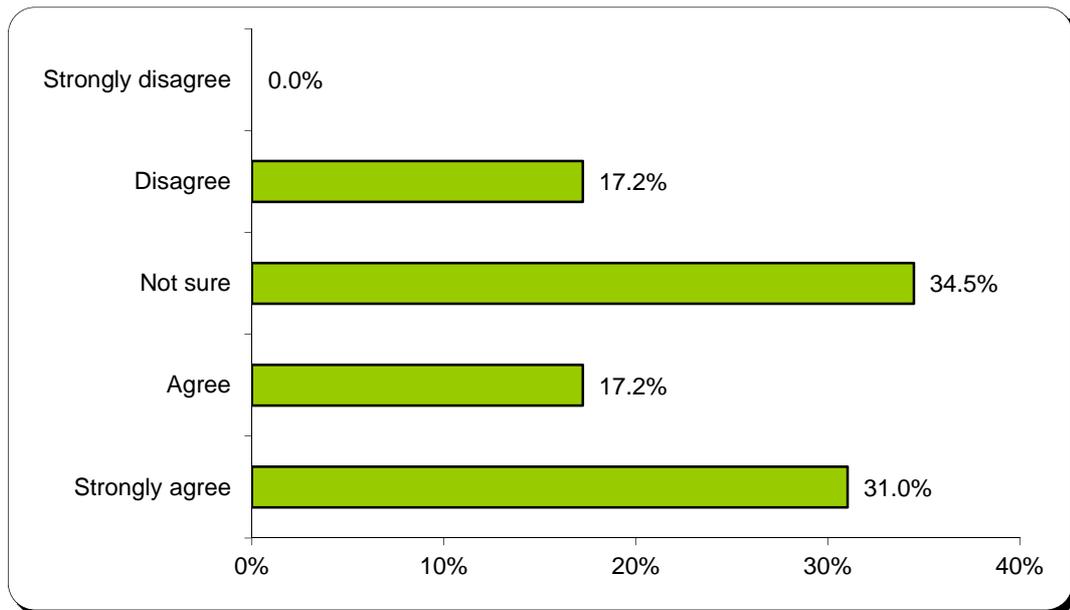
Option 7: Do less

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 *'if it were to happen that it takes 90 days to get a new connection that would be great but it never happens'*
- A developer/connections representative said s/he had noticed an improvement in the past six months by WPD
- A local authority/council officer stated that *'making it work as it is supposed to would be a better option as it currently doesn't meet its requirements'*

Table 2

- A local authority/council officer said *'I'm not concerned about options 2 or 3, the critical issues lie in the preparation and process leading up to the connection. There also needs to be more clarity between developers and power companies on what is agreed and what is in the pipeline beforehand. With planning reforms coming in you're going to have much less certainty about what's going on and for that reason I would stick to option 1'*

- A business customer representative commented that *'I am dismayed at the fact that big customers aren't mentioned; big customers go mad at the way they're treated when it comes to new connections, none of it is transparent, communication is terrible – some of the DNOs are so bad, its unbelievable! You're not that bad by any stretch of the imagination. A DNO is given 90 days to quote, but some of them use it to delay projects'*
- A local authority/council officer added that *'anything that improves transparency and communication is a step in the right direction. Other things that need to be done in terms of real-time communications include a tracking or real-time alert system. The whole point of the Twitter debate is about the increasing prominence of real-time communications'*

Table 3

- Around the table no one had any experience of new connections
- An energy/utility company representative commented on a three-phase connection s/he was aware of happening. S/he highlighted that type of connection was usually a single phase but felt it *'went really well'*
- An energy/utility company representative commented that within the planning processes *'30-90 days for a new connection is tiny'*. S/he stated it should be built into a plan as standard procedure for domestic and commercial customers
- An energy/utility company representative asked *'what feedback in terms of process and speed has WPD received?'*
- An energy/utility company representative was of the view that for a small user lots of problems could occur and *'90 days is a long time'*. S/he also felt 90 days is fine for a corporate company to wait for a new connection
- Another energy/utility company representative questioned whether *'charging customers to have a new connection is fair?'*
- A parish councillor agreed and stated *'the cost is disproportionate to the gain'*
- An energy/utility company representative pointed out the *'vast majority of problems encountered is in the level of communication available'*
- An energy/utility company representative was of the opinion that not knowing where you are in the connections process *'is very frustrating'*
- An energy/utility company representative commented that a problem could be that customers may not be aware of WPD's existence and customers will probably go straight to their bill provider, e.g. E.ON

Table 4

- An energy/utility company representative noted that s/he had very limited experience of this but had found the response excellent; *'in terms of quoting we get our act together in the same time as you do'*. S/he felt the best option was option 1

- A local authority/council officer explained that s/he doesn't have much of an opinion on this and felt generally planning is quite good, S/he stated *'this is not a major issue'*
- A stakeholder felt that it should be Ofgem's responsibility and would go for option 3
- An energy/utility company representative explained that s/he *'didn't think this should be a socialised cost and should be paid by the developers who will be the key beneficiaries of the increased speed'*
- An energy/utility company representative pointed out that s/he would question the value in having this in a competitive market and asked if this *'is really efficient?'*
- An energy/utility company representative was of the view that *'this is a complicated process and people don't understand what to do as it is too confusing'*. S/he felt if it was someone with more expertise that would really help
- Another energy/utility company representative said that WPD *'have the opportunity to then offer different tiers of connection'*
- An energy/utility company representative asked in relation to option 4, *'isn't it the job of the supplier rather than the distributor to supply the connection?'*

Table 5

- A stakeholder was of the view that solar and new PV customers demand a quick connection and bypass incoming legislation. *'They should foot the bill for turning around the project so quickly: customers should not pay for this aggression'*
- A parish councillor agreed, asking *'why should all customers pay for this quick fix? The energy customer who gets the revenue should pay'*
- A developer/connections representative said house bills and new industrial parks are important. The costs are always passed on but the end customer should not suffer: *'speed is more important, it should be quick as it will be more efficient'*. S/he agreed that those who demand a project to be completed quicker than the standard rate should pay a premium rate
- A parish councillor stated option 1 with a dedicated contact number is good but continuity is needed
- A developer/connections representative mentioned that as long as customers' details are available and WPD can see what others WPD staff have said to him / her then option 1 is viable
- A stakeholder likes the idea of the online portal; up-to-date information is *'good'*

Table 6

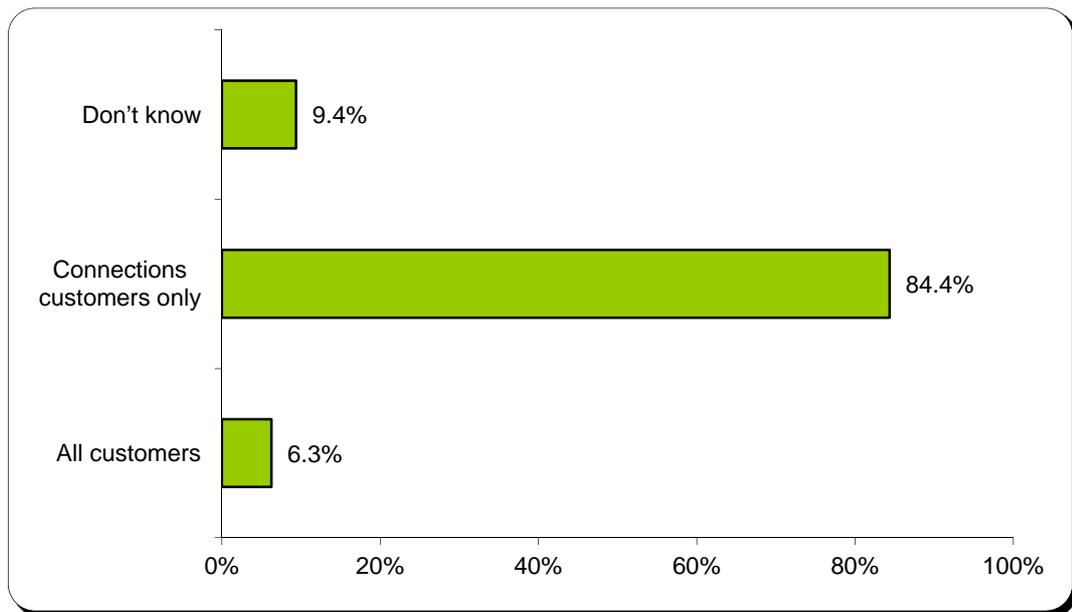
- A business customer representative stated *'if a customer wants a faster connection service the customer should pay for it themselves'*

- An energy/utility company representative explained that the longer a scheme is delayed, the more it costs a large company, which can result in a costs of millions of pounds
- A business customer representative added that if s/he wants a 10,000MW connection s/he can't get it any quicker
- An energy/utility company representative added that s/he would *'just like WPD to get it right'*, in terms of accuracy. His / her company was paying more money than they were supposed to. S/he stated WPD were transparent and credited the company when challenged but there needs to be accuracy in the first place
- A local authority/council officer pointed out those paying for new connections will be expecting a good service
- An energy/utility company representative raised the issue of WPD not being able to invest ahead of need, as a distribution company, without demonstrating customers are there
- A local authority/council officer asked WPD if they need someone to ask for a quotation before WPD are able to do anything
- A local authority/council officer queried how new connections are currently paid for
- An energy/utility company representative suggested that it would be good to have a caveat where a customer requests a connection / improvement in speed but there isn't an increase in cost until WPD actually delivers it

Table 7

- An energy/utility company representative said *'why should this be socialised?'*
- An energy/utility company representative stated that s/he *'would not like to be paying for the connections'*
- Another energy/utility company representative commented that when s/he worked for a house builder s/he was sure they used to pay large connection bills, so was *'not convinced the cost is being socialised'*
- An energy/utility company representative made the point that *'money can be better spent elsewhere'*
- An energy/utility company representative articulated that s/he understands that *'WPD are often used to do the groundwork and then the business is taken to an ICP'*

10.3. 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

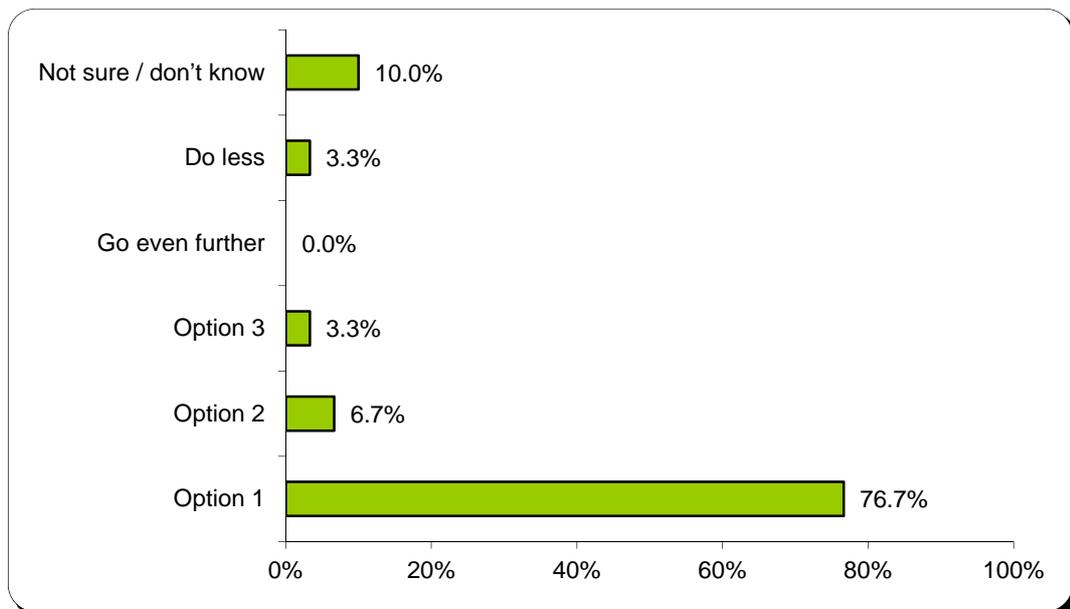
Option 2: The average time from first contact to completion reduced to 20 days for a small scheme and 60 days for a large scheme at a cost of £28.3m (22p per domestic customer per annum)

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)

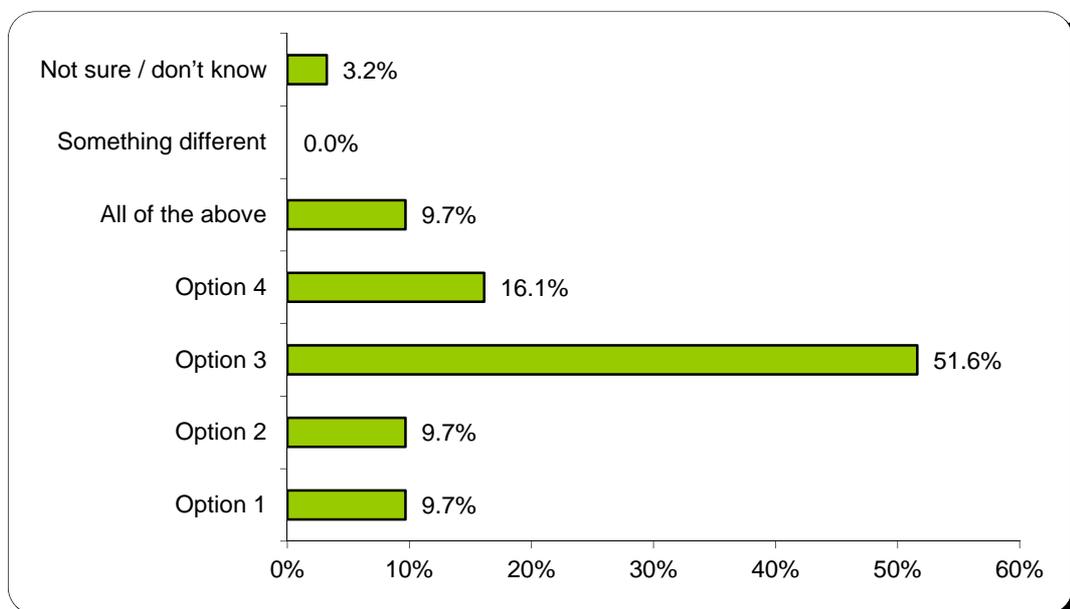
Option 3: Now plus applications, payments, job tracking etc. online at a cost of £2m (1p per domestic customer, per annum)

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

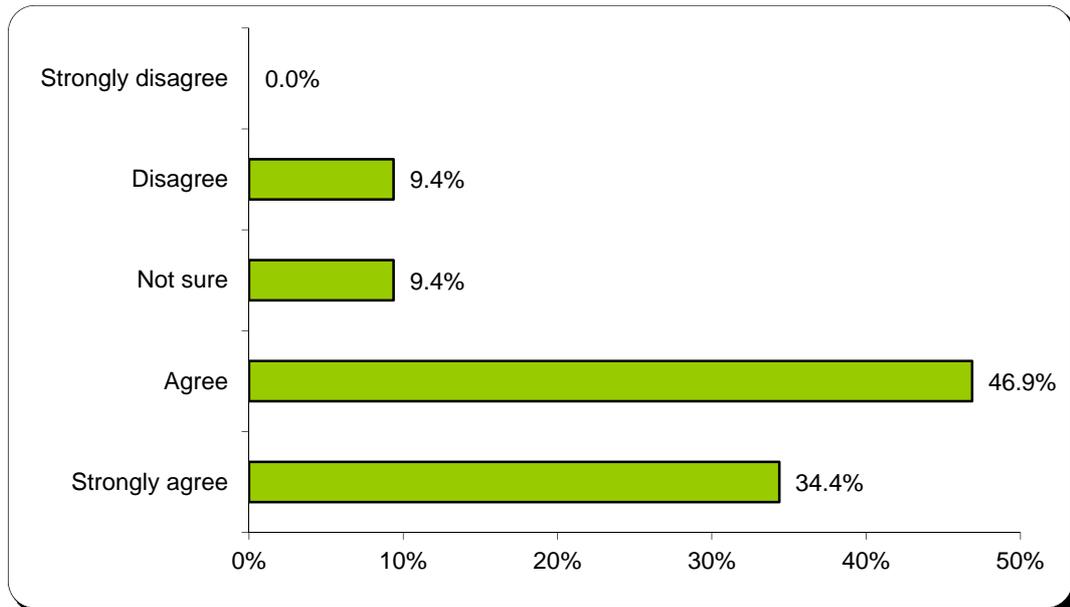
Option 5: All of the above

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 medium priority for WPD



11.3. Comments

Table 1

- A developer/connections representative would like to see the reinstatement of account managers for large companies, saying it *'worked better for me as a developer'*
- A local authority/council officer was of the view that WPD's costing of account managers is exaggerated and smarter thinking is needed to make this happen, saying *'the people are there, only the connections need to be made'*
- A local authority/council officer commented that *'unofficially developers can get information but it is harder than it should be'*
- A domestic customer representative made the point that *'if organisations don't meet deadlines for discussion and completion of installation it affects my bottom line'*
- A domestic customer representative commented s/he felt it was a *'big issue for businesses rather than individual customers'*
- A domestic customer representative believed that technology is fast moving and committing to something in the future could be dangerous; instead they should be responsive to technology changes
- An energy/utility company representative was of the view that *'people just want to know what is happening, they don't care how it's done'*
- A domestic customer representative said *'the phone is enough for me as I get the information quickly and that's all I need'*

Table 2

- A local authority/council officer stated that s/he would opt to support all of the investment options
- A stakeholder agreed that this would be the best approach. S/he argued that *'different customers have different needs'*; for instance, an older person might struggle with new communication methods, and if an outage occurs in a remote area, where do residents turn to obtain information? His / her overarching argument was that *'the methods outlined don't necessarily appeal to everyone'*
- A business customer representative added that a power cut would also affect telephone lines and *'WPD needed to bear this mind when considering innovation in customer communications'*

Table 3

- A parish councillor commented in relation to WPD's profile that the key factors are *'who you are and what you do which are more important than the issues and items being offered.'* S/he felt the options available seem very cosmetic and a better understanding of who WPD are and what they do is needed more
- A parish councillor agreed but stated it is a separate issue to the topic being discussed
- A stakeholder asked what the feasibility of option 4 is
- A stakeholder pointed out *'not everyone has a mobile phone with internet access so there is still a need to have a number to call'*
- An energy/utility company representative commented that Twitter was *'very cost-effective'* and an excellent way to reach out to customers
- A regulator/government representative stated it is a long-standing issue for social care organisations who *'need to be updated and informed quickly'*
- An energy/utility company representative pointed out *'blogs and Twitter pages require a high level of maintenance and you have to offer a constant presence'*. S/he felt that SMS and web on demand is more relevant than the need of constant demand
- An energy/utility company representative commented *'WPD's website could be updated'*
- A parish councillor was of the view *'all information needs to be effective and accurate'*
- An energy/utility company representative stated *'looking forward and understanding customers is important'*

Table 4

- A stakeholder pointed out that *'nobody knows who WPD is, or who to phone in the first place: how about investing in letting people know about this?'*

- An energy/utility company representative agreed: *'I think it's very important to let people understand. It's so hard to get through to people; it should be straight to a human being'*
- A local authority/council officer said *'I don't know how many people would use social media, text messages would be very useful as people can report problems this way and it's simple'*
- An energy/utility company representative pointed out that if your power is out it's quite hard to get connected to a website *'whereas text is so easy and proactive it comes to you'*
- A local authority/council officer noted that in rural areas *'you can struggle to get a good signal to navigate a website.'* S/he commented it would be easier to send and receive a text
- An energy/utility company representative disagreed, stating *'I wouldn't support that at all, it should be an optional extra for those customers who want to use these platforms'*
- An energy/utility company representative was of the view that *'this is all or nothing in terms of cost and the costs are very low'*

Table 5

- A parish councillor was of the opinion that if the power is out then it makes it harder to get on to social media. *'You need power for communications, even to charge smartphones'*
- A stakeholder pointed out that if it is a rural customer then they might not have phone reception. S/he stated s/he *'hates phoning up companies as it is too complicated, so if there is a short, easy way to find out basic information it would be helpful'*
- A developer/connections representative said if there is a problem, s/he *'just wants to know what is going on and a bullet of information is all that is needed'*

Table 6

- This question was not discussed

Table 7

- An energy/utility company representative said that s/he was unsure if the PowerPoint presentation meant option 3 is option 1 + 2 + 3 or just option 3
- An emergency resilience officer declared that s/he would welcome option 4
- An energy/utility company representative agreed with the emergency resilience officer that option 4 *'should be the first option to implement'*
- An energy/utility company representative made the point that *'we are talking eight years in advance, more and more people will be using it and we have to be looking at what is available in the future'*

- An energy/utility company representative commented that *'we are second-guessing the future though, which is dangerous'*
- There was general support on the table for improvement in the communication process
- An energy/utility company representative raised the point that without electricity people would be unable to check the website
- An energy/utility company representative stated that *'for us at home a power outage is inconvenient, for those on dialysis it's a disaster'*
- An emergency resilience officer was of the view that *'the online option would be far more efficient than 200 people phoning WPD's phone line'*

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)

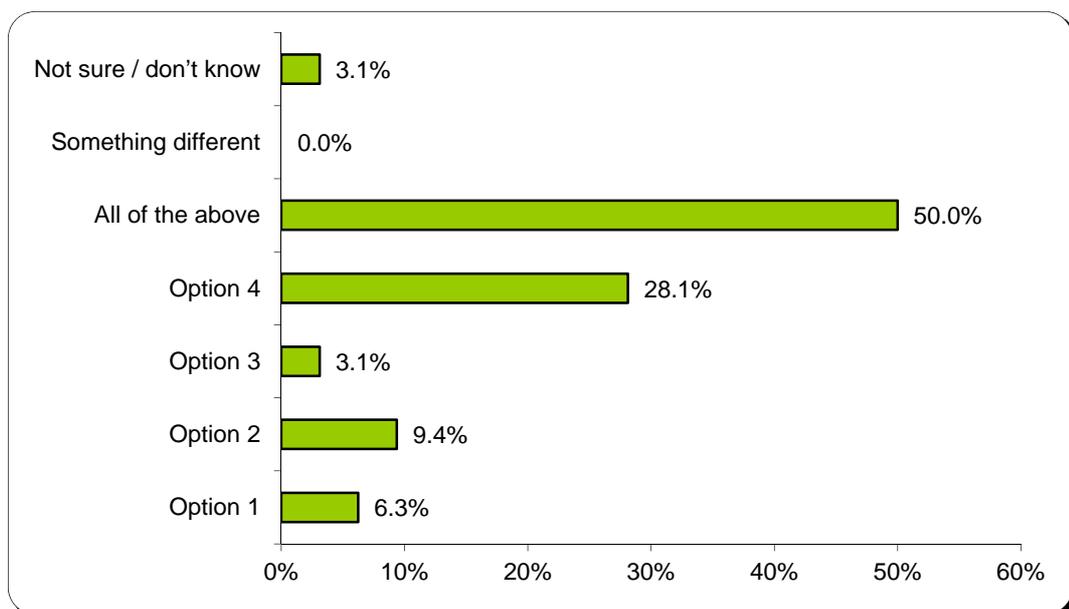
Option 3: Now plus social media channels at a cost of £3m (2p per customer per annum)

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



12. Low carbon investment

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

Table 1

- A domestic customer representative commented on the uptake of electric vehicles saying *'I can't see it happening'*
- A developer/connections representative countered that 'some local authorities are making us put in charging points'
- A local authority/council officer agreed, stating 'our local authority are putting in charging points, the technology is moving very quickly'
- A local authority/council officer added 'I am looking at purchasing an electric vehicle myself as it makes economic sense'
- A domestic customer representative countered that electric cars aren't 'producing less carbon as the electricity comes from mainly carbon sources'
- A developer/connections representative stated that 'from 2016 we are going to have zero carbon housing'
- A domestic customer representative made the point that 'the key point to remember is that if WPD invests and it doesn't turn out to be a big seller then they will suffer from it'
- An energy/utility company representative was of the view that medium fuel efficiency is not realistic
- An energy/utility company representative made the point that 'heat pumps have to be used in very efficient houses to be effective'

Table 2

- A local authority/council officer stated that *'some of this will be more achievable in different places than others, for example, the mass take-up of electric cars depends on affordability, and supply; this will immediately result in an urban/rural split. It's not impossible to pick the best scenario but it's a shot in the dark'*
- A business customer representative said *'the honest truth is who knows? I support WPD going with the flow'*
- Another business customer representative said, *'aren't you obliged to put forward a plan that the Government wants?'*
- A local authority/council officer added that *'the figures are a net reduction on the 1990s levels; I assume you're looking to increase the level of renewable heat?'*

- A business customer representative countered that *'we can't see into the future, we're dreaming if we think we can. Do you think a third of those figures are a reasonable assumption over the next 20 years? How far can you go?'*
- A business customer representative said *'we need to agree a standard plug for starters. We must have sufficient flexibility to accommodate changes in technology'*
- A local authority/council officer agreed with this point. S/he added that *'there are already Apps for 4G phones to help monitor electricity usage and there are so many variables, how do you build that into your modelling?'*

Table 3

- An energy/utility company representative asked *'can we continue with these subsidies?'*
- An energy/utility company representative questioned what the most likely outcome of the graphs would be. S/he viewed the last graph as showing a change of policy and felt it could *'affect all situations'*
- An energy/utility company representative commented on the targets in place and when they will be delivered and asked, *'will the government white-gloss each policy and will the government decide to wait until 2022 due to the EU policies/directives being implemented?'*
- Another energy/utility company representative commented on national debt
- An energy/utility company representative stated the *'1 million electric vehicle target is interesting'*
- An energy/utility company representative asked *'how much energy does an electric vehicle use in relation to a house - is there a significant difference?'*
- An energy/utility company representative commented on the *'implication of less energy usage due to good insulation'*
- A parish councillor was of the view the *'current government is putting future governments in a difficult situation'*
- A parish councillor thought that scenario 1 is the right one but questioned *'how is WPD going to make it happen?'* S/he felt it is a vast task for future governments
- A regulator/government representative asked *'what is the difference between options 1 and 2?'*
- An energy/utility company representative asked what WPD means by *'best view'*
- An energy/utility company representative felt that in the future larger cities will enforce *'a hybrid access only policy'*
- Another energy/utility company representative expressed concern that a high level of insulation in scenario 1 was *'too high'* and there is a need for the planning policy to change

- An energy/utility company representative agreed but would like to keep and use scenario 1 but *'decrease the level of insulation'*
- An energy/utility company representative pointed out the possibility of the green deal and asked if it would affect WPD's plans

Table 4

- A local authority/council officer explained that s/he thought heat pumps were being used and hybrid cars are too far in the future. S/he commented *'heat pumps are being over-used, especially in new houses, and the cost of installing a heat pump in a house is much more cost-effective than a hybrid car'*
- An energy/utility company representative commented that s/he thought *'ground source heat pumps too expensive and not practical in urban areas'*
- An energy/utility company representative said that *'gas is too cheap; you can't compete against this price-wise. My view is there are too many variables and unknowns to go ahead with heat pumps'*
- A stakeholder said s/he would go for the conservative option: *'no one can predict the future; the incentives of renewable energy may not add up now but in several years this will make economic sense'*
- A stakeholder agreed: *'this is not economically beneficial for the consumer but it also becomes a demand on the utility / networks because this becomes their responsibility'*
- An energy/utility company representative pointed out that if you are an individual consumer then this will not have a big impact. S/he went on to say *'it becomes a problem when it's you and your neighbour and the others down the street (clustering effect) - then it begins to have a big impact'*
- An energy/utility company representative asked if this generates any harmonic issues
- A stakeholder felt that if they went for option 4 *'this is not unreasonable'*
- An energy/utility company representative explained that *'government subsidies are there and gas prices are going up so this scenario is not changing here'*
- An energy/utility company representative stated *'we are waiting for the big uptakes in heat pumps when we go to a higher level of nuclear generation'*

Table 5

- A developer/connections representative commented s/he *'is not convinced by heat pumps'*
- A parish councillor stated s/he lives in a listed house so is not allowed to clad it or touch the outside of the building and it is therefore draughty and *'these energy-saving features might not be feasible across the board'*

- A stakeholder thought that electric vehicles require a serious drop to meet the carbon targets and there needs to be a network to charge the cars to cater for take-up of electric or hybrid cars
- A parish councillor said the predictions for electric cars are *'optimistic'*
- A developer/connections representative thought the options are unrealistic with *'district heating being a better alternative'*
- A parish councillor countered that the uptake in PV cells shows a willingness by consumers but *'WPD should be proactive and get builders to install heat pumps instead of retro-fitting them'*
- A developer/connections representative stated that s/he was *'not impressed by the solid wall cladding option and does not think it will be popular'*
- A parish councillor was of the view that *'power suppliers are pushing this agenda'*
- A developer/connections representative thought scenario 3 is *'more likely'* but feels *'all are impossible'*
- The table consensus was that all the scenarios were *'very optimistic and unlikely to be met'*
- A stakeholder was of the opinion that car transport will be the hardest to implement and to change people's behaviour

Table 6

- A local authority/council officer stated that from a personal perspective s/he is *'very interested in solid wall insulation and heat pumps'*. S/he stated s/he has *'bought an old house and would like to introduce these schemes in it'*
- A local authority/council officer explained that *'low carbon technologies are too expensive for customers to consider'* and s/he would like support and subsidies to introduce schemes
- A local authority/council officer added s/he understands *'heat pump technology is only effective if a building is well insulated'*
- A local authority/council officer suggested that *'the only way there will be domestic user uptake in the numbers needed will be through incentives'*. S/he added that in a way *'it would help customers if the targets were not met so the government would have to introduce subsidies'*
- A business customer representative queried what would happen to the targets if there was a change in government control. S/he added that *'this needs to be a long-term strategy that lasts longer than the life of a government'*
- An energy/utility company representative added that *'there will be an increase in PV take-up in the Midlands when there is a drop in prices'*

- A local authority/council officer wanted to discuss the cut-off points for PV applications when there is a change in tariff
- A business customer representative stated that *'there need to be incentives from WPD to get people to feed into the network'*
- A local authority/council officer wanted to know how low carbon technologies impact on the WPD network; *'why does the WPD network have to be reinforced if someone uses a heat pump?'*
- A business customer representative explained that his / her company does not do carbon capture. S/he stated *'there is a cost involved for businesses to implement these scenarios'*
- An energy/utility company representative added that *'when the carbon trading scheme was introduced it was baffling, even to those with expertise'*
- A local authority/council officer discussed the carbon offset scheme in Milton Keynes; *'you pay into a fund if the target isn't reached which is then invested in green schemes elsewhere in Milton Keynes'*. S/he added that his / her local authority has reached a point where *'they have done as much as they can concerning the insulation issue'*
- A local authority/council officer suggested that *'there needs to be a new scheme such as the carbon offset, for local authorities to trial'*
- A local authority/council officer pointed out the scenarios listed, mean WPD have to sell the benefits of low carbon technology over the long term, rather than just the life of the subsidy / scheme
- A local authority/council officer stated that his / her local authority is experiencing an increase in electric vehicle take-up, and has to provide more charging points. S/he stated *'the local authority is also discussing introducing electric buses as well'*
- An energy/utility company representative added that WPD *'have to be flexible to whatever scheme is taken up'*
- An energy/utility company representative stated *that 'you can argue that WPD's best-view option is 1 that is natural for an electricity distributor to choose, but may be different for a gas provider'*

Table 7

- An energy/utility company representative said that the scenarios are *'only looking at electricity generation and not looking at other renewables such as biomass'*
- An energy/utility company representative pondered whether or not heat pumps are the right answer because *'ground source pumps ones are very expensive'*
- Another energy/utility company representative commented that *'it is easier to look at ground source heat pumps in new builds'*

- An energy/utility company representative agreed saying that *'it is very easy to do things on new build but very difficult to retrofit them'*
- A local authority/council officer made the point that there are concerns with ground source heat pumps and contaminated ground. S/he went on to say that *'even with new build homes we have this issue because much of new stock will be built on former industrial ground'*
- An energy/utility company representative was of the view that heat pumps are at *'a good stage'* because they have a *'good coefficient of performance'*. S/he added that *'new systems will double efficiency but they are not a free source. You still need electricity to run them, for example'*
- An energy/utility company representative said that there are *'lots of different solutions that will answer lots of different scenarios'*
- An energy/utility company representative articulated that *'prevention is better than cure'* and WPD should *'deal with the energy load required by a building'*
- An energy/utility company representative commented that *'there are a lot of hurdles to clear if you want to carry out external wall insulation'*
- Another energy/utility company representative made the point that *'after installing insulation, people often use more heating because they don't just put a jumper on'*
- An energy/utility company representative questioned *'why would a landlord improve his building's efficiency if they did not directly benefit?'*
- An energy/utility company representative countered the point, saying *'they would because their property would be more rentable and have better sell-on value'*
- Another energy/utility company representative *'there is a difference between commercial and domestic use'*
- There was a general view on the table that *'a different approach is required for new build houses and retro-fitting'*

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 that smart meters are *'being rolled out with every new property'*
- A domestic customer representative stated that s/he believed the *'smart idea is to look at what individual usage is rather than making large changes to the network'*
- A domestic customer representative commented *'I choose to have what I want to have on despite the cost as I can afford my bills, I like my luxury and I don't think the general public would want or be willing to use a smart meter'*

- A local authority/council officer believed that improving insulation of houses is a bigger issue
- A developer/connections representative made the point that *'smart meters just give the information rather than changing anything'*
- A domestic customer representative pointed out that there are *'problems with using the power late at night, as the fire service says not to use electrical equipment at night due to fire risks'*
- A domestic customer representative was of the view that s/he *'didn't think it was WPD's responsibility to issue smart meters'*
- A local authority/council officer agreed, saying it had *'nothing to do with WPD'*

Table 2

- A business customer representative asked whether WPD believed that people would not voluntarily opt for smart meter technology; s/he thought that most people would not. S/he asked, *'do you think that most households will actually operate in adherence to the smart meter? Unless you believe in some sort of dictatorial household...'*
- A local authority/council officer asked what would be done to incentivise good energy consumption behaviour
- A local authority/council officer said *'we understand what sort of conundrum you have'*
- A business customer representative added, *'can you honestly assume people will take up smart meters?'*
- An energy/utility company representative stated that *'there needs to be an incentive'* to encourage take-up of smart meter technology. S/he added that *'it doesn't help that people have no clue about voltages and what flexibility exists within that'*
- A stakeholder commented that *'I have a smart meter which was part of a trial. In terms of usage capacity, we don't look into reducing energy use enough, but instead we seem to be increasing our usage by consuming new gadgets and smart phones'*
- A local authority/council officer thought that patterns of use would change if different prices were charged at different times of the day
- A business customer representative argued that this was type of pricing was not very practical. S/he said, *'why should my partner get up at 2am to do the washing?'*
- An energy/utility company representative said, *'yes, I would buy a smart meter, but my concern is I can see my demand coming down but prices will continue to go up'*
- A business customer representative added that *'lots of businesses could make use of the smart meter as well, this scenario must include above domestic-size property'*
- A local authority/council officer stated that *'we're working with computer manufacturers to switch off computers after a certain time rather than leave them switched on all'*

night – it should be about incentivising changes like this in behaviour. Partnerships shouldn't be just about managing new connections, the government should acknowledge that there are better ways of doing things'

- An energy/utility company representative stated that their preference was option 3, although overall, s/he was not convinced by any of the options as s/he *'couldn't imagine Joe Bloggs cladding his house'*

Table 3

- A parish councillor commented on the effect solar panels have had in making people aware of their electricity use and altering their views on technology. S/he felt that as people are more aware of how energy is being produced they are now looking more at what is being used on meters
- An energy/utility company representative stated *'the effectiveness of the smart meter depends on how it interacts with the user'*. S/he said the meter needs a good interface as on its own it will not change anything
- An energy/utility company representative considered *'humans are lazy'* and therefore the smart meter needs to be made to appeal to them
- Another energy/utility company representative commented it was *'a good idea for customers to be able to see the amount of water left in the boiler after use on the smart meter'*. S/he felt the smart meter has to be *'credible and has to matter'*
- A parish councillor stated *'through the use of technology it is easier to aid people to save energy than encouraging someone to insulate their walls, as seeing a tariff is clear and easy to understand'*

Table 4

- An energy/utility company representative commented that s/he had 1 smart meter and as a result knows that the most energy-intensive equipment is his / her electric shower, *'so now I don't let it run before I get in any more, I've made small changes'*
- A stakeholder commented when people have smart meters they only make a change for the first three months. S/he thought people *'have better things to do with their time than check how energy is being consumed'*. S/he stated customers *'only care about price and when it has an impact only then will they make changes'*
- An energy/utility company representative made the point that the key driver is the financial benefit and *'a smart meter is a customer education tool'*
- A local authority/council officer said *'seeing the visibility of how smart meters impact on your costs is powerful'*
- An energy/utility company representative explained that s/he *'hasn't changed over to a smart meter because so little of what you do is actually changeable'*. S/he stated *'everybody needs a shower and to put the heating on if it's cold'*

- A local authority/council officer asked what would happen if everyone had an electric car: *'if charging them overnight would that not flip the peak and off-peak as we know it?'*
- An energy/utility company representative said *'charging your electric car is the same as running your electric shower for four hours'*

Table 5

- A parish councillor and a stakeholder thought smart meters would help the younger generation save energy as *'they have everything on standby as they have always had instant access to power'*
- A developer/connections representative mentioned smart meters *'might help change consumer habits as they would see their money disappearing'*
- A parish councillor commented smart meters might affect those with young children if there was a peak tariff – *'which would be unfair'*
- A stakeholder said it will make people think about consumption and money wastage: *'linking it to phones would be even better'*

Table 6

- A local authority/council officer questioned whether a smart meter would make customers go around *'switching everything off'*
- An energy/utility company representative pointed out that trials in Canada have shown that smart meters have reduced peak usage
- An energy/utility company representative added that there is a whole industry waiting for smart meters to take off and they would *'exponentially'* in the future
- An energy/utility company representative stated his / her company has reduced its bill considerably with real time data rather than estimated usage
- Another energy/utility company representative felt that *'people would change their behaviour if they were able to avoid a peak period fees'*
- A business customer representative suggested that *'the problem with smart meters is customers are unable to tell what is causing high electricity levels'*
- However, a local authority/council officer thought *'smart meters would make people think about their energy usage more'*
- A business customer representative questioned what benefit you get out of a smart meter if you don't know what is causing the high electricity usage. S/he suggested that *'education about better energy efficient appliances is crucial rather than relying on smart meters'*
- A local authority/council officer added that *'new builds, refurbishments and replacements will be fitted with smarter appliances anyway'*

- A business customer representative felt that boilers are *'ruining'* WPD's plans for heat pump uptake as an alternative as customers are not currently incentivised

Table 7

- An energy/utility company representative admitted that s/he was part of a trial where a smart meter was put in his / her house and it did reduce his / her energy bill by over 15%
- An energy/utility company representative said that *'the red light on the smart meter is psychologically damning'*
- An energy/utility company representative commented that smart meters allow you *'to see that you have left something on'*
- Another energy/utility company representative made the point that *'even without a smart meter when he was a kid he was shouted at for leaving things on'*
- An energy/utility company representative articulated that s/he *'would like to see smart tariffing as well as smart meters'*
- An energy/utility company representative stated that s/he does not think his / her *'neighbours would like to have my washing machine going at 2am'*
- An energy/utility company representative was of the opinion that *'you cannot tell people what to do in their own homes'*
- An energy/utility company representative declared that *'the possibility of smart appliances is interesting'*

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

- A local authority/council officer asked 'if you had a smart grid in place, would there be any public interest in it?'
- A domestic customer representative was of the view that 'investing in smart grid technology would be an economic benefit for all'
- A domestic customer representative asked *'why should the level of service go down?'*
- A developer/connections representative agreed, stating *'customers expect a certain level of service'*
- A local authority/council officer commented that 'incentivising demand means that a side response may be a positive idea'

Table 2

- A business customer representative stated that *'you're completely wrong to invest ahead of need, you need to see a bit of need before you invest'*

- A stakeholder agreed that *'customers should not see an increase in power cuts as a result of introducing smart grid technologies'*
- A local authority/council officer was of the view that *'doing nothing is a baseline, but to achieve the scale of change required, any of these scenarios requires intervention and the investment is worth it. WPD should try to build on what's been tried and tested'*
- The table agreed that there should not be any deterioration in service levels as a result of smart grid technologies
- They all felt that incentivising behaviour and smart technology could help WPD reach its targets

Table 3

- An energy/utility company representative stated *'yes, it should be'*
- An energy/utility company representative also agreed
- Another energy/utility company representative commented on smart grids and was of the opinion that *'putting more intelligence into the network was not being resourceful as there is a future need for it to be moved for utilisation'*
- An energy/utility company representative was of the view that *'the idea of having over-engineered grids and less maintenance would be unrealistic'*
- A regulator/government representative was of the opinion that *'having seven to eight power cuts a year would be acceptable'*
- An energy/utility company representative was of the opinion that *'without regular input from DECC and the government changes that are implemented are going to be immeasurable for years'*
- An energy/utility company representative stated s/he would like to see farms or factories become *'self-sufficient'* as growth will then occur
- A parish councillor felt that it's *'a new world and change will inevitably occur'*
- An energy/utility company representative said *'smart meters need to be regulated as they are not commercially feasible in our country'*
- An energy/utility company representative was of the opinion *'it is easier to make a case to use smart meters for industrial use rather than domestic use'*. S/he would like to see thermostats being linked to a smart grid with a clear interface
- Another energy/utility company representative pointed out the mass roll-out of smart meters *'isn't complete until 2019'*

Table 4

- A stakeholder pointed out that *'the customer should not see any impact after this change'*

- A local authority/council officer pointed out that *'if people are paying higher bill for this they are going to expect better service'*
- A stakeholder explained that *'if you are paying more money for less availability this will not satisfy customers'*
- A local authority/council officer said s/he is *'sceptical about inland wind turbines because there will not be wind at the same time as coffee breaks'*
- An energy/utility company representative commented that s/he thinks there is a great opportunity here because of real time frequency control
- A stakeholder explained that it is 1 thing is to have the meter and another to have a smart meter. S/he asked *'is there demand for this?'*
- An energy/utility company representative asked if people would be willing as customers *'to see limits being enforced on the level of demand at a certain time of the day'*
- An energy/utility company representative was of the view that if you have a smart meter, *'aren't you halfway there?'*
- An energy/utility company representative pointed out that *'there is no communication in place to make this happen'*
- Another energy/utility company representative commented that if you are using network enforcement *'you only have 20% to play with because this is how much WPD owns'*

Table 5

- A stakeholder commented that it is inconsistent with the previous topics discussed. 1 or two is not *'life threatening'*
- A parish councillor countered that *'it depends on circumstances, such as those with young children who need it whereas others can get by with the disruption'*

Table 6

- A local authority/council officer raised the point that *'no one is ever going to agree to have more power cuts'*
- A business customer representative added that *'the smart grid is meant to stop there being more power cuts'*
- An energy/utility company representative questioned *'whether introducing smart grid technologies could be about not seeing an increase in the duration of the power cuts rather than more power cuts'*

Table 7

- This question was not discussed

12.4. Any other comments?

Table 1

- A developer/connections representative was of the view that s/he doesn't see *'what WPD can do in helping the uptake of electric vehicles'*
- An energy/utility company representative believed that if people are educated in how they can benefit from smart technology in terms of power cuts and managing their own bill, *'then there would be a change in their behaviour'*
- A local authority/council officer was of the belief that WPD wouldn't see a high take-up of heat pumps

Table 3

- An energy/utility company representative asked *'if the green deal happens, will it impact WPD's future plans?'*
- An energy/utility company representative said s/he *'was not a fan of electric vehicles but was willing to use 1 if told to do so'*
- Another energy/utility company representative stated *'smart cars need to be practical'*

Table 4

- A stakeholder was of the view that there are too many variables and unknowns and WPD have selected the conservative scenario
- An energy/utility company representative noted that a lot could happen with smart meters but *'a lot more information around energy is necessary'*
- A local authority/council officer thought that *'if WPD push the network harder this will have an impact on customer service and this needs to be addressed'*

Table 5

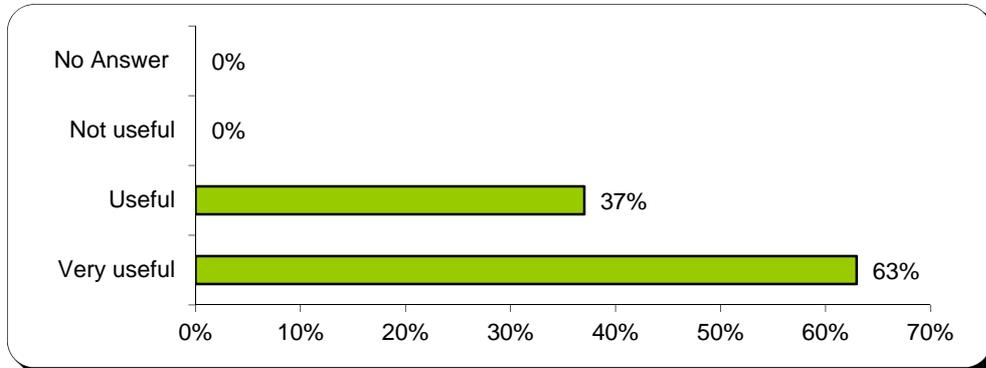
- The table agreed that DSR is likely to be restricted to large users in the mid 2020s

Table 6

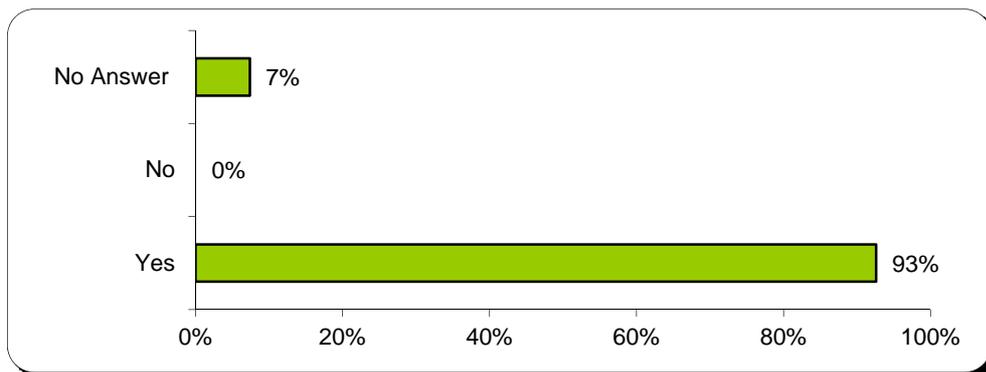
- An energy/utility company representative wanted to know if it costs a lot of money to *'switch the power'*
- An energy/utility company representative raised the point about improved substation security. S/he stated his / her company has a number of WPD's substations in the perimeters of its grounds, and access to the substations is very tightly monitored compared to previous years
- An energy/utility company representative discussed the traffic light system which indicated when it was cheaper to use electricity at different times of the day. S/he added that it was quite confusing to use

13. Stakeholder feedback

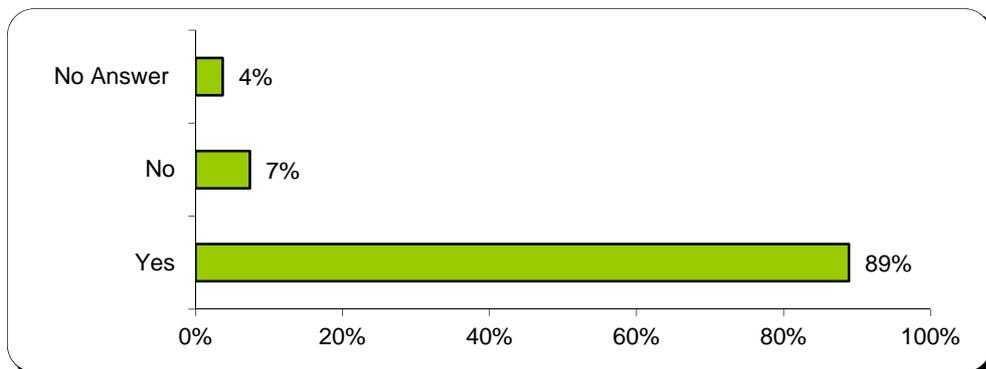
13.1. Q1. Did you find the workshops useful?



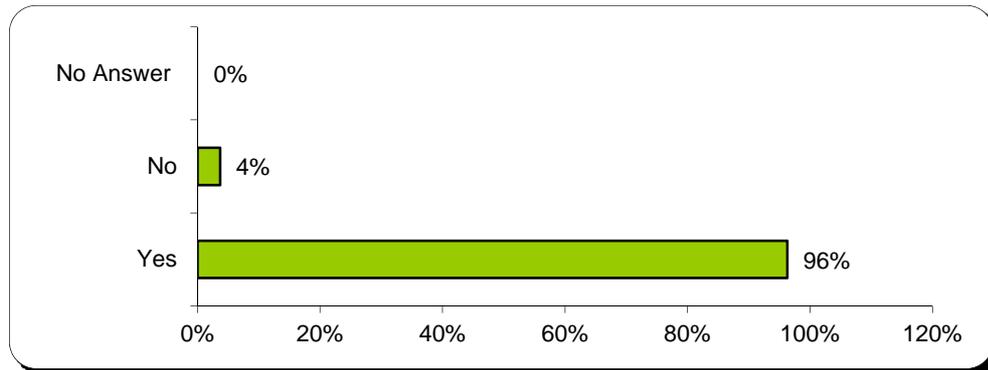
13.2. Was the venue conveniently located for you?



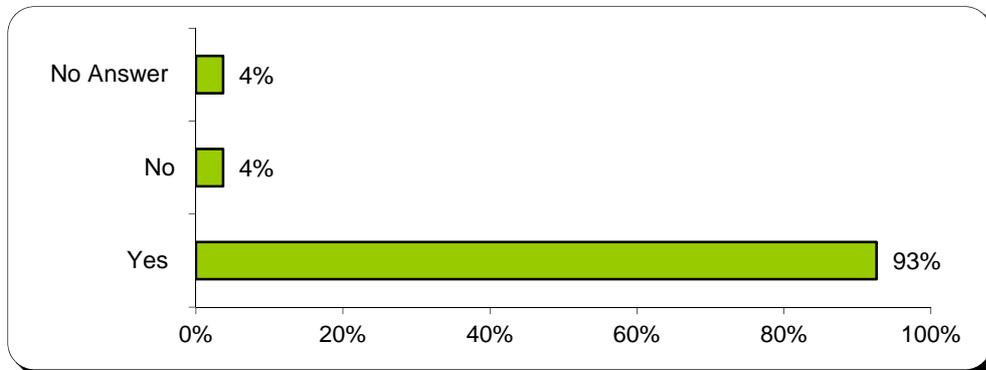
13.3. Did we provide enough information at the workshop?



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:

- *"Just to record how impressive the Stakeholder consultation event at Aston Villa was in terms of organisation, quality of the debate and the process you appear to be going through as a company".*
- *"Very interesting to both learn new ideas and take on board different views on a wide range of topics"*
- *"Good overall presentation that led discussions"*
- *"More time for discussion around the table would have helped-say 10-15 more minutes"*
- *"Linked in with business plan"*
- *"Very interesting and some issues specific to me as an emergency planner"*
- *"Covered an extremely wide variation of energy related topics and very informative"*

- *"Great format-liked the electronic voting"*
- *"Very good facilitator's (non-WPD)"*
- *"Very well organised"*
- *"Several of the topics were treated separately but must be linked (e.g. trees falling onto lines will cause power outages)"*
- *"A need to discuss in more depth and challenge Ofgem's assumptions by forging local government-power co alliances on policy change"*
- *"Good, clear presentations"*
- *"Good interaction between participants"*
- *"Very informative and good to be asked and involved with WPD future"*
- *"Very interesting to both learn new ideas and take on board different views on a wide range of topics"*
- *"I thought it was very well put together and the scenarios very clearly explained"*