IMP0606 Project Avatar Discussion Guide 2

Objective-

- **Defining Customer Needs and Expectations**
- **Explore innovation in customer experience**
- **Understand concerns on data sharing**
- **Introduce customer contact scenarios (that will be followed up to demonstrate the prototypes in ECP 3). Explore what would be important to the customer in these scenarios, and any concerns (and how to address them).**

GROUP STRUCTURE (1½ HOURS):

AREA OF DISCUSSION	TIME ALLOCATION	START TIME
1. Introduction	10	
2. Reminder last weeks discussion		
3. What does great customer service look and feel like?	15	
4. Emerging technology	15	
5. Smart home and smart grid of the future	10	
6. Concerns about data sharing (sorting exercise)	15	
7. Customer contact scenarios	20	
8. Thanks	5	

1 Moderator Introduction (2 – 3 minutes):

- Re-introduce yourself
- *Explain purpose of discussion (how ENWL use largely traditional methods to interact with their customers now, how they are harnessing new technology and how they could embrace emerging technology to improve the way that they interact with their customers in the future, to improve customer service).*
- Confidentiality is guaranteed, no right / wrong answers, interested in everybody's opinions, in as much detail as possible

Warm-up

- What were the **key things you remember** regarding the last session?

MODERATOR READ OUT:

During the last meeting we discussed Electricity North West's responsibilities for operating and maintaining the electricity distribution network. We also discussed how the way we are using electricity is changing, driven by carbon reduction targets, new low carbon technology (LCTs) - such as solar panels and electric vehicles - and new forms of electricity generation. We covered how these technologies will have an enormous impact on Electricity North West and the service it provides in the future. Today we will continue our conversation about the customer service provided by Electricity North West and how this might change in the future with the development of technology and new methods of communication.

2 What does great customer service look and feel like? (15 minutes)

In preparation for this evening's meeting, we asked you to think of an experience you have had with an organisation and receive a 10/10 customer experience.

MODERATOR: ASK FOR 3 OR 4 PEOPLE TO SHARE:

1. Which organisation you had contacted?
2. How did it **exceed** your expectations?

PROMPT on:

- Did you actually speak / email/ interact with a person or was the information you received from an automated source?
- What was it about the information you received that you remember as being particularly good?
- How did this **exceed** your expectations?

MODERATOR: ASK THE GROUP:

- What are the things that make a bad customer experience?

MODERATOR: CHOOSE AN EXAMPLE FROM THE HOMEWORK WHERE THEIR EXPERIENCE WAS MADE BETTER THROUGH A COMPANY HAVING YOUR DATA SHARED. IF THERE ISNT ONE MODERATOR SHARE OWN EXAMPLE (FOR EXAMPLE MOBILE PHONE COMPANY SUGGESTED A BETTER DEAL FOR OWN PERSONAL USE)

Last time we talked about how in the future there will be a lot of data available about us and our household/ businesses that could make our life easier and also potentially could be shared with organisations so they have an increased understanding about you or your behaviour. For example smart meters or smart homes or smart fridges.

DISCUSS THE EXAMPLE WHERE DATA SHARING ENABLED BETTER CUSTOMER SERVICE, - HAS ANYONE ELSE HAD AN EXPERIENCE LIKE THIS?

-What else in your life is already better as a result of sharing data?

3 Emerging technology (15 mins)

In the future, it is predicted that your house will be increasingly interconnected, both between appliances and your phone, and to external companies through your smart meter and other technologies.

MODERATOR: SHOWCARD A

We are already starting to see technology, such as the Amazon echo (Alexa) and Google home, become increasingly common place in peoples' homes. Last Christmas the Amazon echo dot was the bestselling product on Amazon, and the Amazon echo app was top of the app download charts. **SHOWCARD B** is the share that amazon had on the market, indicating their dominance.

Who has a smart meter? How does it affect your life/what do you use it for?
Who has an Amazon echo or Google home? How does it affect your life/what do you use it for?
Wants one of above in the future?
Both Amazon echo and google home collect large amounts of data. Why is there more appeal of Amazon echo/google home (assuming this is the case in the group, if not point out that there have been huge sales for Alexa whilst government targets for smart meter uptake is not going to be achieved?
What else would a smart meter need to do to have same level of appeal?

We have one of the latest version of an Amazon echo here: the Echo Show. As well as being able to talk to it, it can now show you videos, pictures, security camera feeds on it etc.
DEMO: Get respondents to ask questions to the Echo Show (with a clause to keep it clean, sensible and not to make a purchase!!!!).

What are your initial perceptions of having an Alexa in the home, would you get one? What is stopping you getting one?

Ok, so let's show you examples of where other utility companies are starting to interact with this type of technology to make their customers lives easier

EDF have launched a tariff which includes an Amazon Echo and smart thermostat which allows for a range of services to be provided. **SHOWCARD C**

- Can you think of how ENW could also use this to create a better experience for its customers?
MODERATOR: Possible examples could be to store energy before a planned power cut (using battery storage discussed last time, reporting an unplanned power cut to ENW… **SEE FLASHCARDS PACK A**)

4 Smart home and smart grid of the future (10 mins)

If possible get the Echo show to load up the following video
https://www.youtube.com/watch?v=JwRTpWZReJk (if not show it on laptop)

Any questions? Any further thoughts on how smart technology could make your life easier? Any further concerns?

5 Concerns about data sharing (sorting exercise) (10 mins)

The topic and concern of data sharing has been mentioned throughout these sessions.

Thinking about your concerns with data sharing, specifically around smart meters, I would like you write down all the concerns that you have, or that others may have, about sharing data in this way with energy organisations. Please be as specific as you can.

Then please sort them into one of three piles: Are not much of a worry to you, a slight concern, a big concern (probably a barrier to you getting a smart meter in the future)

MODERATOR: Get the groups to feedback on their answers, identify some common themes in large concerns.

What would it take the group to no longer be concerned e.g. an advancement in technology, communication from those using the data, controls that they have over the smart meter and other technologies and what their information is used for.

Last time we met, we shared a video about the roll out of Smart Meters across GB and we would like to look now at the data that these would gather.

SHOWCARD D

6 Customer contact scenarios (20 minutes)

Scenario for Prototype One – Smart Hub/Digital Energy hub

We talked earlier about how homes are becoming 'Smart homes' with assistants such as the 'Amazon Echo (or Alexa)' and 'Google Home' letting people control their devices through voice recognition whilst in the home and also remotely for example adjusting the heating whilst you're out, or lighting a room as you enter.

Even if your home isn't yet hard wired for smart devices, these home assistants let you have control over switching devices on and off, from almost anywhere in the world, simply by having your wifi connected to a smart plug. These systems can also tell you how much energy you are consuming.

I would like you to think about what other information would be helpful in order to gain even more control over your energy consumption in the future?

TYPICAL HOUSEHOLD SHOWCARD: (**SHOWCARD D**)

Here is an example of a household from 2028. Brenda is married to James, and lives in a small town with their two teenage children. Brenda and her husband both work and the children are at school all

day. James drives an electric car to work, though Brenda walks. The family use solar panels to generate electricity which provides part of their energy needs. Peak energy use for this family is between 6-10pm in the evening, when the family are home, preparing dinner, using laptops for homework, and various 3 dimensional, augmented reality devices for entertainment. For Brenda and her family, energy is not just something they consume from a supplier, but also something they can generate and use or sell. They also have a battery storage device, which means that they can store the electricity that their solar panels generate to use when they need it or if they don't use it they can sell it back to the network company, so for the most part, their electricity is almost independent of the traditional mains supply.

What information would help Brenda understand more about the household's energy consumption? SEE FLASHCARDS PACK B

PROBE:

What type of electricity consumption information would be useful for the home/business to know?

- What would they **need** to know? **PROBE** *Information about consumption on a room level, or by device? Would it be useful to have past, current or future predictions?*
- What would they do with this information?
- What would they **NOT need** to know **PROBE:** *Any concerns (for example security?)*
- How would this information be **communicated?** **PROBE:** *Channel, proactive vs reactive?*
- How would having access to this information make Brenda **feel?**
- Would you expect the smart hub to keep an 'audit trail' of the communication and have this available to you? What benefits would this bring?
- **Would access to this information be financially beneficial to Brenda?**
- **PROBE:** Any types of household/business which might need to receive information in a different way? Prompt on specific customer segments (different types of vulnerability (ie medically dependent – the elderly) / millennials, large industrial customers, different languages?

Scenario for Prototype Two – Communication channels

We talked when we last met about supply interruptions or power cuts, and how currently, Electricity North West communicates with customers when there is a planned or unplanned power cut.

TYPICAL HOUSEHOLD SHOWCARD D

Let's imagine an unplanned power cut happens to Brenda's household, again in 2028. This occurs during the evening, at the busiest time for the family, when they all rely on electricity the most. It is winter, it's cold and it's dark outside. James is making dinner, the kids are doing homework and Brenda is trying to finish an urgent report that she needs to submit at work the following day.

Brenda is communicating with Electricity North West via a 'home hub', similar to the Alexa hub we have just seen. Brenda is quickly able to receive an answer to her questions about the power cut, whilst helping James rescue dinner, saving her report, (and ensuring the kids are able to complete their homework).

PROBE:

- What type of information would it be useful for the home/business to know?
- How would this information be **communicated**? **PROBE** *Proactive versus reactive? By what method – visual or spoken? When? Initial reactions to voice interactive platforms and holographs? (IF CONFUSION OVER HOLOGRAM SHOW SHOWCARD E)*

- How would it make Brenda feel if she received information in this way?
- **PROBE:** *Any concerns (for example security?)*
- **PROBE:** Any types of household/business which might need to receive information in a different way? Prompt on specific customer segments (different types of vulnerability (ie medically dependent – the elderly) / millennials, large industrial customers, different languages?
- **Would you expect the communication platform to keep an 'audit trail' of the communication and have this available to you? Would this be a benefit?**
- *Would it be useful to have this visually communicated on a map for example? On a map you could see the area affected and identify for example the nearest working EV charging point? Also on a map you track the status of the repair or track progress of an engineer on his way to fix a fault/make a connection? If you could see the workforce in real time fixing the fault, how useful would that be? For example seeing engineers excavating and digging the road and seeing cables, or sending a drone up to look at pylons.* ***MODERATOR PROBE FOR HOW MUCH INFORMATION IS TOO MUCH?***

- *What situation would this be most useful in? For example longer duration faults, if away from home (for example in the office) so can decide when to go home? Any other situations? Would you want this pushed to you or would you want to log on and see it?*

Now imagine this occurs during the day, when all the family are out at work/school, and the power cut lasts for 4 hours. Remember that this in 2028 and Brenda's family have a home hub/smart home assistant

How and why would the interaction with Electricity North West be different?
What information would Brenda need in this scenario?

Now imagine that Electricity North West know that they are going to have to temporarily disconnect the mains electricity to your local network, to carry out essential maintenance works. There is no alternative – there has to be a planned interruption otherwise Brenda's mains supply, and those of customers in neighbouring streets could be interrupted, without notice at any time, because without the maintenance a fault is likely to occur.

What information would Brenda need in this scenario?
Is anything about the way the information should be communicated be different? What and why?

Now I'm going to introduce you to Brenda's mum

SHOWCARD H: Brenda's mum Janet lives alone, in a small village about 10 miles from Brenda. Janet lives an independent and active life, and enjoys coffee mornings in the village. She has suffered from kidney disease and as a result has a dialysis machine at home which she has to use twice a week. In 2028, a significant proportion of medical treatment is provided in the home, monitored remotely by health professionals with virtual support provided when needed.
In a power cut situation, such as that we have just outlined for Brenda, it might be useful for Electricity North West to interact with, and provide additional information for Janet. For example, the ability to send and receive information to health care professionals.

- How would you feel about the ability to link consumption pattern data to that from other sources on order to build a more detailed profile for specific customers? For example, if an unexpected

change in Janet's energy use trigger a warning to Brenda or to a local healthcare provider? Any concerns about this? Is this already happening now?

- In this scenario should information be sent to both Janet and Brenda? Why?
- Should an engineer have to visit Janet what extra precautions should be taken? For example should he be required to show ID
- Would real time tracking information (for example GPS tracking of an engineer to keep up to date with arrival time, been able to view videos of progress) be more or less important in this scenario? Why?
- Can you think of any other situations where this might be useful for Janet specifically or for other types of customer? **PROMPT IF NEEDED:** *For example:*
    - *Providing energy efficiency advice*
    - *Automatically notify nominated contacts about the outage so they could make provisions for her ie the health care provider / Brenda*
    - *Information about the nearest place with power to charge her smart devices, so she can stay in touch with Brenda*
    - *After a certain length of time, electronic issue of vouchers for hot meals and drinks at the nearest outlet.*
- What about sharing information between trusted companies for the benefit of customers. So for example, if another utility company, such as gas or water knew that Brenda had vulnerabilities because they'd been in contact with her; should their systems automatically let other utility companies know that she may need extra assistance when things go wrong?

IF TIME MODERATOR: GO THROUGH SCENARIO 1 AND 2 IN TURN AND PROBE ON WHAT WOULD BE DIFFERENT FOR JANET.

WRAP UP FOR SCENARIO 1 AND 2..

Now thinking about all the different reasons that you may be in touch with ENW in the situations we have discussed. For example, the fact the power has gone off, videos of the engineers working to fix a supply interruption

Please can we divide these into two piles – push to indicate this is information you would proactively like ENW to send to you, and 'pull' to indicate this information is something you would like to be able to easily access, but it would not need to be actively sent to you.

MODERATOR GET THE GROUP TO WRITE DOWN ALL THE DIFFERENT REASONS FOR CONTACT ON POST IT NOTES AND PLACE INTO TWO PILES (PUSH AND PULL). Also prompt on other scenarios which may have been discussed) for example information on where to charge your electric vehicle in the event of a power cut?

MODERATOR: ONLY COVER IF WE HAVE ENOUGH THIME, OTHERWISE WE WILL COVER NEXT WEEK. NB Have moved this to after scenario two, unlikely will cover in ECP2

Scenario for Prototype Three – Network Visualisation Map

When we last met, we briefly talked about how, in the future, it's likely that DNOs will need to adopt a much more interactive approach to managing a 'smart grid', moving towards a DSO model

(**SHOWCARD G** – overview of DSO from ECP1)

This would require DNO's / DSO's to have access to more detailed information about the electricity that is being used on specific parts of its ~~the~~ network, to prevent faults if more electricity is being used than the network can cope with; or if there's too much electricity being generated, which can also cause problems and result in faults. This information could be provided by the likes of smart home devices such as those discussed earlier or /smart plugs & sockets, connected to the home/business Wi-Fi.

MODERATOR*: Try not to dwell on provision of data by smart meters – acknowledge and move on.*

Let's use Brenda's household as an example again, with the unplanned power cut scenario that happens, without notice, at the worst possible time for the family, during the evening in 2028. Brenda's family live in a residential area, with a lot of young families, where most households rely on electricity, especially around this time – not everyone on this network has the same backup battery storage as Brenda's home, and nobody's solar panels are generating, because it's dark, meaning that until the problem is fixed, they have no power.

This fault was caused because the network had become overloaded. Electricity North West would be able to manage its network much more efficiently, and could probably have prevented the fault from happening, if it had access to the households' consumption information.

If customers allowed the DNO to see this information they would know what was happening, at network level, and any time, right down to the device level in individual homes. If they could see and use this information, they would not only be able to provide a more reliable supply, but also offer improved advice and services to customers. For example *we are aware that you have an electric vehicle that is not charged so we would suggest that in 30 minutes, after food preparation, you divert the battery reserve from the solar energy generated earlier today to charge your vehicle, which is only 25% charged. In time the DNO's systems might not just be able to suggest the best way of managing Brenda's electricity usage, generation and storage, but automatically optimise the home's energy needs and make these changes for her, remotely.*

The amount of consumption information potentially available to Electricity North West is likely to increase in the future as more devices become smart enabled.

PROBE:

- What are your feelings NOW about DNO's potentially having access to their household's consumption information in the future, assuming that this would only be possible if the customer had given their **explicit consent** to access it?
- Do you think that as customers become more familiar with smart technology and expect more of the DNO, they might be more open to sharing this information in the future? Probe to establish if this trade off would be for an improved customer service, to have a more secure network, for their general ease and convenience, for potential commercial gain/savings from additional services
- Assuming that Brenda has allowed ENWL to see all the consumption data from her smart devices, what other types of information would it be useful for the home/business to know in this power cut situation?
- How should this information be **communicated**? **PROBE** *By what method? When?*

- Any concerns about this scenario **PROBE:** *Any concerns (for example security? Sharing of data, explore customers general views about smart devises effectively extending the network by providing the DNO with information sources)*

- How would it make Brenda feel if she received information in this way?

7 Thank and close

Reminder on next meeting in two weeks time