Attachment 4.1
Customer Insights Report
Access Arrangement Information

2 October 2017

Access Arrangement Information (AAI) for the period
1 July 2017 to 30 June 2022
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### Program summary

**How we engaged**

**RESEARCH THEMES**
- Customer experience
- The future network
- Access and affordability
- Network reliability
- Network safety

**QUALITATIVE**
- 9 Workshops
- 94 Participants
- 35 Targeted interviews

**QUANTITATIVE**
- 3500 Survey responses

### What we found

<table>
<thead>
<tr>
<th>Research Theme</th>
<th>Customer Experience</th>
<th>Network Reliability</th>
<th>Network Safety</th>
<th>Access and Affordability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers want to see bushfire safety investment targeted in areas where it has the greatest impact</td>
<td>Customers want Western Power to continue to improve network safety, although are divided on whether to pay for it</td>
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<td>Customers are aware of Western Power but are unclear about the role it plays in the energy industry</td>
<td>Customers believe Western Power should use emerging technology to deliver improved customer outcomes</td>
</tr>
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</tr>
</tbody>
</table>
Customer Engagement

Program overview

Background
Western Power builds, operates and maintains the South West Interconnected Network (SWIN), which transmits and distributes electricity to approximately 1.1 million homes and businesses in the southwest corner of Western Australia. The SWIN stretches from Kalbarri in the north, to Albany in the south and out to Kalgoorlie in the east.

Figure 1: South West Interconnected Network (SWIN) map
The electricity industry in Western Australia is characterised by a shifting technology landscape, evolving government policy and industry regulation. In this changing environment, Western Power is interested in understanding customer preferences to help inform its future business plans. Western Power’s Customer Engagement Program (CEP) has positioned Western Power to better understand and respond to its customers, and help adapt to the changing regulatory environment. This report collates the insights developed by the CEP, conducted between September 2015 and January 2016.

Figure 2: Electricity Supply Chain
Western Power’s customer-centric journey

Western Power’s Strategic Development Plan 2013-17 (SDP) outlined Western Power’s intention to become a customer-orientated organisation. Western Power developed its Customer Service Strategy (CSS) in June 2014, which was endorsed by the board later that year. The CSS outlined Western Power’s customer ecosystem and divided customers into nine broad customer segments shown below.

Western Power is likely to join the national system of electricity regulation in July 2018. The Australian Energy Regulator (AER) will provide regulatory oversight for the Western Australian electricity industry in accordance with the National Electricity Rules (NER). Within the NER there is an expectation for network service providers to regularly engage with their customers and ensure that their business plans meet the long-term interests of their customers.

Customer Engagement Program objectives

To ensure that Western Power could accurately understand how investment options are going to affect particular customer groups, a comprehensive and diverse range of customers needed to be consulted on a variety of subjects.

To establish a foundational customer dataset, a comprehensive customer engagement was needed. With 1.1 million customer connections to the SWIN, it was inefficient to isolate every customer’s preferences. To ensure that the international standards of participation were met, every effort was made to ensure that any engagement methods included a representative sample of customers.

In accordance with the AER’s expectations of customer engagement the CEP’s objectives were to:

- Obtain customer and stakeholder input into Western Power’s proposed expenditure strategy and plan as part of its regulatory submission
- Conduct customer engagement that is broad and far reaching with representation sought from all customer groups and geographies in the Western Power network
- Establish ongoing customer engagement to provide feedback to customers on how their views were incorporated into the regulatory submission and consult with customers about ongoing business decisions Western Power might make
- Integrate insights obtained from customer engagement into business decision making processes
- Measure the success of customer engagement through multiple methods including direct feedback and advocacy.

Regulation and the electricity industry

The Western Australian Economic Regulation Authority (ERA) currently regulates Western Power and monitors the behaviour of participants in Western Australia’s wholesale electricity market. In March 2015, the Public Utilities Office (PUO) published the results of an Electricity Market Review (EMR) and recommended transitioning Western Power to a national system of electricity regulation.
Customer Engagement Program approach

The development of the CEP commenced in January 2015 and consisted of five stages: Mobilise, Listen, Interpret, Plan and Act.

This report summarises the insights developed during the Listen phase of the CEP, which began in September 2015. The objectives of the Listen phase were to:

- Provide customer input into Western Power’s proposed expenditure strategy and plan as part of its regulatory submission
- Develop a customer engagement program that is broad, far reaching and representative of all of Western Power’s customer groups and geographies in the SWIN
- Provide a forum for underrepresented groups to have their voice
- Present customers with scenarios during testing to build an understanding of the trade-offs of their preferences
- Provide opportunities for customers to express their own priorities.

Deloitte’s role

Western Power engaged Deloitte to deliver the CEP. Specifically, Deloitte’s role was to:

- Ensure the CEP was conducted in an independent and robust manner
- Ensure that the findings of the CEP were an accurate reflection of Western Power’s customers preferences
- Recruit a representative sample of Western Power’s customers for the workshops and phone survey
- Develop and facilitate workshops with support from Western Power subject matter experts
- Design a phone survey that included a choice model to understand customers’ willingness to pay for reliability improvements and the trade-offs they are willing to make.
Research themes
To ensure that customers’ feedback was collected in a structured and consistent format, five research themes were used to inform the structure of the workshops, phone survey and interviews. The research themes were aligned to Western Power’s strategic objectives, orientation and purpose.
The CEP’s five research themes were:

<table>
<thead>
<tr>
<th>Research theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer experience</td>
<td>Customer service, channels and opportunities</td>
</tr>
<tr>
<td>The future network</td>
<td>Western Power’s future role and the role of new technologies in the future electricity network</td>
</tr>
<tr>
<td>Network safety</td>
<td>Western Power’s safety strategies</td>
</tr>
<tr>
<td>Network reliability</td>
<td>The reliability of the electricity network</td>
</tr>
<tr>
<td>Access and affordability</td>
<td>Electricity price tariff structure</td>
</tr>
</tbody>
</table>

Research methods
Western Power has a diverse customer base, ranging from residential customers through to electricity generators and retailers. Each of these customer groups required different methods of engagement to explore the five research themes and achieve the research objectives.

A mixture of both qualitative and quantitative methods enabled meaningful engagement with Western Power’s customers and stakeholders. These were:

- **Customer workshops** – Qualitative workshops were used to explore the opinions and preferences of residential and small and medium enterprise (SME) customers. The workshops also provided a forum for presenting and gauging customer reactions to the various investment options Western Power may consider. This approach enabled detailed understanding of the reasons underlying customer’s responses, which helped frame and contextualise the quantitative survey results.
- **Telephone survey** – A quantitative phone survey was implemented to capture a statistically representative view of Western Power’s residential and SME customers. This means the survey results can be extrapolated to understand the opinions and preferences of all of Western Power’s customers. Online survey panels and other alternatives to phone surveys were explored but these methods would not have provided a sufficiently representative sample of Western Power’s customers, particularly of regional customers.
- **Targeted customer interviews** – One-on-one interviews were deemed the appropriate method for engaging with the remaining seven customer segments due to the level of existing relationship with these customers. Interviews also allowed for in-depth exploration of the research themes.
- **Customer reference group** – To provide peak bodies and other stakeholder groups with a more detailed explanation of the CEP a reference group was established. The reference group allowed Western Power to obtain input from these external stakeholders on the research objectives and approach employed in the CEP.
- **An online survey available on the Western Power corporate website** – Provided the opportunity for customers not directly recruited to provide their input into the CEP.
The table below is a summary of the engagement methods used for each of the customer segments. Each of the engagement methods are described in more detail in the following sections.

<table>
<thead>
<tr>
<th>Customer and stakeholder group</th>
<th>Engagement method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Customer workshops</td>
</tr>
<tr>
<td>Residents</td>
<td>✓</td>
</tr>
<tr>
<td>Small and medium businesses</td>
<td>✓</td>
</tr>
<tr>
<td>Government and large businesses</td>
<td></td>
</tr>
<tr>
<td>Local government</td>
<td>✓</td>
</tr>
<tr>
<td>Land developers</td>
<td>✓</td>
</tr>
<tr>
<td>Electricians and service providers</td>
<td>✓</td>
</tr>
<tr>
<td>Electrical consultants</td>
<td>✓</td>
</tr>
<tr>
<td>Generators</td>
<td>✓</td>
</tr>
<tr>
<td>Retailers</td>
<td>✓</td>
</tr>
<tr>
<td>Peak bodies</td>
<td>✓</td>
</tr>
</tbody>
</table>
Customer workshops
Nine customer workshops were held during the CEP; six workshops involved residential customers and three were conducted with SMEs. Workshops were held across the SWIN to ensure that the voices of metropolitan and regional customers were heard. Deloitte facilitated all discussions, capturing key comments and insights, while Western Power representatives provided education to enable participants to make informed decisions about the options presented to them. The workshops were recorded through video camera or via audio recorder.
The structure of each of the workshops was consistent and aligned to the research themes. The table below provides a summary of the discussions and exercises used to capture customer views.

<table>
<thead>
<tr>
<th>Section</th>
<th>Content</th>
<th>Activity</th>
</tr>
</thead>
</table>
| A. Introduction       | • History of Western Power  
                        | • Role in electricity supply chain  
                        | • Contribution to electricity prices.                                   | • Discussion: What is good customer experience to you?  
                        | • Worksheet: Communication channels preferences.                         |                                                                                       |
| B. Customer experience| • Customer service  
                        | • Communication channels and preferences.                                 | • Discussion: Do you use new technologies?  
                        |                                                                                          | • Discussion: What are your thoughts on new technologies?  
                        |                                                                                          | • Discussion: How do you see Western Power operating in the future?  
                        |                                                                                          |                                                                                       |
| C. The future network | • Traditional network structure  
                        | • The changing structure of the modern network  
                        | • New technologies.                                                        |                                                                                       |
| D. Access and affordability| • Explanation of tariff structures  
                        | • Introduction of time of use tariff structure  
                        | • Metering.                                                                 | • Activity: Which tariff structure do you like?  
                        |                                                                                          | • Worksheet: What tariff structure should Western Power investigate?  
                        |                                                                                          | • Worksheet: Which meter would you prefer to install?  
                        |                                                                                          |                                                                                       |
| E. Network reliability| • Customer reliability expectations  
                        | • Current reliability performance and network issues  
                        | • Processes to deliver a reliable network  
                        | • Potential projects to deliver a reliable network.                        | • Discussion: Who has experienced an outage?  
                        |                                                                                          | • Activity: Should Western Power focus their efforts on reducing the frequency or duration of outages?  
                        |                                                                                          | • Worksheet: Reliability investment options.  
                        |                                                                                          |                                                                                       |
| F. Network safety     | • Current commitment to safety  
                        | • Current safety programs  
                        | • Potential bushfire management programs.                                | • Discussion: Western Power’s safety record  
                        |                                                                                          | • Worksheet: How should Western Power address bushfire safety?  
                        |                                                                                          |                                                                                       |
Phone survey

The survey was approximately 20 minutes for both residential and SME respondents and consisted of nine sections. The table below explains how each of the survey’s sections linked to the workshops. It is important to note that once survey respondents were asked about their awareness of Western Power, they were all provided with the same level of education on Western Power’s role to ensure that answers were comparable across the entire sample.

The phone survey deliberately did not commence until after a number of the workshops had already been run, allowing refinement of the survey topics and questions to be asked prior to the fieldwork commencing.

<table>
<thead>
<tr>
<th>Section</th>
<th>Purpose</th>
<th>Link to workshops</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screening/classification</td>
<td>• Identification of electricity decision maker</td>
<td>• Tied to similar geographic regions.</td>
</tr>
<tr>
<td></td>
<td>• High level demographics/firmographics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Capture new technology intentions and current energy mix.</td>
<td></td>
</tr>
<tr>
<td>2. Knowledge and awareness</td>
<td>• Current knowledge of Western Power and the electricity industry</td>
<td>• Introduction and Awareness discussion (Section A).</td>
</tr>
<tr>
<td></td>
<td>• Inform survey respondents of relevant information to ensure that the survey sample was similarly educated.</td>
<td></td>
</tr>
<tr>
<td>3. Segmentation and attitudinal questions</td>
<td>• Attitudes towards power outages and other service expectations</td>
<td>• Reliability discussion (Section E)</td>
</tr>
<tr>
<td></td>
<td>• Attitudes towards Time of Use tariffs.</td>
<td>• Tariff structure activity (Section D).</td>
</tr>
<tr>
<td>4. Customer needs and preferences</td>
<td>• Communication preferences.</td>
<td>• Customer Experience discussion and Communication Channels worksheet (Section B).</td>
</tr>
<tr>
<td>5. Network reliability</td>
<td>• Experience and attitudes towards reliability.</td>
<td>• Reliability exercise (Section E).</td>
</tr>
<tr>
<td>6. Choice task</td>
<td>• Understand the trade-offs customers are willing to make with regards to price and reliability preferences (See ‘Assessing willingness to pay’ below).</td>
<td></td>
</tr>
<tr>
<td>7. Additional services and the future network</td>
<td>• Regional reliability</td>
<td>• Customer Experience discussion (Section B)</td>
</tr>
<tr>
<td></td>
<td>• Solar and battery intentions</td>
<td>• Future Network discussion (Section C)</td>
</tr>
<tr>
<td></td>
<td>• Future customer service exercises.</td>
<td>• Reliability investment options worksheet (Section F).</td>
</tr>
<tr>
<td>8. Demographics</td>
<td>• Additional demographics</td>
<td></td>
</tr>
<tr>
<td>9. Firmographics</td>
<td>• Additional firmographics</td>
<td></td>
</tr>
</tbody>
</table>
Assessing willingness to pay

It is important for Western Power to understand customers’ willingness to pay (and the trade-offs they are willing to make) for potential investments in the SWIN. In particular, the CEP sought to understand customers’ willingness to pay for improvements in the reliability of their electricity supply.

The final section of the phone survey measured customers’ willingness to pay for improvements in the reliability of their electricity supply through a ‘Choice Model’. Choice modelling is the industry standard in assessing the trade-offs customers are willing to make and is widely used in research to quantify customers’ preferences and willingness to pay.

Choice modelling works by presenting customers with a series of scenarios. Each scenario presents the customer with a pair of options to choose between. These options vary and force the customer to make a trade-off between them. The options presented in the CEP survey varied based on:

- Duration of outages
- Frequency of outages
- The time of day of outages
- Impact to annual electricity bill.

Each respondent was presented with 10 scenarios and asked to choose one of the two options presented. These scenarios were developed so that each respondent was allocated a completely different set of scenarios, allowing for a large number of combinations to be tested. This methodology allows statistical analysis of the importance each of the four factors play in the decision making process and the trade-offs customers are willing to make.

For example, a respondent might have been asked to choose between these two scenarios:

1. Power outages 2–3 times a year, in the afternoon and lasting less than an hour with a $25 reduction on their annual bill
2. Power outages 2–3 times a year, in the morning and lasting 3 to 6 hours with a $50 increase on their annual bill.

By asking respondents to make ten choices between similar situations the ultimate preferences of Western Power’s customers can be isolated.

Bill impact

While the choice model provides the best indication of customers’ willingness to pay for reliability, the CEP also sought to understand customers’ preferences regarding price in the workshops and through other sections of the survey. For some questions in the workshop and survey, customers were provided with an indicative bill impact to help inform their decisions. These bill impacts were developed for the CEP using the latest Western Power information to calculate the average bill and potential cost of an investment option. With this information, customers could make an informed decision about their preferences.

Interview engagement

During November and December 2015, representatives of Western Power and Deloitte conducted 35 interviews. The interviews were 45 minutes in length and structured according to the CEP’s research themes. The questions asked were tailored to the customer segment to which the interviewee belonged. For example, an interview with a member of the Land Developers customer segment included more questions relating to the future network and Western Power’s role in new land developments. The table below summarises the number of interviews for each of Western Power’s segments.

<table>
<thead>
<tr>
<th>Customer segment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Government</td>
<td>9</td>
</tr>
<tr>
<td>Electrical Consultants and Electricians and service providers</td>
<td>7</td>
</tr>
<tr>
<td>Land Developers</td>
<td>3</td>
</tr>
<tr>
<td>Government and Large Business</td>
<td>10</td>
</tr>
<tr>
<td>Retailers and Generators</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>
Customer Reference Groups

Two further workshops were conducted in December 2015. One workshop was held with members of the Strategic Reference Group (SRG), an existing group established by Western Power and representatives of the Western Australian property development and construction industry.

Another workshop was held with members of Western Power’s Customer Reference Group (CRG). The CRG was established at the beginning of the CEP to provide an avenue to identify issues of importance for customers and test the approach and findings of the CEP. The members of the CRG represent customer organisations and provide Western Power with a mechanism to obtain customer views and test assumptions about customer preferences. The CRG was consulted during the development of the CEP to ensure that the planned engagement was valuable and conducted in an effective manner.

**Customer Reference Group members**

- Chamber of Commerce and Industry of Western Australia
- Curtin University Sustainability Policy Institute
- Financial Counsellors Association of WA
- St Vincent de Paul Society
- WA Local Government Association
- WA Farmers Federation
- Western Australian Council of Social Service

**Online survey**

An online survey was accessible from Western Power’s website. The survey was designed to be quickly completed and thereby capture as many customers’ opinions of Western Power as possible. The survey was advertised internally within Western Power, and through a hyperlink on Western Power’s website. Members of the SRG and CRG were also provided with the website address of the survey so that they could share it with their members.

**Sampling methodology and weighting**

Representative samples of customers were involved at every stage to ensure that the insights developed by the CEP could be relied upon by Western Power when making investment decisions.

**Workshop sampling**

Nine workshops were conducted with 94 customers (64 residential customers and 30 SME customers) across metropolitan and regional Western Australia during October and November 2015. Workshops were held in Perth, Geraldton, Albany, Bunbury and Merredin.

Workshop participants were the decision maker or involved in decisions to do with electricity supply. They were recruited on the basis of age, household income, property ownership, and geography for residents and on the basis of industry, number of employees, revenue and geography for SMEs. Each workshop had at least one attendee with a solar photovoltaic (PV) installation but no more than three, consistent with the solar PV penetration rate of 20% in the SWIN. Workshop locations and number of participants are outlined in Appendix A.

Workshop attendees were recruited by an independent and accredited market research agency. Attendees were incentivised to participate, in accordance with common market research practices.

**Phone survey sampling**

A phone survey was conducted in November 2015 and was completed by 3,500 customers (2,500 residential customers and 1,000 SME customers).

The phone survey sample was designed to enable a sufficient sample size for drawing inferences at a regional level. The sample size chosen was also required for the choice modelling needed to test customers’ willingness to pay. Given the large number of possible combinations to be tested, it was important that the sample size was sufficient to accurately determine customers’ willingness to pay and the trade-offs they are prepared to make.

<table>
<thead>
<tr>
<th>Location</th>
<th>Customer segment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential</td>
<td>SME</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>1600</td>
<td>643</td>
</tr>
<tr>
<td>Regional</td>
<td>900</td>
<td>357</td>
</tr>
<tr>
<td>Total</td>
<td>2500</td>
<td>1000</td>
</tr>
</tbody>
</table>
For planning and operational purposes, Western Power divides the SWIN into 15 Load Areas. Quotas were set to gather a sufficient sample within each Load Area to allow results to be directly applied in Western Power’s future investment decision making process. See Appendix A for a breakdown of the sample achieved by each of these Load Areas and further details on the quotas used.

Phone survey participants were recruited by an independent and accredited market research agency, with interviews conducted using a computer-assisted telephone interviewing system. Phone survey participants were not incentivised for their participation and were made aware that the survey was on behalf of Western Power. The phone survey recruited those who were responsible for making decisions regarding the consumption of electricity within their household or business.

Sampling precision and survey weighting
The table below provides the margins of error (at the 95% confidence level) for the four main groupings within the survey sample:

<table>
<thead>
<tr>
<th>Location</th>
<th>Customer segment</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Residential</td>
<td>SME</td>
<td></td>
</tr>
<tr>
<td>Metropolitan</td>
<td>±2.4%</td>
<td>±3.9%</td>
<td>±2.1%</td>
</tr>
<tr>
<td>Regional</td>
<td>±3.3%</td>
<td>±5.2%</td>
<td>±2.8%</td>
</tr>
<tr>
<td>Total</td>
<td>±2.0%</td>
<td>±3.1%</td>
<td>±1.7%</td>
</tr>
</tbody>
</table>

Survey results were weighted to ensure the final sample collected was representative of Western Power’s customer base. The following parameters were used to weight the sample:

- Number of connection points within a Load Area (by residential and SME customers)
- Number of solar PV installations (by residential and SME customers)
- Age and gender distribution of electricity decision makers within residential households.
Customer insights

The 15 Customer Insights are drawn from analysis of the results of both the quantitative survey and qualitative workshops. When an insight or inference is drawn from the comments of the workshops, the following section refers to these comments as emerging from ‘workshop participants’.

In contrast, when an insight or inference is drawn from survey results, we describe these as comments.

The 15 Customer Insights that were developed through this process are detailed below:

<table>
<thead>
<tr>
<th>Research theme</th>
<th>Insight</th>
<th>Insight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overarching insights</td>
<td>1 Customers are sensitive to price increases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Customers are aware of Western Power but are unclear about the role it plays in the energy industry</td>
<td></td>
</tr>
<tr>
<td>Customer experience</td>
<td>3 Customers want to interact with Western Power through multiple channels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Local staff as well as accurate and timely support is essential for a positive customer experience</td>
<td></td>
</tr>
<tr>
<td>The future network</td>
<td>5 Customers believe that Western Power should use emerging technologies to deliver improved customer outcomes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 Customers want Western Power to play a role in the supply of electricity into the future</td>
<td></td>
</tr>
<tr>
<td>Access and affordability</td>
<td>7 Customers who have been educated about electricity tariffs are more likely to support a time of use tariff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 Customers who believe they are unable to alter their usage pattern do not support the implementation of a time of use tariff</td>
<td></td>
</tr>
<tr>
<td>Network reliability</td>
<td>9 Customers who favour a time of use tariff are willing to pay for technology that allows them to monitor their usage</td>
<td></td>
</tr>
<tr>
<td>Network safety</td>
<td>10 Customers are accepting of occasional outages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 Accurate and frequent communication is essential during supply interruptions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 Longer outages are more disruptive to customers than frequent (short) outages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13 A reliable source of electricity is essential for all customers and customers are willing to spend money to ensure that all people on the network have a reliable source of electricity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 Customers want Western Power to continue to improve network safety, although are divided on whether they should pay for it</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 Customers want to see bushfire safety investment targeted in areas where it has the greatest impact.</td>
<td></td>
</tr>
</tbody>
</table>
Customer insight #1 – Customers are sensitive to price increases

Using choice modelling, customers were asked to choose between differing levels of outage frequency, duration and time of day with varying levels of electricity bill impact. This enabled testing of the trade-offs customers were willing to make around reliability and effects on their bill.

Choice modelling analysis of both resident and SME customer choices shows that price is the single most important factor for customers when making their choices relating to electricity. For residents, price represents about half (48%) of the decision making process, followed by the duration of outages which represents about a third (32%). Outage frequency and time of day represent a combined 20% of residential customers’ decision-making.

While price was the most important factor for SME customers, it was not as influential as for residential customers (38% influence for SMEs versus 48% for residential customers). For SMEs, the duration and time of day of outages were the next two important factors, representing about a quarter of SME customers’ decision making each (25% and 26% respectively).

The graph below shows the impact a change in price had on the preferences of customers in selecting between scenarios in the choice modelling exercise. Across all customers, if a scenario included a $50 price decrease then the chances that scenario would be picked in comparison with a scenario where there was no price change increased by about a third (32%). However, the chance of a customer choosing a price decrease was not as strong as the customer’s rejection of price increases. If a scenario included a price increase of $50, the chances that scenario would be picked when compared against a scenario with no price change decreased significantly (by 82%).

Further analysis revealed that customers had little acceptance of price increases; customers’ reaction to a $50 price increase was about 2.5 times stronger than a $50 price decrease. In fact, reaction to a $25 price increase was twice as strong as a $50 price decrease, suggesting that customers have little tolerance to even modest price increases.

Proportion of respondents who would change their reliability preference based on their current experience

Figure 8
Customer insight #2 – Customers are aware of Western Power but are unclear about the role it plays in the energy industry

Customers were asked in the survey whether they had heard of Western Power; 95% of residential customers and 98% of SMEs answered ‘Yes’. Workshop participants were also aware of Western Power, associating it with the assets they see and interact with on a daily basis such as power poles and field crews.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>95%</td>
<td>5%</td>
</tr>
<tr>
<td>SME</td>
<td>98%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Although customers were aware of Western Power, the vast majority were unable to describe the company’s role. Customers knew that Western Power operated in the energy industry but did not know the company’s responsibilities as the electricity distribution and transmission service provider. Only one in five residential customers (21%) and one in four SME customers (25%) are able to correctly identify Western Power’s role.

Only 10% of customers were able to correctly identify that Western Power’s services contribute to approximately 20 to 40% of an average electricity bill. The large majority of customers were either unsure or thought that Western Power’s contribution to their electricity bill was greater than 41%.
Workshop participants were also unclear of Western Power’s role and the structure of Western Australia’s energy industry. Participants’ initial understanding of Western Power’s role in the energy industry was captured prior to any education being provided by a Western Power representative. Workshop participants often believed that Western Power performed roles outside of distribution and transmission services, and often found it difficult to differentiate the roles of Western Power and other players in the electricity industry (such as Synergy).
Customer experience

Customer insight #3 – Customers want to interact with Western Power through multiple channels

Customers indicated that they would like to use multiple methods of communication when interacting with Western Power. Despite the increasing use of digital channels to interact between individuals and service providers, the call centre remains a key contact method of choice for Western Power’s customers. From the survey, customers’ preferred contact method with Western Power is via a call centre (74%) rather than through a website (38%).

![Survey Results]

It is not possible to know what types of interactions customers were thinking of when responding to these questions in the phone survey. However, the workshops enabled Western Power to provide customers with an understanding of the types of interactions they may have with them and explore in depth their preferred method of interaction with Western Power. Participants were provided with a worksheet to capture these.

Generally, workshop participants had a preference to interact with Western Power via a website, followed by the call centre and then email. Participants at regional residential workshops preferred to use the call centre rather than the website.
SME participants favoured using online channels such as the website and email more than residential participants. Email was the most preferred medium for metropolitan SME participants for transactions that did not require immediate feedback, such as reporting faulty streetlights and enquiring about meter readings. The preference for email was due to its ease of use, familiarity, and record keeping properties.

Participants indicated a preference to use the call centre for interactions such as reporting a power outage or lodging a complaint, where the customer might need to provide additional information that is more easily conveyed through a conversation.

It also enables an immediate response, which is preferred for these types of interactions. Comments from regional residential participants emphasised that they preferred a call centre because they often needed to provide a detailed description of information about their local area which they felt was not easily conveyed via a website form.

It was not possible in the survey to know what interactions customers were considering when they responded with their channel preferences. Further research on communication channels may be required to delve further into channel preferences for different interactions.
Customer insight #4 – Local staff as well as accurate and timely support is essential for a positive customer experience

Workshop participants were asked to describe ‘what makes good customer experience?’ Participants stated that ‘local staff’ is essential for a positive customer experience. Participants wanted Western Power to know enough details about them to make their interactions quick and easy. Comments from regional participants emphasised the importance of call centre staff having knowledge of their region and their circumstances. In all workshops, without prompting, participants shared their frustrations with other service providers who had used offshore solutions for their call centres.

Workshop participants were also of the view that call centre staff need to be able to provide accurate and timely advice when handling enquiries and were supportive of a call back feature.

Metropolitan SME participants suggested that the requirements and complexities regarding business connections are different to the complexities faced by residential customers. Participants indicated that a specialised service accessible only to business customers, such as a dedicated business portal or phone number would better address these needs.

“Need to speak to someone who knows my area.”
– SME, Regional

“When I call my internet service provider they offer to call me back during long queue times”
– Resident, Regional
The future network

Customer insight #5 – Customers believe that Western Power should use emerging technologies to deliver improved customer outcomes

Customer insight #6 – Customers want Western Power to play a role in the supply of electricity into the future

In recent years, the electricity industry has seen a rapid adoption of technology such as solar PV panels and the emergence of battery storage.

While the majority of residential customers (78%) in the survey did not have solar PV installed, one in five (20%) indicated that they were likely to install solar PV in the next three years; a substantial increase in the current solar PV penetration rate of approximately 20%.

Importantly, customers who have, or intend to invest in solar PV still see the need for mains electricity connected as a backup. Three quarters of residential customers (76%) who have installed solar PV, or intend to install solar PV, still see the need for mains electricity connected as a backup.

In the survey customers indicated that they supported Western Power using new technology to deliver improved customer outcomes:

- 85% of customers thought that Western Power should investigate new technologies if it reduced their electricity bill
- 81% supported the use of new technologies if it improved the reliability of the electricity network.

![Survey results](image-url)
It was evident in workshop discussions that participants are increasingly aware of these emerging technologies in the electricity industry, and are interested in understanding how they affect Western Power’s operations. Workshop participants were presented with a range of potential new technologies Western Power could consider implementing, which included:

- Enablement of home generation and storage
- Installation of off-grid and micro-grid solutions
- Adoption of large-scale power storage.

The majority of participants were of the view that Western Power would need to adapt to new technologies, and were confident in Western Power’s technical expertise in installing and maintaining new technology solutions (such as battery storage).

During the workshops, there were differing levels of support for the use of new technology amongst SME participants. Metropolitan SME participants encouraged Western Power to install and maintain these new technologies. As an example, participants were confident in Western Power’s ability to install and maintain battery storage solutions, in a similar vein to how they ‘trust’ Western Power with the traditional poles and wires network. However, regional SME participants want the government to lead the way, by introducing new energy technologies in government buildings, demonstrating the benefits of investing in new technologies.

During discussions in the workshops, participants stated that they thought Western Power should be introducing new technologies into the network where these resulted in better customer outcomes, such as lower prices. They felt Western Power’s technical capability and expertise ideally positioned the organisation to explore these new technologies.

Workshops participants stated that they wanted the network to continue to exist, and that it was Western Power’s responsibility to keep it up to date with new technology. For example, metropolitan residential participants were concerned about going completely off grid in case their home-based generation and storage units failed.

“I don’t know much about power, but I look to organisations like Western Power to show leadership.”

– SME, Regional

“New technology is coming, there’s no way to stop it, people will have to adapt, Western Power will have to adapt.”

– Resident, Regional

“So from a business point of view, I would want to see every Government building with solar panels before investing in it in my business.”

– SME, Regional
Customer insight #7 – Customers who have been educated about electricity tariffs are more likely to support a time of use tariff

Customer insight #8 – Customers who believe they are unable to alter their usage pattern do not support the implementation of a time of use tariff

In the absence of education and an explanation of tariff structures (which was not possible to provide in the phone survey), customers are unclear as to whether they would support a time of use tariff. This is consistent with the general lack of understanding about the structure of the industry (as identified in Customer Insight #2).

In the survey, customers were split in their support of whether it is reasonable to be charged more for electricity at times of high usage, and less at times of low usage: 39% of customers agreed or strongly agreed and 39% disagreed or strongly disagreed. This split, and the considerable number of customers who are unsure (22%), indicates that support for time of use tariffs amongst Western Power’s customers is fragmented.

Overall, the survey indicated about half of customers (49%) would be likely to switch when they use electricity to save money. However, SME customers were less willing to switch when they use electricity than residents: 54% of residential customers indicated that they would be willing to switch compared to 36% of SME customers.

![Figure 14](image)

### It is reasonable to charge more for electricity at times of high usage and less at times of low usage

- **23.8%** Strongly agree
- **15.1%** Agree
- **22%** Neither agree nor disagree
- **22.9%** Disagree
- **16.1%** Strongly disagree

### If I had to pay more for electricity during certain time of the day, and less at other time, I’d be extremely likely to switch when I use my electricity to save money

- **18.8%** Strongly agree
- **12.6%** Agree
- **19.4%** Neither agree nor disagree
- **21.7%** Disagree
- **27.5%** Strongly disagree

#### Residential

- **15.2%** Strongly agree
- **11.2%** Agree
- **19.2%** Neither agree nor disagree
- **23.7%** Disagree
- **30.7%** Strongly disagree

#### SME

- **27.9%** Strongly agree
- **16.3%** Agree
- **19.9%** Neither agree nor disagree
- **16.5%** Disagree
- **19.4%** Strongly disagree
For customers who felt a time of use tariff was reasonable; nearly two-thirds (62%) indicated that they would be willing to switch when and how they use electricity to save money. However, for customers who did not believe a time of use tariff was reasonable, their willingness to switch when they use electricity does not appear to be the sole factor in not supporting this style of tariff. These customers were evenly split between those who were able to change their usage (38%), and those that were not (44%).

The majority of workshop participants (80%) initially indicated a preference for their current tariff structure with a relatively high variable component. This was mostly because they believed it allowed them to control and manage their electricity costs by adjusting their usage as needed.

Once the initial preferences of the workshop had been collected, a time of use tariff structure was introduced, similar to those used by other electricity providers.

Participants were asked whether this time of use tariff structure influenced their initial tariff preferences. Over half of residential participants (58%) and one-third of SME participants (35%) then supported a time of use tariff structure once the education had been provided.

Participants who were not supportive of the time of use tariff structure (in particular regional SME participants) felt they had very little flexibility in varying their electricity usage and were concerned about the potential financial impact. Conversely, participants who supported a time of use tariff believed they could adjust their behaviour to use electricity at times when it was ‘cheaper’.

Across the workshops, comments indicated that there were two drivers behind a customer’s tariff choice: people wanted consistency in their monthly bill, and wanted to have control over the variable cost so they could manage their usage and influence their electricity bills.

“I can’t really change behaviour to affect usage.”
– SME, Regional
Customer insight #9 - Customers who favour a time of use tariff are willing to pay for technology that allows them to monitor their usage

For Western Power to be able to implement a time of use tariff, enhanced metering capabilities are required. Workshop participants were presented with a series of options for metering capabilities and the associated costs of each. Participants who supported a time of use tariff were asked to choose between three different metering installations:

- Online ‘smart’ meters
- Simpler digital meters (that did not provide real time data)
- Replacement of old mechanical meters with digital meters through the existing replacement program (noting this would take in excess of seven years to be rolled out).

Participants indicated they would like Western Power to provide everyone with an online ‘smart’ meter within the next five years, acknowledging this would cost the average residential electricity customer $50 per annum and the average SME customer $230 per annum over the next five year period.

Participants valued the immediacy of information provided by an online ‘smart’ meter in comparison to the digital meter. It was felt that this information could be used to monitor and change their electricity usage, potentially resulting in cheaper electricity bills.

Figure 15

“Having up-to-date information can help me to organise how I use power and at what time”

- Resident, Regional
Customer insight #10 – Customers are accepting of occasional outages

Although customers would prefer no outages, they accept that it is reasonable for a minimal number of planned and unplanned outages to occur, either to maintain the network or due to circumstances out of Western Power’s control. Over half of customers (55%) believed that it is reasonable to have an occasional unplanned outage, and two-thirds (67.5%) indicated it was reasonable to have an occasional planned power outage. Generally, regional customers are more accepting of outages than metropolitan customers. In particular, SME regional customers were more understanding than SME metropolitan customers.

This finding is consistent with comments from the workshops; participants understood that outages will occur from time to time. Participants commented that planned outages needed for Western Power to perform preventative maintenance are more tolerable than unplanned outages resulting from asset failure.

“Unexpected outages are a fact of life, what you need to do is minimise the fall out.”

– SME, Regional
Customer insight #11 – Accurate and frequent communication is essential during supply interruptions

Although accepting of some outages, customers value both accurate and frequent information when they occur. In the survey, slightly more than half of residential customers (56%) indicated that they need at least two weeks’ notice of planned outages. Sufficient notice was significantly more important for SME customers (70%).

In the workshops, accurate communication regarding the cause of an outage and estimated restoration times was regarded as critical. The timeliness and accuracy of communication was especially important for SME participants, who emphasised that they make decisions regarding their business, such as closing for the day and managing staff, based upon the estimated restoration times provided by Western Power.
Customer insight #12 – Longer outages are more disruptive to customers than frequent (short) outages

Generally, customers are reasonably comfortable with the reliability of their electricity supply, but are more concerned about the duration of outages than they are the frequency with which they occur.

In the survey, customers were asked for their opinion on the frequency and duration of power outages in two ways. First, customers were asked about their attitudes towards the frequency and duration of outages they experience. Approximately three-quarters (74%) of customers thought that the duration of the outages they experience were ‘about right’ or relatively short. A larger proportion of customers (86%) thought the number of outages they experience was ‘reasonable’ or better than they would consider acceptable. This suggests customers are more likely to view the frequency of outages as more acceptable than the duration.

Second, the choice exercise tested customer choices between frequency and duration of outages. The choice modelling results consistently showed that an increase in duration of outages has a bigger impact on customer preferences than an increase in the frequency of outages. For example, the impact to residential customer preferences of increasing the duration from ‘lasting 1 to 3 hours’ to ‘lasting 4 to 6 hours’ is three-times larger than increasing the frequency from ‘2 to 3 times per year’ to ‘4 to 6 times per year’.

![Figure 18](image1)

![Figure 19](image2)

An increase in the duration of outages (moving from one outage scenario option the bottom axis to the next) has roughly a 26% impact on customer preferences.

An increase in the frequency of outages (moving from one outage scenario line) has on average, a 12% impact on customer preferences.
For SME customers, a change in duration has almost twice the impact than that of a change in frequency. However, when looking specifically at regional SME customers, the impact of an increase in duration is only marginally more than an increase in the frequency of outages. This suggests that regional SME customers rank duration and frequency as of similar importance to their electricity supply, whereas metropolitan SMEs find duration more important than frequency.

Workshop participants were asked to vote whether they were more concerned about the duration or frequency of outages. Consistent with the findings of the survey, workshop participants were generally more concerned about duration.

Residential participants indicated Western Power should focus its efforts on minimising the duration of outages, citing home security and the spoilage of food as key frustrations of long outages. Regional SME participants suggested that the financial repercussions, such as paying staff and forgoing income, were the major impact of long outages. In contrast to regional SMEs and the survey results, metropolitan SME participants thought that frequent outages caused more disruption to their businesses. They felt long outages can be planned around, whereas frequent (shorter) outages cannot be planned for.

“[Long outages] lead to angry customers”
– SME, Regional
Customer insight #13 – A reliable source of electricity is essential for all customers and customers are willing to spend money to ensure that all people on the network have a reliable source of electricity

Customers consider a reliable supply of electricity important and believe that everyone in the SWIN, regardless of their location, should experience an acceptable level of reliability.

The majority of customers (61%) feel that an increase in their annual bill of $10 was justified to improve the reliability of the electricity supply across remote areas of Western Australia. There was no significant difference between regional and metropolitan responses for residents or SMEs.

However, only a quarter (28%) of customers supported an increase to their electricity bill to improve reliability across the whole network. This suggests that customers are not prepared to pay for an improved service generally, but are willing to support those specifically in regional areas where the performance would be below what would be deemed acceptable.

The workshops allowed Western Power to explore additional options for addressing reliability issues across the network. The costs associated with these options were also outlined. Participants were presented with the following four options and their bill implications:

1. Continue the current reliability investment program
2. Target the top 20 reliability hotspots (in addition to the current reliability investment program)
3. Target areas with a large community impact (in addition to the current reliability investment program)
4. Target tourism areas (in addition to the current reliability investment program).

The majority of workshop participants indicated a preference for Western Power to target the top 20 reliability hotspots (in addition to the current reliability investment program). Participants were aware that this would have an impact of $7 per annum for the average residential electricity bill, and $30 per annum for the average SME electricity bill over the next five-year period.
Similar to the survey results, workshop participants suggested everyone should have the same levels of reliability regardless of where they live, believing that electricity is an essential utility. Residential participants were much stronger in their support for this option than SME participants.

“All households should be able to feel equal in their importance to Western Power and the reliability of their supply.”

– Residential, Regional

“I think these communities should have the same reliability as the cities.”

– SME, Metropolitan

“Everyone deserves a reasonable level of reliable electricity service.”

– Residential, Regional
Customer insight #14 – Customers want Western Power to continue to improve network safety, although are divided on whether they should pay for it

Customers want to improve safety, but are generally not prepared to pay for it. The survey revealed that half of customers (55%) supported a general increase in safety spending.

Customers were also asked whether it was justified to increase their electricity bills to improve safety. The level of support was stronger for residential customers (50%) compared to SME customers (44%). A significant proportion of customers (29%) were undecided for both questions.

Figure 22
Customer insight #15 – Customers want to see bushfire safety investment targeted in areas where it has the greatest impact

Customers were split as to whether more needs to be spent to minimise the risk of bushfires related to Western Power’s assets. Almost half of customers (49%) were prepared to invest more in minimising the risk of bushfires caused by the network, while a quarter of customers (24%) were undecided.

Workshop participants were provided information on Western Power’s proposed bushfire safety program, which targets investment in areas where the risk of bushfire is high and the consequences more significant.

Participants were asked to provide their preference on the following six options Western Power could undertake to alter its bushfire safety program and were given the associated bill impacts:

1. Continue current safety investment
2. Reduce bushfire safety spend across the network
3. Reduce bushfire safety spend in low risk regions and pass any savings onto customers
4. Re-direct bushfire safety spend to high risk regions
5. Reduce bushfire safety spend and re-direct savings to areas nominated by participants
6. Increase bushfire safety spend across the network.

A majority of participants suggested Western Power re-direct current bushfire safety expenditure to high-risk regions. Participants believed this was the most efficient option Western Power could undertake to mitigate the risk of bushfires occurring in areas of high consequence.
Next steps

Western Power will use the insights gathered during the CEP to inform the development of its upcoming proposal to the Australian Energy Regulator. The structure of the CEP ensures that Western Power can make decisions using the findings knowing that they are representative of their entire customer base.

In the coming months further customer consultation and engagement will also be conducted on the refined business plans of Western Power.

Keeping customers informed
Western Power will provide customers with the opportunity to participate in its ongoing CEP, details of which can be found at www.westernpower.com.au.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Word</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AER</td>
<td>Australian Energy Regulator</td>
<td>A national regulator responsible for administering energy markets and networks under national energy market legislation and rules.</td>
</tr>
<tr>
<td>CEP</td>
<td>Customer Engagement Program</td>
<td>The program positioned Western Power to better respond to its customers, and help adapt to the changing regulatory environment.</td>
</tr>
<tr>
<td>CRG</td>
<td>Customer Reference Group</td>
<td>A group established during the Mobilise phase of the CEP. The membership of the CRG includes peak bodies that represent customers in the SWIN.</td>
</tr>
<tr>
<td>CSS</td>
<td>Customer Service Strategy</td>
<td>Western Power’s customer service strategy developed in 2014.</td>
</tr>
<tr>
<td>EMR</td>
<td>Electricity Market Review</td>
<td>A review of the Western Australian electricity industry conducted in 2014.</td>
</tr>
<tr>
<td>ERA</td>
<td>Economic Regulation Authority</td>
<td>Western Power’s economic regulator. Responsible for ensuring that WA has a fair, competitive and efficient environment for consumers and businesses.</td>
</tr>
<tr>
<td>NER</td>
<td>National Electricity Rules</td>
<td>The National Electricity Rules govern the operation of the National Electricity Market. The Rules have the force of law, and are made under the National Electricity Law.</td>
</tr>
<tr>
<td>PUO</td>
<td>Public Utilities Office</td>
<td>A government body which provides services on energy matters to the Minister for Energy, the Western Australian Government, the energy sector and the Western Australian community.</td>
</tr>
<tr>
<td>SDP</td>
<td>Strategic Development Plan</td>
<td>The Strategic Development Plan 2013-17 orientates Western Power towards serving customers. The Plan defines the purpose, values, objectives and operational direction of Western Power.</td>
</tr>
<tr>
<td>SME</td>
<td>Small and medium enterprise</td>
<td>A structural segment of Western Power’s customer base.</td>
</tr>
<tr>
<td>SRG</td>
<td>Strategic Reference Group</td>
<td>An existing group chaired by Western Power and including members of the land development and construction industry.</td>
</tr>
<tr>
<td>SWIN</td>
<td>South West Interconnected Network</td>
<td>Western Power’s transmission and distribution network. Located in the south west of Western Australia.</td>
</tr>
</tbody>
</table>
Appendix A – Sampling

**Workshop sampling**
Nine workshops were conducted with 94 customers (64 residential customers and 30 SME customers) across metropolitan and regional Western Australia during October and November 2015.

The table below outlines workshop locations and number of participants.

<table>
<thead>
<tr>
<th>Date</th>
<th>Workshop location</th>
<th>Customer segment</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 19 October</td>
<td>Metropolitan Perth (North Suburbs)</td>
<td>Residential</td>
<td>12</td>
</tr>
<tr>
<td>Tuesday 20 October</td>
<td>Metropolitan Perth (South Suburbs)</td>
<td>Residential</td>
<td>10</td>
</tr>
<tr>
<td>Wednesday 21 October</td>
<td>Geraldton</td>
<td>Residential</td>
<td>9</td>
</tr>
<tr>
<td>Thursday 22 October</td>
<td>Geraldton</td>
<td>SME</td>
<td>10</td>
</tr>
<tr>
<td>Monday 26 October</td>
<td>Metropolitan Perth</td>
<td>SME</td>
<td>11</td>
</tr>
<tr>
<td>Tuesday 27 October</td>
<td>Bunbury</td>
<td>SME</td>
<td>10</td>
</tr>
<tr>
<td>Wednesday 28 October</td>
<td>Metropolitan Perth (Hills)</td>
<td>Residential</td>
<td>10</td>
</tr>
<tr>
<td>Thursday 29 October</td>
<td>Albany</td>
<td>Residential</td>
<td>12</td>
</tr>
<tr>
<td>Monday 2 November</td>
<td>Merredin</td>
<td>Residential</td>
<td>10</td>
</tr>
</tbody>
</table>

**Phone survey sampling**
A phone survey was conducted in November 2015 and was completed by 3,500 customers (2,500 residential customers and 1,000 SME customers). Quotas were put in place to ensure representative sampling of regional customers and customers with solar PV installations. Soft targets were also put in place so that the survey aligned with the demographic and firmographic traits of Western Power’s residential and SME customers.

Within the metropolitan region, the residential sample was allocated proportionally to the number of customers within a Load Area, requiring no less than 100 responses for each. Regional Load Areas were allocated a residential sample size of 150 each. For the SME sampling, Load Area sample sizes were allocated proportionally to the number of SME customers, requiring no less than 50 responses per Load Area.

The table below details the achieved sample size for each of the Load Areas by residential and SME customers. Due to recruitment difficulties, responses from only 45 SMEs were achieved in the Goldfields Load Area.

<table>
<thead>
<tr>
<th>Location</th>
<th>Load area</th>
<th>Customer segment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Residential</td>
<td>SME</td>
</tr>
<tr>
<td>Cannington</td>
<td>155</td>
<td>81</td>
<td>236</td>
</tr>
<tr>
<td>East Perth</td>
<td>100</td>
<td>81</td>
<td>181</td>
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<td>100</td>
<td>50</td>
<td>150</td>
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<tr>
<td>Mandurah</td>
<td>155</td>
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<td>205</td>
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<td>Northern Terminal</td>
<td>321</td>
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<td>South Fremantle</td>
<td>147</td>
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<tr>
<td>Southern Terminal</td>
<td>266</td>
<td>68</td>
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</tr>
<tr>
<td>Western Terminal</td>
<td>100</td>
<td>50</td>
<td>150</td>
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<tr>
<td><strong>Total Metropolitan</strong></td>
<td><strong>1600</strong></td>
<td><strong>643</strong></td>
<td><strong>2243</strong></td>
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</tbody>
</table>

Western Power – Customer insights report
Additionally, soft quotas were put in place to mitigate over or under-representation of residential and SME customers with solar PV installations. Age and gender soft quotas were also used for residential customers to help limit over and under-representation of certain age-gender groups, particularly under-representation from typically hard to recruit young males or over-representation from the over 55 age group.

The solar PV soft quotas were based on the solar PV installation penetration rates for residential and SME customers provided by Western Power. Age and gender soft quotas were based upon previous studies of electricity decision makers within the household, which shows a skew towards older demographic groups compared to the general population.

The table below details the soft quotas in place and the achieved sample:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Parameter</th>
<th>Level</th>
<th>Soft quota</th>
<th>Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>Solar PV</td>
<td>Metro</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional</td>
<td>16%</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>Male</td>
<td>53%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>47%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>18–35</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36–55</td>
<td>38%</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55+</td>
<td>42%</td>
<td>56%</td>
</tr>
<tr>
<td>SME</td>
<td>Solar PV</td>
<td>Metro</td>
<td>10%</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional</td>
<td>10%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Western Power –
Customer insights feedback report
August 2016

Customer Engagement Program – Interpret and plan phases
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Infographic

First phase

- 9 Workshops
- 94 Participants
- 2500 Residents
- 1000 SMEs
- 35 Targeted interviews

Second phase

Consultation

- 4 Workshops
- 45 Participants
- 1 Workshops
- 15 Participants

Research themes

- Customer experience
- Future of the electricity network
- Access and affordability
- Network reliability
- Network safety
Background
Western Power builds, operates and maintains the South West Interconnected Network (SWIN), which transmits and distributes electricity to approximately 1.1 million homes and businesses in the southwest corner of Western Australia. The SWIN stretches from Kalbarri in the north, to Albany in the south and out to Kalgoorlie in the east.

Figure 1: South West Interconnected Network (SWIN) map
The electricity industry in Western Australia is characterised by a shifting technology landscape, evolving government policy and industry regulation. In this changing environment, Western Power is interested in understanding customer preferences to help inform its future business plans. Western Power’s Customer Engagement Program (CEP) has positioned Western Power to better understand and respond to its customers and help adapt to the changing regulatory environment. This report collates the feedback received during the Interpret and Plan phases of the CEP, conducted between March and July of 2016.

Figure 2: Electricity Supply Chain
Western Power’s customer-centric journey

Western Power’s Strategic Development Plan 2013-17 outlined Western Power’s intention to become a customer-orientated organisation. Western Power developed its Customer Service Strategy (CSS) in June 2014, which was endorsed by the board later that year. The CSS outlined Western Power’s customer ecosystem and divided customers into nine broad customer segments shown below.

Regulation and the electricity industry

The Western Australian Economic Regulation Authority (ERA) currently regulates Western Power and monitors the behaviour of participants in Western Australia’s wholesale electricity market. In March 2015, the Public Utilities Office (PUO) published the results of an Electricity Market Review (EMR) and recommended transitioning Western Power to a national system of electricity regulation. Western Power is likely to join the national system of electricity regulation in July 2018. The Australian Energy Regulator (AER) will provide regulatory oversight for the Western Australian electricity industry in accordance with the National Electricity Rules (NER). Within the NER there is an expectation for network service providers to regularly engage with their customers and ensure that their business plans meet the long-term interests of their customers.
The Customer Engagement Program approach
The development of the CEP commenced in January 2015 and consisted of five stages: Mobilise, Listen, Interpret, Plan and Act.

This report summarises the customer feedback received during the Interpret and Plan phases of the CEP. The CEP began in September 2015, with the key objectives to:

- Provide customer input into Western Power’s proposed expenditure strategy and plan as part of its regulatory submission
- Develop a customer engagement program that is broad, far reaching and representative of all of Western Power’s customer groups and geographies in the SWIN
- Provide a forum for underrepresented groups to have their voice
- Present customers with scenarios during testing to build an understanding of the trade-offs of their preferences
- Provide opportunities for customers to express their own priorities.

The Mobilise phase developed five research themes which were used to ensure that customers’ feedback was collected in a structured and consistent format.

During the Listen phase Western Power engaged with customers through workshops, interviews and a telephone survey. The customer insights developed during the Listen phase are outlined in the Western Power – Customer insights report, which can be found on the Western Power website.

In January 2016 Western Power began integrating the customer insights into its business planning. During the Interpret and Plan phases, Western Power engaged further with customers as it sought to confirm the interpretation of the insights and gauge customer feedback on the application of the insights into the proposed business plan.

Deloitte’s role
Deloitte’s role was to:

- Facilitate internal workshops with Western Power to assist in embedding the customer insights from the Listen Phase into the business planning process
- Recruit workshop participants (selected from participants that attended the Listen Phase workshops)
- Design customer workshops that provided time to share and discuss the 15 customer insights and discuss Western Power’s business plans with participants
- Report the findings of the Interpret and Plan Phases of the CEP to Western Power.
Interpret and plan phase
customer engagement process

Research themes
During the Listen Phase, to ensure that customers’ feedback was collected in a structured and consistent format, five research themes were used to inform the structure of the CEP. The research themes were aligned to Western Power’s strategic objectives, orientation and purpose.

The CEP’s five research themes were:

<table>
<thead>
<tr>
<th>Research theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer experience</td>
<td>Customer service, channels and opportunities</td>
</tr>
<tr>
<td>The future network</td>
<td>Western Power’s future role and the role of new technologies in the future electricity network</td>
</tr>
<tr>
<td>Network safety</td>
<td>Western Power’s safety strategies</td>
</tr>
<tr>
<td>Network reliability</td>
<td>The reliability of the electricity network</td>
</tr>
<tr>
<td>Access and affordability</td>
<td>Electricity price tariff structure</td>
</tr>
</tbody>
</table>

Research methods
During the Interpret and Plan phases, Western Power wanted to test its proposed business plans with customers. To ensure a meaningful conversation on Western Power’s plans, participants required an understanding of the electricity industry and Western Power’s role. Therefore, participants were recruited from the attendees of the Listen phase workshops.

Participants were incentivised in accordance with common market research practices.

- **Customer workshops** – Qualitative workshops were used to explore the opinions and preferences of residential and small and medium enterprise customers. The workshops provided an opportunity for participants to review and comment on both the customer insights gathered during the Listen phase and Western Power’s proposed business plans.

- **Customer reference group** – A meeting was held with the Customer Reference Group (CRG) where the insights, proposed business plans and early feedback from the Interpret and Plan phase workshops were discussed.

- **Follow up letter** – Attendees of the Listen phase workshops that did not participate in the Interpret and Plan phase workshops were provided with a copy of the Western Power – Customer insights report and an opportunity to contact Western Power with feedback.
Workshop design

Five customer workshops were held during the Interpret and Plan phases with attendees from the Listen phase workshops. Deloitte facilitated all discussions, capturing feedback, while Western Power representatives shared the proposed business plans with participants.

Figure 6: Tariff structure held across SWIN
The table below provides a summary of the topics discussed.

<table>
<thead>
<tr>
<th>Section</th>
<th>Western Power’s Proposed Business Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Introduction</td>
<td></td>
</tr>
<tr>
<td>B. Customer engagement program</td>
<td></td>
</tr>
<tr>
<td>C. Overarching insights</td>
<td>• Business transformation</td>
</tr>
<tr>
<td></td>
<td>• Safety and awareness campaigns.</td>
</tr>
<tr>
<td>D. Customer experience</td>
<td>• Expanding use of digital channels</td>
</tr>
<tr>
<td></td>
<td>• Enhancing capabilities of call centre</td>
</tr>
<tr>
<td></td>
<td>• Implementation of a customer management system.</td>
</tr>
<tr>
<td>E. Future of the electricity network</td>
<td>• Perenjori Low Voltage Network Reinforcement</td>
</tr>
<tr>
<td></td>
<td>• White Gum Valley Residential Microgrid Project</td>
</tr>
<tr>
<td></td>
<td>• Kalbarri microgrid feasibility study</td>
</tr>
<tr>
<td></td>
<td>• Mandurah Demand Management.</td>
</tr>
<tr>
<td>F. Access and affordability</td>
<td>• Tariff structure</td>
</tr>
<tr>
<td></td>
<td>• Digital meter reconfiguration rather than a smart meter roll out.</td>
</tr>
<tr>
<td>G. Network Reliability</td>
<td>• Support and improvement of planned outage notification</td>
</tr>
<tr>
<td></td>
<td>• Upgrade of the call centre and social media platforms to support communication</td>
</tr>
<tr>
<td></td>
<td>• Zone Based Asset Management</td>
</tr>
<tr>
<td></td>
<td>• Fixing reliability hotspots.</td>
</tr>
<tr>
<td>H. Network Safety</td>
<td>• Proposed five year inspection cycle</td>
</tr>
<tr>
<td></td>
<td>• Implementation of consequence approach to fire prevention.</td>
</tr>
</tbody>
</table>

**Customer Reference Groups**
The CRG was established during the Mobilise phase to provide peak bodies and other stakeholder groups with an avenue to provide Western Power with the views of their members and stakeholders.

**Customer Reference Group members**
- Chamber of Commerce and Industry of Western Australia
- Curtin University Sustainability Policy Institute
- Financial Counsellors Association of WA
- St Vincent de Paul Society
- The WA Local Government Association
- WA Farmers Federation
- Western Australian Council of Social Services
The table below outlines the customer insights that were developed during the 'Listen Phase' of the CEP.

<table>
<thead>
<tr>
<th>Research theme</th>
<th>Insight</th>
<th>Insight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overarching insights</td>
<td>1  Customers are sensitive to price increases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2  Customers are aware of Western Power but are unclear about the role it plays in the energy industry</td>
<td></td>
</tr>
<tr>
<td>Customer experience</td>
<td>3  Customers want to interact with Western Power through multiple channels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4  Local staff as well as accurate and timely support is essential for a positive customer experience</td>
<td></td>
</tr>
<tr>
<td>Future network</td>
<td>5  Customers believe that Western Power should use emerging technologies to deliver improved customer outcomes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6  Customers want Western Power to play a role in the supply of electricity into the future</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7  Customers who have been educated about electricity tariffs are more likely to support a time of use tariff</td>
<td></td>
</tr>
<tr>
<td>Access and affordability</td>
<td>8  Customers who believe they are unable to alter their usage pattern do not support the implementation of a time of use tariff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9  Customers who favour a time of use tariff are willing to pay for technology that allows them to monitor their usage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 Customers are accepting of occasional outages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 Accurate and frequent communication is essential during supply interruptions</td>
<td></td>
</tr>
<tr>
<td>Network reliability</td>
<td>12 Longer outages are more disruptive to customers than frequent (short) outages</td>
<td>A reliable source of electricity is essential for all customers and customers are willing to spend money to ensure that all people on the network have a reliable source of electricity</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Network safety</td>
<td>14 Customers want Western Power to continue to improve network safety, although are divided on whether they should pay for it</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 Customers want to see bushfire safety investment targeted in areas where it has the greatest impact</td>
<td></td>
</tr>
</tbody>
</table>
Feedback on customer insights and business planning

The structure of the Interpret and Plan phase workshops followed the five research themes used during the Listen phase workshops. For each theme, Deloitte presented the relevant insights from the Listen phase, with Western Power then sharing the business’s proposed response for discussion. Importantly the proposed plans presented by Western Power also outlined the bill impact for the initiative being discussed.

At the beginning of the workshops Deloitte provided a brief summary of the Listen phase, including an explanation of the sampling and design. This allowed participants to see how the workshop they attended during the Listen phase fitted into the broader CEP.
Overarching insights

Overview
During the Listen phase two insights were evident across all research themes. They were highlighted in the Western Power – Customer insights report as Overarching insights.

Customer insights

Customer insight #1 – Customers are sensitive to price increases
The CEP identified that price is the dominant attribute customers consider when making choices relating to their electricity usage. In particular, customers were sensitive to price increases.

Customer insight #2 – Customers are aware of Western Power but are unclear about the role it plays in the energy industry
Customers in the survey and workshops demonstrated a lack of understanding of Western Power’s role within the electricity supply chain. Workshop participants knew that Western Power was involved in the supply of electricity but were unable to articulate Western Power’s role. Analysis of the quantitative survey revealed that 95% of residential customers knew who Western Power was, but only 10% of residential customers could identify Western Power’s contribution to their electricity bill.

Summary of Western Power’s proposed plans
Lowering Western Power’s contribution to electricity bills
In response to these insights, Western Power shared details of the business transformation program that it is currently undertaking. The program aims to save $400 million per year, over the next five years. This is in addition to the $1.4 billion in savings which Western Power has achieved over the past five years. During the workshops it was explained to participants that Western Power plans to reduce network charges during the next regulatory period.

Western Power will continue to actively engage with customers, with a particular focus on public safety
Western Power outlined the role it plays in advising the community on matters of public safety, such as safety around power lines and bushfire prevention. Currently, Western Power produces a summer safety campaign focussed on preparing for bushfires, and a winter safety campaign focussed on the danger electricity infrastructure poses during storms.

During the workshops Western Power presented the option of developing campaigns that are focused on outlining the role of the electricity network now and into the future.
Customer feedback on Western Power’s proposed plans

Participants saw Western Power’s business transformation process as a sensible decision. There were concerns from regional workshops that some of these transformation initiatives may lead to, or be a part of a planned restructure of Western Power. There was also some discussion about where the identified savings were coming from, how they would be achieved and whether there would be any impact on service or safety.

Western Power representatives outlined how they were going to achieve savings and that they would not compromise safety or service.

“Yeah, it feels like you’re listening.”
– Regional resident

“Where are you going to get the savings from?”
– Metropolitan resident

“Has the streamlining resulted in any loss of jobs?”
– Regional resident

Workshop participants valued the additional knowledge they had received about Western Power through their involvement in the CEP. They were supportive of an expanded communication program which included education on the role of the grid in addition to the existing safety campaigns.

“I think raising awareness is important.”
– Regional resident

“I think it has a lot to do with the retention of the name Western Power from history.”
– Metropolitan resident
Customer experience

Overview
Western Power is focused on becoming a more customer orientated organisation. The CEP provided a platform for customers to provide insight into the activities that Western Power should focus on to improve their experience.

Customer insights

Customer insight #3 – Customers want to interact with Western Power through multiple channels
In the Listen phase workshops participants were asked to indicate how they would like to contact Western Power for a variety of interactions. Customers were looking for a choice of channels through which they can obtain information and interact with Western Power.

Customer insight #4 – Local staff as well as accurate and timely support is essential for a positive customer experience
During the Listen phase workshops, participants were asked to describe ‘what makes good customer experience?’ Participants stated that ‘local staff’ is essential for a positive customer experience. Participants expected Western Power to know enough about them to be able to manage their enquiry efficiently. Participants shared their frustrations with other service providers who had used offshore solutions for their call centres.

Summary of Western Power’s proposed plans

Western Power will communicate via the channels our customers use
Western Power recognised that its current digital offering was not meeting the needs of some customers. Western Power is currently improving the way it interacts with customers through these channels. A refreshed website, compatible with mobile devices, was about to be launched at the time of the workshops. Call centre staff had also been trained to use social media platforms to provide a 24-7 social media presence.

Western Power will improve our locally run call centre
Western Power advised of its commitment to retaining a locally run call centre and upgrading the call centre platform to improve customers’ experience.

Western Power also shared its proposal to implement a new customer management system, which will enable the business to have a single view of customers to improve interactions with them.
Customer feedback on Western Power’s proposed plans

Workshop participants supported having a choice of channels, underpinned by a call centre, to interact with Western Power. Participants talked about their use of social media to source information and supported Western Power’s expansion of their digital capabilities.

“Would information about power outages be included on social media?”
  – Regional resident

“We go to social media to be entertained, please educate me there.”
  – Regional business

“That’s great! It’s very valuable to communicate through social media.”
  – Regional resident

Participants supported Western Power’s plans to keep a locally run call centre and the investment in a customer management system. Many participants were surprised that Western Power did not already have a customer management system.

“You’re about a decade behind.”
  – Metropolitan resident

“The information, it’s like you’re being cared for.”
  – Regional resident
Overview
Participants at the Listen phase workshops were interested in how Western Power’s role may change in the future. Customers were aware of new technologies impacting the electricity network, and see a role for Western Power in the supply of electricity within this changing environment.

Customer insights

Customer insight #5 – Customers believe that Western Power should use emerging technologies to deliver improved customer outcomes

Customer insight #6 – Customers want Western Power to play a role in the supply of electricity into the future
Workshops attendees wanted to discuss the impact of technologies like batteries, electric vehicles and other advanced technologies.

Customers supported Western Power’s use of new technology if it meant that customer outcomes were improved. For example, if it is cheaper to use new technologies to supply electricity at the same or better level of reliability then customers supported Western Power’s using those technologies.

Summary of Western Power’s proposed plans
Western Power is installing proven technologies to secure better outcomes for our customers
The town of Perenjori has been identified as a reliability hotspot and Western Power is proposing to install a large scale battery within the town. The Perenjori Distribution Battery option was presented to workshop participants, in comparison to the traditional maintenance approach (poles-and-wire replacement) that would have been twice as expensive as the installation of a battery.

Western Power is involved in numerous projects that are facilitating the adoption of new technologies
Western Power discussed:
• White Gum Valley Residential Microgrid Project – this project is exploring the effectiveness of battery storage and local generation in supplying electricity
• Feasibility study on Kalbarri Microgrid Project – this project is similar to the White Gum Valley Residential Microgrid Project, but on a larger scale
• Mandurah Demand Management – this project works with large energy users to adjust their energy usage to reduce peak demand.

The aim of these projects is to deliver a reliable supply of electricity at a lower cost.
Customer feedback on Western Power’s proposed plans

Participants were interested in how Western Power’s role may change in the future. Participants also expressed their support for Western Power’s adoption of alternative technologies.

“You’ve got to grow, you’ve got to start changing.”
– Metropolitan business

“We just built a house in Alkimos. That’s awesome!”
– Metropolitan resident

Workshop participants understood and supported the proposals that Western Power outlined demonstrating the use of new technology. Workshops in regional locations were interested in how these alternative solutions apply to them, for example participants in Geraldton were interested in how the microgrid solution will be applied in Kalbarri.

“Don’t use technology as a fad, use it if there’s a better outcome.”
– Metropolitan business

“I think there’s a push to go off-grid, but there’s still a point about security in being on the grid.”
– Metropolitan resident
Overview
To involve customers in the design of proposed tariffs, the Interpret and Plan phases included a dedicated workshop on tariff structure. The Tariff Structure Workshop was conducted before the other Interpret and Plan phase workshops and included a selection of participants from the Listen phase workshops.

Customer insights

Customer insight #7 – Customers who have been educated about electricity tariffs are more likely to support a time of use tariff

Customer insight #8 – Customers who believe they are unable to alter their usage pattern do not support the implementation of a time of use tariff

Listen phase workshops discussed different types of tariffs and participants were supportive of a time of use tariff. In the survey where it was not possible to provide education and an explanation of tariffs structures customers were unclear about how a time of use tariff works.

Those Listen phase workshop participants that did not support a time of use tariff felt they would not be able to adjust their electricity usage patterns and so did not support the adoption of a time of use tariff. There was similar trend in the survey.

Customer insight #9 – Customers who favour a time of use tariff are willing to pay for technology that allows them to monitor their usage

Western Power asked Listen phase workshop participants who supported of a time of use tariff whether they preferred digital meters or wanted to invest in upgrading every meter to a smart meter. When the difference between the digital meter and smart meter were explained, most participants were in favour of paying for Western Power to install smart meters across the network.

Summary of Western Power’s proposed plans
Western Power is investigating the best structure for a Time of Use tariff and how we explain this change to customers

Western Power is investigating potential tariff design including demand based tariffs. The Tariff Structure Workshop was the next step in engaging customers in this process.

Western Power is planning a gradual upgrade of metering capabilities that minimises upfront costs
Western Power presented to the Interpret and Plan phase workshops that it believes short term costs are too high, and the benefits are not realised for a long time. The adoption of digital meters is less expensive in the short term and provides similar benefits.
Customer feedback on Western Power’s proposed plans
Some participants at the Interpret and Plan phase workshops had also attended the Tariff Structure Workshop. They discussed what they had learnt at the Tariff Structure Workshop, such as the peak demand challenge facing the network and shared their opinions of which tariff structure addressed these challenges.

Attendees at the Tariff Structure Workshop acknowledged that the discussion at the Workshop was informative and that they were amongst a small group of individuals who understood the rationale for a time of use tariff. Western Power outlined that the Tariff Structure Workshop was only the first step in a process of understanding how customers would respond to a time of use tariff.

Workshop participants emphasised the importance of an education campaign to support the introduction of a new tariff.

“Last week’s discussion was brilliant! How do we educate everyone to the same level?”
– Metropolitan resident

“Is the Time of Use tariff going to replace the SmartPower tariff?”
– Regional business

“The peaks and troughs, I think there’s been a failed attempt to explain it to the community. You haven’t explained the fact that I merely need to move a bit of an appliance’s usage.”
– Regional resident

The workshop participants appreciated being asked by Western Power for their opinions, and understood Western Power’s decision not to install smart meters given how expensive it would be.

“Simply telling people of timeline is important, people need to know.”
– Regional resident

“People are ok with striking a bargain at the start.”
– Regional resident
Overview
Western Power is investigating potential tariff design including demand based tariffs. The Tariff Structure Workshop was the next step in engaging customers in this process.

Workshop design
An effective discussion of tariff structures requires an understanding of Western Power and its role in the electricity industry. Western Power selected participants from the Listen phase workshops as they had already been educated about the electricity industry and Western Power’s role. Participants were incentivised in accordance with common market research practices, including a travel allowance for regional participants.

The Tariff Structure Workshop was held at Western Power’s Head Office in Perth. Members of Western Power’s senior leadership team as well as subject matter experts were in attendance to deal with any questions raised by workshop participants and to hear what workshop participants shared.

Summary of Western Power’s proposed plans
Western Power began the workshop by explaining the expense associated with building the network to meet peak demand. This expense is inefficient in light of the overall decrease in energy consumption. Workshop participants completed an activity that allowed them to see whether their usage contributed to peak demand.

The rationale for demand based tariffs is that increasing the cost of electricity during ‘peak demand’ will encourage customers to move their electricity usage to non-peak periods. This will result in a reduction in peak demand and the need for expensive network upgrades. Western Power introduced two different tariff structures: a time of use tariff, and a demand tariff.

Western Power outlined that a demand tariff provides a more targeted price signal that encourages customers to adjust their electricity consumption, but it is expensive to implement due to the requirement of smart meter technology. Western Power introduced the time of use tariff as its preferred mechanism to achieve similar outcomes.
The proposed time of use structure included a peak, shoulder and off peak periods

<table>
<thead>
<tr>
<th></th>
<th>Weekday</th>
<th>Weekend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak</td>
<td>3pm to 9pm</td>
<td></td>
</tr>
<tr>
<td>Shoulder</td>
<td>7am to 3pm and 9pm to 10pm</td>
<td>7am to 10 pm</td>
</tr>
<tr>
<td>Off-peak</td>
<td>10pm to 7am</td>
<td>10pm to 7am</td>
</tr>
</tbody>
</table>

The structure of a time of use tariff was explained to participants who then undertook a similar exercise to the one at the beginning of the workshop. This time, knowing that they would be charged slightly more for electricity during the peak period customers were asked whether they would adjust their usage.
Customer feedback on Western Power’s proposed plans

Workshop participants understood how their behaviour contributes to the peak demand and the expense associated with building the network to meet peak demand. However, workshop participants were initially confused about how demand based tariffs could reduce peak demand. It took detailed explanation and discussion before participants began to understand how demand based tariffs can alter behaviour and impact peak demand.

“A lot happens in my life at 6PM.”
– Metropolitan resident

“Do businesses use electricity at a different time?”
– Metropolitan resident

“Ours is all crunched up after 6PM.”
– Metropolitan resident

Participants mentioned how other service providers were increasing charges and were sceptical of whether a time of use tariff was a legitimate attempt by Western Power to help reduce peak demand, or merely an attempt to increase charges.

“You’re going to have to work overtime to convince us to adopt a new tariff.”
– Metropolitan resident

“I understand what you’re arguing but I can’t change, the bands are too broad.”
– Metropolitan resident
Finally, when asked whether a time of use tariff was a potential solution to Western Power’s problem; 10 of the 12 participants agreed that a time of use tariff made sense. Workshop participants commented that once they were made aware of the benefit of small changes in their electricity usage, they understood the purpose of a time of use tariff.

As the conversation continued Western Power presented findings from the Perth Solar City project that the bill impact (positive or negative) from applying a time of use tariff was small (around 10%). Workshop participants indicated that a greater incentive would be required for them to change their electricity consumption.

Participants questioned the effectiveness of a time of use tariff given that bill impact was likely to be low. Western Power outlined that if customers altered their electricity use by a small amount during peak periods there would be a reduction in the network’s peak demand.

“That’s nothing when you consider health cover charges! That was 9%!”
– Regional resident

“If it was a $50 incentive we wouldn’t even change. But if you change by $500 then I’ll change my behaviour. $50 is just a cup of coffee a week.”
– Metropolitan resident

“If the truth is that we only need to shift one thing, then that’s enough.”
– Metropolitan resident

“The dishwasher would go in the morning, but a lot of things won’t change.”
– Metropolitan resident

“The problem is that now we get it; how do you convince everyone else to get it?”
– Metropolitan resident

Finally, when asked whether a time of use tariff was a potential solution to Western Power’s problem; 10 of the 12 participants agreed that a time of use tariff made sense. Workshop participants commented that once they were made aware of the benefit of small changes in their electricity usage, they understood the purpose of a time of use tariff.
Overview
Findings from the Listen phase indicated that customers were tolerant of the CEP concluded that customers were tolerant of occasional outages but were supportive of Western Power addressing areas of poor reliability.

Customer insights

**Customer insight #10 – Customers are accepting of occasional outages**

**Customer insight #11 – Accurate and frequent communication is essential during supply interruptions**
Although customers would prefer no outages, they accept that it is reasonable for a minimal number of planned an unplanned outages to occur. Customers were accepting of some outages, but value both accurate and frequent information.

**Customer insight #12 – Longer outages are more disruptive to customers than frequent (short) outages**
The quantitative survey revealed that the length of outages was more important to customers than the frequency of outages. Workshop participants also remarked that long outages cause them more inconvenience.

**Customer insight #13 – A reliable source of electricity is essential for all customers and customers are willing to spend money to ensure that all people on the network have a reliable source of electricity**
Customers were happy with their own reliability but were willing to fund the improvement of areas in the SWIN that had below average reliability scores.

**Summary of Western Power’s proposed plans**
Western Power will provide you with the information you need, through the medium you want. At the time of the workshops a severe storm had seen a large portion of metropolitan Perth suffer an unplanned power outage. This event provided an example to discuss how Western Power has been engaging differently through social media, and the future plans Western Power has for using multiple channels to spread information about outages.

**Western Power’s Zone Based Asset Management strategy prioritises affordability**
In contrast to conclusion that customers prefer short outages, Western Power outlined its current work planning strategy which occasionally leads to longer outages. The logic behind the Zone Based Asset Management strategy is to combine relevant work in areas of the network. This enables Western Power to assign resources more effectively and fix a large number of defects in one outage. The consequence is that these areas might be subject to long planned outages. However, the efficiency of combining work together means that there is a lower cost impact on customers.

**Western Power is addressing the reliability hotspots**
Western Power outlined its proposal to address the reliability hotspots that had been identified prior to the Listen phase workshops.
Customer feedback on Western Power’s proposed plans

Participants agreed that accurate and frequent communications regarding supply interruptions is crucial and supported Western Power’s efforts to improve their communications in this area.

“‘I’ve been quite happy with your response.’”
– Regional resident

“‘It’s good to have all that information.’”
– Regional resident

Workshop participants also agreed that longer duration outages were more inconvenient than frequent (short) outages. Workshop participants accepted Western Power’s justification of the efficiency benefits of the Zone Based Asset Management (ZBAM) strategy. Comments from regional participants who had experienced outages as a result of ZBAM work were that they appreciated the accuracy and frequency of information provided by Western Power.

“I’ve experienced the flood of Western Power crews. It’s not too bad. You’re informed about the outage, you know it’s going on, and you can see the bad poles go down and the new ones go up, and that’s what you want.”
– Regional resident

“If customers know it’s for a long term goal, then it’s ok.”
– Metropolitan resident

“Just a suggestion, when Western Power write a letter justifying the work, include evidence of improvements from previous parts of work.”
– Regional business

Western Power’s proposal to identify and fix reliability hotspots was supported by participants.
Overview
Customers appreciated Western Power’s investments in improving network safety. Western Power assured customers that it would continue to meet existing safety standards, but they would do so in a more efficient manner.

Customer insights

Customer insight #14 – Customers want Western Power to continue to improve network safety, although are divided on whether they should pay for it

Customer insight #15 – Customers want to see bushfire safety investment targeted in areas where it has the greatest impact

Western Power’s focus on safety was widely recognised by customers. Survey respondents supported an increase in safety spending but were undecided on whether they should pay for these improvements.

Listen phase workshop participants were provided information about Western Power’s current bushfire safety program and plans to focus on areas of high consequence. Workshop participants did not want to see bushfire spending reduced, but agreed that it could be more efficiently targeted.

Summary of Western Power’s proposed plans
Western Power presented its proposed asset inspection cycle which targets areas of high consequence.

Customer feedback on Western Power’s proposed plans
Workshop participants understood Western Power’s proposal to conduct more frequent, detailed inspections in areas of high consequence. Participants trusted Western Power to maintain the safety of the network.

“The safety is the core of your business. You guys are the experts here. If you reckon you can do it better, then do it.”
– Representative, Customer Reference Group

“The inspection cycle makes good sense.”
– Regional resident
Conclusion

The Interpret and Plan phases of the CEP concluded in June 2016 having reengaged with participants from the Listen phase. Workshop participants found that the feedback process was rewarding and were impressed by Western Power’s response to their preferences.

**Next steps**

Western Power will lodge its first regulatory submission with the AER in early 2017, and plans to continue to refresh the data which underpins the Program to keep a pulse on customers perceptions of Western Power and the electricity industry.

**Keeping customers informed**

Western Power will provide customers with the opportunity to participate in its ongoing CEP, details of which can be found at [www.westernpower.com.au](http://www.westernpower.com.au).
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Word</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AER</td>
<td>Australia Energy Regulator</td>
<td>A national regulator responsible for administering energy markets and networks under national energy market legislation and rules.</td>
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<tr>
<td>CEP</td>
<td>Customer Engagement Program</td>
<td>The program positioned Western Power to better respond to its customers, and help adapt to the changing regulatory environment.</td>
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<tr>
<td>CRG</td>
<td>Customer Reference Group</td>
<td>A group established during the Mobilise phase of the CEP. The membership of the CRG includes peak bodies that represent customers in the SWIN.</td>
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<tr>
<td>CSS</td>
<td>Customer Service Strategy</td>
<td>Western Power’s customer service strategy developed in late 2014.</td>
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<tr>
<td>EMR</td>
<td>Electricity Market Review</td>
<td>A review of the Western Australian electricity industry conducted in 2014.</td>
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<tr>
<td>ERA</td>
<td>Economic Regulation Authority</td>
<td>Western Power’s economic regulator. Responsible for ensuring that WA has a fair, competitive and efficient environment for consumers and businesses.</td>
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<tr>
<td>NER</td>
<td>National Electricity Rules</td>
<td>The National Electricity Rules govern the operation of the National Electricity Market. The Rules have the force of law, and are made under the National Electricity Law.</td>
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<tr>
<td>PUO</td>
<td>Public Utilities Office</td>
<td>A government body which provides services on energy matters to the Minister for Energy, the Western Australian Government, the energy sector and the Western Australian community.</td>
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<tr>
<td>SRG</td>
<td>Strategic Reference Group</td>
<td>An existing group chaired by Western Power and including members of the land development and construction industry.</td>
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<tr>
<td>SWIN</td>
<td>South West Interconnected Network</td>
<td>Western Power’s transmission and distribution network. Located in the south west of Western Australia.</td>
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