

What do we know about our electricity customers?

Customer research findings and outcomes

April 2018



Business summary

Customers are at the centre to:

- 1 Ensure the we are servicing the right needs
- 2 Ensure that we remain relevant

To do this we need to:

- Improve customer experience and satisfaction
- Operationalise distributed energy solutions and move away from a statically managed network towards a dynamically managed one
- Simplify business and reduce cost

To thrive, our Regulated Businesses must be relevant, sustainably priced and influential advocates for our customers.



Who are our customers?

 <p>Household Income p.a.</p>	<p>\$1 – 77,949 (43.9%), \$78,000 – 207,949 (31.2%), \$208,000 and over (2.1%), Missing 22.8%</p>
 <p>Household Composition</p>	<p>Couple (12.3%), extended family (13.2%), Group living / share house (6%), married (12.1%), single households (22.4%), Missing (34%)</p>
 <p>Owner / Tenant</p>	<p>Owner (58.4%), tenant (11.9%), missing (29.7%)</p>
 <p>Property Type</p>	<p>Commercial (2.9%), duplex (2.0%), low density (3.6%), medium density (1.1%), high density (1.1%), separate dwelling (62.6%), missing (26.7%)</p>
 <p>Probability of having a Disability</p>	<p>Very high (1.4%), high (9.6%), medium (20.8%), low (45.3%), very low (17.4%), missing (5.5%)</p>

The research funnel

1. What are customers' key electricity issues?

2. What's the magnitude of each of these issues?

3. Lets rank the operational issues in order of customer importance

4. Lets measure how we are performing

5. Lets get specific on a few important customer topics

6. Rolling research program

The funnel represents the questions that we are seeking to answer through our existing and upcoming research efforts

1. What are customers' key electricity issues?



Issues	Customer insights and sentiments		
	Residential	SME	C&I
Electricity reliability	<ul style="list-style-type: none"> On the whole, customers are satisfied with the reliability of their electricity supply ^{1,2,3,5}◆ Customers view the reliable supply of electricity to their homes as a basic, core expectancy that needs to be maintained ^{2,5}◆ Customers are accepting of outages provided they get advanced warning^{1,2} Need to improve communications around outages, including providing customers with the reason for their occurrence^{1,2}◆ 	<ul style="list-style-type: none"> Reliability is increasingly becoming a key priority/concern⁶●◆ Outages with no advanced warnings are a big problem⁶ 	<ul style="list-style-type: none"> Reliability is increasingly becoming a key priority/concern⁶● Extremely sensitive to outages – if an outage occurs at the wrong time during production there can be disastrous outcomes⁶ Are seeking more proactive communication from AusNet Services regarding the reasons for outages and what actions are being put into place to prevent the situation from occurring again in the future⁶
Electricity price and affordability	<ul style="list-style-type: none"> There is widely-held concerns about electricity prices^{1,3,5}◆ Belief that the upward trends cannot continue³ Many customers are reporting prioritising payment of energy bills (over other costs) to ensure that they do not fall behind or get disconnected⁵● Particular customer groups that are struggling (financially) and will be sensitive to any price rises¹● 	<ul style="list-style-type: none"> Electricity affordability a key priority and concern⁶● Many are struggling financially or running on such thin margins that they are highly sensitised to the costs of energy and not supportive of anything that will increase costs^{1,6} Increasing electricity prices are creeping up to surpass labour costs for many⁶● Complex trade-offs are having to be made to ensure that energy bills are being paid on time⁶● 	<ul style="list-style-type: none"> Electricity affordability a key priority and concern⁶● Increasing electricity prices are creeping up to surpass labour costs for many⁶●

● = Sentiment supported by Customer Advocates in the industry
 ◆ = Sentiment supported by recent peer and industry research



1. What are customers' key electricity issues?

AusNet services

Issues	Customer insights and sentiments		
	Residential	SME	C&I
Powerlessness and independence	<ul style="list-style-type: none"> Many express a feeling of powerlessness about their ability to control their electricity usage and /or charges⁵◆ Many seeking advice around how they can save money on bills◆ The industry is too complex so many opt to simply disengage from energy issues to deal with feelings of powerlessness⁵ 	<ul style="list-style-type: none"> Faced with a barrage of pressures, many voiced not having the time or impetus to think about how to better manage their electricity to drive down price⁶ 	<ul style="list-style-type: none"> Significant investment in capability to drive energy independence⁶● Deployed sophisticated energy efficiency programs and exploring alternative technology⁶ Motivated by a sense of wanting to 'stick it to the big guys' (i.e., supply chain players)⁶
New technology	<ul style="list-style-type: none"> Considerable interest in new technology^{1,5,3,4}◆ Significant number of customers considering the installation of solar PV and battery technology (if they don't already have it) ^{1,5,3,4}◆ Drivers for the take-up of new technology include desires for decreased reliability on the grid^{1,4},◆ economic benefits (i.e., save on electricity bill) ^{1,4,5}◆ and environmental concerns^{1,4,5} Considerable interest in financing arrangements to facilitate adoption^{4,5} Some faced challenges in planning their community solar and battery projects as a result of network constraints⁵ Consider grid upgrades necessary to enable the increased take-up of renewables⁵ 	<ul style="list-style-type: none"> A small proportion have considered /are considering the installation of solar PV¹ Long payback periods are a key barrier to the adoption of new technology, especially batteries⁶● Property ownership and size constraints also represent a key barrier to the adoption of new technology⁶ 	<ul style="list-style-type: none"> There is widespread interest in new technology (especially solar PV)⁶● Organisations are looking for ways to reduce their electricity costs utilising technology⁶ Shifting organisational mindsets and attitudes towards renewable technologies are encouraging innovation in this space⁶● For others, investment in renewables does not stack up economically as loads are too high to cover with any kind of renewable generation⁶ Long payback periods are a key barrier to the adoption of new technology, especially batteries⁶●

2. What's the magnitude of each of these issues?



Quantum Research has recently been appointed to develop a new attitude and perception quantitative survey designed to empirically quantify and test the nature of key customer issues and intentions

Sample	1000 residential, 100 SME customers across a diverse customer base*. Strata sampling across bushfire areas is being applied
Methods	Telephone interviews
Themes being tested*	Awareness of AusNet Services, smart meter benefits, perceptions of value for money and affordability, intentions and expectations around DER, perception of demand management, electric vehicles, perceptions of solar export limits, grid defection intentions, RAPS, energy efficiency behaviours, engagement preferences
Timing and deliverables	Fieldwork: 11 th – 25 th April Data analysis: 26 th – 1 st May Final report: 9 th May Presentation of findings: 14 th May

* See attached questionnaire for more detail

3. How do customers rank our current services?



In January 2018, participants were surveyed online and asked to rank in order of importance the services (below). The survey was conducted to better understand which services customers value. Survey outputs will be used to inform journey mapping (slide 9) and the new Customer Satisfaction Program (slide 10)

A total of 100 customers completed the survey, with results outlined below:

Most important

Least important

- 1 If there is an interruption to my electricity supply, AusNet Services has told me in advance
- 2 If there is an interruption to my electricity supply and AusNet Services couldn't warn me, they turn my electricity back on in the time promised
- 3 My bills are based on actual meter reads and not estimated ones
- 4 When I contact AusNet Services, they resolve my complaint/issue the first time
- 5 AusNet Services answers my emergency call quickly
- 6 If I am connecting electricity to my property the first time, AusNet Services does in in the time promised
- 7 If I am connecting solar/batteries, AusNet Services does in in the time promised
- 8 After connecting my electricity to my property, AusNet Services leaves my property as they found it
- 9 AusNet Services tells me when they are planning to trim the trees outside my home/business

Note: The issue of affordability was not explicitly included in this survey as it a motherhood issue. We fully appreciate the affordability is a salient (if not the most salient) issue facing our customers.

Customer journeys to improve

Unlike many of the services examined in the Customer Service survey, the business recognised that there lack of clarity in the business around customers' experience (CX) and user experience (UX) when connecting DER (solar PV, batteries).

We therefore commenced journey mapping of this process commenced in March.

With support from ThoughtWorks, the business has:

- Mapped the 'as is' experience for customers
- Mapped what would be the 'preferred' experience for customers
- Identified the 'pain points' for customers and AusNet Services
- Focused on improving those paint points
- Developed a 6-month program for implementation of improvements

4. Lets measure how we are performing



Current Measure

Customer Service Index

- In 2015 the Customer Service Index was launched. Captured internally, the index was designed to measure performance across some of our operational activities for the electricity distribution network only.
- The index includes a number of equally weighted objective and subjective inputs:
 - Complaints Index: based on the quantitative number of complaints per 100 hours worked.
 - Planned Outage Cancellations: based on the quantitative number of cancelled planned jobs where the customer has been notified about the works
 - Planned Outage Over Runs: based on the quantitative number of planned works that overrun the customer notification timeframe
 - Customer Effort Score: to obtain this measure we survey 50 customers who have contacted our customer service team each week and ask them a series of questions around service quality

New Measure

Customer Satisfaction

- In 2017, for a range of reasons associated with the limitations of the CSI, the business decided to implement a new, externally captured, measure
- The objective of this new measure is to measure performance across key operational activities (that customers actually care about). The measure also looks at the underlying drivers of performance (an extension on the CSI)
- This program is being applied to each of our regulated networks
- Customer Services Benchmarking Australia (CSBA) was appointed as the research supplier for this program
- For each of the distribution networks, 250 customers are sampled each quarter across four key activities: planned/unplanned outages, new connections and complaints*
- A more qualitative approach is being taken for our transmission network, with yearly 1:1 interviews occurring with our 12 directly connected customers (incl. AEMO)
- Q1 data will be reported in early-May 2018

* See attached questionnaire for more detail

5. Lets get specific on a few topics important topics



The business has also designed and implemented a range of more targeted research efforts over the past 12 months. The motivation for the research efforts described below are varied but seem to results from the combination of customer interest (particularly around reducing prices) and opportunity for growth in the network (from a technical as well as customer performance perspective).

Demand Response Program

Peak Partners

- Peak Partners, our first residential demand response program, is being concluded after a successful summer.
- The program aimed to develop residential demand response among a small group of around 75 customers connected to a constrained feeder in the high growth Berwick/Clyde North area.
- Over 80 eligible participants were recruited through multiple channels. Across five peak events (days of forecast high demand), the average power reduction for the entire group was significant - around 40 per cent.
- While the majority of participants took part in voluntary demand response, the team also recruited small participant groups for a DRED stream called 'Peak Partners Auto Pilot,' and a Supply Capacity Control stream called 'Peak Partners Essential Power.'
- These streams established our capability to respectively: control the power consumption on suitable (inverter equipped) air conditioners and; configure our smart meters to automatically disconnect from the grid for 15 minutes if a pre-programmed power consumption threshold (in the case, 2kW) is exceeded.
- With warm weather coming to an end, the team is winding up the current 17/18 program, with the aim of expanding our participant base for Peak Partners 18/19 next summer.

5. Lets get specific on a few topics important topics



Peer-to-Peer Energy Sharing

- Over the past 12 months, AusNet Services has been working with a team from the Department of Marketing at Deakin University to explore the concept of Peer-to-Peer (P2P) energy sharing.
- The aim of the project was to empirically investigate the marketing and consumer-behaviour implications of P2P energy sharing. The results of the research insights serve to further academic and industry understanding of P2P energy sharing.
- A series of qualitative and quantitative studies were conducted to investigate different aspects and stakeholder perspectives of P2P energy sharing and pursue the project aim.
- Please see the attached Summary Report for details of the findings.

DER Connection Process *Installer NPS*

- Installers of DER (i.e., solar PV and batteries) technologies are likely to be the entities responsible for interacting with AusNet Services in the connection process.
- To assess their perceptions on how the business is performing in this space, in March this year, 15 installers operating in our network completed an online NPS survey.
- The resultant score of this effort was -70 highlighting the need to begin understanding and improving satisfaction levels with installers across this process.

6. Rolling research program



Customer Satisfaction Program

- The Customer Satisfaction Program (outlined in slide 10) will be conducted on an ongoing basis
- FY19 data will be baselined to establish targets for corporate KPIs (FY20)
- It is envisioned that data from this program will be benchmarked against our peers currently running the same program with CSBA

Attitude and Perception Survey

- The attitude and perception survey (see slide 7) currently being undertaken will be replicated every 2-years
- This is being done to enable the business to track trend over time and identify opportunities for business improvements

RMIT Research

- AusNet Services has signed on as an industry partner for a research program being proposed by RMIT
- The team at RMIT will be submitting the research proposal to the Australian Research Council (ARC) in April 2018 seeking funding
- The objectives of the research are to:
 - Understanding changing household electricity practices in relation to new and emerging intelligent and digital technologies.
 - Test and develop a theoretical and methodological approach to studying and anticipating changing trends in household practices.
 - Develop a new industry-relevant forecasting model for tracking and anticipating peak electricity demand, and energy consumption more broadly, that incorporates insights from future-oriented social science research.
 - Develop practical demand management solutions for Australian electricity network businesses to plan for efficient, cost-effective and reliable networks.
- The research will be targeted to AusNet Services customers

References / research library

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