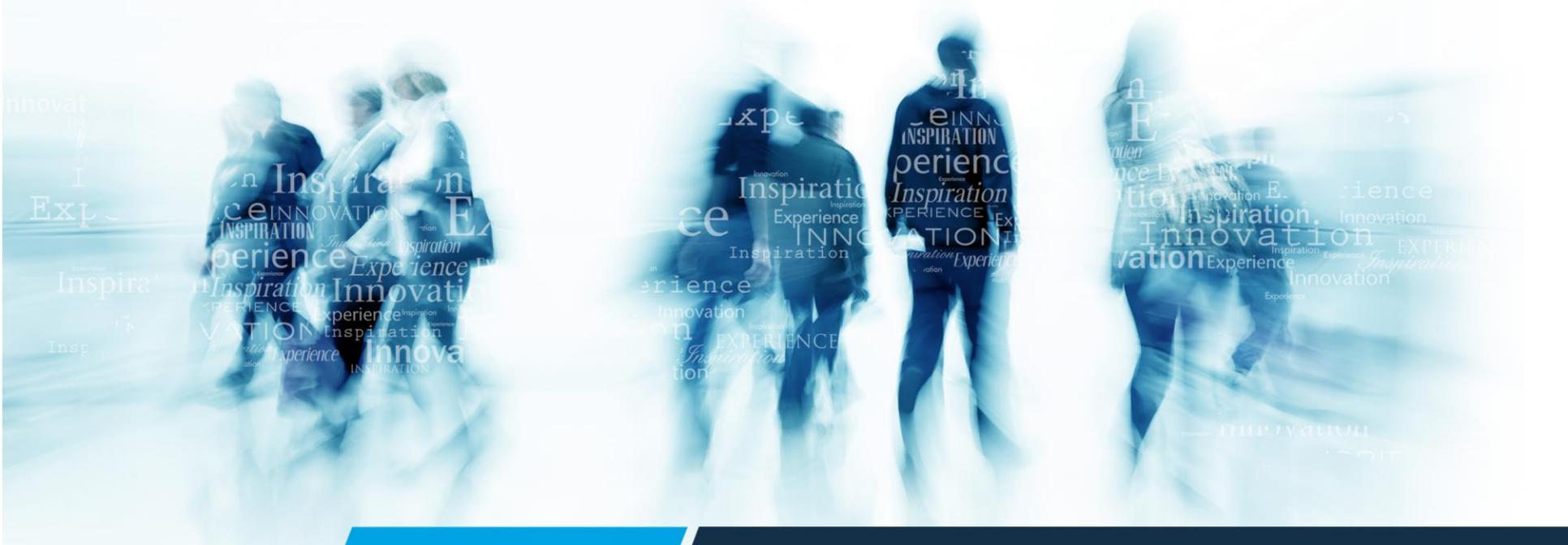


Exploration of Electricity Issues

Prepared for:

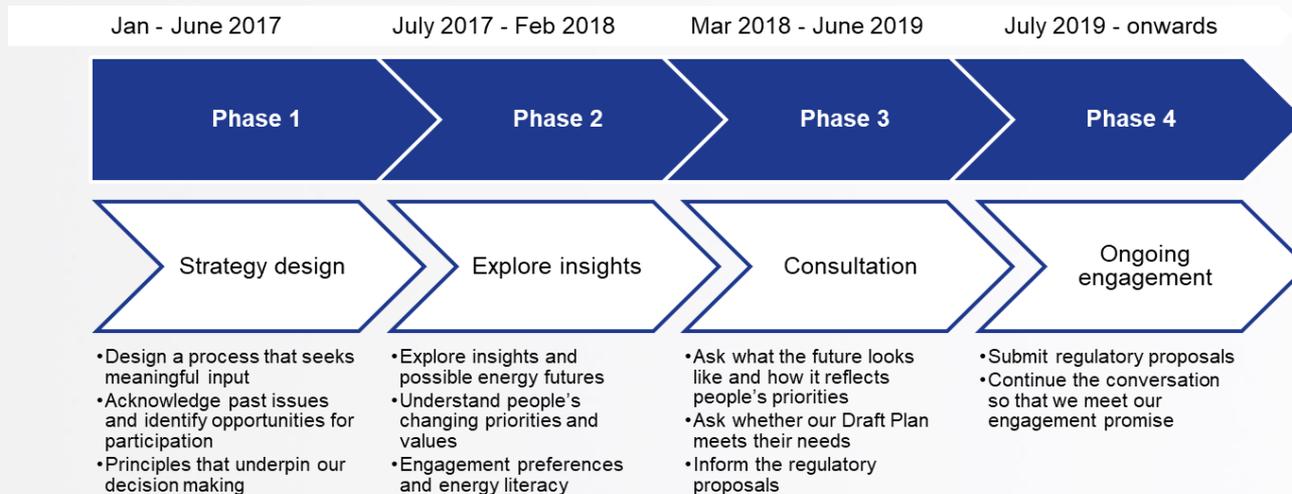


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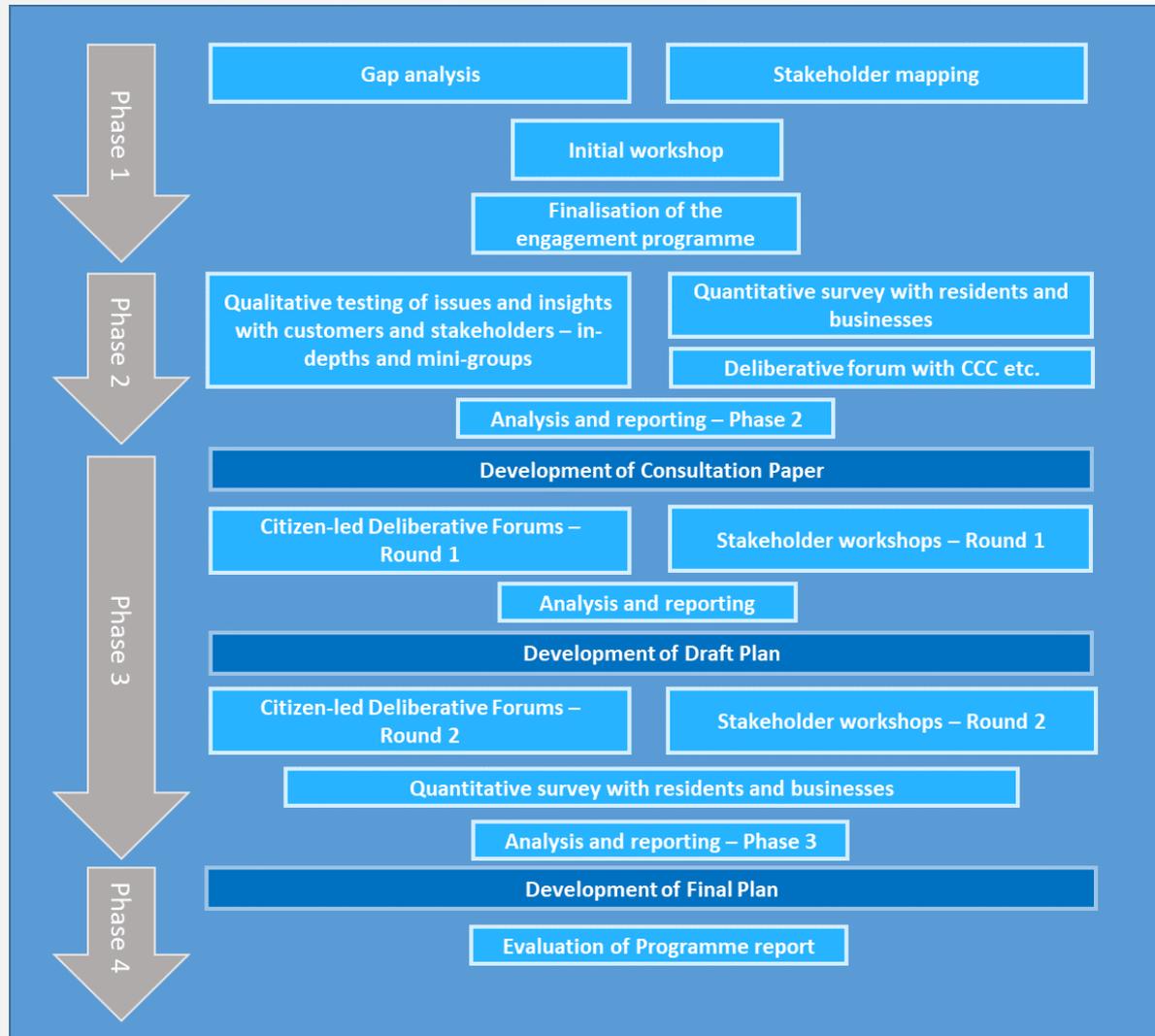


Research Background and Objectives

- CitiPower, Powercor and United Energy are required to submit to the Australian Energy Regulator (AER) a regulatory proposal and tariff structure statement on a five year basis.
- The regulatory proposal is due to be submitted for the 2021-25 period by July 2019.
- Woolcott Research and Engagement has been commissioned to conduct the customer and stakeholder engagement to input into the preparation of the regulatory proposal.
- We are currently in phase 2 of the programme.



Engagement Methodology



Research Design

- This presentation provides the findings of 21 mini-group discussions across the three network areas.
- 4-6 residents took part in each group.
- Employees of CitiPower, Powercor and United Energy were screened out.
- If aged over 25 they were asked if they were a main or joint decision maker about electricity in their household.

	CitiPower	Powercor	United Energy	Total
Aged under 40	Richmond x1 South Melbourne x1	Bendigo x1 Geelong x 1 Mildura x 1 Werribee x 1	Sandringham x1 Rosebud x 1 Dandenong x 1	9
Aged 40 and over	Richmond x1 South Melbourne x1	Bendigo x 1 Geelong x 1 Mildura x 1 Werribee x 1	Sandringham x 1 Rosebud x 1 Dandenong x 1	9
Vulnerable *	x1	x1	x1	3
TOTAL	5	9	7	21

* Defined as having a concession card and difficulty paying bills



Section 1: Future-casting to 2035



1. Future-casting to 2035

Liveability and Electricity Values

Liveability

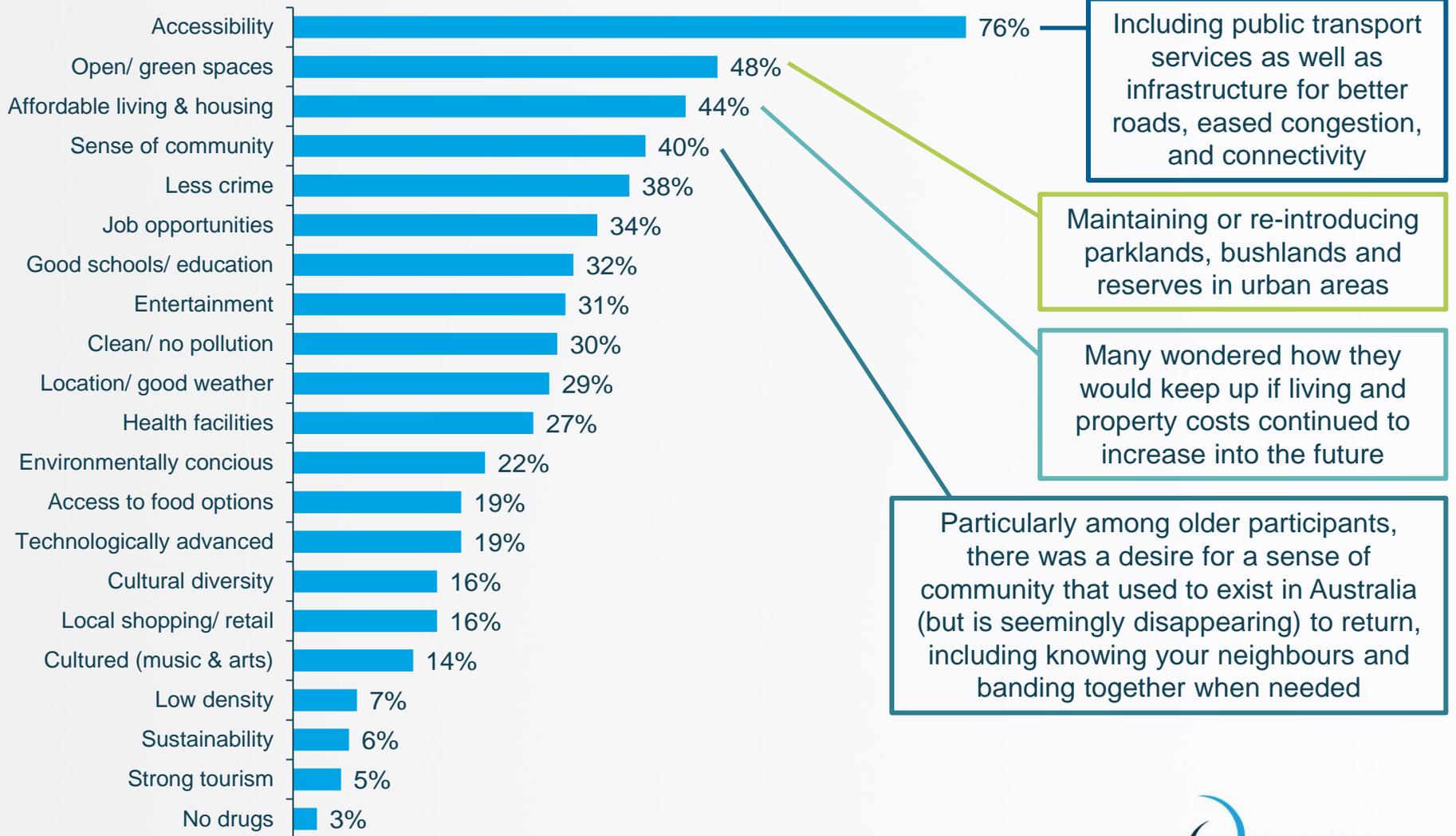
“We are now going to do a visioning exercise where we are going to imagine the future. Imagine it is 2035, and that you are living in what you think is Australia's most 'liveable' town/city. What are the special characteristics that make this such a highly liveable place? In other words, what makes this place enjoyable to live in?”

Values

“What do you think will be important in terms of how your electricity is supplied in 2035? What values and priorities would an ideal electricity supplier have to take into account in planning future services - what should they focus on?”

1. Future-casting to 2035

Characteristics of Australia's most liveable city



1. Future-casting to 2035

Electricity Priorities

- Some thought that their electricity costs would go up in the future and some down (through having solar etc.), but having an affordable electricity supply was a priority for most people.

Affordability



“Cost will be an issue. It could be out of control.”

“Battery technology will be better and cheaper. Lots of people will have them. And electric cars.”

- There was much mention of future electricity supply being ‘green’ or ‘clean’ with a focus on the environment and renewables.

Environment



“I think we will use more electricity in the future because of the technology. But people will be more self-sufficient. Solar panels with batteries to back up at night.”

- With the recent highly publicised problems in South Australia ‘a constant supply’ was a key priority in the future.

Reliability

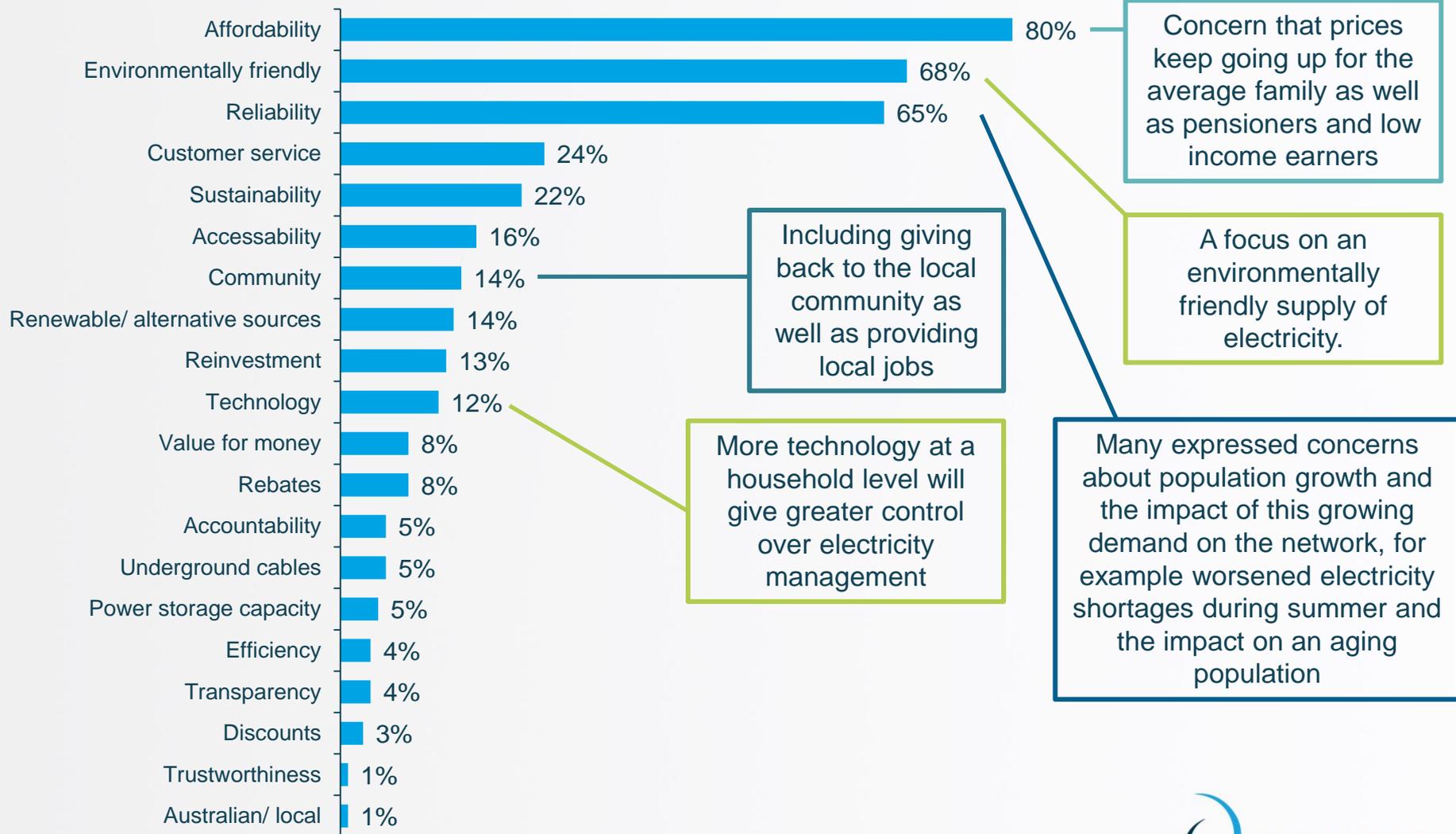


“Could have more power surges and blackouts as more people will be on the grid and too much power will be going through it.”

“I would like to be off grid – not relying on other people.”

1. Future-casting to 2035

Electricity Values



Section 2: Energy Literacy



2. Energy Literacy

Energy Terms

OVERVIEW:

More understanding	Some understanding	No understanding
Reliability	Power quality	Security of supply
Renewable energy	Smart meters	Smart grid
	Tariff	
	Network	



Power Quality:

While most were unsure exactly what this means, some guessed that it would relate to the **consistency of electricity supply** – constant flow; no drop outs; uninterrupted supply with no loss of service; grading.



Reliability:

While most were aware of the term ‘reliability’, many were **confused as to how it differed from ‘power quality’** – again many indicated constant flow, uninterrupted supply, and knowing that it will be there when you flick a switch.

Additionally, some younger participants in the United Energy area felt that communication about power outages was also part of ‘reliability’, including knowing why there was an outage or receiving sufficient notification before a planned outage.

2. Energy Literacy

Energy Terms

Security of Supply:

None had heard this term before.

Many who had a guess thought that it could be related to people **stealing/ tapping into or sabotaging** their power. Others thought it could relate to **keeping their personal information private**.

A few guessed that it might be to do with **future planning**, i.e. having a secure backup of supply to meet increases in demand or exploration for more coal or gas deposits.

Smart Meters:

Most had heard of this term.

Most recognised that smart meters had been introduced in their area and that they 'had to have one now'. Some felt that smart meters helped them to monitor their usage, others were **negative** and indicated that they 'didn't want one', with a few indicating that their bills had increased since smart meters were introduced.

Some asked about the difference between smart meters and the old meters, however most were able to identify that smart meters **track your usage more accurately** (because they no longer use an average), they **allow you to track your own usage**, and they **don't require a meter reader**.

2. Energy Literacy

Energy Terms



Smart Grid:

Overwhelming **lack of familiarity with this term**, with many unable to make a guess as to what this would entail.

One participant thought that perhaps a smart grid could channel more electricity to houses with higher usage and less to those with low usage within a community.



Network:

Understanding of a 'network' was quite vague, with participants indicating that this referred to the '**whole company area e.g Powercor area**' or the '**whole system**' that **supplies electricity, including generation**'. Some mentioned the term **grid** and that a network could be a collective term for **many grids/ the power grid**.



Tariff:

Most knew that this was to do with **pricing**.

The minority of those with more knowledge about electricity understood a tariff to be **the rate they pay** (the cost per unit). However, others thought that a tariff was **an additional tax/ charge**, i.e. not a pricing mechanism but an extra cost.

2. Energy Literacy

Energy Terms



Renewable Energy:

Most were aware of renewable energy sources and specifically mentioned **solar panels** and **wind turbines**. There was also some mention of nuclear, hydro and tidal generation.

Some indicated that renewable energy is '**clean and green**' but '**quite expensive**' to set up.



In general, vulnerable customers had lower energy literacy and were much more retailer and price-focussed.

2. Energy Literacy

Point of Contact

OVERVIEW:

Issue	Point of Contact
Connecting to the electricity network	Retailer, distributor, google, local council
Seeking advice about using less electricity	Google, friends/family, government
Report a power outage	Retailer, distributor
Seeking advice on technologies such as solar panels or battery storage	Solar panel companies, google, friends
To report a faulty streetlight	Nobody, local council, distributor
To report a tree that needed pruning near electricity lines	Nobody, local council, distributor
Difficulty paying bills (vulnerable)	Retailer

2. Energy Literacy

Point of Contact

Connecting to the electricity network:

Moving into a new house

All indicated that they would contact a **retailer** such as AGL, Origin, or Red Energy if they were turning on the power when moving into a new house. However, they referred to these companies as 'electricity suppliers' or 'providers' more so than 'retailers'.

Some indicated that they might check online comparison websites such as **Compare The Market** or **iSelect** – although many indicated that they had had negative experiences with iSelect as they had continued contacting them for a long time after the fact.

Building a new house

When connecting electricity when building a new house, those with more electricity knowledge indicated that they would call **CitiPower / Powercor / United Energy**, alternatively others indicated that they would check **Google** or contact their **local council**.



2. Energy Literacy

Point of Contact

Seeking advice about using less electricity:

Most would do an **online search** or **ask their friends or family** for advice. Some suggested they might contact their **retailer** for advice – however others were sceptical that the retailer would want to help reduce their bill. Younger participants also indicated that they would look on **Youtube** for tips and advice.

“I’m with AGL and they have an app that allows you to monitor your usage, plus regular emails halfway through the billing period to help you keep an eye on it”



Some remembered **government schemes** (Green Loans/ Green Choice) that could be used to help improve the household’s star rating. Others thought that there had previously been programs where **someone would come to the house** to do an assessment and to provide practical tips to reduce electricity consumption.

“You could probably do it yourself if you knew how to do the calculations”

2. Energy Literacy

Point of Contact

To report a power outage:



Most in the CitiPower area were only aware of the **retailer** as an option to contact in the event of a power outage.

A couple mentioned the SES.



Most indicated in UE that they would contact their retailer to report an outage, and that there is a contact number provided on their bill. However, a few were aware that the **retailer would then direct them** through to the distributor.



In Powercor areas, participants consistently indicated that they would contact **Powercor** directly to report an outage, with some indicating that they had a Powercor fridge magnet with the phone number for this.

- **Vulnerable customers** in all areas said they would contact the retailer

2. Energy Literacy

Point of Contact

Seeking advice on technologies such as solar panels or battery storage:

Most indicated that **commercial solar panel companies** who install the technology would be their initial points of contact, often sourced through a **Google** search.

However, some younger participants were likely to start by doing their **own research** online or ask friends for **recommendations**.

There was a feeling that there are a lot of ‘dodgy’ operators offering to install these technologies.

Vulnerable customers had **no likelihood of installing solar or batteries in the near future**, because it was cost prohibitive and they were renting.



2. Energy Literacy

Point of Contact

To report a faulty streetlight:

Younger participants were **unlikely to contact anybody** about a faulty streetlight. However, they imagined that **Council** would be the best point of contact.

Older participants indicated that they would contact their **Local Council** or find a phone number for faults and outages.

In Powercor areas, some participants were likely to indicate that they would contact **Powercor directly**.

Vulnerable customers were more likely to report a faulty streetlight if it was perceived to be in an 'unsafe' or 'dodgy' area.



2. Energy Literacy

Point of Contact

To report a tree that needed pruning near electricity lines:

Again, younger participants were **unlikely to contact anybody**, but if they needed to then they would contact their **Local Council**.

“I would contact nobody – there are plenty of old people to do that, they have the time to ring people and they’re pretty on top of that kind of stuff, so I don’t have to worry about it”



Those in CitiPower areas indicated that they would mostly contact the **Local Council**.



There was some confusion amongst those in the United Energy area about whether they were supposed to contact **Council or the distributor**.



Those in Powercor areas indicated that they would contact **Powercor directly**.

2. Energy Literacy

Point of Contact

Difficulty paying bills (vulnerable customers only):

Most vulnerable customers stated that they would **call their “provider”** (retailer) in the event that they were having difficulty paying their bill, as they had done this previously.

Many realised that there was a **specialised service** provided through a particular section of the retailers' call centre for this problem.



2. Energy Literacy

Level of Understanding

Retailer vs. distributor:

- The terms **retailer or distributor** were **unfamiliar to many**, with much confusion about the difference between them.

“The distributor owns the power lines while everyone else just rents them- is that right?”

- They did not use the term retailer, most favoured words such as **‘supplier’** or **‘provider’**.
- Most had a **lack of understanding** about how electricity gets to their house, but were often content with their lack of knowledge of the process.

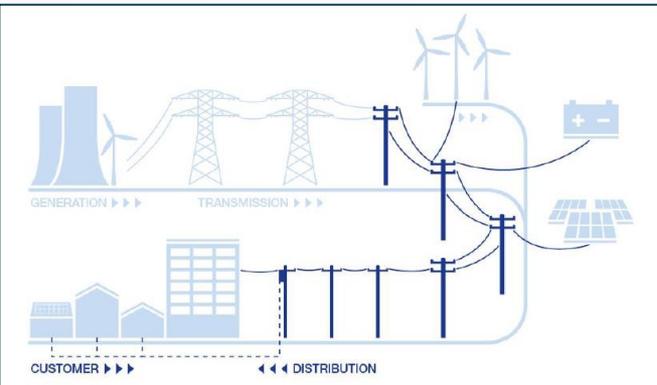


2. Energy Literacy

Level of Understanding

Handout 1 – The National Energy Market (NEM):

- When presented with the handout, there was some surprise that there were so many **steps in the process**, and it seemed like there were a lot of different players trying to ‘take a cut’.



“Why do so many different people need to be involved? Does that make it cost more?”

- Many also hadn’t realised that **transmission and distribution were separate**, assuming that the large poles and wires were related to the smaller poles and wires.
- For the most part, the handout explained the process of electricity supply **clearly** with the information appearing to ‘slot into’ participants’ existing (albeit limited) understanding.

2. Energy Literacy

Level of Understanding

Awareness



Some had heard of CitiPower but most **didn't know** that they were a distributor, with many assuming that they were a retailer.



Most had **heard of United Energy** and had seen their cars/ trucks in the area. However, there was **some confusion** about their role – retailer/ wholesaler/ distributor – particularly amongst younger participants.



Very **high awareness** of who Powercor is and its role as an electricity distributor. They have a presence – trucks, magnets, and seeing the workers in their uniforms.

Level of Understanding

Aspects that participants want more information about:

Generally there was **low interest** in finding out more about how electricity is supplied. Those who were more knowledgeable about electricity were more likely to mention some aspects, including –

- **Ways to save money** – most wanted information on how to reduce their usage and their electricity bill, but felt that they would have to do their own research into this as they would question the reliability of this information if it was provided by a retailer
 - Peak vs off-peak usage – how does this affect the bill?
 - Knowing which devices consume the most electricity
- **How your bill is calculated** – including what they base their pricing on, and whether or not there are any ‘middle men’ that can be cut out to reduce the cost
- **The market** – clearer information on who supplies and sells electricity in the market

“They make it difficult for a reason – once you sign that contract it’s likely that you’re going to stay”

“Is it true that you save more electricity if you leave a light on rather than switching it off and on again?”

3. Network Performance

Perceptions of electricity supply reliability

Reliability:

Generally perceptions of network reliability were **very positive**, with the majority indicating that they rarely experience 'black outs' or disruptions to their power supply.

- Those living in the city and large towns indicated that **outages were rare** – with unplanned outages particularly rare and seemingly only occurring when there was a major storm/ exceptional circumstance
 - This included extremely hot days in summer when everybody uses their air conditioning at the same time
- Participants living outside of towns in regional areas felt they experienced **more outages** – both planned and unplanned



Overall, there was **widespread acceptance that planned outages needed to occur** in order to maintain the network, fix problems, replace wires, etc. There was recall of times when participants had received letters informing them of a planned outage, but these outages were considered infrequent.

3. Network Performance

Perceptions of electricity supply reliability

Trade off – cost v reliability:

There was overall rejection of additional planned outages in exchange for lower bills, i.e. people were **not willing to trade off some reliability for lower cost**.

While there were some who would entertain the idea, there were a lot of criteria that would need to be met to accept these additional outages, including:

- Outages occurring at **night** (or at least during the middle of the day when fewer people are home)
- **Short duration**
- Plenty of **prior notification** required in case other arrangements needed to be made

Some were concerned about the **impact of additional outages** on those with medical needs, the elderly, or young families.

Others were worried about the **food in their fridge** going off if the outage went for too long.

Some were **sceptical** about as to whether the retailers would pass on any savings to the end consumer and whether the decrease would last.

“Once we’ve accepted more outages what’s to stop them putting our bill up again? Then we will be paying the same for worse supply!”

3. Network Performance

Perceptions of electricity supply reliability

Power quality:

Brown outs were thought to be only **very occasionally experienced**. Some participants in smaller towns indicated more frequent brownouts (e.g. outside of Mildura), however most participants recalled that they used to experience 'flickering' but not so much anymore.

Connecting to electricity supply:

Amongst those who had recently connected to an electricity supply, most found the experience to be **difficult**, with some recalling the frustration of trying to line up their electricity connection date when moving house. **Delays** were frequently mentioned.

Safety issues:

Top of mind safety issues predominantly related to the **stability of trees and branches** near power lines during storms.

- Powercor/ United Energy workmen and trucks are regularly seen, suggesting that they are working on the poles and wires. Those who had had safety problems in the past found them to be quick to respond.

A few mentioned that *“every so often a substation blows, which has an impact on reliability”*

3. Network Performance

Reliability in Rural and Remote Areas



Locational pricing:

Locational pricing was generally **rejected** at this stage.

Amongst Powercor customers there was a feeling that if remote customers experience significantly reduced reliability, then Powercor should invest in and improve the network.

- However, there was strong agreement in some of the rural areas (such as Mildura) that reliability is not a significant issue in that area, so does not need extra money spent on it.
- It was felt that all customers in the network should **pay the same amount to ensure the system is equitable**.



"It is an essential service. Everyone has a right to equal access."

4. Energy Bills

Understanding of Electricity Bills



Reading the bill

Overall, many indicated that their **level of understanding of their electricity bill was low**.

Most stated that they were **happy with the amount of information** they received on their electricity bill and didn't feel that they needed much more.

- A few simply wanted to see the **total amount** and **due date**.
- Many appreciated the **simple graphs that were clear and easy to read**, including –
 - Quarterly usage compared to same time last year
 - Average kW per household comparison
 - Discount for paying on time
- A minority wanted more information, including –
 - kW per hour rates and knowing what a kW equates to
 - How the discounts work
 - What all the different components of the bill are

“I haven't really thought about it before – I don't really care that much”

However, vulnerable customers were likely to be **more frustrated by their inability to understand their bill** – they were more likely to experience bill shock or difficulty paying so it was more important to them to understand the charges.

4. Energy Bills

Understanding of Electricity Bills

Awareness of retailer offers:

- There was a **high awareness and understanding of discounts for paying on time**, with most using these to reduce their bill.
- However, there was also a feeling of **injustice** around these offers as it was thought that everyone should just be on these automatically, without having to call up.
- There was **high awareness** – but not high understanding – of ‘time of use’ options, with many calling this “off peak pricing”, however many were unsure of whether this currently applied to their bill.
- There was **low awareness and knowledge** of ‘anytime’ and ‘demand charge’ options, however many assumed that ‘anytime’ would be the default option.
- Other retailer offers mentioned included ‘sign up discounts’, discounts for bundling electricity and gas with the same retailer.

“Why should you have to ring up to get put on a discount? They should put everyone on the best package.”

“Older people who are generally on lower incomes would not think to contact the provider and so they miss out.”

4. Energy Bills

Understanding of Electricity Bills

Types of electricity customer:

There were two key types of customer that emerged from the groups:



- **'Set and forgetters'**
These customers don't do any/ much research before signing a contract, and then stick with what they know (customer inertia). They are loyal, with many expressing disappointment that while new customers are offered new deals and cheaper prices, their loyalty is not rewarded.
- **'Bargain hunters'**
These were the minority. These customers are not loyal to a single retailer, but instead regularly research retailer options and offers – including on comparison websites such as Compare The Market and iSelect – to capitalise on offers only available to new customers.

4. Energy Bills

Components of the Bill

Value for money:

Prior to seeing Handout 2, there was strong agreement that electricity was **not good value for money**.

- There was low awareness of what proportion of the bill goes to the retailer vs distributor
- Bills have increased over recent years/ seem like a lot of money
- Much recent media attention on high electricity prices

“Obviously the distributor is getting the biggest cut, but it would be good to know what proportion you pay to the retailer for their customer service”

“I heard last week that Victorians have the highest electricity bills in the country”



4. Energy Bills

Components of the Bill

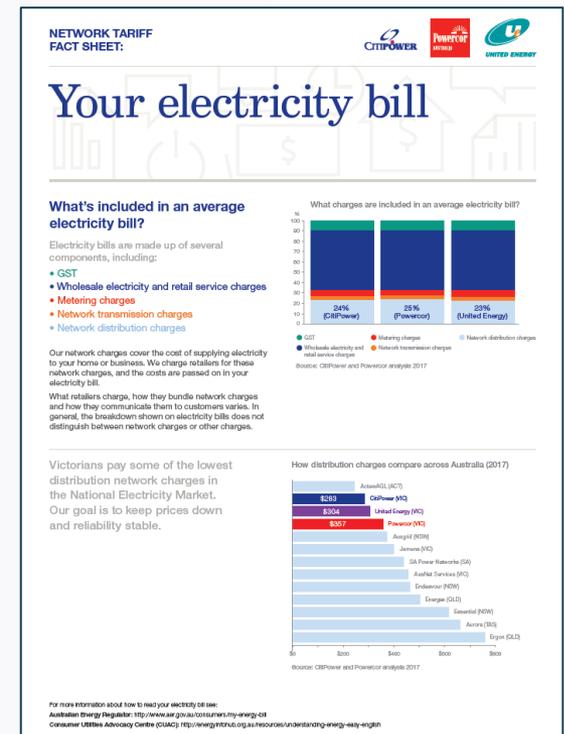
Handout 2 – Your Electricity Bill

Once revealed, most were **surprised** to see the large proportion of the bill that comprises the ‘wholesale electricity and retail service charges’.

This lead to **many questions** about why this portion is so large.

- Many questioned what the wholesale component refers to, and why this is bundled up with the retail component on the handout
- Others wondered where the generation component is and if that is the wholesale component
- Many felt that the proportion going to the retailer should be the smallest as they are responsible for ‘other’ charges (e.g. customer service, billing) rather than ‘core’ electricity charges (e.g. generation and distribution)
- Most felt that customer service from retailers should be better since so much of their bill goes to them

“No wonder they don’t show it! – the retailers wouldn’t want to show it”



4. Energy Bills

Components of the bill

Handout 2 – Your Electricity Bill (cont.)

CitiPower / Powercor / United Energy were felt to be doing a **good job** of keeping their charges down (24% / 25% / 23%)

- Some felt that the distributors **should be getting a larger proportion** of the bill because they need to pay for maintenance of the network, which sounds like a big job.
- There were positive reactions to CitiPower/ Powercor / United Energy's **relatively low charges** compared to other distributors throughout Australia.

“At least they’re working for the money – you see them out there. What are the retailers doing?”

NETWORK TARIFF FACT SHEET:

CITIPOWER POWERCOR UNITED ENERGY

Your electricity bill

What's included in an average electricity bill?

Electricity bills are made up of several components, including:

- GST
- Wholesale electricity and retail service charges
- Metering charges
- Network transmission charges
- Network distribution charges

Our network charges cover the cost of supplying electricity to your home or business. We charge retailers for these network charges, and the costs are passed on in your electricity bill.

What retailers charge, how they bundle network charges and how they communicate them to customers varies. In general, the breakdown shown on electricity bills does not distinguish between network charges or other charges.

What charges are included in an average electricity bill?

Retailer	Percentage
CitiPower	24%
Powercor	25%
United Energy	23%

Source: CitiPower and Powercor analysis 2017

Victorians pay some of the lowest distribution network charges in the National Electricity Market. Our goal is to keep prices down and reliability stable.

How distribution charges compare across Australia (2017)

State/Territory	Charges (\$)
ACT	\$283
CitiPower (VIC)	\$283
United Energy (VIC)	\$304
Powercor (VIC)	\$357
ACT (NSW)	\$400
Queensland (QLD)	\$450
SA Power Networks (SA)	\$500
AustNet Services (VIC)	\$550
Endesauro (NSW)	\$600
Energy (QLD)	\$650
Essential (NSW)	\$700
Aurora (QLD)	\$750
Ergon (QLD)	\$800

Source: CitiPower and Powercor analysis 2017

For more information about how to read your electricity bill see:
Australian Energy Regulator: <http://www.aer.gov.au/consumers/try-energy-bill>
Consumer Utilities Advocacy Centre (CUAC): <http://energyforum.org.au/resources/understanding-energy-bills-english>

4. Energy Bills

Components of the bill

Bill shock:

While **few had experienced bill shock** in the last 12 months, some had experienced it in the previous 2-3 years.

- Most who had experienced it had implemented pre-paid or payment plan options, switched retailers, or accessed assistance schemes to avoid it happening again

Almost **all vulnerable customers had experienced bill shock in the last 12 months**, with it creating a lot of **stress, anxiety** and a real sense of **depression**.

The response by vulnerable customers was often to ring up their retailer and query their bill. Some would try to get onto a payment plan in order to pay off their bill, while others might even change retailers.

In order to avoid future bill shock, vulnerable customers indicated the following options –

- **Bill smoothing** – a service offered by some retailers to spread payment of estimated costs on a monthly basis; however, many don't like this system as the billing cycle is 28 days, which often doesn't line up with fortnightly or monthly (30-31 days) pay cycles
- **Going without** because they know they can't afford the next bill

"You feel really depressed, how can you possibly pay?"

"It takes your whole pension"

5. Energy Usage

Household Energy Usage

Energy Usage and Saving Measures:

While there were mixed responses in terms of the amount of energy used by their household, most guessed that they had average to above average consumption.

Most people's energy saving measures included **switching off lights** when not needed and **switching appliances off at the socket**. Few had any substantial energy saving measures implemented in their houses

- Some had switched to **LED lights** and had noticed a positive impact on their bills
- Some indicated that they **don't turn their heaters/ air conditioners on as early** in the day as they used to
- A minority had **auto-switch off devices** to turn devices off completely when not in use (i.e. not on standby)

Many indicated that they weren't sure **what else they could do to reduce their energy consumption**.

Vulnerable customers felt that their landlords were unlikely to invest in energy saving devices in their houses, and hence were unable to reduce their consumption.



5. Energy Usage

Household Energy Usage

Energy Usage and Saving Measures (cont.):

Customers with big families were particularly **feeling the strain** of having high energy consumption, and were interested in finding out how to reduce their usage.



“I have 10 kids... I understand why there are higher rates for bigger users but we’re not wasting electricity – there’re just a lot of us!”

“We’re a big household, we have a bill of over \$2,000 and I’ve had the energy company out to talk to us about how to reduce it”

5. Energy Usage

Household Energy Usage



Renewable sources:

Most participants, particularly in the CitiPower and United Energy network areas, did not have solar panels installed.

A few participants in Powercor areas had solar panels – with most having installed them a few years ago when they were receiving a larger government rebate for electricity returned to the network.

- Even those who did not have solar panels were aware of the reduced government rebates
- Most felt that the government was **moving in the wrong direction** by removing the incentive for renewable electricity generation at the home

Those without solar panels indicated that even with the government rebate that was being offered a couple of years ago, the cost of installing the technology was still **prohibitive**.

However, there was a widespread view that **renewables has to be the future** of electricity generation.

None of the participants had battery storage but many were interested in this for the future.



Key outtakes for next stages



Key Outtakes

Values and priorities

- Values considered priorities for the future distribution of electricity include **affordability**, **environmentally focussed** and **reliability**.

Energy literacy

- There was **low energy literacy** in general – many had a poor understanding of the key terms involved in electricity distribution.
- A **lack of understanding** about electricity generation and supply but little motivation to understand more.
- Much **confusion** about the difference between a retailer and a distributor, with most using other terms for retailer such as ‘provider’ or ‘supplier’.
- There was more awareness and knowledge in the **Powercor** area than CitiPower or United Energy areas.

Key Outtakes

Reliability

- Generally, perceptions of network reliability were **very positive** in all three areas. There were more outages in the Powercor area but still high levels of satisfaction with reliability.
- Most were **not prepared to trade-off reliability for lower cost**, i.e. reduced bills for more outages.
- Within the Powercor area there was **some support for investment into areas with lower reliability** with costs being smeared across customers.

Connecting

- The research found evidence for some **difficulty** experienced by customers connecting to the network.

Renewables

- A minority were using solar at the moment but **great interest in using renewables** in the future. At the moment there was seemingly little financial incentive.

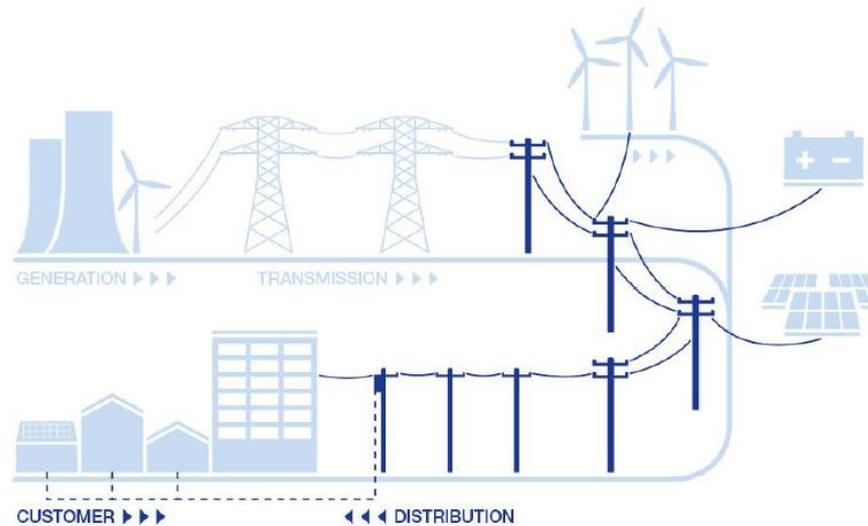
Key Outtakes

Pricing

- There was **little understanding of the bill** – most just looked at the amount owed, due date and how their electricity consumption compared to last year or other households.
 - Vulnerable customers were particularly frustrated about not being able to understand their bill.
- Most were on **high discounts from retailers** but there was a feeling that everyone should be on these, not just those who were savvy enough to call.
- Some awareness of **peak** and **off peak pricing** but confusion about whether they were on this type of plan, with very little awareness of demand tariffs.
- Value for money was deemed quite poor in general. However most were **surprised about how small the distribution component** was on the bill and praised them for keeping costs down compared to other distributors.
- There was a fair degree of bill shock, particularly amongst vulnerable customers, with some feeling of **disempowerment** around being able to change behaviours and reduce bills.
- There was **scepticism** about retailers passing any cost savings onto customers.

Handout 1 – The National Energy Market (NEM)

The National Energy Market (NEM):



1. Generation	2. Transmission	3. Distribution	4. Retail	5. Consumption
<p>Victoria has a 6,000 kilometre high-voltage electricity transmission system.</p> <p>Transformers reduce the transmission voltage to allow it to be transmitted via lower voltage distribution networks.</p>	<p>The majority of Victoria's electricity requirements are supplied by brown coal generators.</p> <p>Other electricity supply comes from gas-fired generators and from renewable energy sources including hydro-electric, wind power, solar and biomass.</p>	<p>Electricity is provided to consumers via the distribution infrastructure.</p> <p>Electricity is distributed through overhead power lines and also via underground cables.</p>	<p>Victoria's energy retailers provide customers with their energy services.</p> <p>The retailers deal with energy producers, transmission and distribution companies, and provide a "bundled" service to their end consumers.</p>	<p>Homes, offices and factories use electricity for lighting and heating and to power appliances.</p>

Handout 2 – Your electricity bill

NETWORK TARIFF FACT SHEET:



Your electricity bill

What's included in an average electricity bill?

Electricity bills are made up of several components, including:

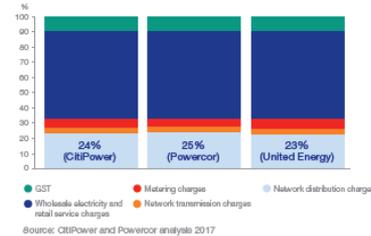
- GST
- Wholesale electricity and retail service charges
- Metering charges
- Network transmission charges
- Network distribution charges

Our network charges cover the cost of supplying electricity to your home or business. We charge retailers for these network charges, and the costs are passed on in your electricity bill.

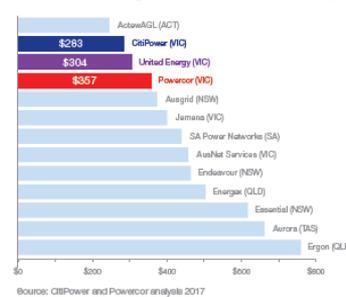
What retailers charge, how they bundle network charges and how they communicate them to customers varies. In general, the breakdown shown on electricity bills does not distinguish between network charges or other charges.

Victorians pay some of the lowest distribution network charges in the National Electricity Market. Our goal is to keep prices down and reliability stable.

What charges are included in an average electricity bill?



How distribution charges compare across Australia (2017)



For more information about how to read your electricity bill see:
 Australian Energy Regulator: <http://www.aer.gov.au/consumers/my-energy-bill>
 Consumer Utilities Advocacy Centre (CUAC): <http://energyinfrub.org.au/resources/understanding-energy-easy-english>