Business and Residential Customer Workshops

Round One – Feedback Report

AusNet

October 2023

senateshj grounded in smart thinking

We want to cover five things

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01 Executive summary

Executive summary

In August 2023, AusNet engaged SenateSHJ to lead a public consultation process to help inform its submission to the Electricity Distribution Price Review 2026 – 31.

The consultation targets residential and business customers from three regions (Morwell, Epping and Wangaratta) as well as online customers from across Ausnet's network area. The program consists of four rounds of workshops from August 2023 to July/August 2024 with a possible fifth round of workshops to follow. Each round consists of five workshops.

The first round of workshops aimed to facilitate a high-level conversation about customers' use of electricity and their plans for the future. Its objectives were to:

1. Establish familiarity with and between participants and provide context for the consultation.

2. Listen to customers' existing needs and concerns.

3. Determine future priorities and support needs/expectations.

Workshop structure
Round one workshops used a mix of presentations, surveys and facilitated group discussions to generate and guide customer conversations, including:

1. Survey to determine the way customers use electricity today.

2. Facilitated discussion one: Is there anything AusNet can do to make your energy future better?

3. Survey to determine propensity for change between now and 2035.

4. Facilitated discussion two: What do you think you'll change about how you use electricity between now and 2035? When do you think you'll make these changes?

5. Facilitated discussion: What support will you need to make these changes?

Key themes from the workshops

The following themes emerged across the five workshops.

1. **Reliability:** Many participants were concerned about the reliability of the electricity system and cited the following as issues: blackouts, metropolitan usage taking away from regional reliability, social equity and safety, the move away from gas 'putting all eggs in one basket', and the move away from coal which is seen as a stable supply. This also relates to the speed of transition (see theme six). Business customers particularly noted the impact of power outages on their operations and productivity.

2. **Cost:** Participants are very concerned about the cost of electricity and not just because of the current 'cost of living crisis'. There is a widely held perception that even by using less electricity you are still paying the same or more than you used to. Participants who have installed solar panels are dissatisfied with the reduction in feed-in tariffs when they felt they had invested in solar partly to earn revenue from it. Customers are mindful of high set-up and maintenance costs and some question return on investment.

3. **Incentives:** Incentives are generally seen to be limited e.g. you can get a rebate on solar panels but not on panels and a battery, you can only get a rebate once, tenants can't receive incentives, it is hard to find information on incentives.

4. **Resilience:** The system is not resilient enough when there are fires and floods, poles create hazards.

5. **Information and support:** Many participants said they didn't understand their bills well enough to know how to reduce the cost of electricity and/or how best to invest in renewable/low emission technologies. Others reported that they wanted information from trusted sources rather than the retailers, and some wanted access to experts who could visit a property and provide tailored advice on solutions for efficient use of electricity.

6. **Standards and guarantees:** Some participants reported concern about the relative newness of the renewables industry and having little confidence that suppliers would continue to operate into the future so that equipment could be fixed or replaced. Others wanted to see Government backed regulations and standards that would provide some quality assurance.

7. **The speed of transition:** There were a range of concerns about the speed of transition including the environmental and social impacts of mining for renewable technology, the recyclability of renewable technology, being pushed into decisions by government, the additional costs, the current lack of infrastructure to support electric vehicle (EV) usage, the ability of the network to cope with increased usage without gas and coal.

02
Recruitment methodology

We spoke to 117 customers in five workshops

SenateSHJ worked with a professional research recruitment agency Focus People to source participants. Most were recruited from their research panel, but a small selection were sourced through AusNet's Research and Engagement Panel network.

Residential (102 customers)

Morwell

- Tuesday 29 August
- 26 customers
- The Morwell Club

Epping

- Wednesday 30 August
- 24 customers
- Epping RSL

Wangaratta

- Thursday 31 August
- 28 customers
- Wangaratta Performing Arts and Convention Centre

Online

- Tuesday 5 September
- 24 customers
- Hosted on Zoom

Business (15 customers)

Online

- Wednesday 6 September
- 15 customers
- Hosted on Zoom

Gender	Total sample (n=102)
Male	**36%**
Female	**64%**

Age	Total sample (n=102)
Under 30	**2%**
30-39	**40%**
40-49	**32%**
50-59	**13%**
60+	**13%**

Location	Total sample (n=102)
Metropolitan	**26%**
Regional	**54%**
Rural/Remote	**20%**

- Self-employed – 50%
- 1 to 4 staff – 28%
- 5 to 19 staff – 17%
- 20+ staff – 5%

- Metro – 72%
- Regional – 22%
- Rural/Remote – 6%

Summary of residential workshop participants

The number of participants in each of the residential workshops were:

- 26 in Morwell
- 24 in Epping
- 28 in Wangaratta
- 24 in the online session

The sample included a mix by gender (64% female, 36% male), age (42% aged under 40 and 58% aged 40+) and location (26% metropolitan, 54% regional and 20% rural/remote).

21% held one or more concessions, some had a disability (8%), health condition (7%), spoke a language other than English at home (10%) and one participant was Aboriginal/Torres Strait Islander.

We sought a mix of family and work situations, home ownership status and gross household income.

Looking at participants electricity and gas consumption, we found over a third (36%) have solar panels on the roof of their home, most use gas (89%) but few drive electric vehicles (2%).

Electricity use throughout the day varied. Attitudinally we heard most actively try to reduce household energy consumption and think it's important moving towards sustainable energy sources to reduce our impact on the environment, but only some (19%) intend to stop using gas in future.

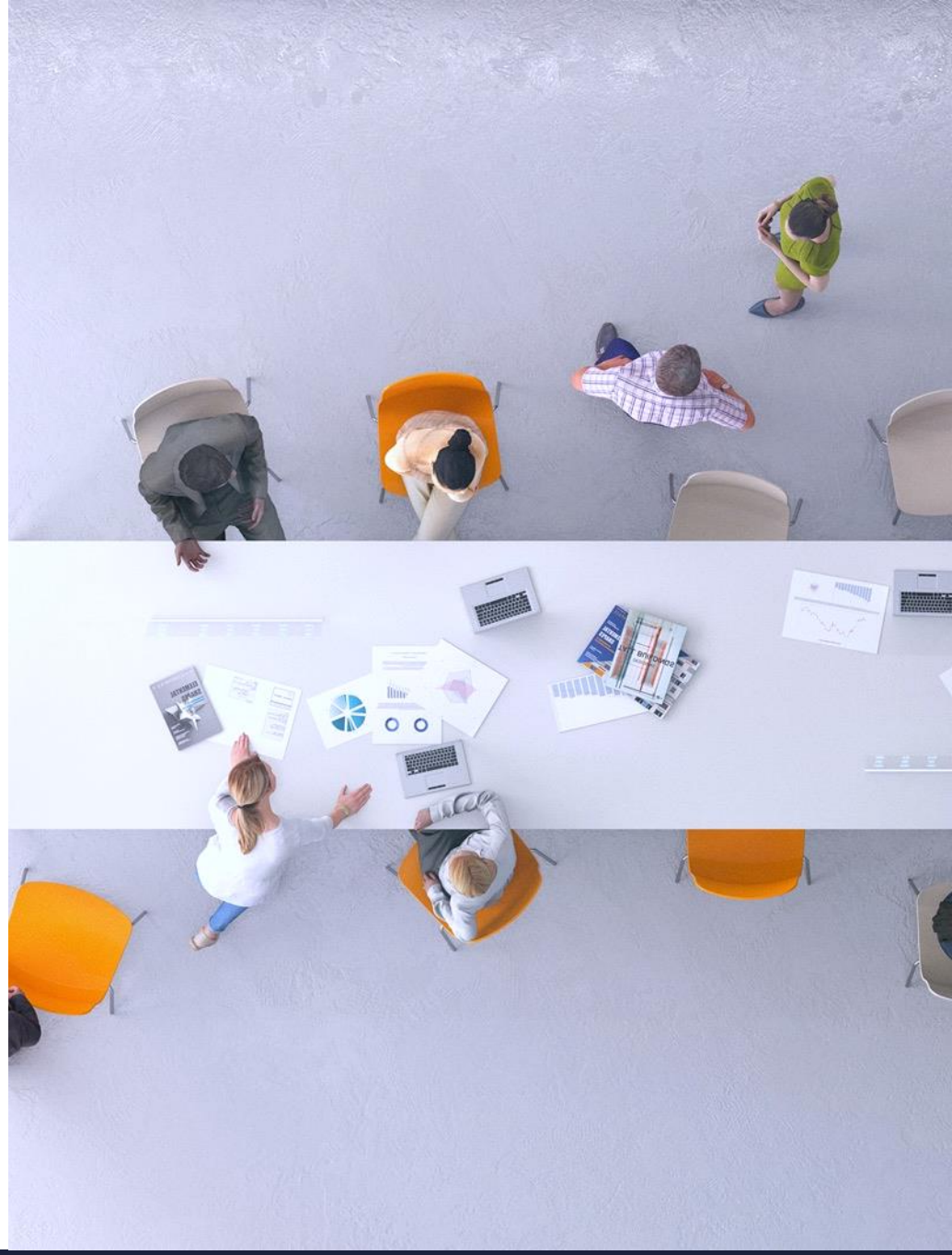
A more detailed breakdown of participants is provided in the Appendix.

Summary of business workshop participants

15 business owners/operators attended the online session. This group consisted of:

- A mix of self-employed (50%), and businesses who employ staff (28% with 1-4 staff, 17% with 5-19 staff and 5% with 20+ staff), operating across a range of industries/sectors.
- A spread by gender (56% male, 44% female), age (56% under 50 and 44% aged 50+) and location (72% metro, 22% regional and 6% rural/remote).
- People with different levels of education, some who own their home and others who rent.
- Businesses who mostly rely on electricity for their business operations (61% use electricity only, no gas). Some have solar panels on the roof of their business premises (44%), but no one owns/operates an electric vehicle on behalf of the business.
- Businesses whose electricity use varies throughout the day.
- Owners/operators with an attitude of trying to reduce business energy consumption and think it's important to move to sustainable energy sources to reduce the impact on the environment.
- A third (33%) of businesses who are currently using gas to operate appliances/ machinery, intend to stop using it in future.

A more detailed breakdown of participants is provided in the Appendix.

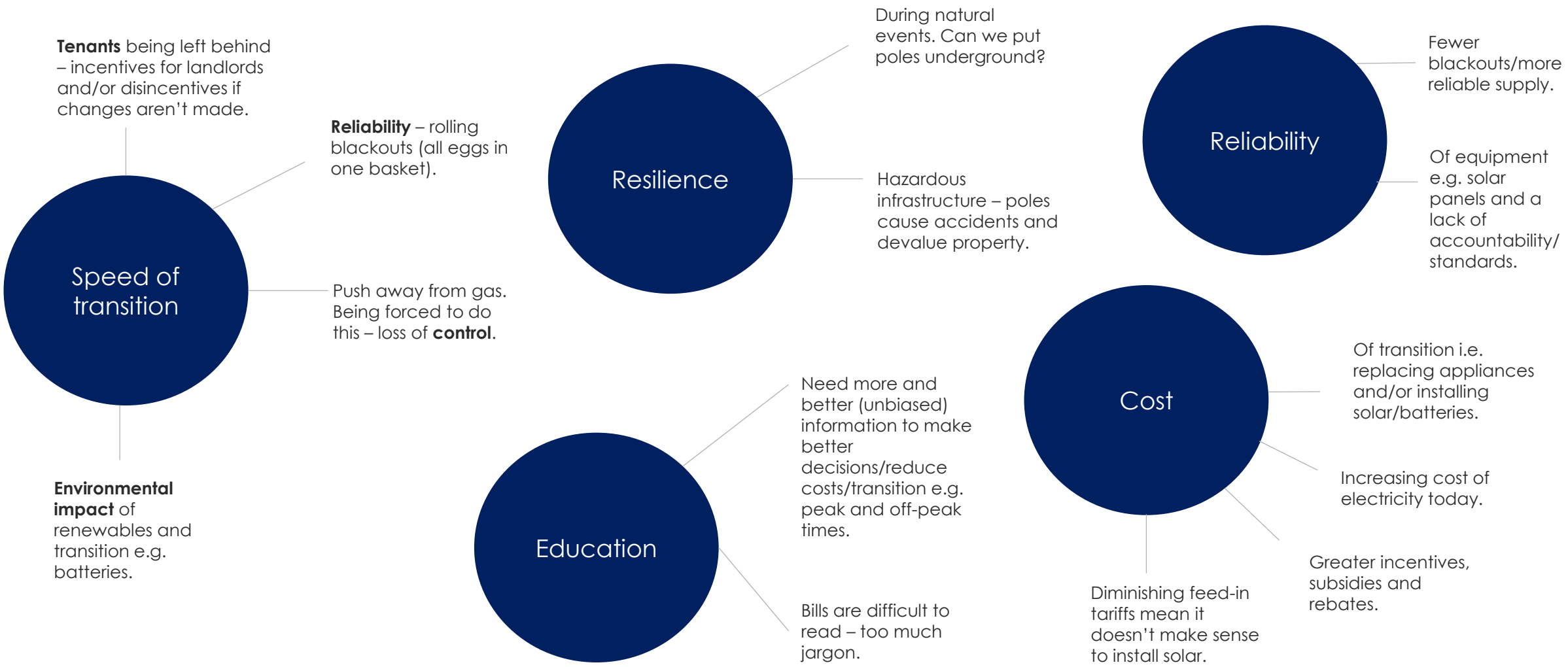


03 Key findings

Key findings have been generated by the facilitators from transcripts and notes from each workshop. We have also used an Ai research technology platform, Yabble, to explore the transcripts and summarise key themes so they could be cross-referenced against the notes.

Residential customers

Residential customers across all locations share five key concerns



While each area of concern is nuanced, themes exist

1. Speed of transition

"I'm going to use oil heaters… or switch to induction heaters. This is something I can do tomorrow. And for the long term I'll install solar in the home. But I need to buy a home first."

- **Reliability of supply:** The frequency and impact of power outages caused by the transition to renewable energy was an issue for nearly all customers. People are concerned about the network's capacity as more renewable energy comes online and summer approaches. This issue is further explored in the following slide.

- **Tenants vs landlords:** Many customers want to contribute to the transition to renewable energy, but tenants feel limited in what they can do. Participants regularly pointed to the need for better landlord incentives to drive action i.e. install solar panels in rental properties, or to punish inaction.

- **Secondary concerns** resulting from the speed of the transition include:
  - A feeling of being 'pushed' away from gas (by the government) and a perceived loss of control. Many associate gas with reliability and feel reluctant to give it up.
  - The environmental impact of renewable energy technologies. Many were concerned about lithium batteries, with some suggesting 'they defeat the purpose' of doing something positive for the environment. These customers were often inclined to wait until products improved before committing.

2. Information and education

"I'd like to know more about the difference between peak and off peak… it would be good to be clearer. But what complicates it is every retailer has different hours and rate for on peak and off peak… even the terminology is different… it's not standardised across retailers."

- **Understanding and monitoring usage (including bills):** Customers have limited understanding of their current usage and don't always have the tools to monitor in real time. There is misunderstanding about peak and off peak and customers noted that retailers can cause confusion with different packages and terms. Many spoke about the 'jargon' used in electricity bills and would like these to be simpler and more consistent.

- **Education on how to be more efficient:** Many feel they lack information about:
  - how to be more efficient within their current settings
  - renewable energy options e.g. solar panels and installation, batteries, EVs and how these work in practice. Several customers suggested education should start in primary school, particularly as many parents feel ill-equipped to educate their children in this area.
  - Incentives, rebates and subsidies, noting these could be more widely promoted through a range of channels.

- **A source of unbiased information:** Connected to the previous point, customers receive contact from a number of solar providers but feel they cannot trust the information because it's grounded in sales. They lack foundational information to engage in the issue and make informed decisions.

While each area of concern is nuanced, themes exist

3. Resilience

"One of my big concerns is around bushfires and the risk that power lines and poles that aren't maintained, the role they play in that… Underground power lines; why aren't they doing more?"

- **Hazardous infrastructure:** Customers are concerned about AusNet's infrastructure and the risk of losing power if infrastructure is damaged in car accidents, bushfires or other extreme weather events. Many suggested poles and wires should go underground to protect the infrastructure however some noted the cost would act as a barrier.

- **Bushfire risk:** Nearly all customers are concerned about the risk of bushfires caused by pine poles and wires. Many suggested poles and wires should go underground to protect the infrastructure and mitigate the risk. Others suggested fly-bys to monitor and maintain ageing infrastructure.

4. Reliability

"You've got all these fly by night solar companies that come in and install panels the panels are substandard they're from China they're defective they don't work and then you go to sit back there and claim on your warranty and you've got no warranty because the company no longer exists."

- **Reliability of power supply:** Reliability was a major concern for nearly all residential customers. Many understand the tension between the push to renewable energy and the network's capability to provide reliable power. This is compounded by increasingly hot summers and households using more power to keep cool.
  - People worry this will become a bigger issue as more renewables come online e.g. the impact of EVs on baseload power.
  - People noted the serious impact of power outages on vulnerable members of the community e.g. people who are elderly, disabled or those who use medical devices that need to be charged.
  - This concern about reliability is a strong motivator for people wanting to retain some gas in the household.

- **Reliability of renewable energy products and suppliers:** Most customers want to make a shift to renewable energy but are consistently concerned about:
  - the maturity of products i.e. 'will the next model be more efficient than the current one and provide better return on investment?'
  - the longevity of suppliers i.e. 'I need to know the supplier will be around in three to five years' time to service and replace the products'.
  - The lack of agreed quality standards or regulation. Many noted that when subsidies are introduced, the market gets flooded with suppliers of varying standards. This ties into the need for unbiased information to help people navigate the market.

While each area of concern is nuanced, themes exist

5. Cost

"People don't have power. They can't afford it…they're turning off lights and they're not heating their houses for their babies."

- **Increasing cost of electricity:** Nearly every customer is concerned about high electricity prices. They are taking proactive measures to reduce costs but need more support.
  - There are vulnerable community members who are struggling more than others and for whom the transition will be made even harder.
  - Many spoke about AusNet's supply charge and whether this could be reduced. Some customers want a differentiated approach, noting 'we all have to pay the same even if our usage is different'.
  - Many suggested price increases should be regulated (and curbed).

- **The cost of the transition**
  - Customers note the cost of buying renewable energy products, particularly the high cost of batteries.
  - Many said they will replace household appliances only when their current equipment stops working (whereas for others, cost is not a barrier).
  - Many were unsure about the return on investment and whether new household appliances would effectively reduce their electricity bill.

Cost (continued)

"It'd be good if we can make some money on investment. It costs a lot of money to get solar panels and I don't seem to get as much reward as I thought. I wonder why I spent lots of money putting solar on my roof when I'm now paying bills again – it's a bit concerning."

- **Incentives and support:** Current incentives and support may be insufficient to drive rapid behaviour change among customers. Customers believe:
  - Incentives should be greater and more widely promoted using a range of channels ('not just on the website').
  - There are limited rebates and discounts for solar and batteries.
  - Landlords need more targeted incentives or regulation to install solar panels and adopt renewable energy. Tenants often feel limited in what they can do.
  - There is a call for more incentives to swap from gas to electricity and to install solar and batteries (particularly with the high cost of batteries).
  - Most customers said AusNet could provide more support to help people understand how they can make better decisions.

Customers were consistent in the actions they plan to take and the barriers to taking action

We saw appetite for change across all five workshops. Most are looking to find out/learn more and change their behaviour to reduce costs. Many are looking to replace appliances in the near future and considering more costly changes in the mid to long term (e.g. EVs and batteries).

Immediate to short-term
Change behaviour

- Be more proactive in understanding their usage, energy bills and how to be more efficient.
- Be more deliberate in how they use energy (off-peak rates, switching off appliances, using timers, reducing their use of light, heating and cooling).
- Search for discounts/better deals/shop around for retailers.

Short to medium-term
Replace appliances and upgrade homes

- Replace gas water heater and stove tops.
- Make more informed product choices.
- Upgrade curtains.
- Improve insulation e.g. double glazing.
- Check the energy rating of appliances before purchase.

Medium to long-term
Buy/install solar panels, batteries, EVs

- Buy and install solar panels or upgrade as needed.
- Research batteries and consider purchasing.
- Strong interest in EVs – some committed to buying, others will research first, others felt the range and charging availability needs to improve before they would make the decision to purchase.
- Demonstrated effectiveness / there will need to be a 50% tipping point of people committed to electrification.

Barriers to action

- Information and education being available from a trusted source.
- Time to do the research.
- Cost of living.
- Information about options.
- Lack of incentives to phase out gas appliances.
- Lack of targeted incentives for landlords to install solar panels.
- Complication and expense of hiring tradespeople and filling out paperwork.
- Confidence in the technology.
- Lack of information from a trusted source about options and how they work in practice.
- High cost of batteries.
- Current EV models' suitability for long distances.
- EV charging equipment in regional locations.
- Length of time for return on investment.

Customers identified six areas where they need support

Most wanted more and easier access to information – education was a common theme across all workshops. Incentives and better regulation of renewable technology were also common topics of conversation.

A reliable network, including alternative sources of energy

- Transition feels rushed and some are looking for reassurance that the network will cope under stress.

More/better /easier access to information and support

- Easier access to better/non-biased information e.g. efficiency/ transition/what subsidies are available.
- More support to help households navigate the market.

Lower costs

- More subsidies and incentives to help with transition.
- More discounts/better rates.
- Higher feed-in tariffs.

Better incentives, including for landlords

- More targeted incentives for landlords (who don't have a reason to change).
- Wider promotion of incentives.

Standards and guarantees

- Better regulation for renewable technology e.g. solar panels and batteries – and more. accountability
- Guarantees that this will remain a priority.

Better EVs and charging infrastructure

- Better EV models that will work for regional Australia (long distances).
- More chargers in regional areas.

Customers want a reliable network and more information to support decision-making

1. Reliable network

"If I hear this summer that the grid can't cope, I won't buy an EV for 20 years because they're not going to go from saying 'we can't turn your aircon on' to 'everyone buy EVs' and smash the grid. It doesn't work like that."

- **Certainty the network will cope with renewable energy flows**: Customers want reassurance the network can cope with more renewables coming online, peak summer periods and extreme weather events.
- **Fewer outages and improved communication when these occur:** Customers want more communication about planned and unplanned outages. Some feel outages are more prevalent in regional areas and point to the impact on individuals, households and businesses.

2. Targeted, easy-to-access information and support

"I like to do things but never know where to start. Some information about solar panels and our usage would be helpful."

- **Access to unbiased information from a trusted source:** Nearly all customers indicated this is a priority as it enables them to make decisions about their energy future. Many suggested AusNet could play a key role in providing information from a neutral perspective.
- **More information and education about:**
  - How to be more efficient within customers' current settings i.e. help to understand current usage in real time, peak and off peak, energy bills and standardised terms in retailers' packages.
  - Renewable energy options, how these work in practice and comparisons between options and products.
  - Incentives, subsidies and rebates.
- Some customers suggested more **face-to-face engagement** e.g. an annual forum and better access to lived experience to help educate others, using facilities such as public libraries to host discussions.
- **More support to understand and reduce costs:** This could come from AusNet, the broader energy sector and/or governments. Suggestions include:
  - Free power assessments on customers' homes.
  - Support to monitor, assess and report on energy usage.
  - Promotion of ideas and tactics to save energy.

Lower costs and more/better incentives were flagged as key priorities

3. Lower costs

Want AusNet to go in to bat for them: "As a company, as one of five, you have the power to change things…making sure you're advocating for the communities you're supplying to."

- **Customers want reduced costs:** Nearly all customers wanted electricity prices to reduce or at least stabilise. Many individuals, households and businesses are feeling the pain.
- **Customers understand the role of individuals and households:** Most customers understand the actions they can take to help achieve a reduction:
  - reducing their own usage
  - changing appliances and updating the home
  - investing in renewable energy technologies.
- **But there is also a role for AusNet and the broader system:** However, they need support to action these initiatives – advice on how to achieve efficiencies; information to support decision-making (e.g. free consultations); and access to incentives, subsidies and rebates. Customers called on retailers to offer their best deal and make it easier to move accounts (supported by regulation).
- **Customers showed consideration of those in need:** Many customers, particularly from regional areas, showed great consideration of those who are more vulnerable and a desire to help others. Customers in Wangaratta suggested energy should be 'more humanised' and if by saving power in one person's household could directly benefit a neighbour who was doing it tough, it would provide strong motivation for behaviour change.

4. Better access to incentives, subsidies and rebates

"I got package solutions for roof panels and batteries, interest free from Origin. If there are more offers packages and incentives more households would use solar options. I need subsidies and rebates for solar panels."

- **Customers want better, more targeted incentives:** Customers want greater incentives to help them replace appliances, upgrade their homes and invest in renewable energy technologies:
  - Some suggested subsidies should cover the full cost of solar panels.
  - Many said batteries are too costly and more subsidies are needed.
  - Many noted current rebates for EVs were good, however noted issues with EV capability and infrastructure which can serve as a barrier.
  - Landlords need more targeted incentives to change behaviour and install renewable energy technologies in rental properties.
- **There's a desire for higher feed-in tariffs:** Many customers want higher feed-in tariffs to help with return on investment in solar and further incentivise others to adopt solar.
- **Incentives should be promoted more widely and made easier to access:** Customers suggested incentives, subsidies and rebates should be promoted widely across all channels (not just online) and the process streamlined to enable easy and timely access.

Customers want quality standards and assurances about their investment, and better EV infrastructure

5. Quality standards and assurances

"Confidence in technology... If I'm going to invest in the technology that they're pushing… I need to know I can do what I need to do. I probably wouldn't be an early adopter in tech. When it gets to a tipping point (approx. 50% of population) then I'll do it."

- **Customers need a level of certainty before they invest:** Customers noted the cost of shifting to renewable energy technologies and want assurances that settings won't change after they have invested.
- **Many are waiting for 'the tipping point,'** often quoted at 50%. Many are reluctant to make significant upgrades to the home or buy solar panels, batteries or EVs until they see a broad uptake across the community. This 'safety in numbers' provides a degree of certainty about the future and comfort in making larger investments in renewables.
- **Customers want quality products and regulation:** Participants want an agreed industry standard for renewable energy products and performance guarantees to help them navigate the marketplace. They want to know products are high quality and will last the test of time.
- **They want to know suppliers are in it for the long haul:** Similarly, customers want to know the suppliers providing solar panels, batteries and EVs will still be operating in the next three, five, ten years to maintain, repair and replace products as needed. Customers understand it is a young industry and they are concerned about getting caught out.

6. EV incentives and infrastructure

"I've noticed EVs aren't always disability friendly, especially when you go to charge them. People in wheelchairs are having trouble getting to the charging point because there's no ramp or low access for them to get to them. They have to wait till someone walks past and ask them to help charge their vehicles."

- **Customers want to know EVs are suitable for regional areas:** Many customers suggested EVs may not be suitable for regional areas given the longer driving range and absence of charging stations. Many indicated they prefer to wait until newer models are released and/or the infrastructure improved before they invest (despite the good subsidies that are currently available).
- **There were many calls for more charging stations in regional and remote areas:** Many pointed to the lack of charging stations in regional areas. Some noted that if they had an EV, they would charge it in a public location instead of in the home (for cost purposes).

There were some points of difference across locations

Morwell	Epping	Wangaratta
• Nearly all (96%) participants put a lot of thought into how much electricity they are using – higher than each of the other residential workshops. • Most (64%) Morwell residents see their homes as being energy efficient (which compares to 54% of residents in the online workshop, 46% in Epping and 24% in Wangaratta). • However, uptake of renewable energy like solar panels, returning power to the grid and owning an electric vehicle was lower than each of the other workshops. • There were a number of expressions of preference to be off-grid for all electricity usage, which was different to the other regional workshop in Wangaratta.	• Many of the participants in this workshop had high levels of understanding of their electricity usage and what they could do to reduce costs. This may reflect the relatively high rate of new homes in this area. • By contrast, only 69% of Epping participants said they put much thought into how much electricity they are using and only 42% put thought into when they are using electricity, both the lowest of all workshops.	• Only 25% of participants in Wangaratta feel that their home is energy efficient and, at 4%, they had the lowest level of usage of solar hot water. • Most participants indicated a desire to embrace renewable energy technologies in future, including EVs.

Full details of the quantitative differences across the four residential workshops are on slides 59 to 61.

Business customers

Business customers were concerned about reliability and demonstrated a willingness to change

Survey findings

- Only a few feel their business is energy efficient (20%).
- Few have solar panels (23%) or return power to the grid (13%). However, 93% said that they're likely to have rooftop solar at their business premises by 2035.
- No one uses solar heated hot water or owns an electric vehicle (0%). However, 73% said that they're likely to have an EV for business use by 2035.
- Despite expressing concerns about reliability (it was a popular topic of conversation during facilitated group discussions), most (87%) business customers said that they felt that their supply is reliable.
- Most think about their electricity usage and nearly all displayed a willingness to change behaviours – 87% of participants said that they would be willing to change their routines e.g. by using more electricity at different times of day.

Key concerns

"I live on Philip Island. And I'm quite new to this area, but it seems to appear that the power goes out quite often. I'm not even sure why that happens…I guess communication around that and a solution for that, because it really affects my business, like I lose files. I've a graphic design business, it takes time away from the business to you know, reboot everything, and sometimes it's out for hours."

- **Reliability of supply** is a key issue for business customers. Outages mean lost time at work and lost revenue. Customers are also concerned about overloading during peak periods. Some also asked for more communication regarding outages. Regional customers seem to experience more outages than their metropolitan counterparts.

- **The cost of renewable technologies** was also raised as a concern. Customers said that they wanted more competitive options and greater incentives, subsidies or rebates from government to help them transition. Many spoke about the cost of setting up and maintaining renewable energy technologies, and the importance of having a clear return on investment.

- **The longevity of renewable energy products and companies** is important for business customers' peace of mind when investing in renewable energy. Customers are concerned about investing in products and systems if the products are superseded by newer technologies or if suppliers go out of business and are unable to guarantee maintenance.

Businesses are planning their transition but need support to take action

Priority actions

"By 2025, I should have found out a lot more about panels and putting more on. By 2027, I might change over vans to electric – if range is sufficient."

- Business customers tend to have a **clearer plan for transitioning** to renewable energy compared to residential customers.
- Customers will **reduce energy consumption** where possible. For some this will mean increasing energy use in off-peak periods, although not all businesses can be flexible about when they use electricity. Some spoke about installing electric split systems to reduce energy bills.
- Customers plan to **replace gas appliances with electric and install solar panels**. Appliances will be replaced over time, as the lifecycle or warranty on existing products comes to an end. Many businesses intend to conduct further research into solar panels prior to installing. As with residential customers, some businesses also rely on landlords to be incentivised to install solar panels on premises.
- Business customers are interested in **purchasing batteries, EVs and other renewable energy technologies** and then **evaluating the impact** on energy efficiency and cost. Some are concerned about the capacity of current EVs to manage long distances, particularly customers in regional locations. Some indicated they might **wait until models improve** before investing in this technology.

Priority support

"There are those of us who would be using our electric vehicles for delivery purposes and so we may be doing two or three 50 to 80 km round trips per day and we need to know where we might be able to recharge."

- Business customers believe there is a role for **AusNet as a reliable source of information** during the transition. Some believe AusNet can be more proactive, providing guidance and advice on usage, options and considerations for decision-making, as well as **lobbying governments** around energy settings.
- Businesses want **more subsidies and support** to transition to renewable energy. They would prefer more immediate subsidies to help them take action *now*, instead of short to medium-term options. One business suggested an upgrade program, where those who already have solar panels can upgrade at a lower cost than if they were replacing.
- Like residential customers, businesses want **more information about renewable energy products** to support their decision making. In particular, they want more information about EVs and how they are charged. Business customers see EVs as part of their future but need more charging stations in regional Victoria for these to be viable options.
- Businesses want to know their solar, batteries and/or EVs are of a **high quality**. Some called for **more regulation** to ensure quality of suppliers, their products and services.

Appendix

- Findings by workshop
- Sample details for residential participants
- Survey results from residential participants
- Sample details for business participants

Findings by workshop

- Morwell
- Epping
- Wangaratta
- Online (residential)
- Online (business)

Morwell

Summary of key findings from Morwell workshop

Current use – key concerns

- Customers are worried about high electricity prices.
- Customers have limited understanding of how to monitor and reduce their energy use.
- There are limited incentives and support to help customers adopt more efficient technologies.
- There is concern about the speed of the transition and ensuring reliability (avoiding power outages).
- Customers worry about the risk of bushfires and resilience of the network, and suggested putting poles and wires underground.

"Communication has to be transparent, straightforward, and uncomplicated."

Priority actions – what customers intend to do

- Customers want to upgrade their homes and appliances to be more energy efficient.
- There is strong interest in installing solar panels and batteries, although cost may be an issue for some.
- Customers want to be more mindful of their energy usage
- Customers want to be more proactive in understanding their energy usage, their bills and seeking alternative suppliers to save money.

Priority support – what customers want from AusNet

- Customers want AusNet to help them reduce their energy costs.
- People want better incentives, subsidies or discounts that are widely promoted and easy to access.
- There is a call for more information and education from AusNet about:
  - households' current energy use and how to reduce it
  - how the system operates
  - solar panels and installation.
- People want certainty about energy settings so they can invest with confidence in solar panels, batteries and EVs.

Current use (key concerns)

- **Information and understanding**
  - Limited understanding of usage e.g. peak/off peak,
  - Limited understanding of how to read the bill or issues around transparency e.g. how costs are calculated, how much energy is used in off peak, variable vs. fixed costs.
  - Limited access to real-time information to inform decisions.

- **High electricity prices and cost of the transition**
  - Concern about the price of electricity including AusNet's supply charge.
  - Lack of differentiated approach (those who use less still pay the same).
  - Expense of renewable technologies e.g. cost of batteries.

- **Incentives and support**
  - More incentives to install solar and batteries and swap from gas to electricity.
  - Diminishing feed-in tariffs.
  - Limited support for people to save energy in their homes.
  - Improvements to customer service i.e. communication, fixing issues quicker.

- **Planning and reliability**
  - Concern about the speed of transition and reliability during the transition.
  - Concern about the longevity of the businesses selling solar panels.
  - Concern about blackouts due to the speed of transition and push away from gas.
  - Concern about EVs impact on the baseload, particularly outside Melbourne.

- **Infrastructure**
  - Concern about the resilience of energy supply particularly during extreme weather events i.e. bushfires.
  - Suggestion poles should go underground (currently exposed to bushfires and accidents).

"Comparing our bills to what they were two or three years ago, we are paying a couple of hundred dollars extra for electricity but using the exact same amount of electricity as what we were using back then. Shouldn't this be regulated?"

"People don't have power. They can't afford it…they're turning off lights and they're not heating their houses for their babies."

"There's a need for education. There's a lot of jargon used in the industry. We have to consider CALD communities."

"You've got all these fly by night solar companies that come in and install panels, the panels are substandard, they're from China, they're defective, they don't work and then you go to sit back there and claim on your warranty and you've got no warranty because the company no longer exists."

"[EVs] draw on baseline power and are useless in the country. As much as they're great probably for the city that's using our power and then impacting our baseline grid, they're useless out here."

"Simplifying the process of the whole system as they are tricky to understand."

Priority actions

- **Replace household appliances/upgrade the home**
  - Almost all respondents plan on replacing inefficient and gas appliances with electrical ones that are more efficient.
  - Use high star energy rated appliances; insulate their house; upgrade curtains; take advantage of off-peak times.
  - Change cooktop; remove gas ducted heating.

- **Adopt solar and other renewable technologies**
  - Many plan on installing solar panels and home batteries (if the cost of batteries goes down).
  - Consider EVs due to rising fuel costs.

- **Seek alternative suppliers**
  - Some participants plan to search for discounts or better energy deals.
  - Some plan to shop around for different retailers.

- **Monitor and reduce energy use**
  - Choose non-electric ways of doing things (more manual based).
  - Make better product choices prioritising efficiency.
  - Use smart meters to monitor and change user behaviour.
  - Charge EV away from home.
  - Concern about ability to manage on and off peak when working full time.

- **Timing**
  - Most plan on taking action within the next five years; a small number indicated they would make changes after 2029.

- **Other**
  - Some reluctance to move away from gas.

"I would upgrade power points, upgrade to new and efficient appliances, TVs, computers, shop and washing machines and garage door."

"I'm building. So I'm going to have a thermal efficient house."

"I really don't want to switch to all gas [think meant to say electricity]. Okay. I like gas a lot. I like my stove to work even when the blackout's happening. I will die showering in my gas continuous hot water."

"Focussed on relying less on electricity and doing things in more 'traditional' ways: traditionally you don't use an electric mixer. You've got arms, like you can beat an egg. You don't need to make a cake using a fancy machine. Taking it back to what they call the homestead era. Doing things traditionally not relying on electricity."

Priority support

- **Reduce costs**

- **More incentives, subsidies or discounts**
  - Support to change from gas to electricity.
  - Particularly for pensioners.
  - Better promotion so people know where and how to access subsidies.

- **More information and education**
  - Accessible (no jargon), standardised and transparent information.
  - Streamline processes to access subsidies.

- **Commitment to the future**
  - If people invest in solar/batteries, they want to know settings won't change.
  - Noted it's a 40-year return on investment for solar.
  - Reluctance to change until 'it's a done thing'.

- **Other**
  - Mortgage brokers with environmental credentials.
  - Ideas for investment properties to be required to install solar.

Want AusNet to go in to bat for them. "As a company, as one of five, you have the power to change things…making sure you're advocating for the communities you're supplying to."

"Improve resilience by putting power poles underground. Accidents have caused blackouts. Also better protection against bushfires."

"I won't be an early adopter; I want to see 50% of people electrifying everything."

"It has to be more than a website that you look for [in relation to incentives and subsidies]."

Epping

Summary of key findings from Epping workshop

Current use – key concerns

- Customers have limited understanding about how costs are calculated and how to read their bill.
- There is limited understanding of what off peak means, how solar works and how to become more efficient.
- Energy 'literacy' is low and people need support to upskill.
- There is concern about electricity prices and queries about AusNet's supply charge (applied equally regardless of usage).
- Customers noted the cost barriers to adopting more efficient renewable technologies and want more incentives or subsidies to make the shift.
- Customers are worried about maintaining reliable supply through the transition.

"Confidence in technology... If I'm going to invest in the technology that they're pushing… I need to know I can do what I need to do. I probably wouldn't be an early adopter in tech. When it gets to a tipping point (approx. 50% of population) then I'll do it."

Priority actions – what customers intend to do

- Customers will be more conscious of their usage and change behaviour to reduce consumption (use power off peak, turn off lights, etc.).
- They want to understand their energy bills and be more discerning when selecting a retailer.
- Many aim to install solar panels and there is interest in buying batteries and/or EVs.
- Most will replace inefficient household appliances with more efficient electric options.

Priority support – what customers want from AusNet

- Customers want reductions in the cost of electricity and support to transition to renewable energy (incentives, subsidies and/or discounts).
- Many noted the need to incentivise landlords as tenants are limited in what they can do.
- Households want clear, accessible information and education to help them reduce usage and understand their options (e.g. assessments and advice).
- Customers want quality and performance guarantees on renewable energy products.

Current use (key concerns)

- **Information and understanding**
  - Limited understanding of usage e.g. peak/off peak, how to read the bill and how costs are calculated
  - Limited understanding of how the system operates and how solar works
  - Little/no access to real-time information to inform decisions
  - Too many retailers (can cause confusion with different packages and terms)

- **High electricity prices and cost of the transition**
  - Some suggested power is a necessity and should be priced accordingly. It should be non-for-profit and price increases capped
  - Concern that renewable energy is not affordable to all e.g. solar panels and batteries
  - Some queried why transmission costs are increasing

- **Incentives and support**
  - More/better incentives for renewable technologies
  - Lack of incentives or regulation to mobilise landlords
  - Limited support for people to save energy in their homes e.g.:
    - Power assessments on our homes
    - Monitoring, assessing, reporting on energy usage
    - Promotion of ideas and tactics to save energy

- **Planning and reliability**
  - Timing of planned outages (particularly on weekends)
  - Concern we are 'rushing the transition' at the expense of reliability

- **Other**
  - Concern about the quality of renewable technologies
  - Need better infrastructure and equipment
  - Consider putting lines under ground

"I've got a young family and I don't understand too much about bills and electricity… I'm trying to educate my kids, but I don't understand it. If AusNet offered something that the younger generations could understand [about energy use and efficiency]…"

"I'd like to know more about the difference in the cost [between on peak and off] peak… it would be good to be more clear. But what complicates it is every retailer has different hours and rate for on peak and off peak… even the terminology is different… it's not standardised across retailers."

"An education piece on how to get electricity down. I try and try and try but cannot get electricity bill below 500 bucks a quarter and it kills me. Constantly trying to find ways to make it cheaper but I can't get it done. An understanding of how it all impacts would be helpful."

"AusNet could provide a meter system so we can check regularly, on a daily basis, so we can control [our energy usage]."

"They are pushing everyone to Solar and EV while they say that everyone has to turn off the air con since the grid cannot handle [it]. I'm scared we're gonna have a blackout in a few years."

Priority actions

- **Monitor and reduce energy use**
  - Use power off peak; turn off lights; use daylight hours more
  - Use smart devices to control energy use at home
  - Pay closer attention to energy bills
  - Be more discerning when choosing a retailer/switch providers more often
- **Adopt solar and other renewable technologies**
  - A sizeable number aim to install solar panels
  - A sizeable number plan to purchase an EV
  - Some said they would consider portable generation and storage
  - Some noted the cost of living has deferred their decision to adopt solar
- **Replace household appliances**
  - Almost all respondents plan on replacing inefficient and gas appliances with electrical ones that are more efficient e.g. installing split systems
  - Improve home insulation
- **Timing**
  - A small number said they would make changes after 2029
  - These changes centered around installing batteries or buying an EV
- **Other**
  - Get off the grid
  - Some spoke of a feeling of being 'pushed into decisions' by the Government

"I'll turn the lights off so live in the dark and the heater off so live in the cold (I'll put a jumper on). Possibly install split systems instead of using the gas heater and try to manage peak and off peak times better"

"Try and be more conscious of on and off peak time, but it's hard when you work full time"

"For the off peak I didn't realise it was during the day, I thought it was late at night…"

"Checking energy ratings on appliances and make sure I'm buying more five-star energy appliances (because when you rent there's not a lot you can do with solar panels or those kinds of things)"

"I'm going to use oil heaters… or switch to induction heaters. This is something I can do tomorrow. And for the long term I'll install solar in the home. But I need to buy a home first"

"I'm going to buy a battery when they perform the way they're supposed to perform and cost what they should cost… around 2030. I feel like that's when they'll start coming down (switching from lithium to something else). They've got to be ethically sourced. That and potential to get an EV but only when they bring out a decent EV ute… What if I go into the mountains [in an EV] and get stuck?"

"Switch providers more often – do more research and keep up to date with it"

Priority support

- **Reduce the cost of electricity**
  - E.g. no import duties
  - Provide subsidies to help households change to renewable energy
- **Provide more and better incentives for households to switch to renewable energy**
  - Incentivise landlords to change (they currently have no reason to change)
  - Provide rebates that cover the full cost of solar installation
- **Provide clearer information and education to households**
  - Accessible, easy to understand information about the system, people's usage and bills
  - Provide information through multiple channels (not just online)
  - Advice on how to reduce energy use and how to be more efficient
  - Free consultation on how to make home more energy efficient
  - Standardise information across retailers
- **Infrastructure and technologies**
  - Regulation to help ensure quality e.g. industry standard products
  - Performance guarantee on products; manufacturers to be held to standards
  - More investment into energy storage

"I'd like to see concrete legislation outlining what AusNet and other distributors need to abide by… in terms of increases, our sustainability goals for the future… [Our goals] need to be more available to the common person"

"Centralise monitoring for usage patterns in real time, give feedback to and certain tips to customers on how to [reduce] energy consumption"

"I got package solutions for roof panels and batteries, interest free from Origin. If there are more offers, packages and incentives more household would use solar options. I need subsidies and rebates for solar panels"

"We should fix the infrastructure and maybe we should get the lines underground for safer options"

"If I hear this summer that the grid can't cope, I won't buy an EV for 20 years (because they're not going to go from saying 'we can't turn your aircon on' to 'everyone buy EVs' and smash the grid. It doesn't work like that"

Wangaratta

Summary of key findings from Wangaratta workshop

Current use – key concerns

- Customers are worried about electricity prices and query whether increases should be regulated
- There is concern about the cost-effectiveness of the transition e.g. expensive batteries and low feed-in tariffs and limited incentives for people to change
- People worry about bushfires and the risk posed by wires and poles (suggest these go underground)
- There is a strong desire for more communication and education about how energy is used, how to be more efficient, and what AusNet is doing to support renewable energies
- There is concern about power outages and network reliability

"Electricity is the life force. If you lose power, you're effectively talking about your ability to survive."

Priority actions – what customers intend to do

- Customers aim to be more energy conscious – understand how they use and can reduce consumption, including by seeking more competitive suppliers
- Nearly all want to install solar panels, and many are considering buying batteries
- There is strong interest in EVs
- Many want to replace inefficient appliances and phase out gas in their household

Priority support – what customers want from AusNet

- Customers want lower costs and more support to shift to renewable technologies the household e.g. more incentives to change from gas to electricity and/or better solar feed-in tariffs
- Customers want more flexibility with retailers and to move accounts easily if they wish
- They want accessible and unbiased information to help them understand their usage and find more efficient alternatives
- There's an opportunity for AusNet to be a neutral provider of information
- Customers want a reliable network and reliable renewable energy products
- Some mentioned they want more EV charging stations in remote areas

Current use (key concerns)

- **electricity prices and cost of the transition**
  - Concern about the cost-effectiveness of the transition e.g. expensive batteries and low feed-in tariffs
  - Suggestion for regulation to curb price increases
  - Suggestion to reduce supply charges
- **Reliability through the transition**
  - Concern about outages
- **Lack of incentives**
  - A sense that landlords need incentivising and renters are hamstrung
  - Limited rebates and discounts for solar and batteries
  - Want help to make solar more accessible and help to navigate the industry
- **Infrastructure as a bushfire risk**
  - Concern about hazards (pine posts, ageing infrastructure, vegetation)
  - Suggestion to use flights to monitor infrastructure
  - Suggestion to put poles and wires under ground
- **Communication and education**
  - Limited education on how energy is used, including in primary schools
  - Limited information about solar energy (from someone who isn't selling it)
  - A desire for more information about household use of electricity and how to reduce e.g. PowerPal
  - A desire for more information about what AusNet is doing to support the transition
  - A desire for face-to-face engagement e.g. AusNet to hold an annual community forum
- **Speed of transition**
  - Review every two years, not five
- **Other**
  - There is a sense that 'locals pay the cost for Melbourne'
  - Concern about prioritizing people in need: 'everyone is entitled to reasonably priced power'

"If we only rely on the generator and there's power outage, what are we gonna do?"

"There are not many incentives, they charge you $1.6 extra if we are not using the full potential of the solar energy that we don't use. We are not getting anything back and not being sustainable"

"Protection on electricity supply during summer, considering the area experienced bushfire and floods every year"

"Make once a year community forum with smaller communities like us with pensioners farmers, about problems they are having as we are experiencing bush fires and floods every year. It would be nice if someone can listen to us"

"I feel like we're rushing a bit"

"One of my big concerns is around bushfires and the risk that power lines and poles that aren't maintained, the role they play in that… Underground power lines; why aren't they doing more?"

"As the climate gets hotter, people need to use more energy"

Priority actions

- **Monitor and reduce energy use**
  - Be more energy conscious e.g. make use of off peak and install smart timers
  - Monitor use, get PowerPal
  - Do more to understand the energy bill
  - Shop around for more competitive suppliers

- **Adopt solar and other renewable energy technologies**
  - Almost everyone wants to install solar panels
  - Many are considering buying batteries
  - Strong interest in EVs – some waiting for the range to improve
  - and some interest in electric bikes and scooters

- **Upgrade household**
  - Replace inefficient appliances with electrical ones
  - Get a heat pump for hot water
  - Phase out gas in the household
  - Some dislike cooking with electricity

- **Timing**
  - Most people didn't indicate when they would make these changes

"I wonder does AusNet have strategies in place to provide power to farming land. E.g. we've got livestock and we rely on power for electric fencing, dairies, etc."

"I'm a disability pensioner and I live budget to budget. Instead of us being broke all the time, there's got to be something that allows us to save that fraction of money"

"If, as a consumer, I knew [that by] saving energy I could distribute my energy to my neighbour[s] here. If you could lend your electricity to your neighbour. The human element could really help here… community working together"

"Solar panel grants for big business"

"For solar panels, how can we trust the businesses because everyone's phoning you up from all over"

Priority support

- **Lower costs**

- **Flexibility**
  - Retailers should only offer their best deal [for the customer]
  - Make it easier to move accounts

- **More incentives, subsidies or discounts**
  - Support to change from gas to electricity
  - Request better solar feed-in rates
  - Some called for increased grid capacity, in line with solar

- **More information and education**
  - Strong desire for clear information that is unbiased and accessible
  - Help to understand current charges
  - Transparency about peak times
  - Information about their options (solar, batteries, power usage) and comparison between options and products
  - Help to navigate the system: AusNet to be a neutral provider of information

- **Reliability**
  - A reliable system
  - Trust in AusNet – evidence of how the network will cope under stress to build community confidence
  - More reliable products

- **Other**
  - More EV charging stations in remote areas

"I want someone to tell me how I'm going"

"Information on how to cut down use and education around how power is used either Solar or electricity in schools"

"More information about solar, how it works, what we need to be looking into for someone who does not have interest for making money"

"More information on how AusNet [is] working to provide more green sustainable energy and what I can do to tap into that"

AusNet should provide an emergency battery pack that sits next to the meter to provide 24 hours of continuous power when there are outages [for people who rely on medical devices]

"I like to do things but never know where to start. Some information about solar panels and our usage would be helpful"

Online (residential customers)

Summary of key findings from online residential workshop

Current use – key concerns

- Customers are worried about the price of electricity and how to reduce or stabilise their energy bills
- They want more support to adopt solar energy – incentives to install panels, help to use them effectively, increase the feed-in tariff
- There is currently a cost barrier to installing solar panels and buying batteries
- Customers want more guidance on how to be energy efficient and help to understand their bills and usage (peak and off peak)
- Customers are worried about network reliability, particularly in summer, and want to know these risks are being managed
- The speed of the transition to renewable energy was also a concern for some

"How is the grid going to cope with the extra load? Everyone is saying that they're going to have so much green power by 2030 but is it going to happen? There's no guarantee. And we're going into a few hot summers."

Priority actions – what customers intend to do

- Nearly all participants intend on installing solar panels
- Many are committed to buying a battery and rebates would make this more attractive (with some to look into it further)
- Many customers will replace inefficient and appliances in the household with more efficient options
- Customers want to reduce their energy consumption by making household or behaviour changes i.e. installing insulation, avoiding peak times, using less electricity in their day-to-day

Priority support – what customers want from AusNet

- Customers want easy-to-understand information about energy use and efficiency
- They want a reduction in their energy bills
- Customers want more incentives for households to switch to renewable energy
- Customers want greater network capacity and fewer outages
- Many spoke about wanting quality guarantees on renewable energy products e.g. minimum industry standards
- Some also wanted to know about the recycling and disposal of panels, batteries and EVs

Current use (key concerns)

- **Support to adopt more solar energy**
  - Provide more incentives for installing solar panels
  - Concern about the cost-benefit ratio of adopting solar
  - Support customers to efficiently use solar panels – increase the feed-in tariff
  - AusNet's system size limit is reducing solar uptake

- **High electricity prices and cost of the transition**
  - Concern about the price of electricity – how to reduce or stabilize the cost of energy bills
  - Concern about the cost of solar panels and installation
  - Cost of batteries and their longevity make them untenable i.e. by the time you finish paying one off you have to but another

- **Information and Education**
  - Insufficient education on how to be more energy efficient
  - Limited understanding of peak and off-peak times and reading energy bills
  - Suggestion to consult communities that have become self-sufficient as they may have good insights

- **Planning and reliability**
  - Concern about blackouts in summer and knowing there are adequate mitigation strategies in place
  - Ensuring there is sufficient notification
  - Concern about the longevity and reliability of new products e.g.: solar panels, EVs, batteries

- **Concerns about the energy transition**
  - There is concern that supply won't meet demand during the transition
  - Some called for AusNet to consider exploring options beyond wind and solar, while others called for AusNet to 'embrace solar'

*"What I need AusNet to do for everyone is to embrace solar. Right now AusNet don't encourage small generation on the network. They have a **system size limit** rather than an export limit. All the other networks control…you can put as much solar on as you like and they control how much you put back into the network which makes sense whereas AusNet say, 'you're not allowed more than 10KW so there'. And that's obviously holding down solar…give us room to operate our solar please"*

"At the moment I still have to pay bills. It'd be good if we can make some money on investment. It costs a lot of money to get solar panels and I don't seem to get as much reward as I thought". "I wonder why I spent lots of money putting solar on my roof when I'm now paying bills again – it's a bit concerning".

"My parents live remotely and they have been without power for four or five days and there's just not result and I don't know how you fix that because they live out in the bush and trees fall down and stuff happens…they often have no power"

"Are there going to be more incentives for landlords to invest in renewable energy for their purpose and their tenants. And what does this look like?"

Priority actions

- **Adopt solar and other renewable technologies**
  - Nearly all participants planned on installing solar panels, buying more panels and/or maximizing their use of solar energy
  - Many said they would buy or 'look into buying' a battery
  - Just under half said they were committed to buying an EV
  - Customers noted the need to factor in upkeep and renewal of products e.g. solar panels

- **Replace household appliances**
  - Many participants plan on replacing inefficient and gas appliances with electrical ones that are more efficient
  - Customers want to invest in energy efficiency, but cost is a barrier
  - Interest in replacing hot water systems but reliability is a concern

- **Monitor and reduce energy use**
  - Be more proactive in understanding where I can improve
  - Install insulation
  - Avoid peak times
  - Change lifestyle habits to reduce use of cars and/or lights

- **Timing**
  - Most participants plan on taking action between now and 2030, with very few commitments beyond 2030
  - *Customers noted that changes will be dictated by product availability, demand and price*

"Will work through changes but all depends on cost. Money is obviously an issue"

"Will take little steps – one income, a child – the financial stress of it all is quite stressful. EV in 2032."

"An electric vehicle sounds good right now but am I going to be able to charge it within my own town? Is there going to be enough charging points? Or do I hold off for five years when EVs might be more standardised and it's not going to cost me as much money"

"I'm using a thermal camera at the moment that I borrowed from the library to figure out the areas where we need to improve insulation in the house"

"You can convert a freezer into a fridge by adjusting the thermostat and they're way more energy efficient because they're far better insulated than a refrigerator"

"We've completely electrified, including the cars and we can't justify the home battery because they're just that expensive. It's way too early for that technology. The car though…the car is one of the biggest savings we've made."

Renters: *"I live in a unit and we can't have a power point for the car"*

Priority support

- **More information and education**
  - Households and businesses want more information about how to reduce energy consumption and renewable energy options i.e. understanding usage, peak and off peak, how solar panels work and when to use them
  - More information from retailers about current usage so customers can monitor and respond more effectively
  - Access to lived experience to help educate others; using facilities such as public libraries to host education sessions
- **Lower the cost of electricity**
- **More incentives for households to switch to renewable energy**
  - Nearly all participants called for more subsidies, incentives and/or rebates for solar panels and batteries
- **Reliability and planning**
  - Customers want to know the grid can cope with the extra load, particularly with hot summers ahead and in the face of fires and floods
  - Less outages and more network capacity
- **Infrastructure and technologies**
  - Regulation to help ensure quality e.g. industry standard products
  - Performance guarantee on products; manufacturers to be held to standards
  - More investment into energy storage

"Lived experience is really valuable – how did you go about that? Where did you start? – they provide valuable insight/knowledge. Listening to more lived experience gives more insights than going off and Googling. Better than listening to somebody selling me a product."

"there's no subsidies anywhere at all to have solar or batteries or do away with gas."

The cost of batteries versus how long they last makes it unattainable. "By the time I pay it off I'd need another Tesla battery."

Online (business customers)

Summary of key findings from online business workshop

Current use – key concerns

- Reliability of the network was the main concern for business, coupled with not knowing where to get information on blackouts
- Customers are concerned about rising energy costs. They are seeking cost reductions and more flexibility in pricing structures, including better feed in tariffs
- Businesses want more support and guarantees to adopt solar energy
  - Set-up and maintenance costs are a barrier
  - There are concerns about the longevity of the technology and renewable energy companies
- Like residential customers, businesses want more incentives and rebates

"What is important to me is having a reliable source at an affordable price."

Priority actions

- Nearly all businesses said they will or will consider installing solar panels
- Few expressed interest in batteries as they are too big an investment up front
- Interest in EVs
  - There is interest in EVs – some are definitive about buying an EV while others plan to do more research
- All said they will aim to monitor and reduce energy through mindful usage
  - Maximise off-peak times
  - Reduce heating or lighting usage
- Businesses had a clearer plan about their transition to renewable energy
  - Make easy changes in the short term
  - Investigate/install solar in the next two to three years
  - Investigate/purchase an EV in 2027 or later

Priority support

- Business customers want support to reduce the cost of electricity
- This includes more subsidies and incentives for solar, EV and batteries
- They want more information about solar and EVs to support decision-making
- They want to know their investment in renewable energy technologies will stand the test of time – they want assurances about the quality and longevity of products and suppliers
- They trust government and other bodies that are seen as independent to provide information and support, rather than energy retailers

Current use (key concerns)

- **Network capacity/reliability**
  - Concerns about overloading during peak summer period
  - Wooden poles impact on reliability?
  - Concern about power outages and communication about outages

- **Affordability and longevity of renewable energy technologies**
  - Many are concerned about the set-up and maintenance costs of renewable energy technologies
  - Insufficient government support for transitioning to renewable energy
  - Concern about maintaining renewable energy technologies once installed e.g. solar panel servicing and replacement
  - There are different perspectives on current reliability (some Melbourne-based businesses had good impressions of reliability while regional locations were concerned about frequent outages)

- **Flexibility**
  - More flexible pricing structure

- **Infrastructure**
  - Suggest putting poles and wires underground (to support reliability)
  - Shaded roof areas prevents some from installing solar panels

"What is important to me is having a reliable source at an affordable price"

"I live on Philip Island. And I'm quite new to this area, but it seems to appear that the power goes out quite often. I'm not even sure why that happens…I guess communication around that and a solution for that, because it really affects my business like I lose files… it takes time away from the business to you know, reboot everything, and sometimes it's out for hours"

"In the last two years…we've had about 12 power outages…all have been about three to four minutes, some have been for hours, sometime half the day"

"I've been living in Melbourne and working in Melbourne for 50 years and we have very few outages in comparison to what we did growing up so the reliability is unbelievable…and I'd like to see that continued"

"Support for the tech that I buy is going to be quite important – it's a fairly large amount of money to invest. I want something more than just a guarantee that the company can come and fix it…I need to know that company is still going to be around in two to three years"

"If I did outlay a certain amount of dollars and then something better came along and I may have to do it again"

"We churn through a hell of a lot of electricity. And don't know if it's worthwhile investing in solar as it may not generate enough to make a difference"

*"Is it possible to have a **more flexible pricing structure** – it's flexible for residential customers – not so much for businesses"*

Priority actions

- **Reduce energy consumption**
  - Some have less flexibility to use in off peak times
  - Some will install electric split systems to reduce bills
- **Move away from gas appliances to solar**
  - Many have plans to move to solar, after researching more into panels and installation
  - Many will wait until the lifecycle or warranty of current appliances ends before replacing
  - As with residential customers, some business customers were interested in a move to solar but noted dependency on the landlord
- **Interest in EVs and updating equipment**
  - Many have clear plans to upgrade to EVs, batteries and solar and then evaluate
  - Others are concerned about the capacity of EVs to manage long distances (e.g. Melbourne to Phillip Island), the cost of charging and current lack of choice in Australia

[Will do] "more looking into the products that are available, reliability and servicing"

"I'll sit on my hands to see how things are working… how effective everything is"

"Solar hot water this year/next year and battery backup in Phillip Island site – given reliability issues there. Upgrading heating and cooling. In 2025 battery backup on site 1, 2026 EVs (one or two). By 2026 electric charging station on both sites depending on cost. 2027 we'll evaluate"

"In 2024 I'll move to solar, then batteries and stop using gas. Solar panels in 2025 and evaluate use and decide if we need batteries. Transition away from gas by 2027"

"By 2025, I should have found out a lot more about panels and putting more on. By 2027, I might change over vans to electric – if range is sufficient"

"One of the frustrations for me is that 9 times out of 10 there are actually solutions available; it's just that in Australia we're having to wait. We're normally like three, four years behind Europe and other parts of the world"

Priority support

- **Some would like to see AusNet play a more proactive role**
  - AusNet could be a reliable source of information during the transition
  - Some suggested AusNet should use its role to lobby the government
- **More subsidies and support**
  - Businesses want the same or lower costs during the transition (to help people get on board)
  - They want more immediate subsidies (instead of short to medium term)
  - One suggested an upgrade program for those who have already invested in solar panels
- **Information and education**
  - Businesses want more information and transparency about available subsidies
  - They want reliable information about renewable energy technologies, including solar, EVs and charging stations
- **More EV infrastructure**
  - Regional recharging stations for EVs
  - More information about how they will connect and how they are charged [from solar or mains]
- **Planning and reliability**
  - We need government to guarantee solar installation
  - A key priority is network capacity as we move to renewable energy, combined with a hot summer
  - Some called for better regulation to ensure suppliers are providing quality products and services

*"My number one priority would be for the **current cost of electricity** to go down because in order to make all these investments, it's a lot to save up for. And I think it just keeps rising and **we're just spinning our wheels really**".*

"More communication from power companies about solar technology would be helpful – currently get sales calls which are time consuming"

*"It'd be great to have an **upgrade program for businesses**. Is it possible for wholesalers to run a program where those of us who have solar panels can upgrade them at less than half the cost of replacement"*

"There are those of us who would be using our electric vehicles for delivery purposes and so we may be doing 2 or 3 50 to 80 km round trips per day and we need to know where we might be able to recharge"

"One idea to reduce cost – an app that is a marketplace for electricity: One idea…to have…an app on your phone that has all of the different prices from all of the different providers of electricity. And essentially we have that app as a kind of marketplace so they have to compete with each other on price. A more open and transparent market"

*"More **transparency about the subsidies** – about what is available – there is a lot of rubbish out there and it's actually really confusing"*

*"Need more information **e.g. about solar panels**. Currently hearing that it's not really worth it because of lower feed-in tariffs"*

Sample details for residential participants

A total of 102 residents attended the workshops in Round 1
- 26 in Morwell
- 24 in Epping
- 28 in Wangaratta
- 24 in the online session

The following slides are an overview of the information collected during recruitment.

Gender, age and location

Gender	Total sample (n=102)
Male	**36%**
Female	**64%**

Age	Total sample (n=102)
Under 30	**2%**
30-39	**40%**
40-49	**32%**
50-59	**13%**
60+	**13%**

Location	Total sample (n=102)
Metropolitan	**26%**
Regional	**54%**
Rural / Remote	**20%**

Notes:
Rounding occurs
Total sample n=102

Concessions and suburb

Concessions	Total sample (n=102)
Holds one or more concessions	21%
Speaks a language other than English at home	10%
Has a disability	8%
Has a chronic health condition	7%
Aboriginal and/or Torres Strait Islander background	1%
None of the above	43%
Prefer not to say	10%

Suburb	Total sample
Wangaratta	25%
Epping	12%
Traralgon	10%
Morwell	8%
Mernda	7%
Churchill	5%
Moe	4%
Hazelwood north	3%
Newborough	3%
Wollert	3%
Glenrowan	2%
Trafalgar	2%
Yallourn North	2%
Laceby	2%
Kilmore	1%
Mirboo North	1%
Trafalgar East	1%
Maryvale	1%
Rosedale	1%
Boweya	1%
Doreen	1%
Mickleham	1%
Mill park	1%
Thomastown	1%
Gormandale	1%
Warragul	1%

Notes:
Rounding occurs
Total sample n=102

Household situation, gross household income, work status and home ownership status

Household situation	Total sample
Couple with children at home	50%
Living alone	15%
Single parent with children at home	11%
Couple with no children	10%
Couple whose children have left home	7%
Living with housemates/other family	5%
Prefer not to say	2%

Work Status	Total sample
Employed full-time	32%
Self-employed	11%
Employed part-time/casual	28%
Engaged in home duties	8%
Not employed at the moment	9%
Retired/Semi retired	10%
Student	2%

Gross Household Income (before tax)	Total sample
Less than $50,000	25%
$50,000 to $99,999	36%
$100,000 to $149,999	23%
$150,000 to $199,999	7%
$200,000 +	2%
Prefer not to say	7%

Home ownership status	Total sample
Have a mortgage (still paying it off)	52%
Rent	29%
Own the home outright (no mortgage)	18%
Prefer not to say	1%

Notes: Rounding occurs. Total sample n=102

Electricity and gas behaviour and consumption

Role in the decision-making and administration of your electricity supply	Total sample
I am the main person in my household	79%
I share the decision-making and administration with others in my household	21%

Have solar panels on the roof of your home?	Total sample
Yes	36%
No	64%

Drive an electric vehicle	Total sample
Yes	2%
No	98%

Use gas in your household for heating, cooking, etc.	Total sample
Yes, we use mains gas	79%
Yes, we use bottled gas	10%
No, we use electricity only	11%

Note: Multiple responses allowed

Notes:
Rounding occurs
Total sample n=102

Electricity usage and attitudes

Now thinking about your household electricity usage on an average weekday, can you please indicate whether you use a lot, some (but not a lot), only a little bit/none at the following times throughout the day?

	A lot	Some but not a lot	Only a little bit/none
12am-6am	5%	26%	69%
6am-9am	20%	60%	20%
9am-12pm	21%	59%	20%
12pm-3pm	22%	54%	24%
3pm-6pm	59%	37%	4%
6pm-9pm	70%	24%	6%
9pm-12am	25%	50%	25%

Using the scale shown, please indicate your level of agreement or disagreement with the following statements relating to household electricity use?

	Agree	Neither agree nor disagree	Disagree	N/A
I actively try to reduce my household's energy consumption	77%	21%	2%	0%
I feel it is important to move to sustainable energy sources to reduce our impact on the environment	75%	24%	1%	0%
I intend to stop using gas and use electricity only.	19%	42%	29%	10%

Notes:
Rounding occurs
Total sample n=102

Survey results from residential participants

Slido survey results

We ran two online polls using Slido during the residential workshops. We present the questions asked in each poll below and results overleaf.

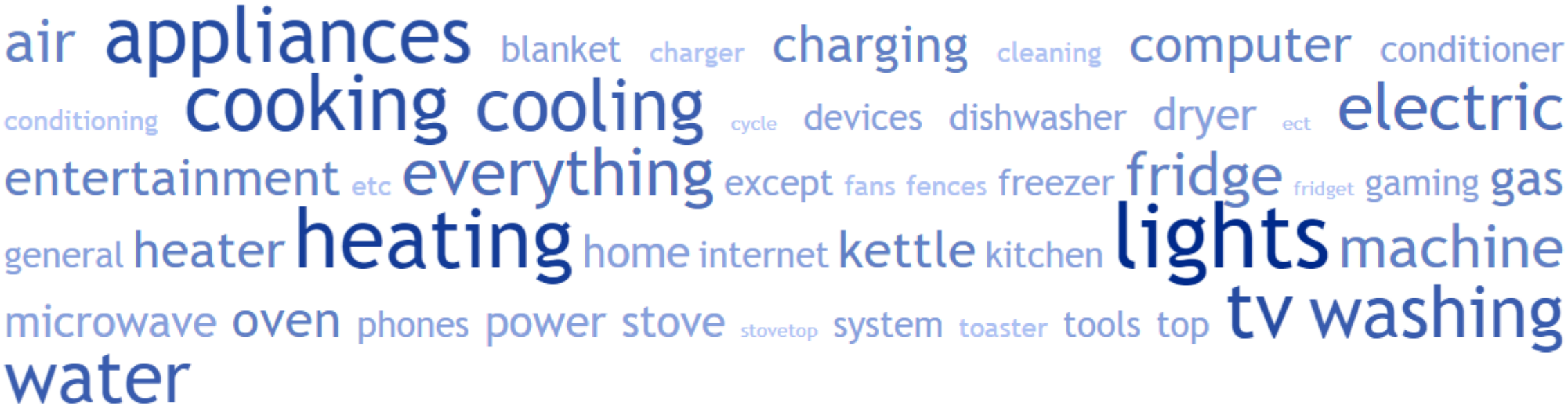
Poll 1 questions

- What do you currently use electricity for in your home?
- Do you feel your home is energy efficient?
- Do you generate solar power for use at home?
- Do you have solar-heated hot water?
- Do you return any power to the grid?
- Do you feel your electricity is reliable?
- Do you use gas?
- Have you (or your landlord) swapped any of your gas appliances to electric ones?
- Do you put much thought into how much electricity you are using?
- Do you put much thought into when you are using electricity (e.g. to make the most of peak/off-peak rates)?
- Do you have an electric vehicle?
- What comes to mind when you think about your use of electricity? Positive or negative?

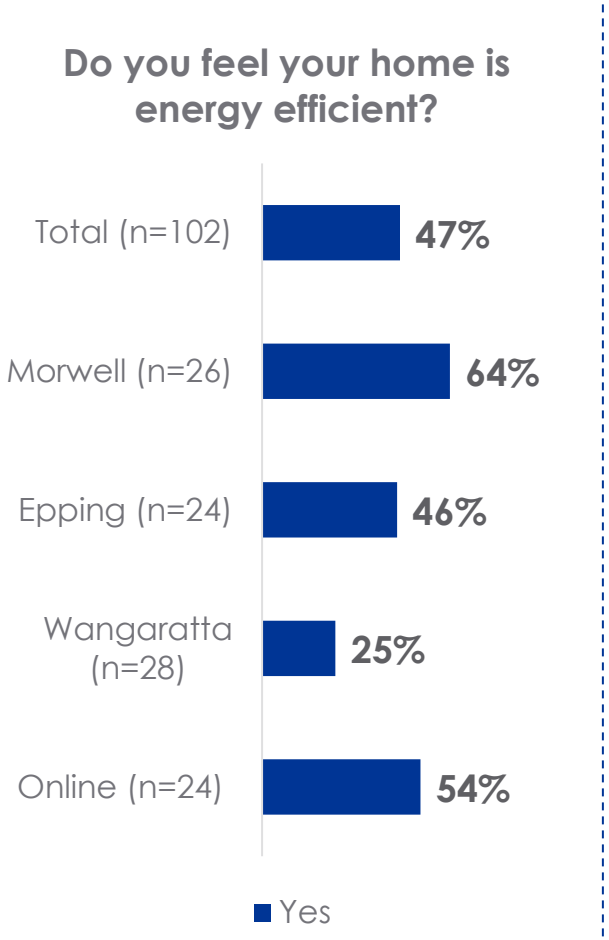
Poll 2 questions

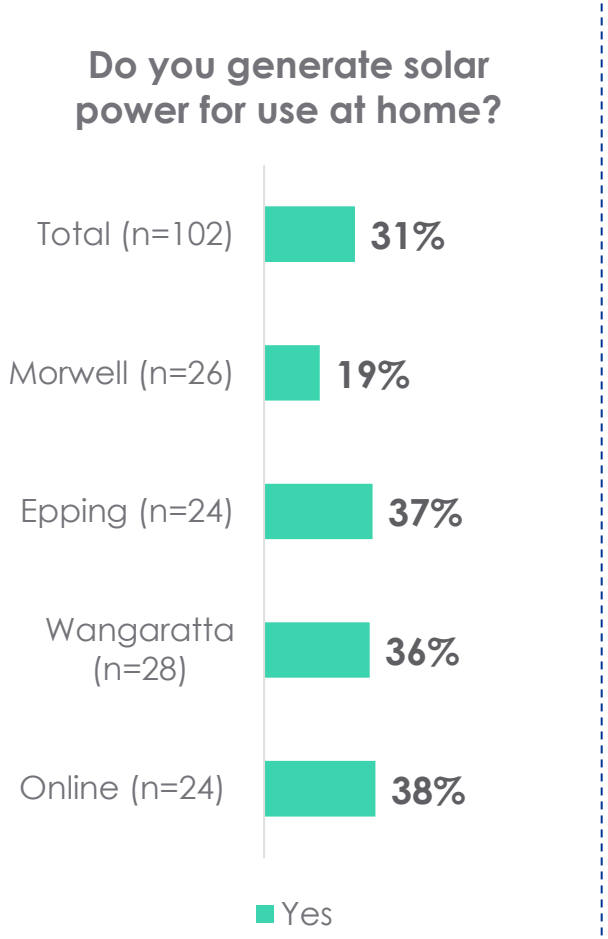
- Between now and 2035, how likely are you to have rooftop solar at home?
- Between now and 2035, how likely are you to return power to the grid?
- Between now and 2035, how likely are you to have gas appliances replaced with electric ones?
- Between now and 2035, how likely are you to have an electric vehicle?
- Between now and 2035, how likely are you to have a fast charger at home?
- Between now and 2035, how likely are you to be willing to change your routines (e.g. using more electricity in the middle of the day instead of the evening to save money on your bills)?
- Between now and 2035, how likely are you to be engaging more with your electricity network (AusNet)?

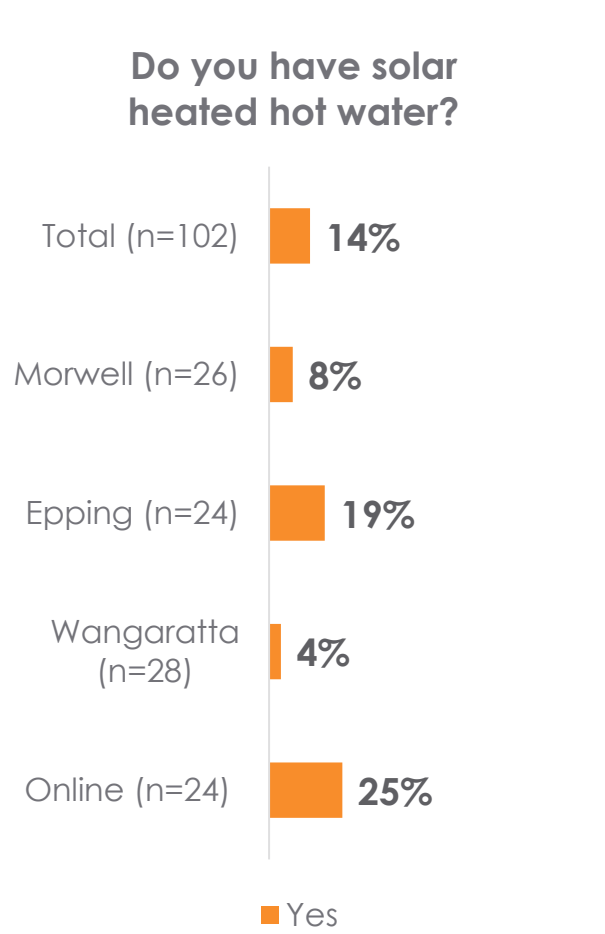
What do you currently use electricity for in your home?

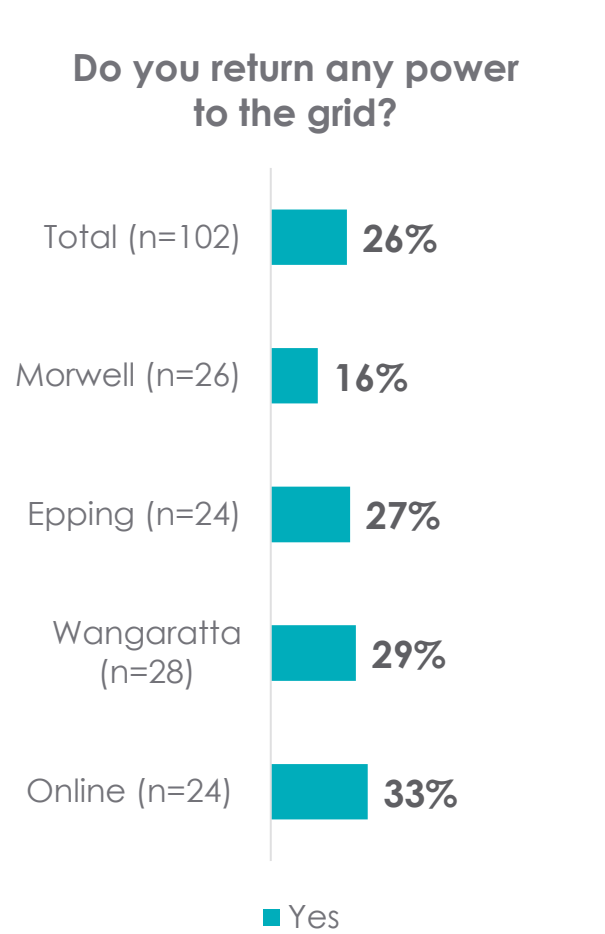


Poll 1 results

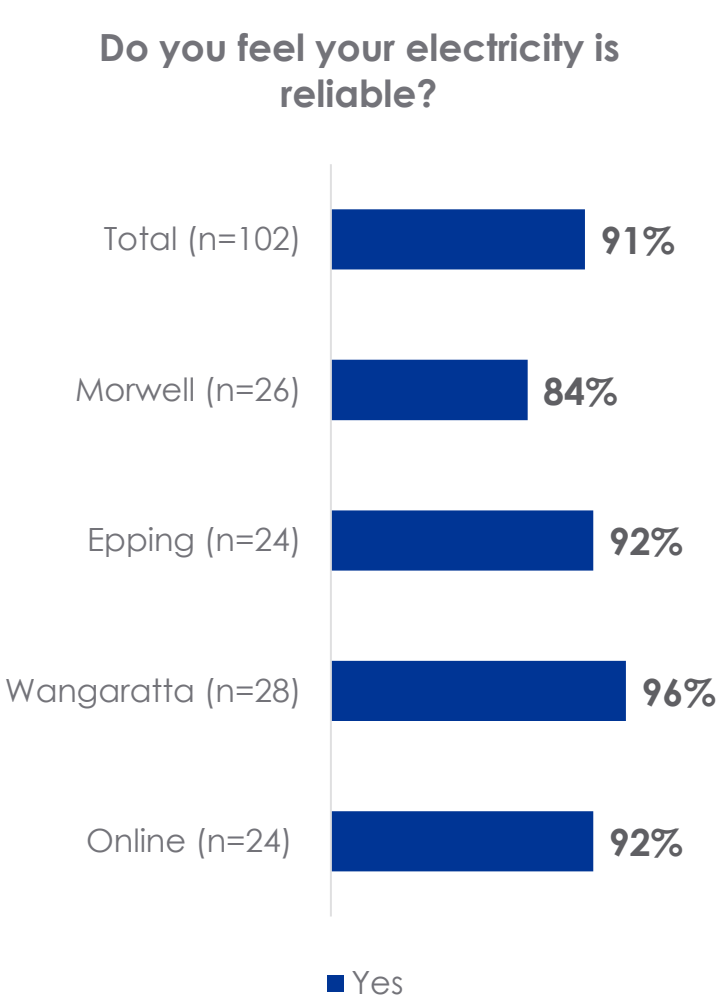


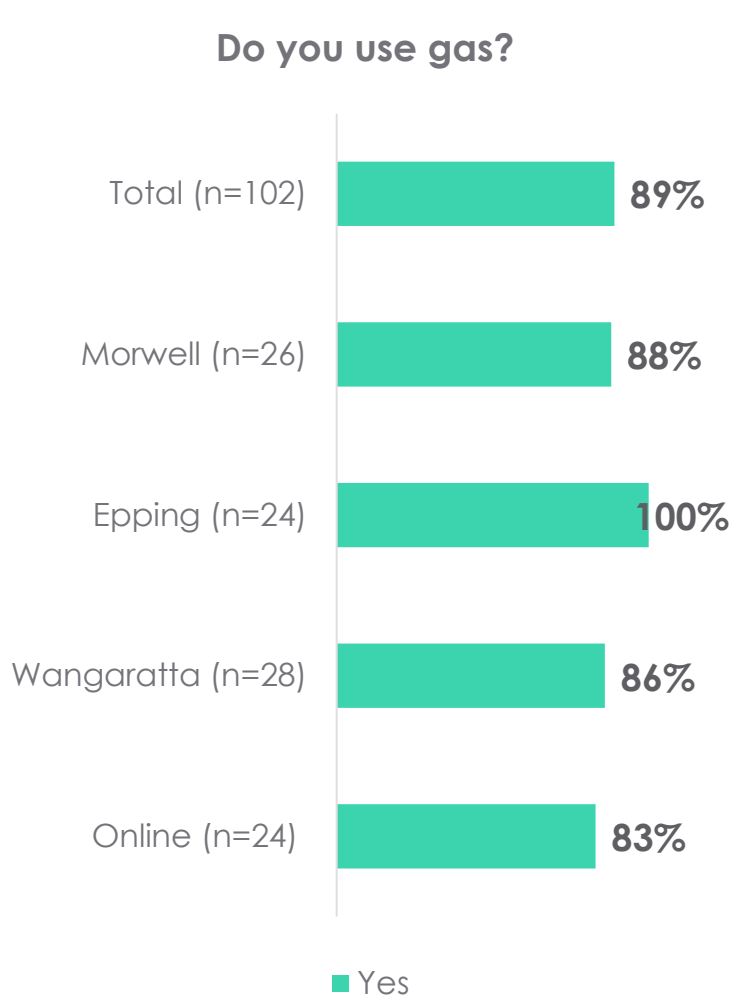


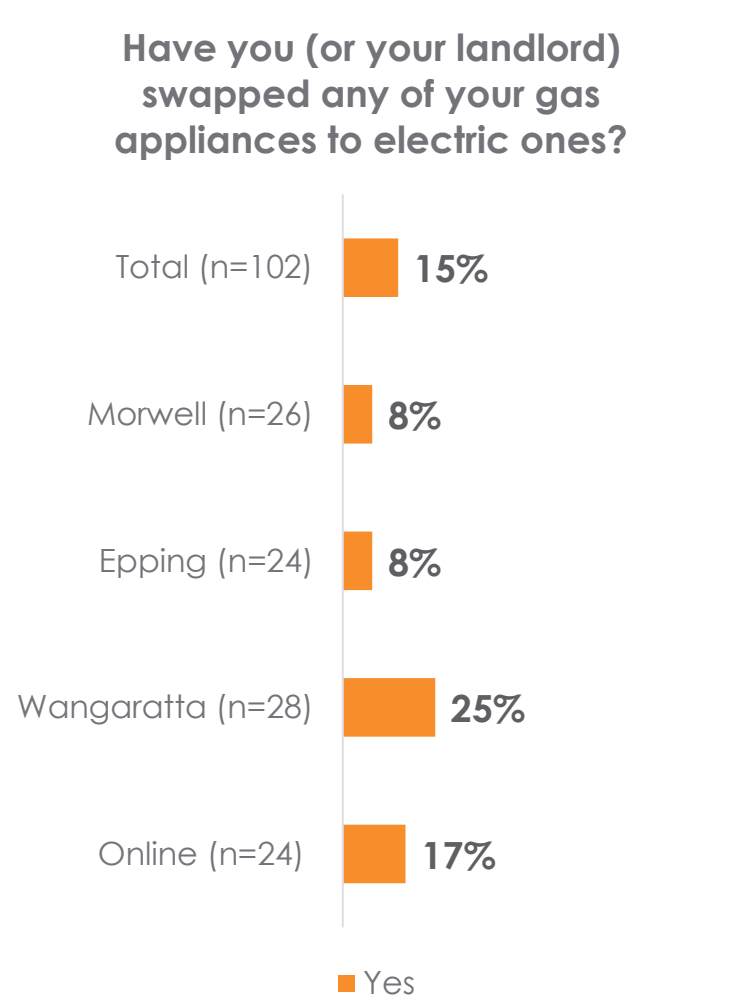




Poll 1 results

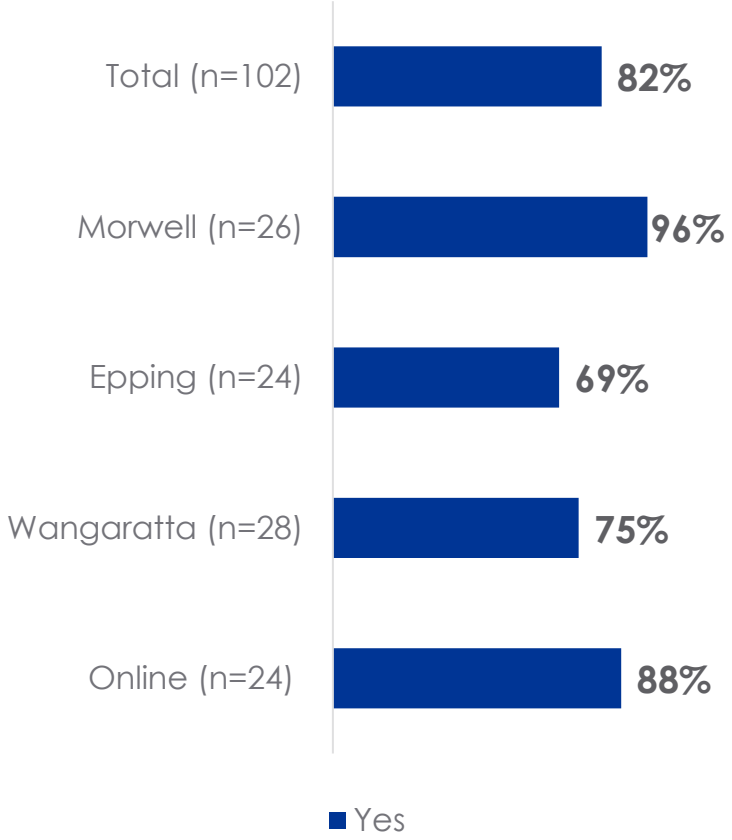




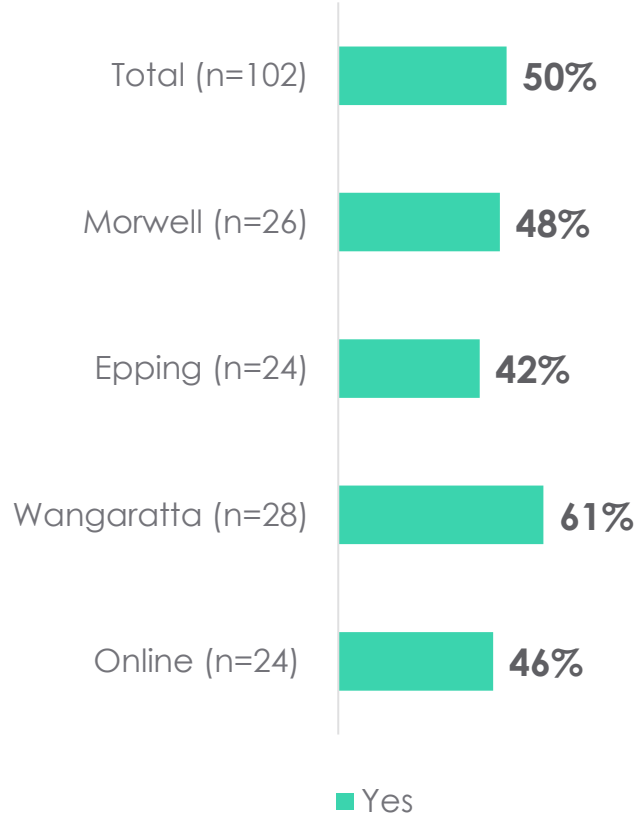


Poll 1 results

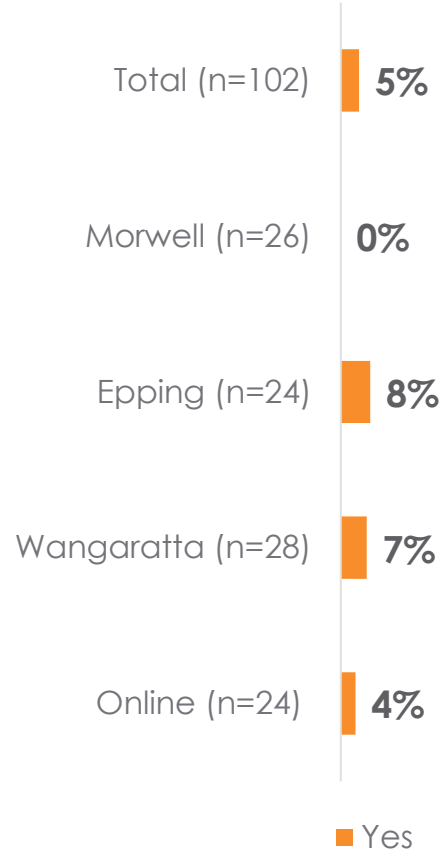
Do you put much thought into how much electricity you are using?



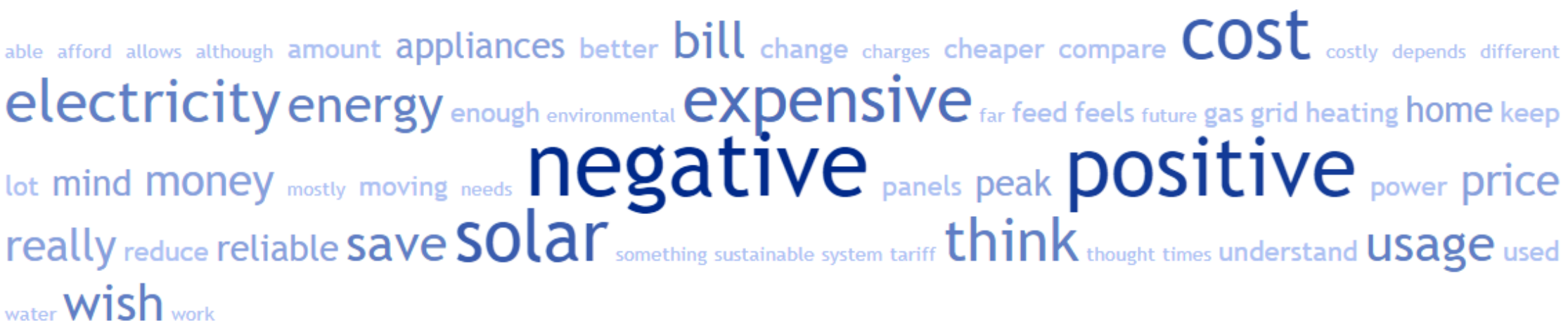
Do you put much thought into when you are using electricity (e.g. to make the most of peak/off peak rates)?



Do you have an electric vehicle?

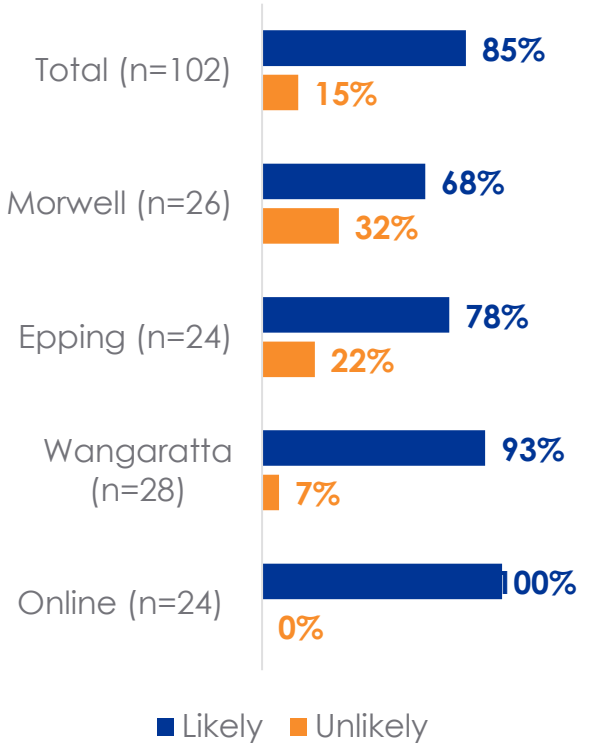


What comes to mind when you think about your use of electricity? Positive or negative?

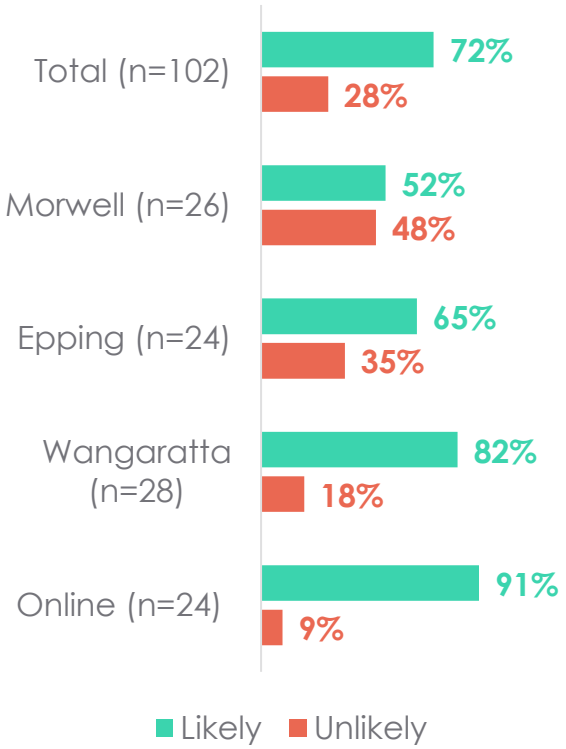


Poll 2 results

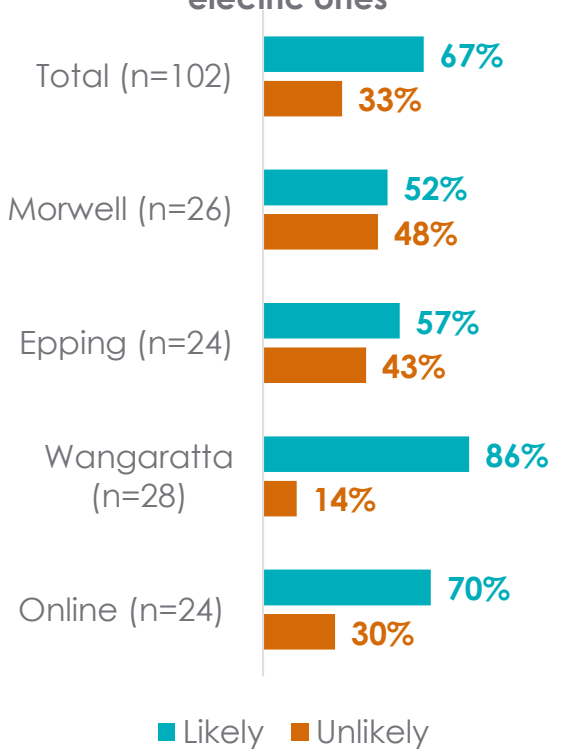
Between now and 2035, how likely are you to have rooftop solar at home?



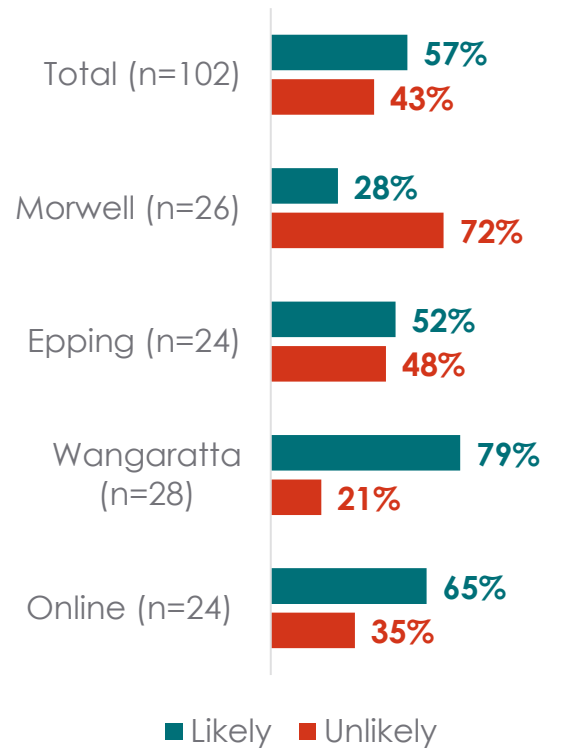
Between now and 2035, how likely are you to return power to the grid?



Between now and 2035, how likely are you to have gas appliances replaced with electric ones

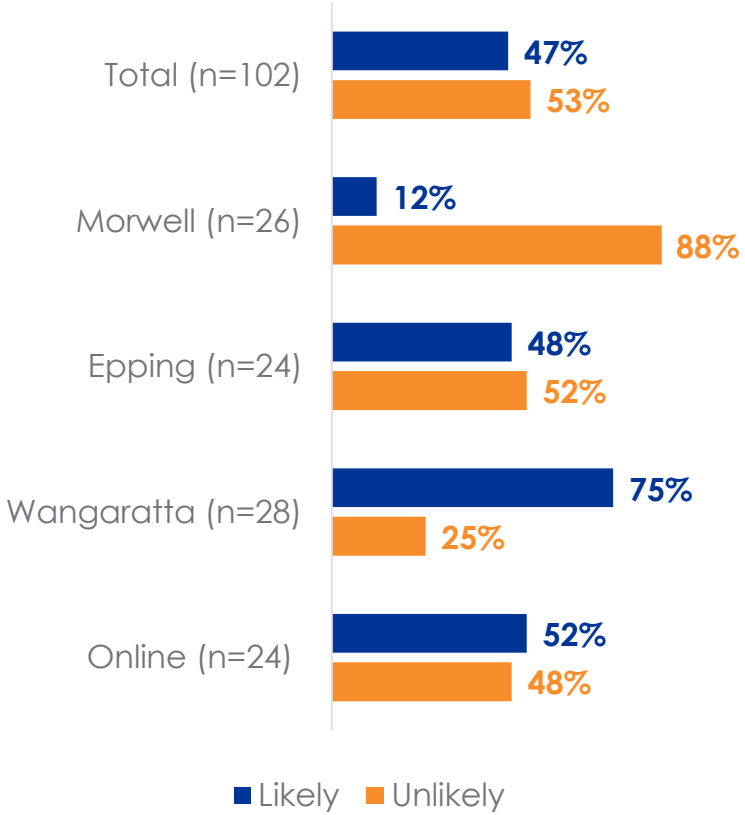


Between now and 2035, how likely are you to have an electric vehicle?

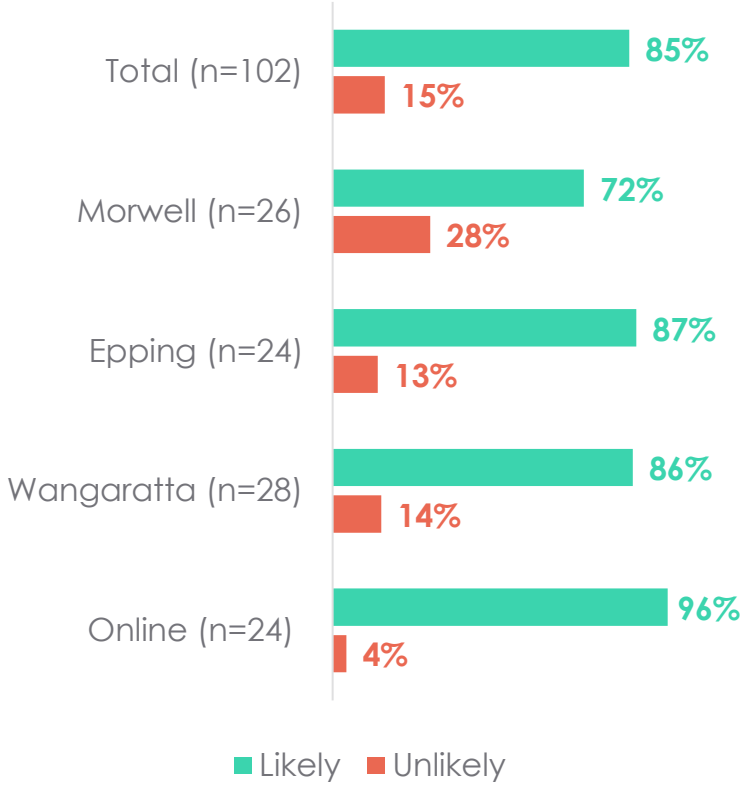


Poll 2 results

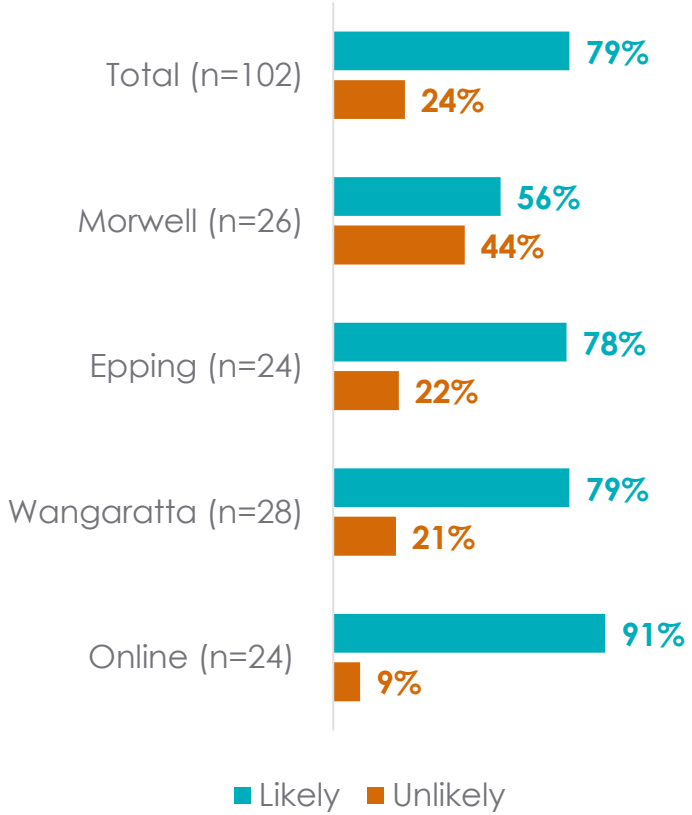
Between now and 2035, how likely are you to have a fast charger at home?



Between now and 2035, how likely are you to be willing to change your routines (e.g. using more electricity in the middle of the day instead of the evening to save money on your bills)?



Between now and 2035, how likely are you to be engaging more with your electricity network (AusNet)?



Sample details for business participants

A total of 15 business owners/operators attended an online workshop in Round 1.

The following slides are an overview of the information collected during recruitment.

Business operation

Working situation	Total sample (n=15)
I am self-employed and my business does not have any full-time or part-time employees	**50%**
I own or part-own a business with between 1 and 4 employees (including me and any business partner/s)	**28%**
I own or part-own a business with between 5 and 19 employees (including me or any business partner/s)	**17%**
I own or part-own a business with between 20 or more employees (including me or any business partner/s)	**5%**

Type of business	Total sample (n=15)
Beauty Services	6%
Bookkeeper	6%
Coffee Wholesale	6%
Computer training and hardware	6%
Construction	6%
ECommerce - Selling Gifts Online	6%
Fruit shop	6%
Furniture Retail	6%
Graphic Design Services	6%
Hospitality	6%
House and Pet Sitting	6%
Online retail	6%
Pet food manufacturing	6%
Professional Administration Services & Online Management	6%
Retail / E Commerce	6%
Specialised Cleaning services	6%
Wholesale	6%

Notes:
Rounding occurs
Total sample n=15

Gender, age and location

Gender	Total sample (n=15)
Male	**56%**
Female	**44%**

Age	Total sample (n=15)
Under 40	**28%**
40-49	**28%**
50-59	**33%**
60+	**11%**

Location	Total sample (n=15)
Metropolitan	**72%**
Regional	**22%**
Rural / Remote	**6%**

Notes:
Rounding occurs
Total sample n=15

Education and home ownership status

Education	Total sample (n=15)
Tertiary education	56%
Secondary schooling completed	28%
Secondary schooling incomplete	11%
Vocational certificate	6%

Home ownership status	Total sample (n=15)
Have a mortgage (still paying it off)	39%
Rent	28%
Own the home outright (no mortgage)	28%
Live with parents	6%

Notes: Rounding occurs. Total sample n=15

Electricity and gas behaviour and consumption

Role in the decision-making and administration of your business electricity supply	Total sample (n=15)
I am very involved and the main decision-maker in my business	78%
I am quite involved in decision-making and administration but share this responsibility with others in the business	22%

Have solar panels on the roof of any of your office/work locations?	Total sample (n=15)
Yes	44%
No	56%

Does your business own and operate any electric vehicles	Total sample (n=15)
Yes	0%
No	100%

Use gas to operate various appliances / machinery within your business?	Total sample (n=15)
Yes, we use mains gas	17%
Yes, we use bottled gas	22%
No, we use electricity only	61%

Note: Multiple responses allowed

Notes:
Rounding occurs
Total sample n=15

Electricity usage and attitudes

Now thinking about your business electricity usage on an average work day, can you please indicate whether you use a lot, some (but not a lot), only a little bit/none at the following times throughout the day?

	A lot	Some but not a lot	Only a little bit/none
12am-6am	6%	28%	67%
6am-9am	11%	39%	50%
9am-12pm	50%	28%	22%
12pm-3pm	61%	28%	11%
3pm-6pm	50%	33%	17%
6pm-9pm	22%	33%	44%
9pm-12am	6%	39%	56%

Using the scale shown, please indicate your level of agreement or disagreement with the following statements relating to your business's electricity use?

	Agree	Neither agree nor disagree	Disagree	N/A
Our business actively tries to reduce its energy consumption	67%	28%	6%	0%
I feel it is important to move to sustainable energy sources to reduce our businesses impact on the environment	72%	28%	0%	0%
Our business intends to stop using gas and use electricity only.	33%	28%	28%	11%

Notes:
Rounding occurs
Total sample n=15

Slido survey results

We ran two online polls using Slido during the business workshop. We present the questions asked in each poll below and results overleaf.

Poll 1 questions

- What do you currently use electricity for in your business?
- What aspects of your electricity use are you in control of e.g. generation/efficiency?
- Do you feel your business is energy efficient?
- Do you generate solar power for use in your business?
- Do you have solar-heated hot water at your business premises?
- Do you return any power to the grid from your business premises?
- Do you feel your electricity is reliable?
- Do you use gas at your business premises?
- At your business premises, have you (or your landlord) swapped any gas appliances/equipment to electric ones?
- Do you put much thought into how much electricity you are using at your business premises?
- Do you put much thought into when you are using electricity at your business premises (e.g. to make the most of peak/off-peak rates)?
- Do you/your business have an electric vehicle?
- What comes to mind when you think about your use of electricity? Positive or negative?

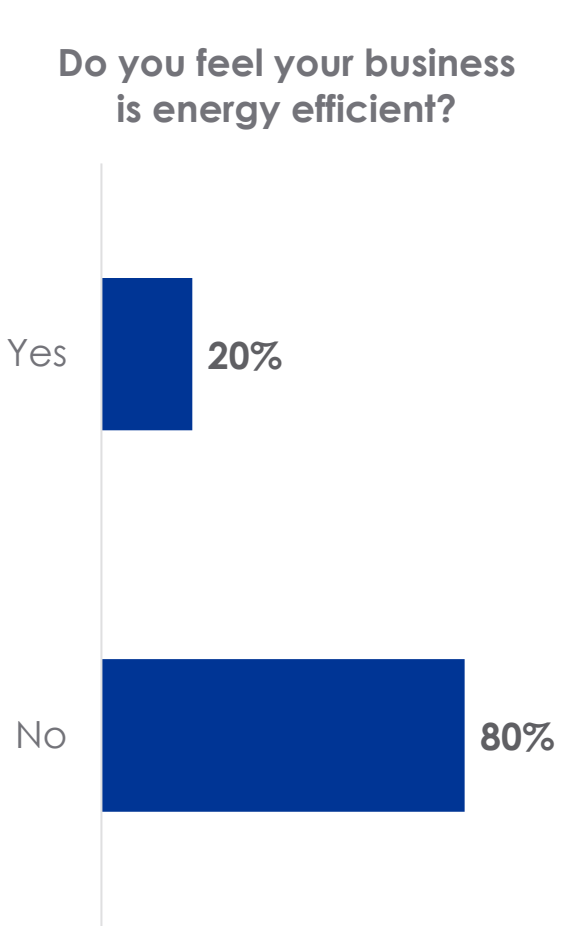
Poll 2 questions

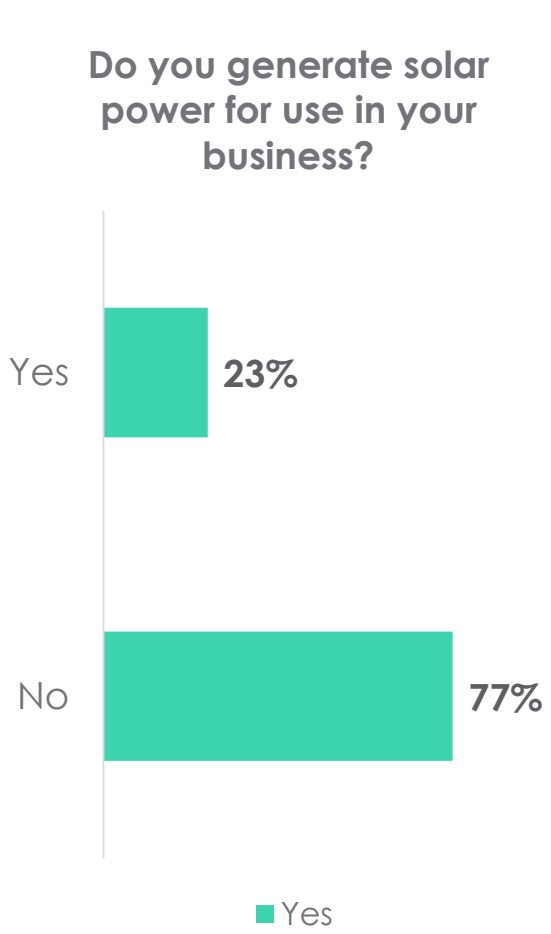
- Between now and 2035, how likely are you to have rooftop solar at your business premises?
- Between now and 2035, how likely are you to return power to the grid from your business premises?
- Between now and 2035, how likely are you to have gas appliances/equipment replaced with electric ones at your business?
- Between now and 2035, how likely are you to have an electric vehicle for business use?
- Between now and 2035, how likely are you to have a fast charger for vehicles at your business premises?
- Between now and 2035, how likely are you to be willing to change your routines (e.g. using more electricity in the middle of the day instead of the evening) to save money on your bills?
- Between now and 2035, how likely are you to be engaging more with your electricity network (AusNet)?

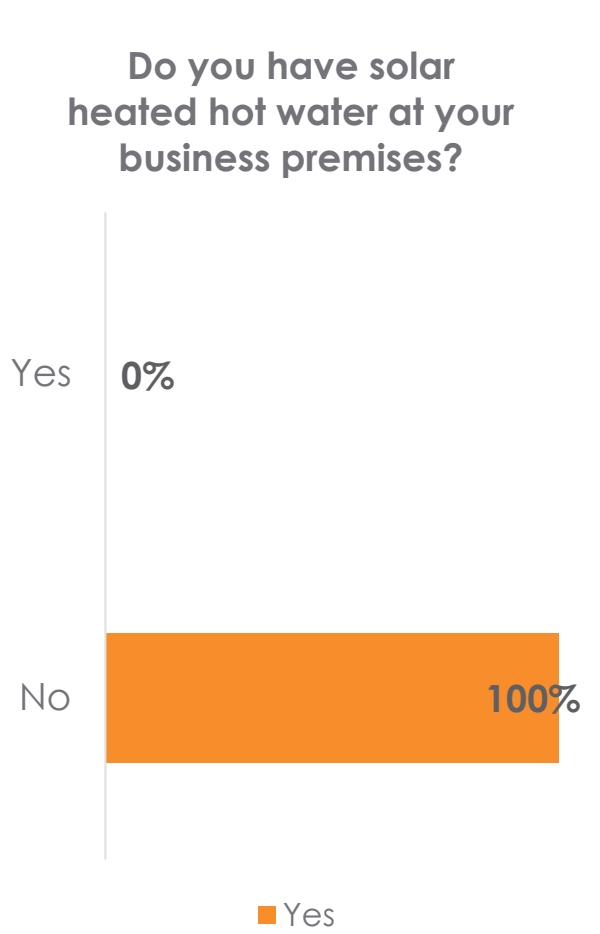
What do you currently use electricity for in your business?

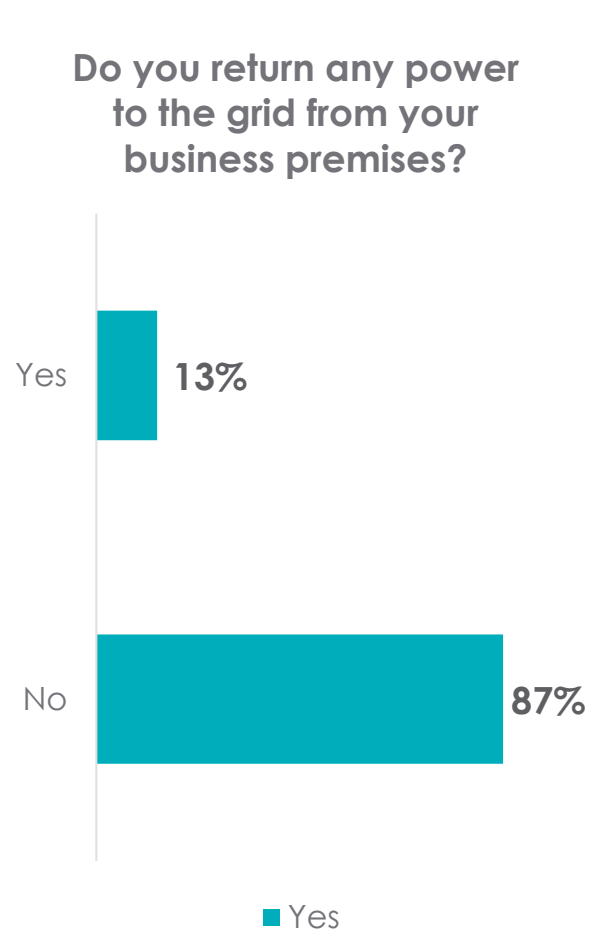
What aspects of your electricity use are you in control of e.g. generation/efficiency?

Poll 1 results



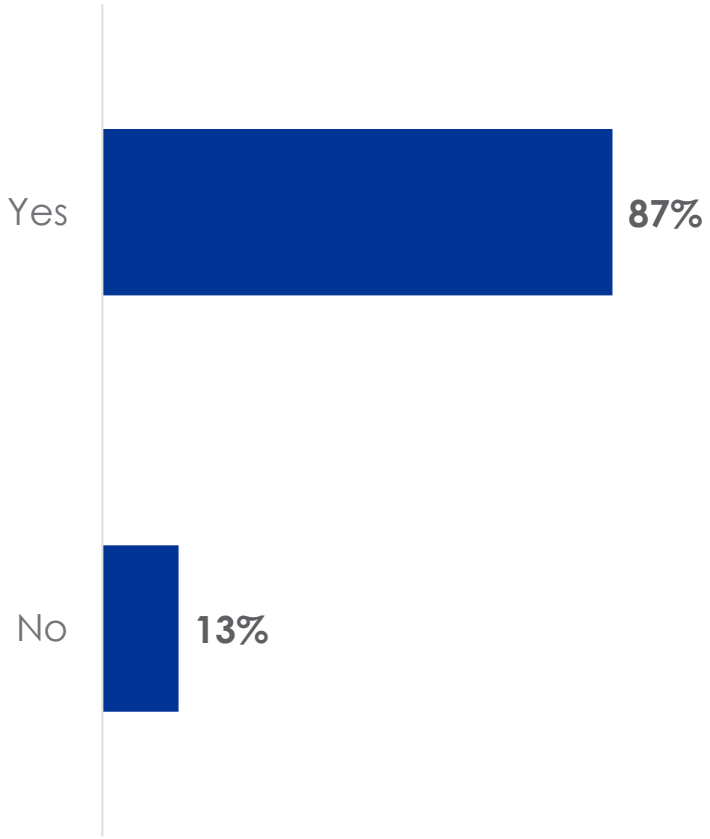




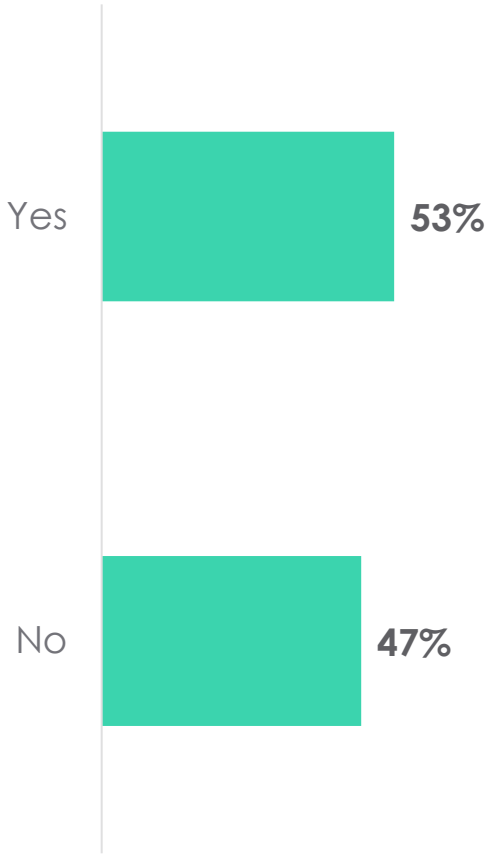


Poll 1 results

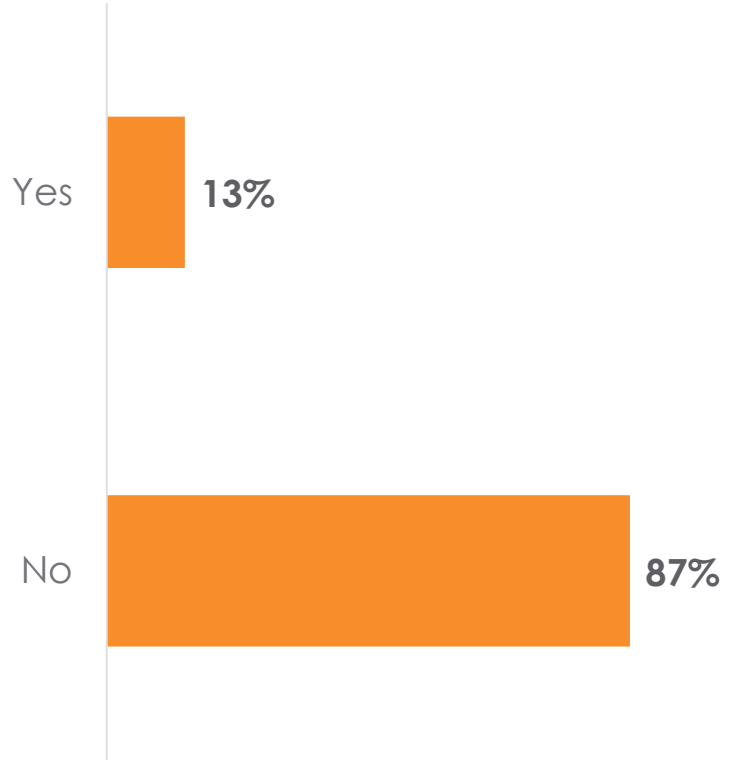
Do you feel your electricity is reliable?



Do you use gas at your business premises?

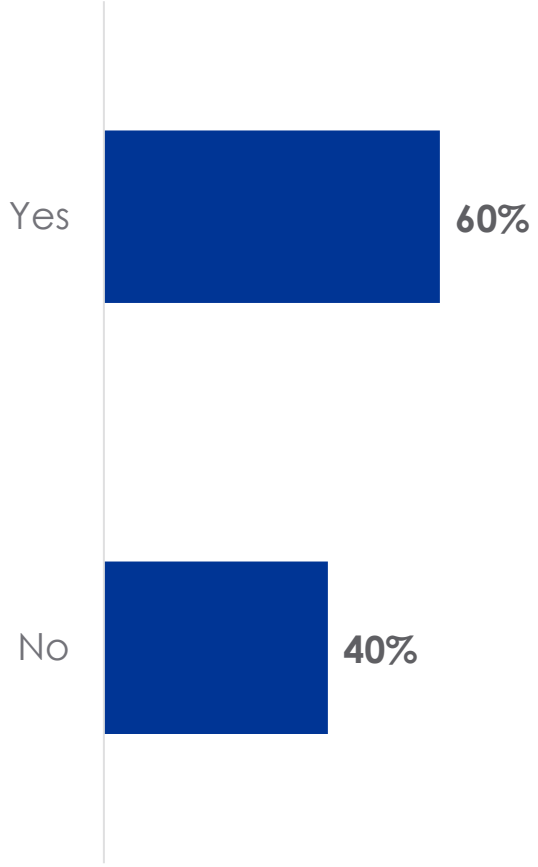


At your business premises, have you (or your landlord) swapped any gas appliances/equipment to electric ones?

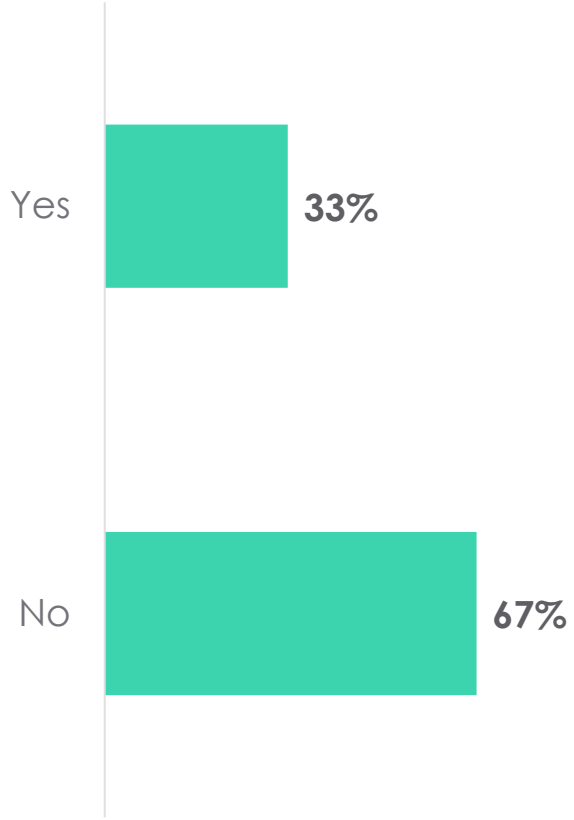


Poll 1 results

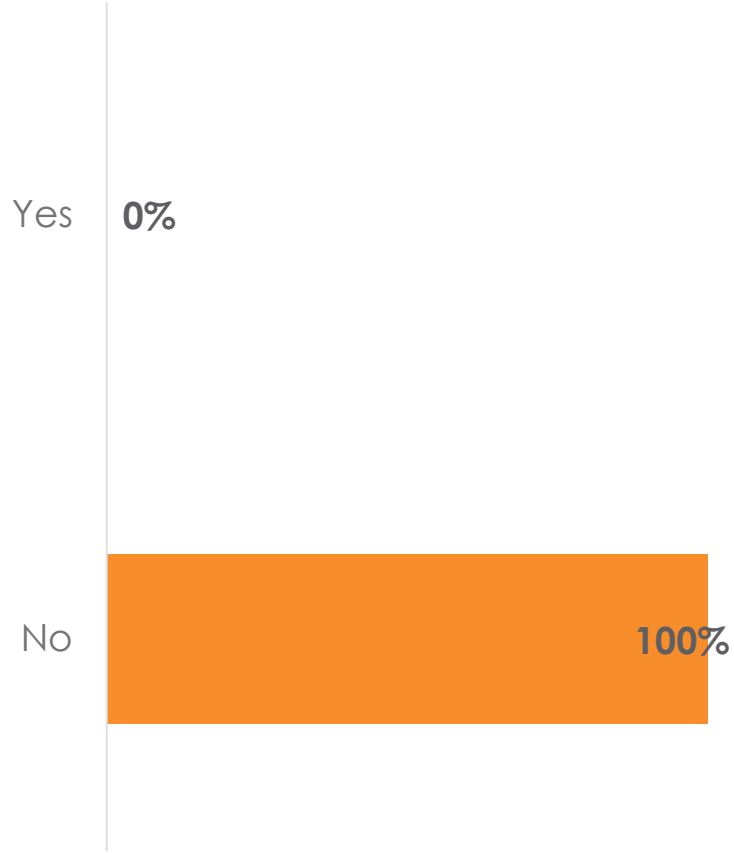
Do you put much thought into how much electricity you are using at your business premises?



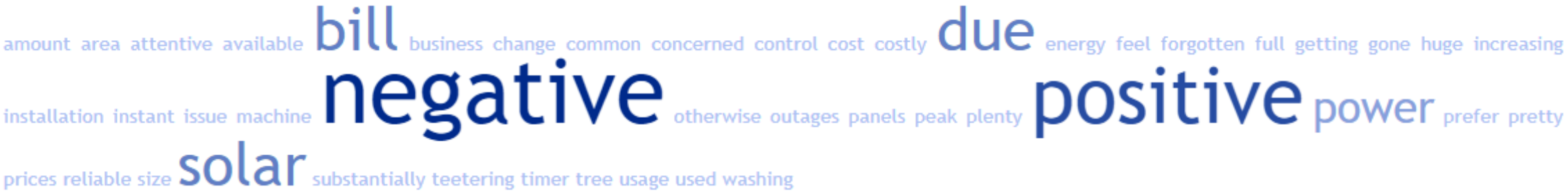
Do you put much thought into when you are using electricity at your business premises (e.g. to make the most of peak/off-peak rates)?



Do you/your business have an electric vehicle?

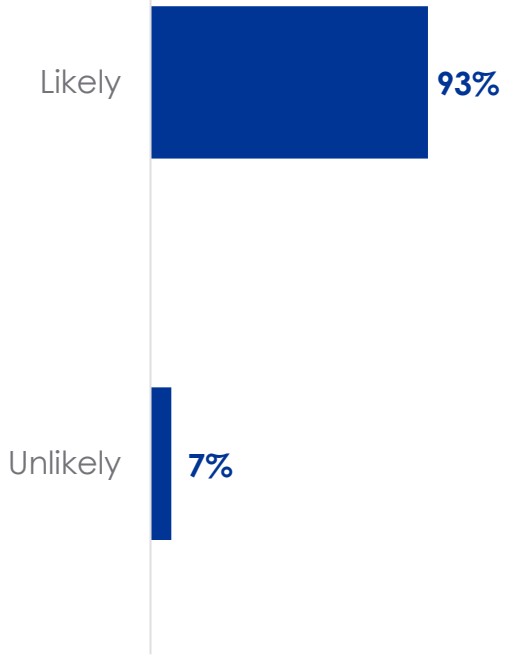


What comes to mind when you think about your use of electricity? Positive or negative?

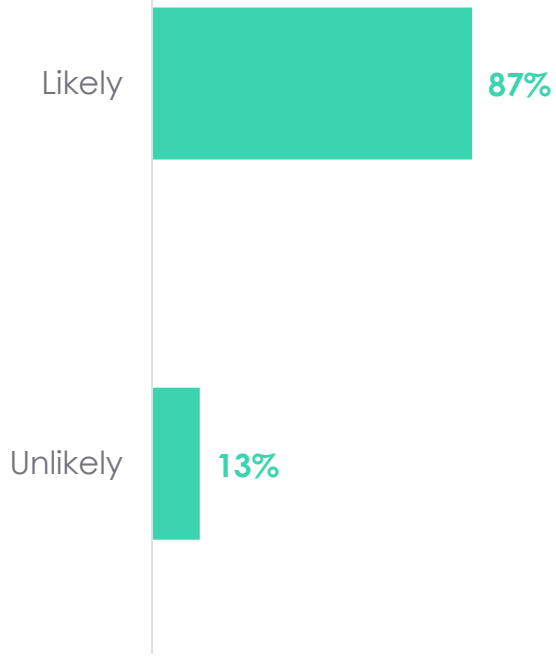


Poll 2 results

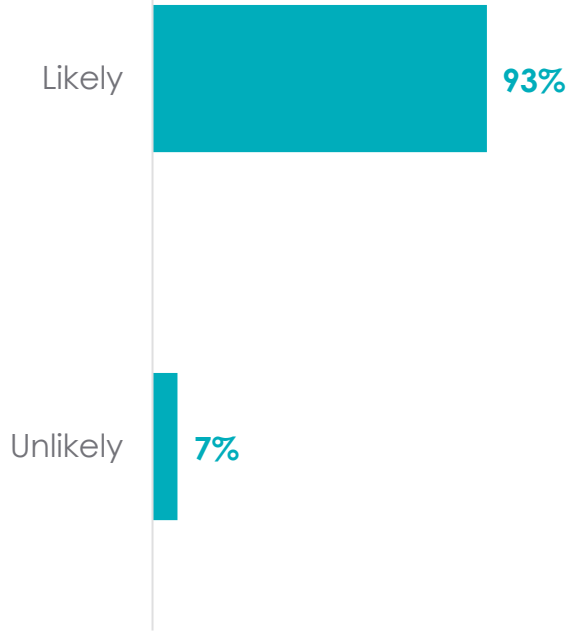
Between now and 2035, how likely are you to have rooftop solar at your business premises?



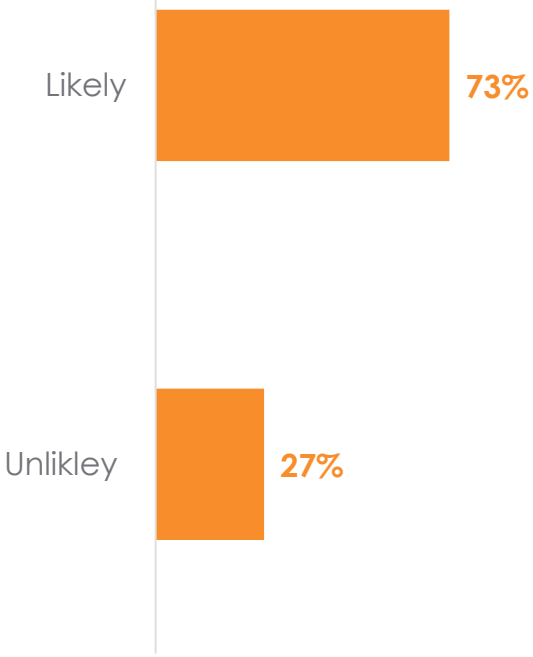
Between now and 2035, how likely are you to return power to the grid from your business premises?



Between now and 2035, how likely are you to have gas appliances/equipment replaced with electric ones at your business

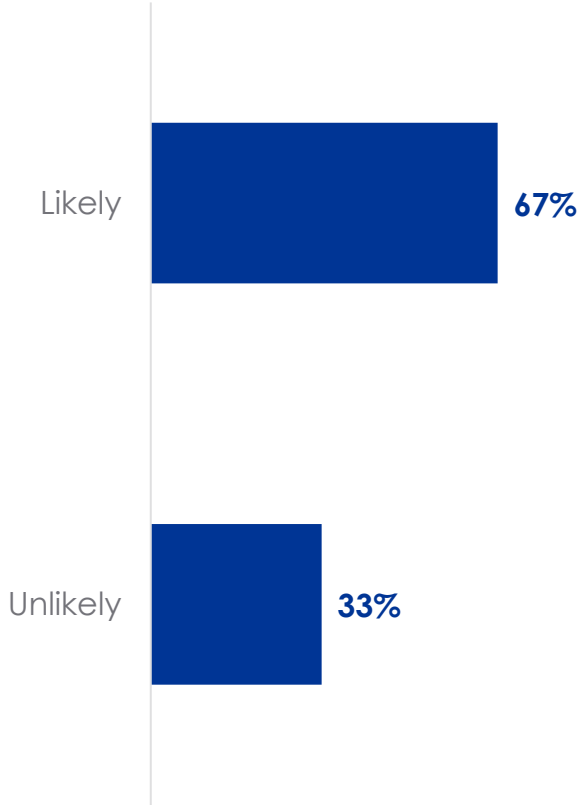


Between now and 2035, how likely are you to have an electric vehicle for business use?

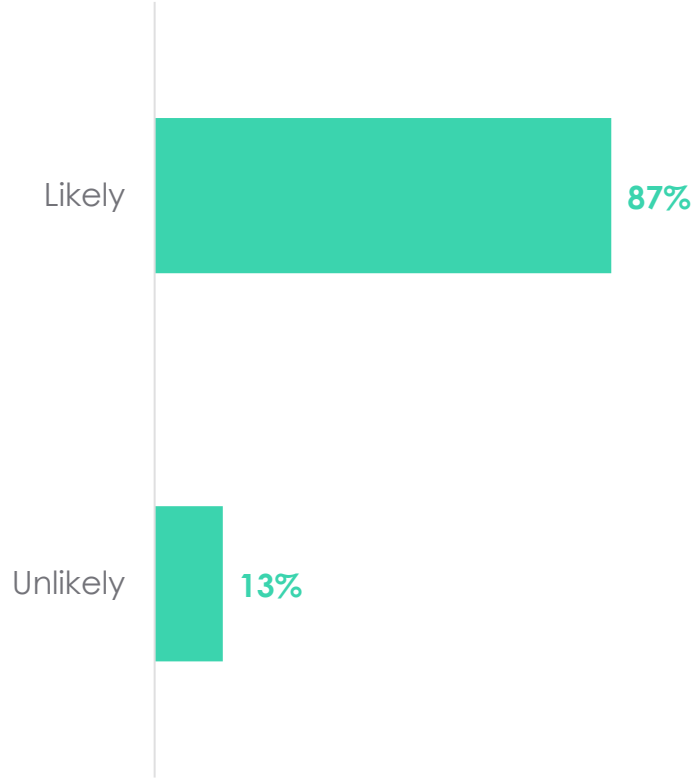


Poll 2 results

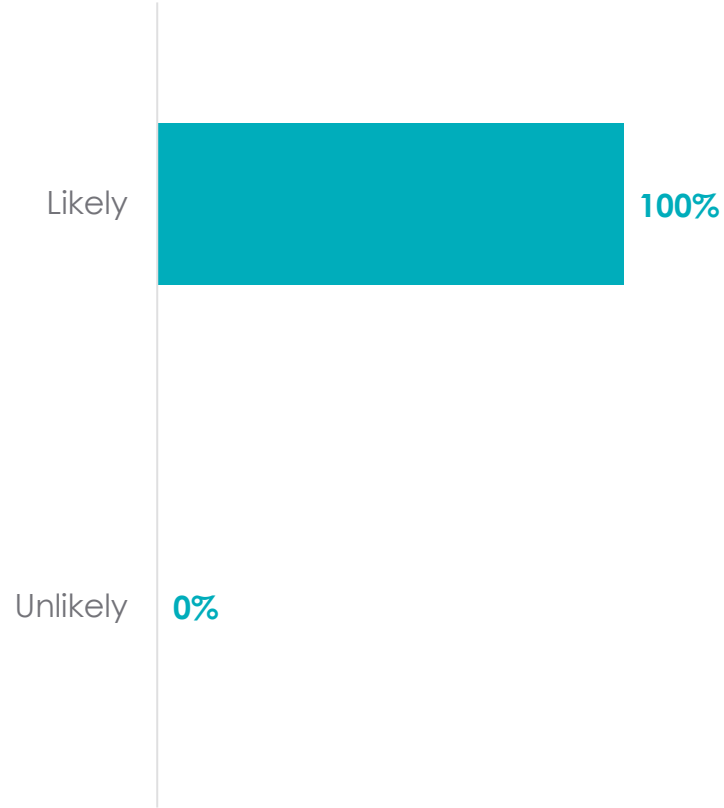
Between now and 2035, how likely are you to have a fast charger for vehicles at your business premises?



Between now and 2035, how likely are you to be willing to change your routines (e.g. using more electricity in the middle of the day instead of the evening to save money on your bills)?



Between now and 2035, how likely are you to be engaging more with your electricity network (AusNet)?



Thank you.

To discuss this further, please contact either of the facilitators:

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