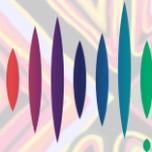


Consumer perspectives on the energy transformation

API Summer School
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**ENERGY
CONSUMERS
AUSTRALIA**

Acknowledgement of Country

I acknowledge the Traditional Owners of the lands on which we meet, live and work today, and I pay my deepest respects to Elders past, present and emerging.

Key takeaways



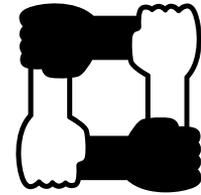
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Not all consumers are the same and our energy system must work for everyone. **Focus on equity, understanding of consumers' diverse needs and cooperation** are key.

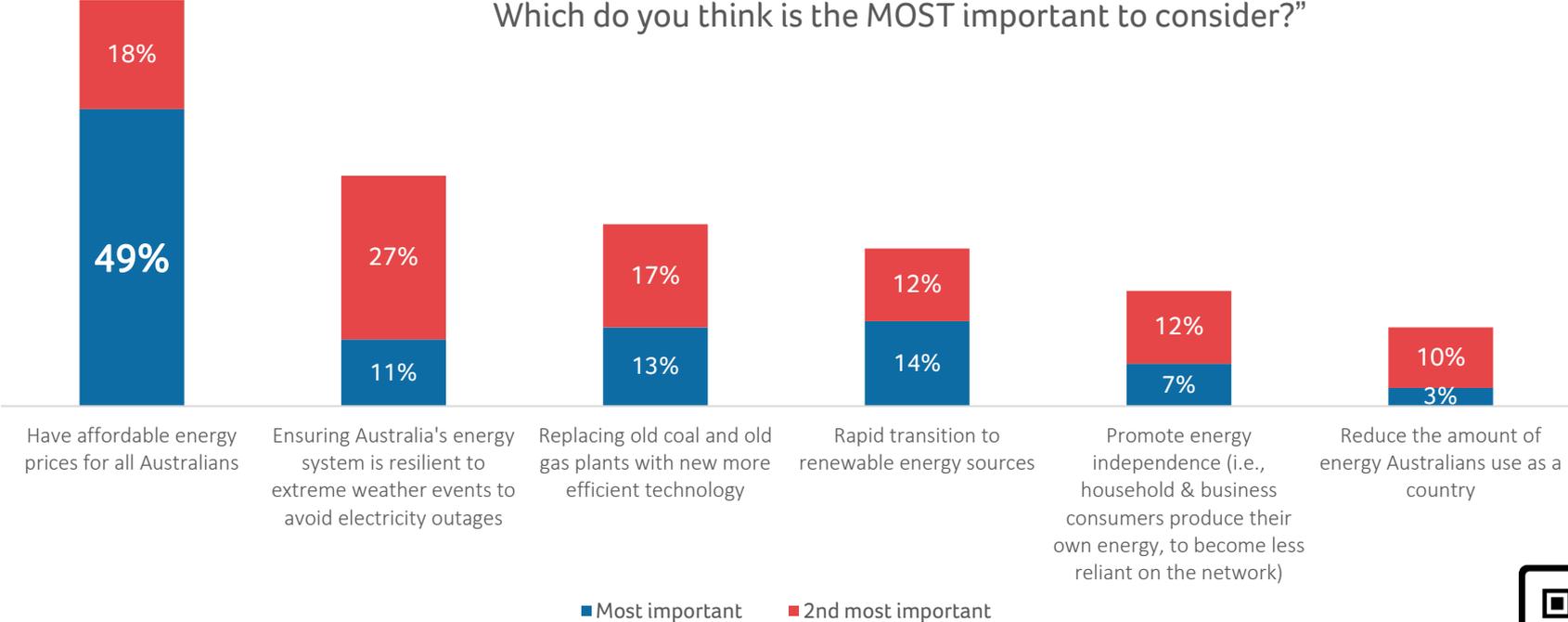
1 Affordability and the energy transformation

...



Affordability is consumers' primary focus in the energy transition

“There are a number of potential challenges ahead for the Australian energy system... Which do you think is the MOST important to consider?”



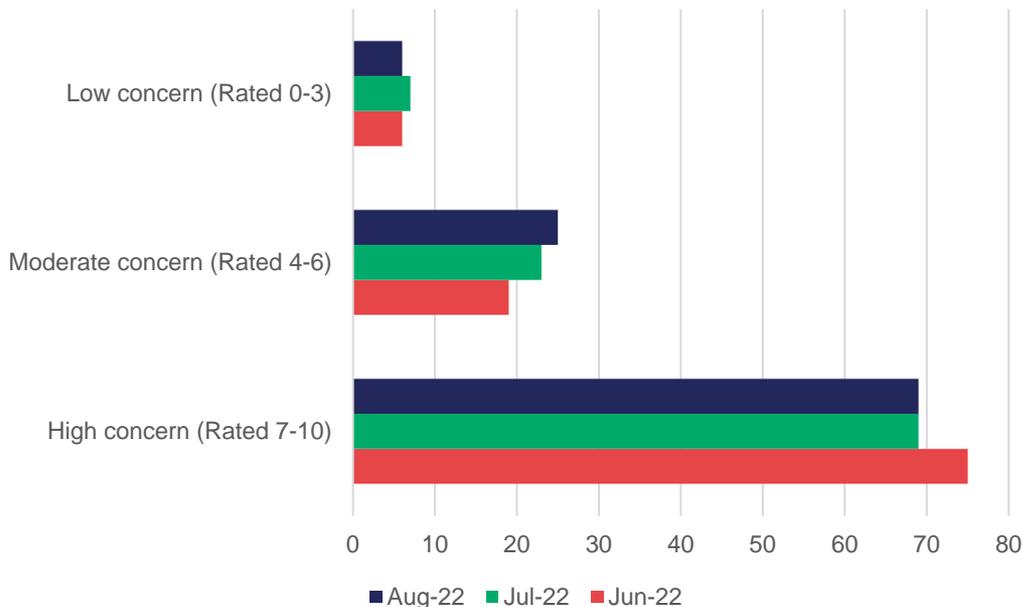
Scan the QR Code to access the survey findings



Source: December 2022 Energy Consumers Sentiment Survey; All households (n=2,212)

Consumers expect affordability to get worse

Nearly all Australians show moderate to high concern that electricity and gas will become unaffordable for some Australians in the next three years



- From 2006 to 2020, 18–23% of households in Australia experienced energy stress.
- Consumers are convinced that there are underlying problems with the energy system.
- Consumers lack trust in energy providers and governments to put consumers' best interests ahead of their own.

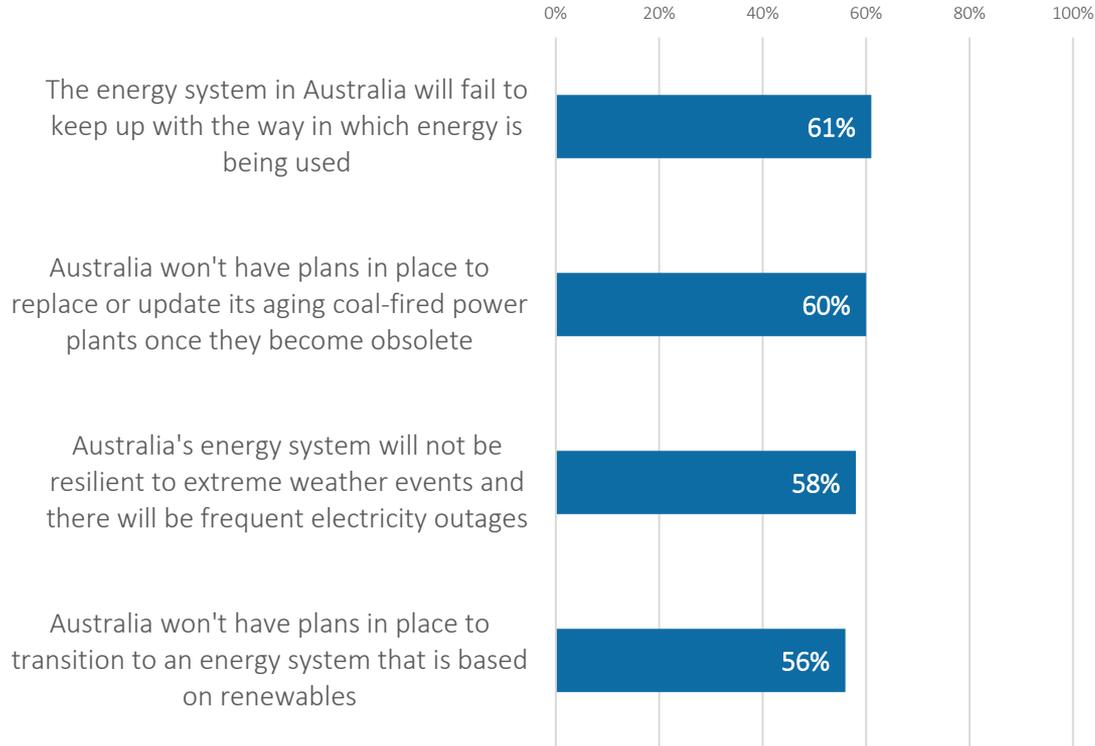
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Consumers are concerned
and confused about the
energy transition



Australians are concerned about the transition

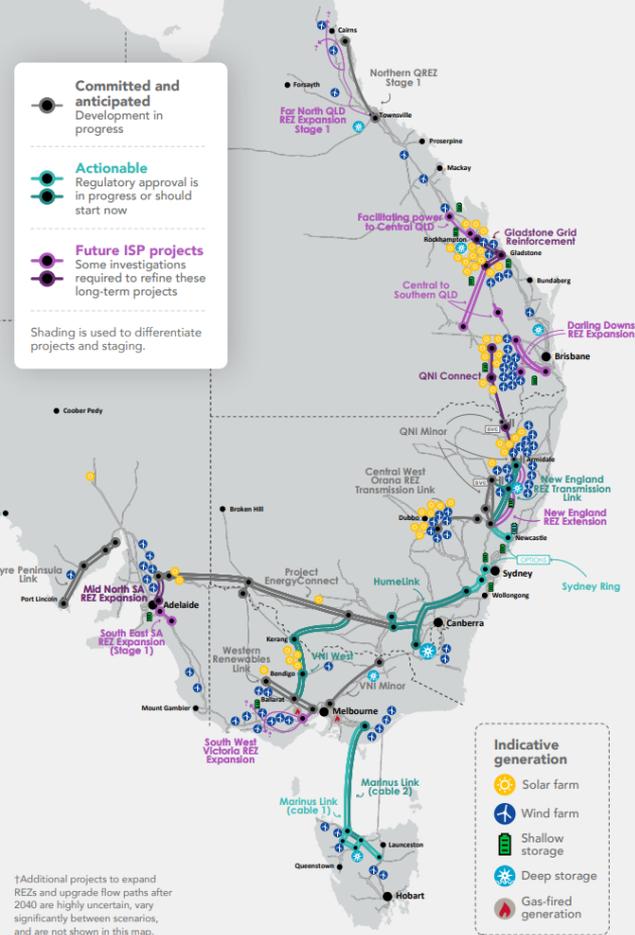
How concerned, if at all, are you that in the next 3 years...



% TOTAL: Concerned (Rated 7-10)



Network projects in the optimal development path

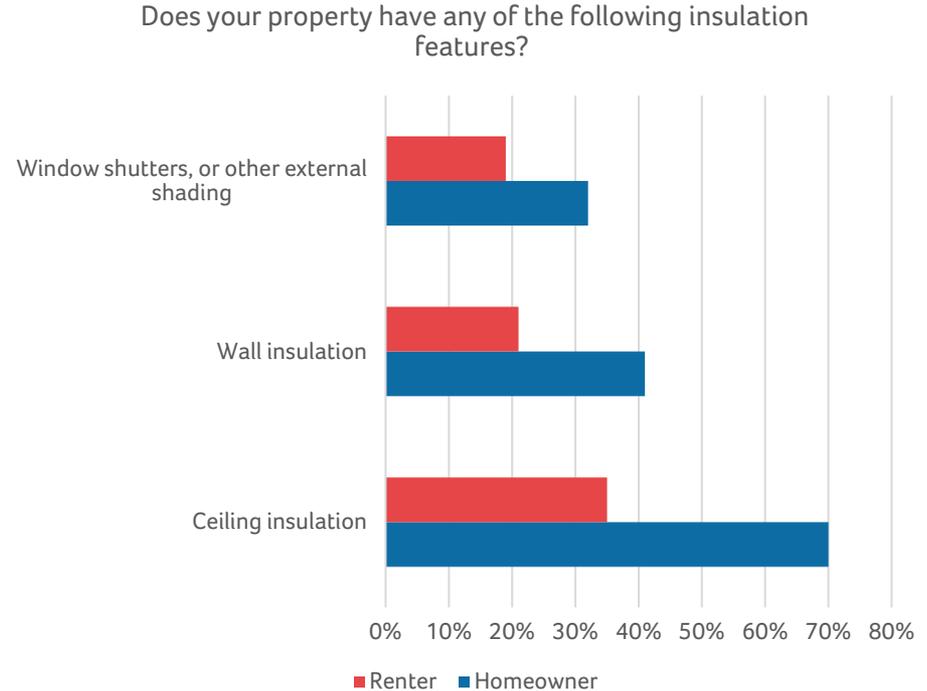


We have a plan - the Integrated System Plan (ISP)! But it doesn't identify the steps required to realise the ambitious, consumer-led transformation it envisages.

- The 2022 ISP's most likely scenario (Step Change) considers a “*rapid consumer-led transformation of the energy sector*” and coordinated economy-wide action”. However, consumer behaviour in the ISP is just a series of assumptions. There is no plan for ensuring that these assumptions come true.
- The ISP focuses primarily on developing a plan for large-scale transmission development and potential risks.
- The ISP doesn't include any analysis of impacts on future prices or consumer bills given its plan.

Transition challenges at the consumer level

1. **Energy efficiency** to improve energy performance and reduce energy waste.
 - Most of our homes are poorly energy efficient, and while desirable, energy efficient homes are financially out of reach or unattainable for many.
 - There's strong support for a major boost to the quality and energy efficiency of Australian houses and apartments.
 - Australians are looking for help to understand what actions they can take to make their homes more comfortable and lower their energy bills.



Transition challenges at the consumer level

2. Electrification: improving energy performance by switching away from fossil fuels is almost always associated with increases in efficiency, but ongoing barriers prevent most consumers from accessing these savings and other benefits.



Consumers and tradespeople lack awareness about the benefits of many electric technologies.



Consumers don't know where to start and who to ask for help. There's a lack of qualified tradespeople to help and a lack of EV supply.



Split incentives between renters, who pay energy bill and landlords, who purchase major appliances.



Significant upfront costs for new appliances, cars, and unexpected costs to upgrade wiring and panels are not in many consumers' budgets.

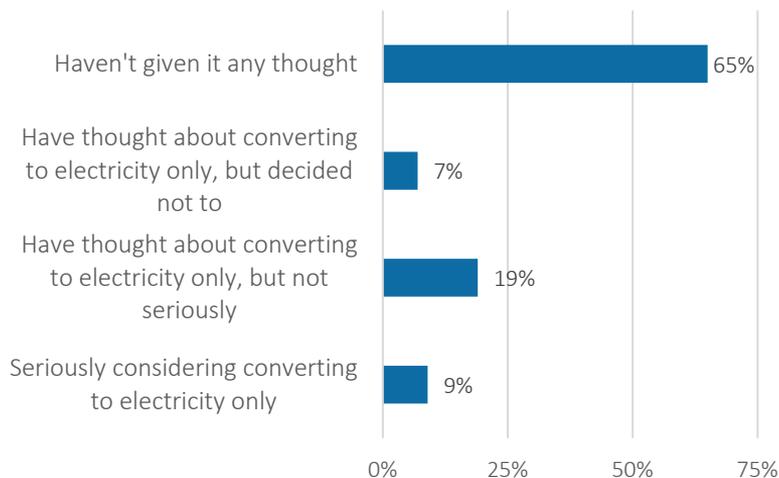


High costs and an unclear process to stop gas service and remove the meter for consumers who have tried to leave the gas network.

Transition challenges at the consumer level

Most consumers haven't given any serious thought to electrification and are unaware that gas bills are set to skyrocket in coming decades.

Some Australian households have recently been cancelling their gas supply and converting their home to running on electricity only. Which of the following best describes you?



Average annual residential gas bills for consumers that remain on the gas network until 2053



3

What we're asking from consumers



In a decarbonised system dominated by renewable generation...

We're asking consumers to:

- Electrify their homes and cars, and
- Flex demand to meet variable levels of supply—through **daily, seasonal and acute abundance/scarcity of supply** by...
 - 1) Investing in energy efficient homes to reduce overall demand and make it easier to shift energy use;
 - 2) Investing in distributed generation and storage;
 - 3) Changing their energy practices and shifting energy-intensive activities to off-peak/solar-soak hours.





If 10 million Australians each spend on average \$50k over the next 20 years on new cooling, heating and cooking appliances, retrofitting their homes and business premises to be more efficient, installing rooftop solar, storage and buying an electric vehicle...

That is a **\$500 billion consumer** investment in demand-side opportunities.

We're assuming Australians will make those choices and their consumer energy resources will be successfully integrated.

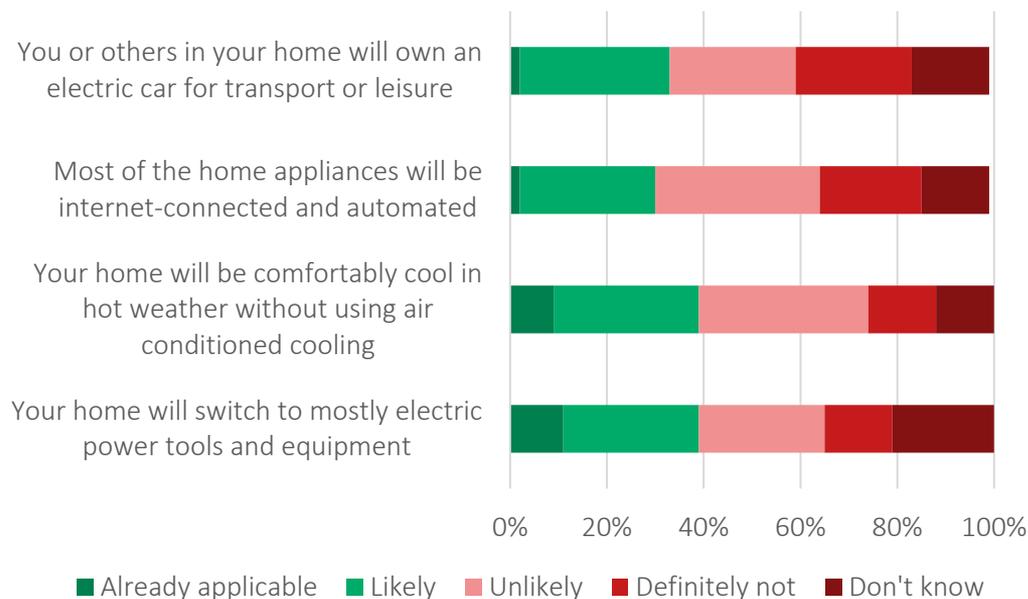
Will they?

Complexity and information deficit limit consumer awareness and action

“There are challenges to engage consumers effectively and many lack the **energy or digital literacy** or **incentive** to respond to further complexity... **Complexity** [is] a key barrier to consumer uptake of **flexibility** products and services, contributing to low levels of **trust** and **engagement**.”

Source: The Health of the NEM 2022

Over the next 5-10 years, how likely do you think it is that the following scenarios will apply to your household?

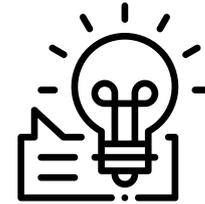


Source: December 2022 Energy Consumers Behaviour Survey.

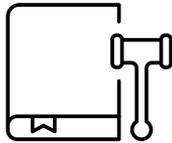
We need to remove barriers and unlock the value for consumer participation and agency



New energy services and markets that work for consumers so they have agency over their own participation



Supporting consumers with **independent and expert advice** and information to make informed choices about energy use

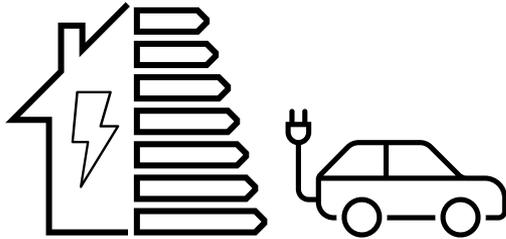


Protecting consumers through rules and regulatory frameworks that ensure their interests are considered



Helping make homes and businesses more energy efficient with **whole-of-system planning, financial incentives, and skilled workforce**

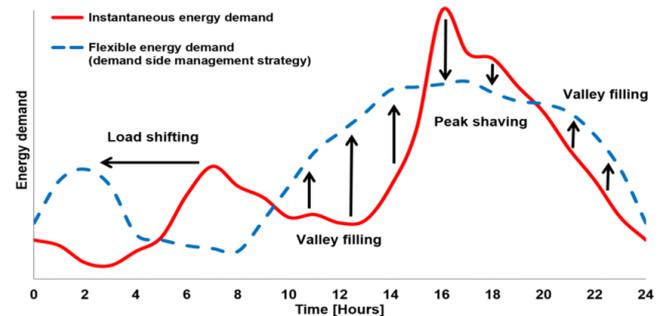
Where we need everyone to get by 2050?



All Australians use electric vehicles and live in energy efficient fully electric homes that are healthy, comfortable, climate resilient and do not lead to unaffordable energy bills.

What some people will need to do with some of their load at certain times?

Reshaping demand means consumers changing some long-established social practices, building new norms for using electricity and at times being adaptive and responsive to match a fluctuating supply.

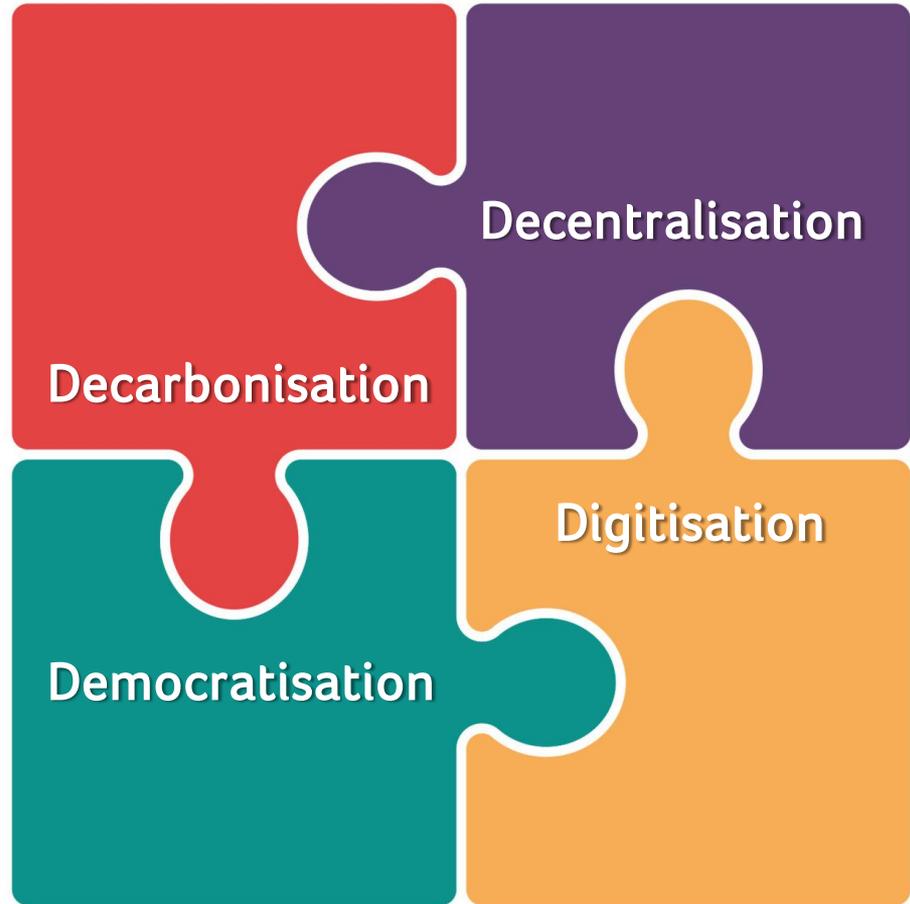


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The system must work for everyone



**Democratisation
of energy is part
of the transition
puzzle too.**



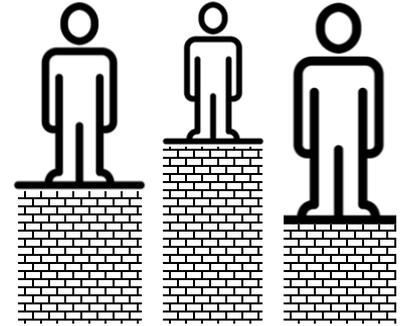
Democratisation of energy is about...



Participatory processes that reflect consumers' diverse needs, values and expectations for the transition ahead



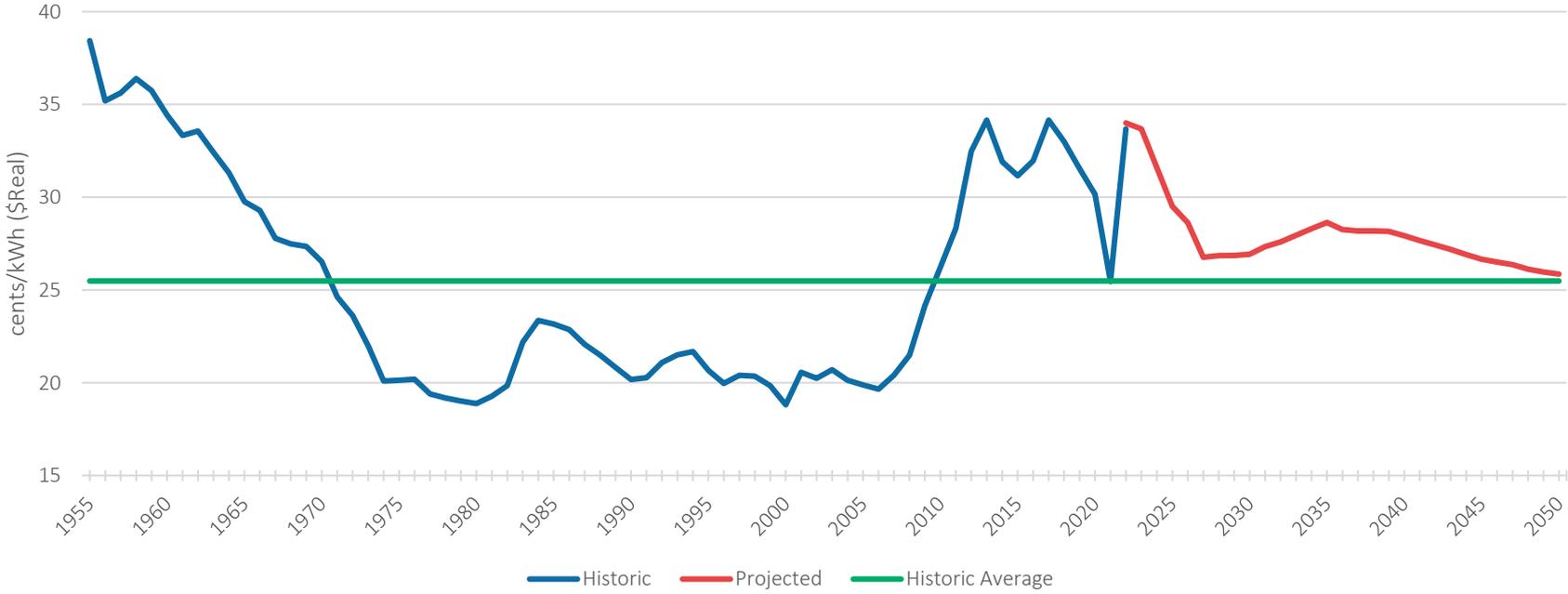
Securing social license by building relationships, developing trust, respecting diversity and engaging communities in the co-design of solutions that address their concerns



Focus on equity – affordable, reliable, and renewable energy for all

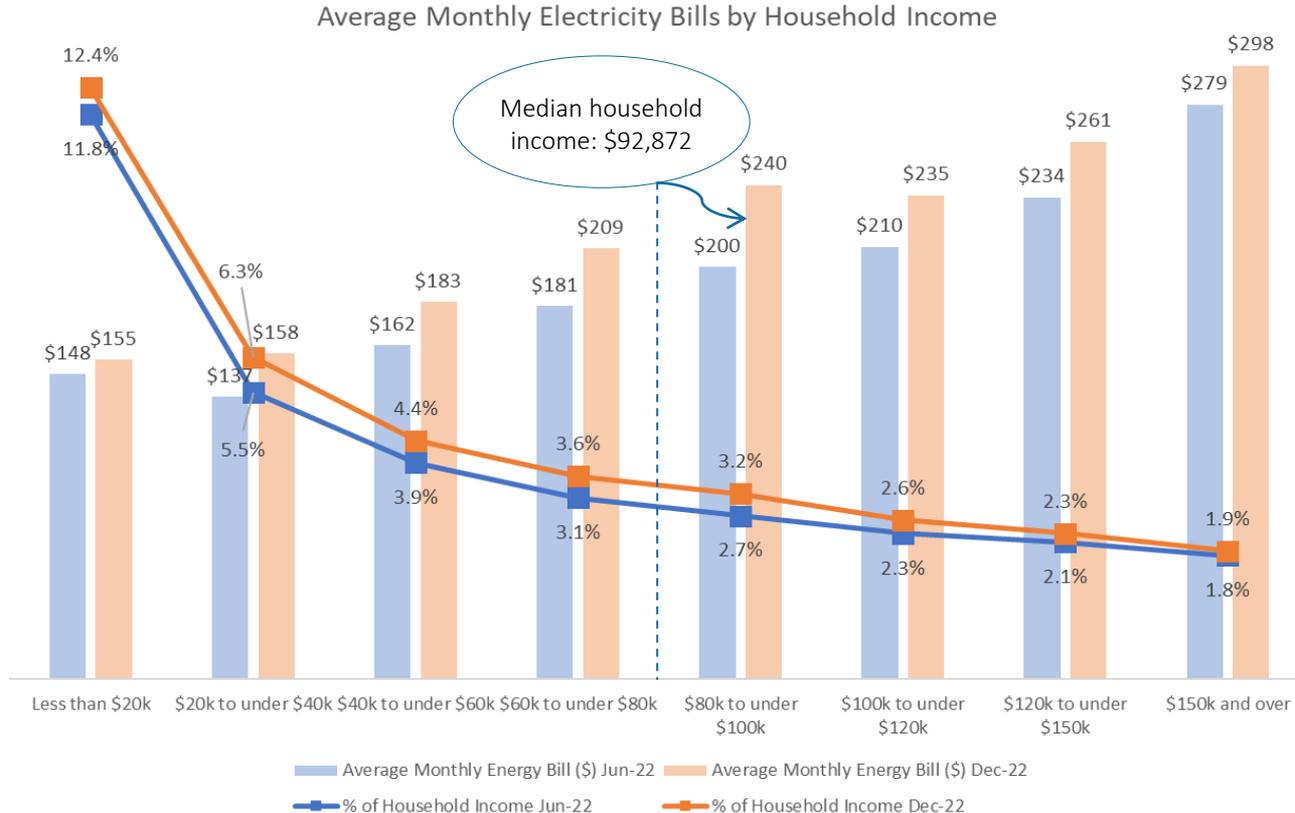
Electricity prices are again rising and will stay above the historic average until 2050

Average Retail Electricity Prices in the National Electricity Market 1955-2050



Sources: 1955-2003: Electricity Supply Association of Australia; 2004-2021, Australian Bureau of Statistics; 2022-2050, CSIRO

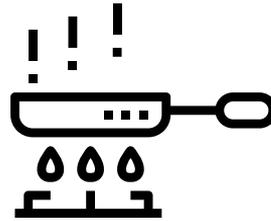
The energy divide is large and widening



An inclusive transition leaves no one behind



Immediate assistance and fit-for-purpose frameworks to support consumers facing barriers to affordable energy and/or in energy hardship



Extending opportunities for electrification to all as we make sure no consumers are left behind in the transition away from gas and petrol to fully-electrified homes, businesses and transportation



A transition to low-energy homes and businesses that reduces waste and ensures all Australians share the benefits of an affordable clean energy future

In conclusion



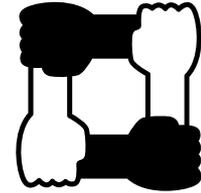
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Not all consumers are the same and our energy system must work for everyone. **Focus on equity, understanding of consumers' diverse needs and cooperation are key.**

So, what's your role in enabling a transition to a more affordable, consumer-focused, integrated, and inclusive energy future?

Thank you!

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About Energy Consumers Australia



A national voice for residential and small business energy consumers.

We work to **understand and ensure consumers have their expectations and needs met** through a modern, flexible and resilient energy system.



We proactively shape a vision for the future, **influence and work with others** to drive change across the energy system to benefit consumers.

We influence the shape of the energy system **now and in the future** by **creating a trusted voice** for residential and small business consumers.

