

Evoenergy Consumer Forum

National Energy Transition ACT Landscape

24 July 2024

- **Technology**
- **Consumers**
- **Regulatory and Funding**
- **ACT – at the forefront**

Technology

Figure 4 A power system with both grid and behind-the-meter energy supply

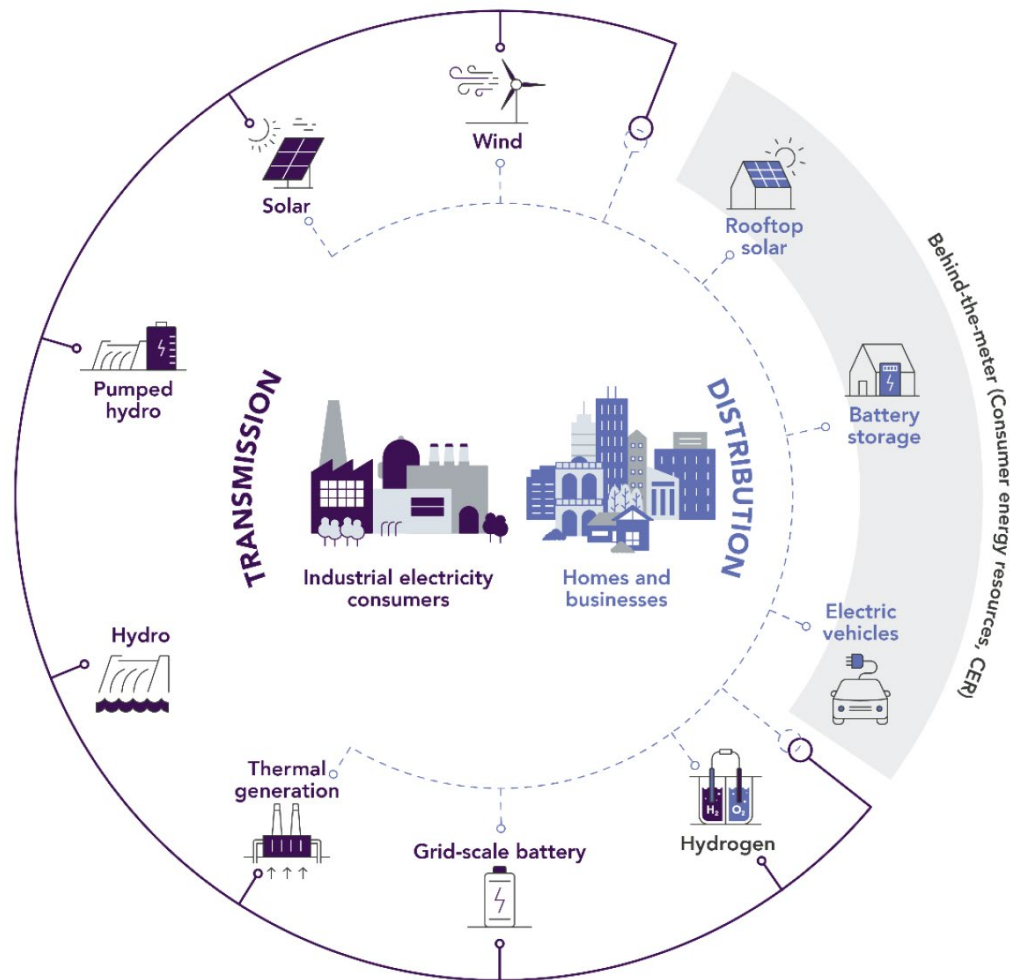
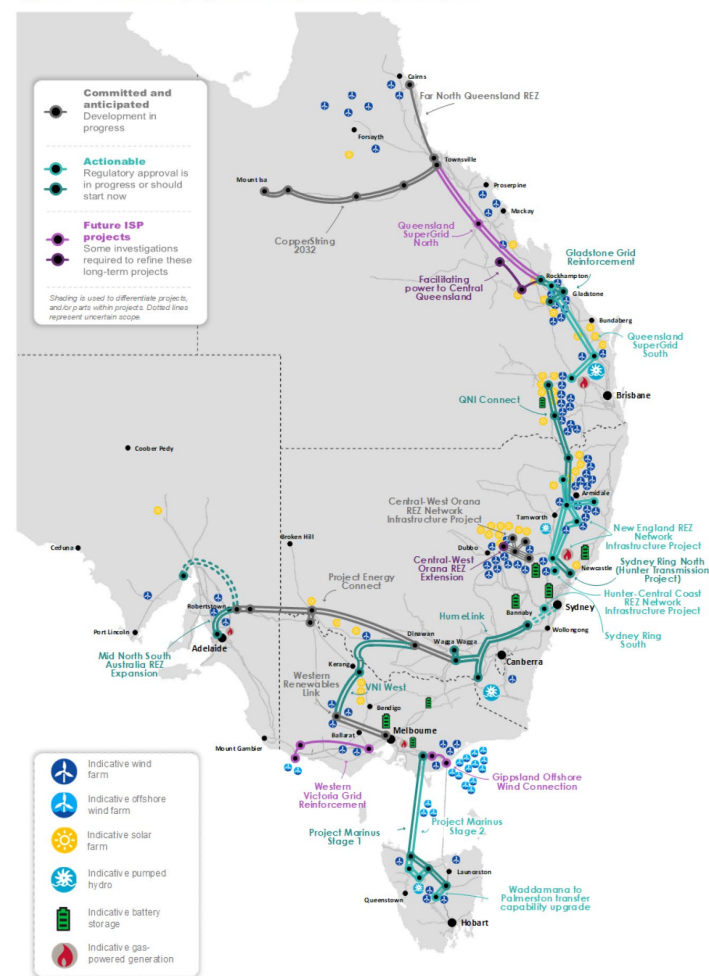
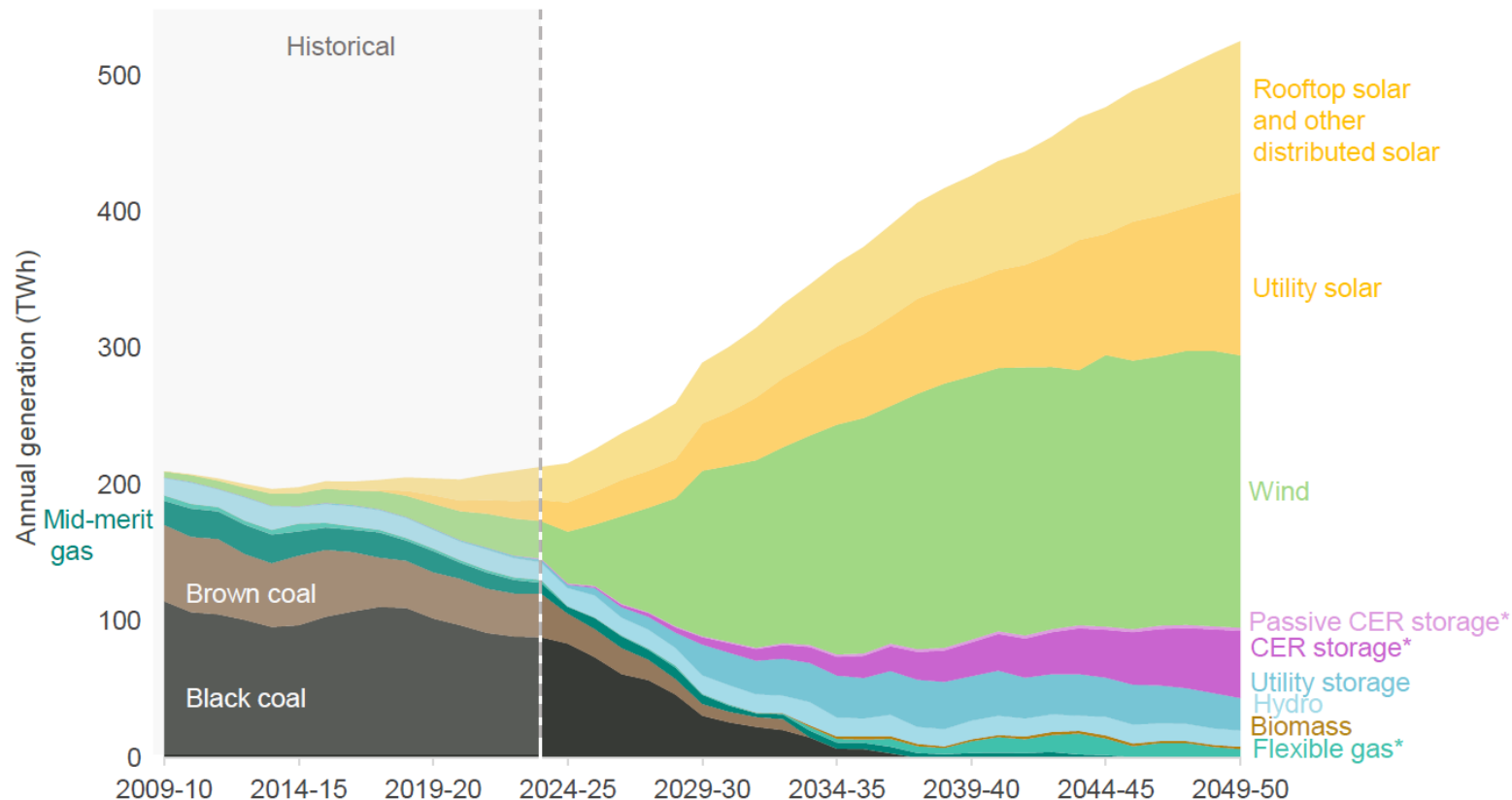


Figure 3 Indicative new generation and storage in 2040, and transmission projects that include new transmission lines, increase capacity by 500 MW or more, and are required in all scenarios by 2050.



This map shows indicative new generation and storage in 2040, and transmission projects that include new transmission lines, increase capacity by 500 MW or more, and are required in all scenarios by 2050.

Figure 9 Generation mix, NEM (TWh, 2009-10 to 2049-50, Step Change)



Notes: Annual generation for 2023-24 has been estimated for the full financial year.

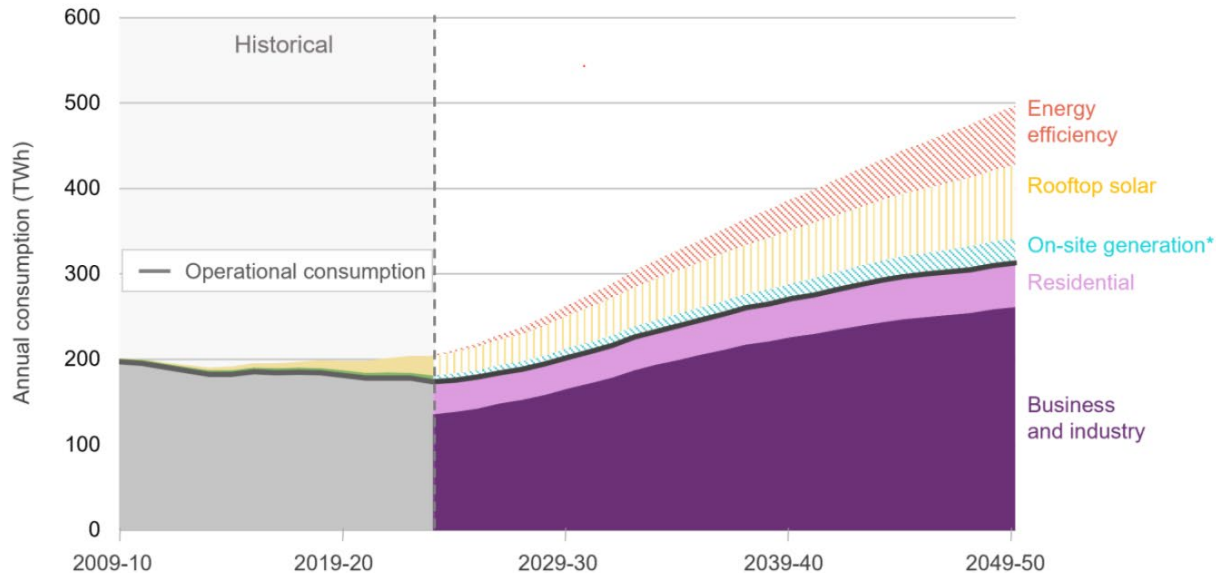
“Flexible gas” includes gas-powered generation and potential hydrogen capacity.

“CER storage” means consumer energy resources such as batteries and EVs.

Future energy consumption

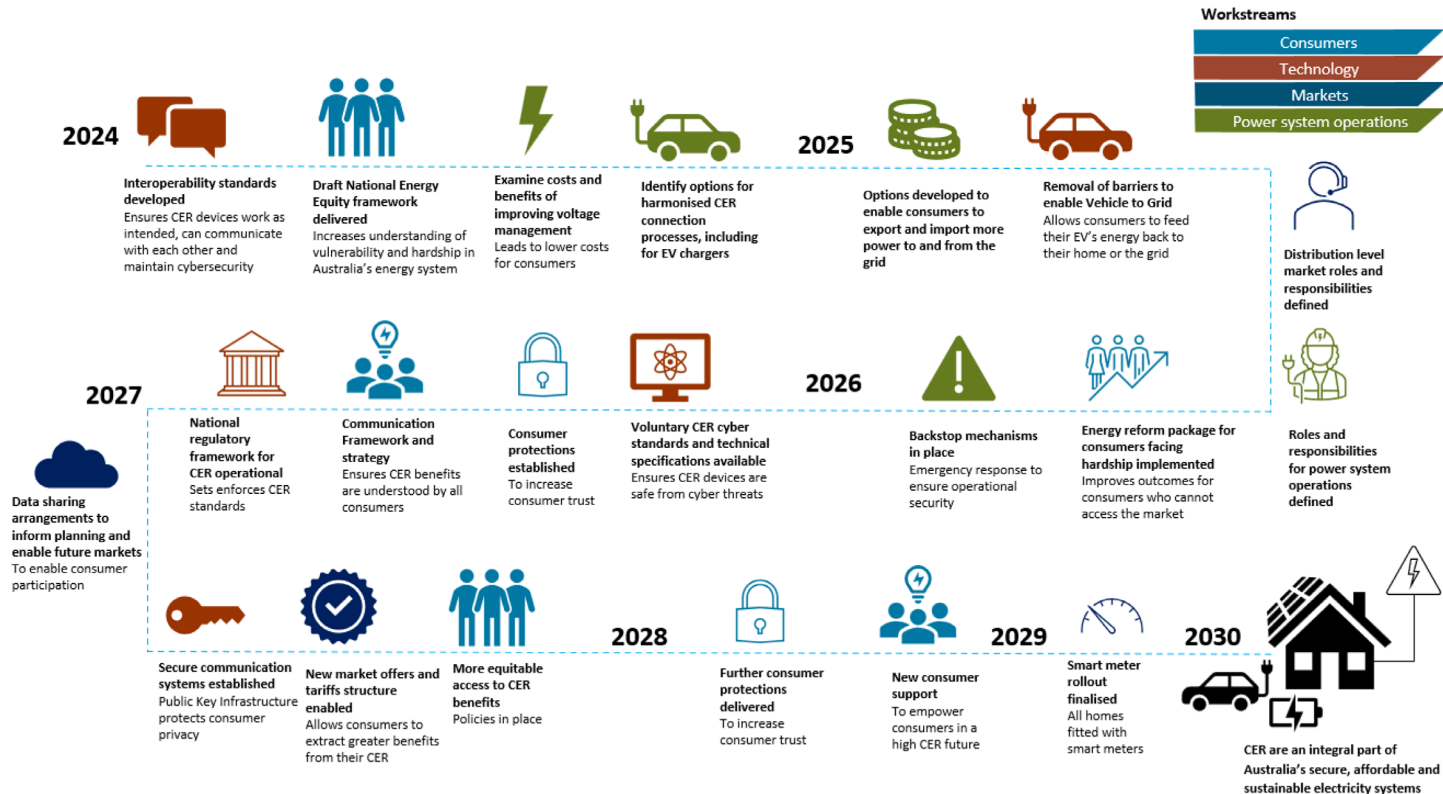
Overall, allowing for continued growth in energy efficiency, electricity consumption across the NEM is forecast to continue rising to over 410 terawatt hours (TWh) in 2049-50: see Figure 5. Growth in residential consumption is significantly offset by the uptake of rooftop solar and energy efficiency. Business consumption grows with the economy, its electrification, and the inclusion of hydrogen loads.

Figure 5 Electricity consumption, NEM (TWh, 2009-10 to 2049-50, Step Change)



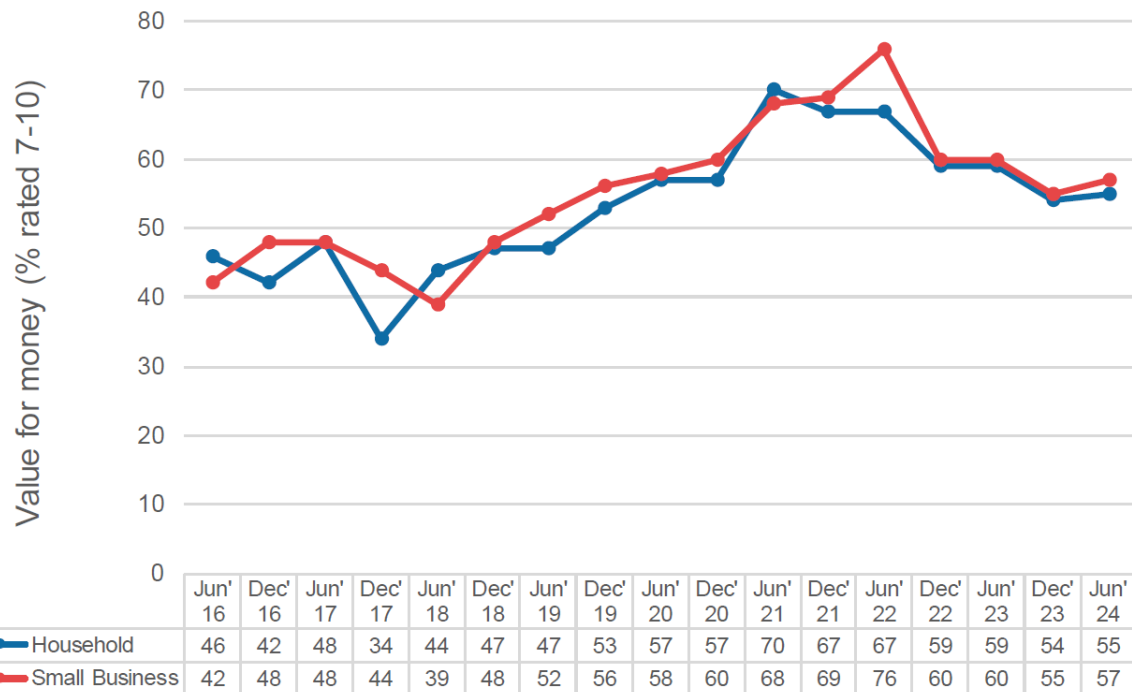
Note: On-site generation (or “non-scheduled generation”) is non-utility generation that includes on-the-ground PV and small wind and biomass, typically for industrial use.

National Consumers Energy Roadmap



Consumers

Value for money for electricity has increased slightly in the past six months but is still considerably lower than two years ago



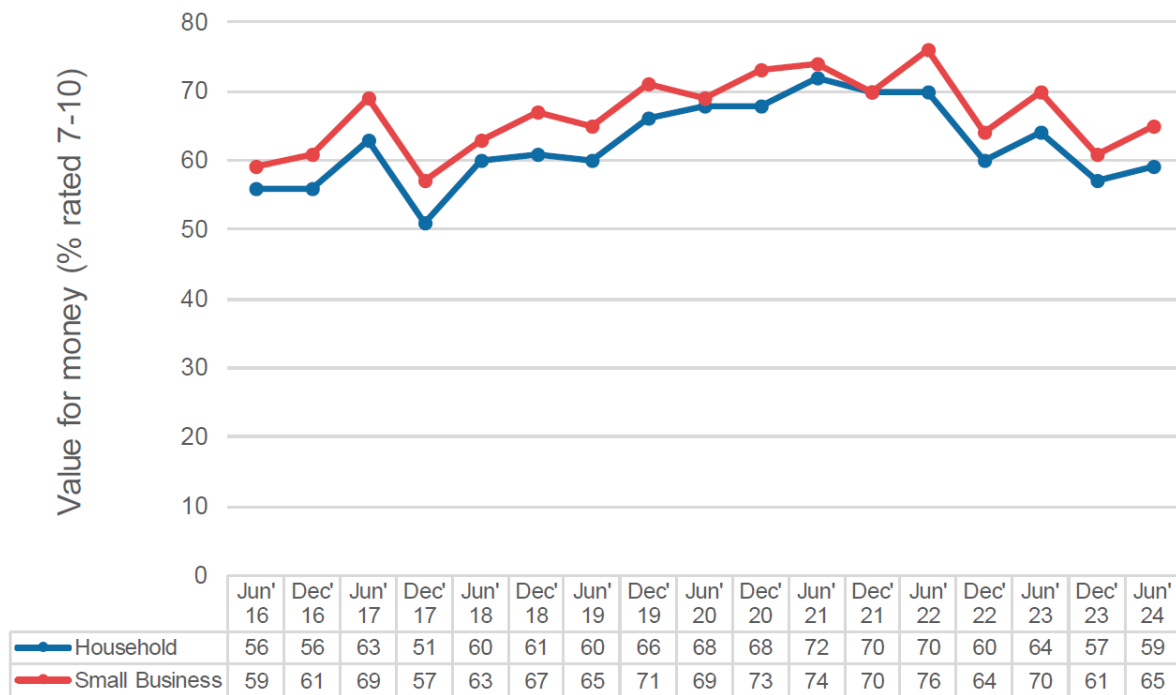
The % of households and small businesses who say their electricity service represents value for money remains low following price hikes beginning in 2022.

Value for money is lowest for households in NSW (52%) and highest for SA (61%), while in WA it has dropped 10 percentage points to 54% in the past year (marking a return to trend for WA after a sharp increase in FY 23/24).

Q: How would you rate the overall value for money of the products and services provided by your electricity company in the past 6 months?

Base size: All households (n=2,121); All businesses (min. n=506)

Value for money for gas also remains low compared to two years ago

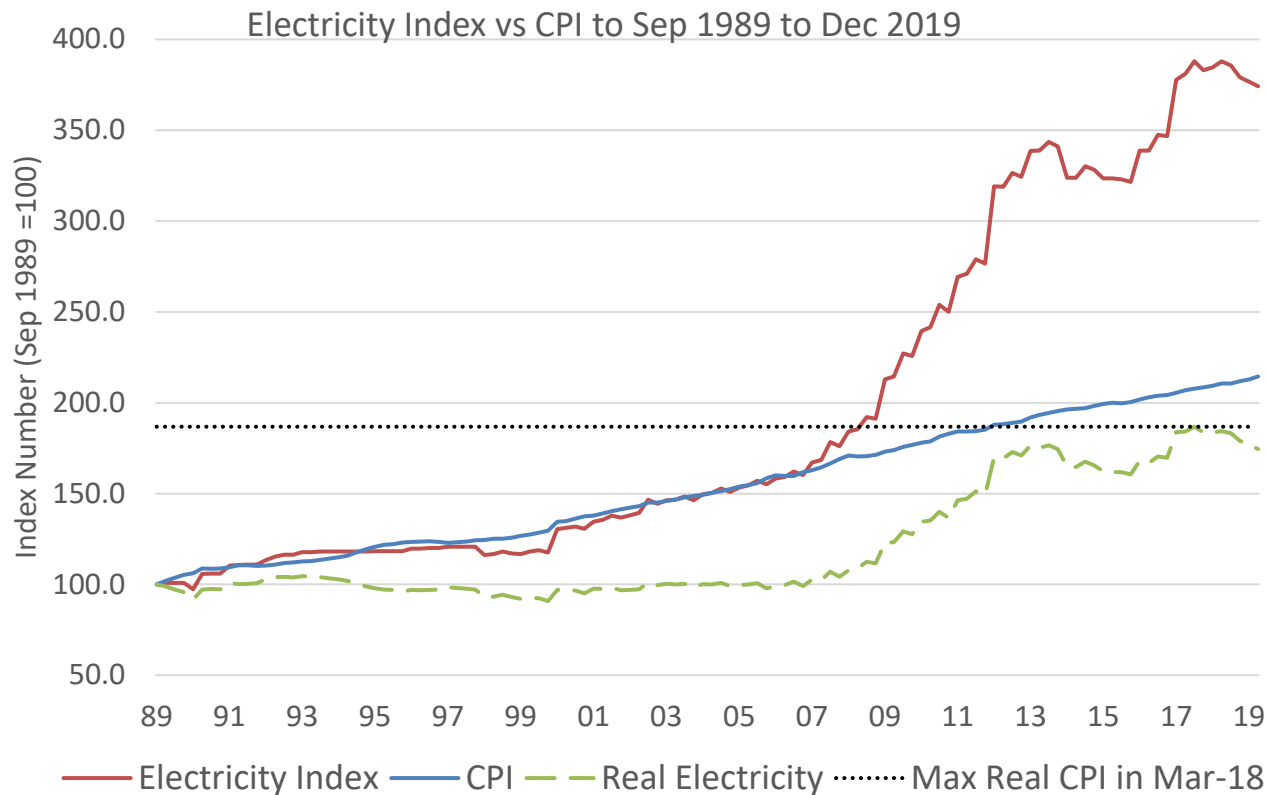


After similar increases to gas prices, value for money for gas services remains low compared to two years ago despite increasing in the past six months.

Despite dropping 9 percentage points, WA still has the highest value for money for gas (71%) while ACT has the lowest, dropping 4 percentage points to just 37%.

Q: How would you rate the overall value for money of the products and services provided by your gas retailer in the past 6 months?

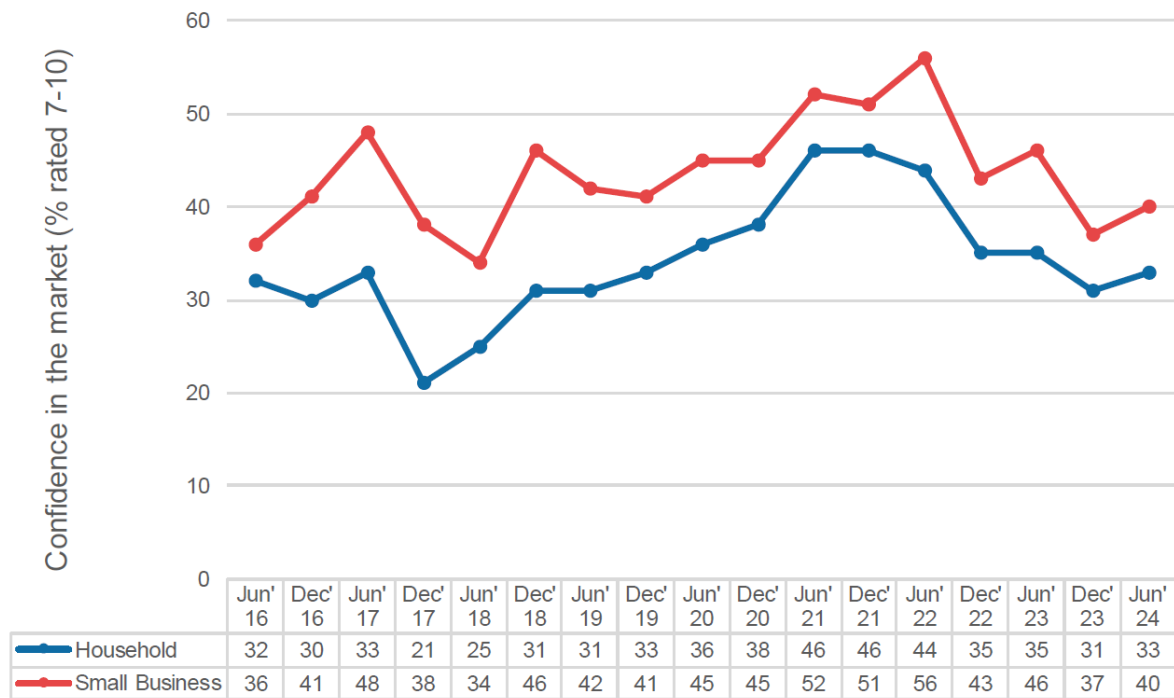
Base size: All households (min. n=1,153); All businesses (min. n=287)



Electricity prices
separated from
CPI in 2007 ...
and have now
turned the corner

Source ABS 6401.0

Confidence in the market has declined in previous years alongside value for money



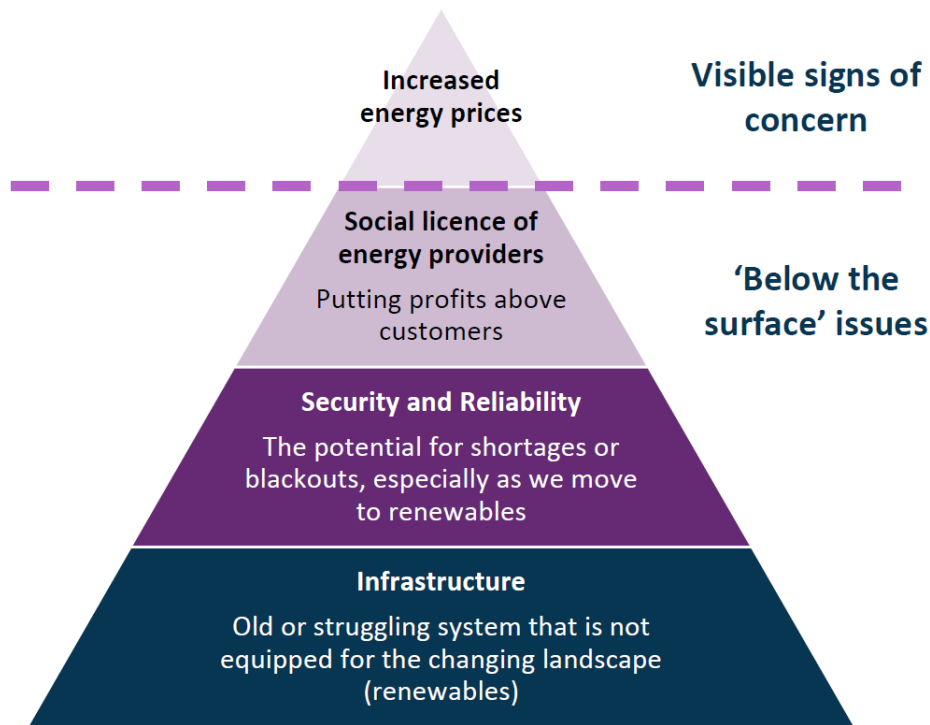
Household and small business confidence that the energy market is working in their long-term interests also declined following the events of 2022. While we have seen a slight uptick in the last six months it remains low for all households at 33%.

Consumers who identified as being under financial pressure are even less likely to feel confident (20%) compared to those who say they are financially comfortable (42%).

Q: How confident are you that the overall market is working in your long-term interests? By 'the market' we mean, the energy industry and energy regulators.

Base size: All households (n=2,121); All businesses (min. n=506)

Australian consumers are concerned about the state of the energy market, with increased costs a sign of a struggling system



The immediate perception of the Australian energy system is that it is broken and not fit for purpose – either now or in the future.

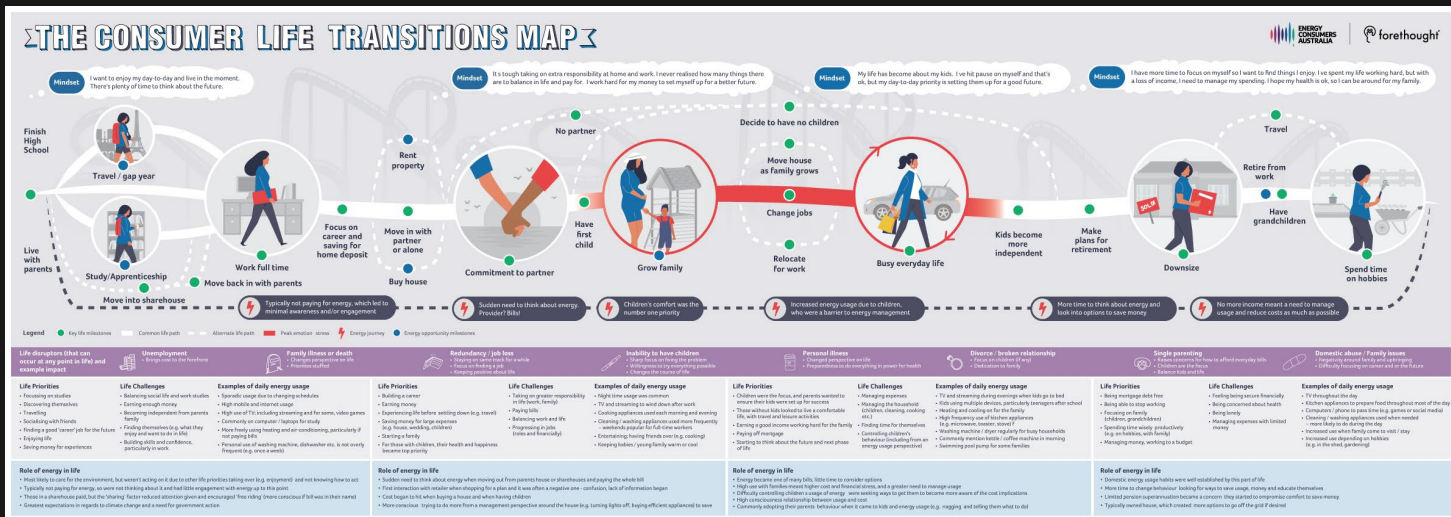
The significant increase in energy prices is a visible sign of the concerning state of the energy market. Unlike financially pressured consumers, general consumers and small business owners are yet to feel the impact of the price increases, however, all consumers are aware and concerned for the reported impending increases.

This visible sign, however, triggers a broader range of concerns among consumers of what may be going on within the system that is not visible to them. These concerns range from how prices are being set by providers and if price gouging is occurring, to concerns of reliability and the aging infrastructure of our energy system.

INTRODUCING THE...

THE CONSUMER LIFE TRANSITIONS MAP

A ZOOMED OUT VIEW:



READING THE MAP...



Key life milestones



Common life path



Alternate life path



Peak emotion / stress



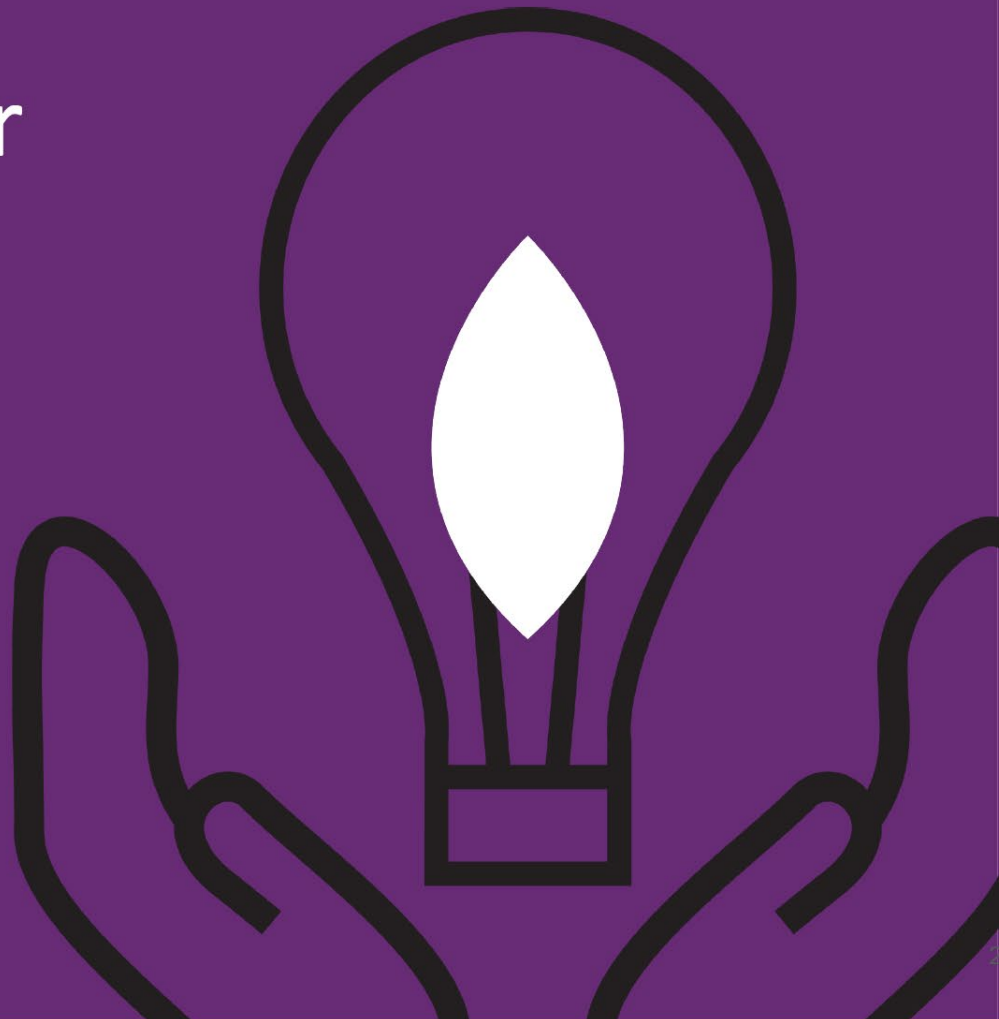
Energy journey



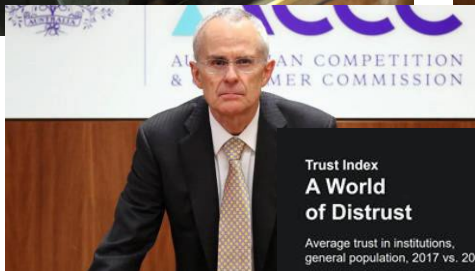
Energy opportunity milestones

Changing Behaviour

- Households typically use energy during the day to run the washing machine (49% of households with appliance), the pool pump (46%), and the clothes dryer (37%). Air conditioning (for heating and cooling) is mostly turned on in the evening (both 34%). EVs and electrical appliances are typically charged overnight (48% and 39% respectively).
- 31% of households who charge electrical appliances during peak times say it would be very easy to switch their usage to off-peak times. Around one quarter also said it would be very easy to switch usage times for their washing machine, dishwasher and clothes dryer. Air conditioning usage is seen as the most difficult to change, with 36% saying it would be quite or very difficult to switch for cooling and 34% for heating purposes.
- Just 12% of households say they would definitely use smart devices to control energy use in the future. 27% say they probably would and 31% are on the fence.



The community feedback keeps coming



Commissioner Mr Kenneth Hayne AC QC
Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry

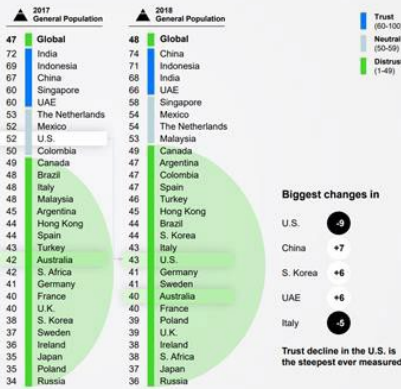
Trust Index A World of Distrust

Average trust in institutions, general population, 2017 vs. 2018

Global Trust Index remains at distruster level

20 of 28 countries are distrusters, up 1 from 2017

Source: 2018 Economist Trust Barometer. The Trust Index is an average of a country's trust in the institutions of government, business, media and NGOs. General population. Quarterly global total.



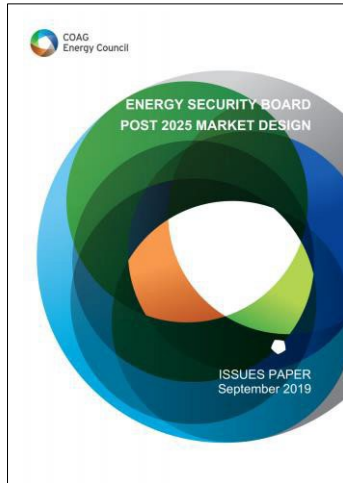
Australian Government

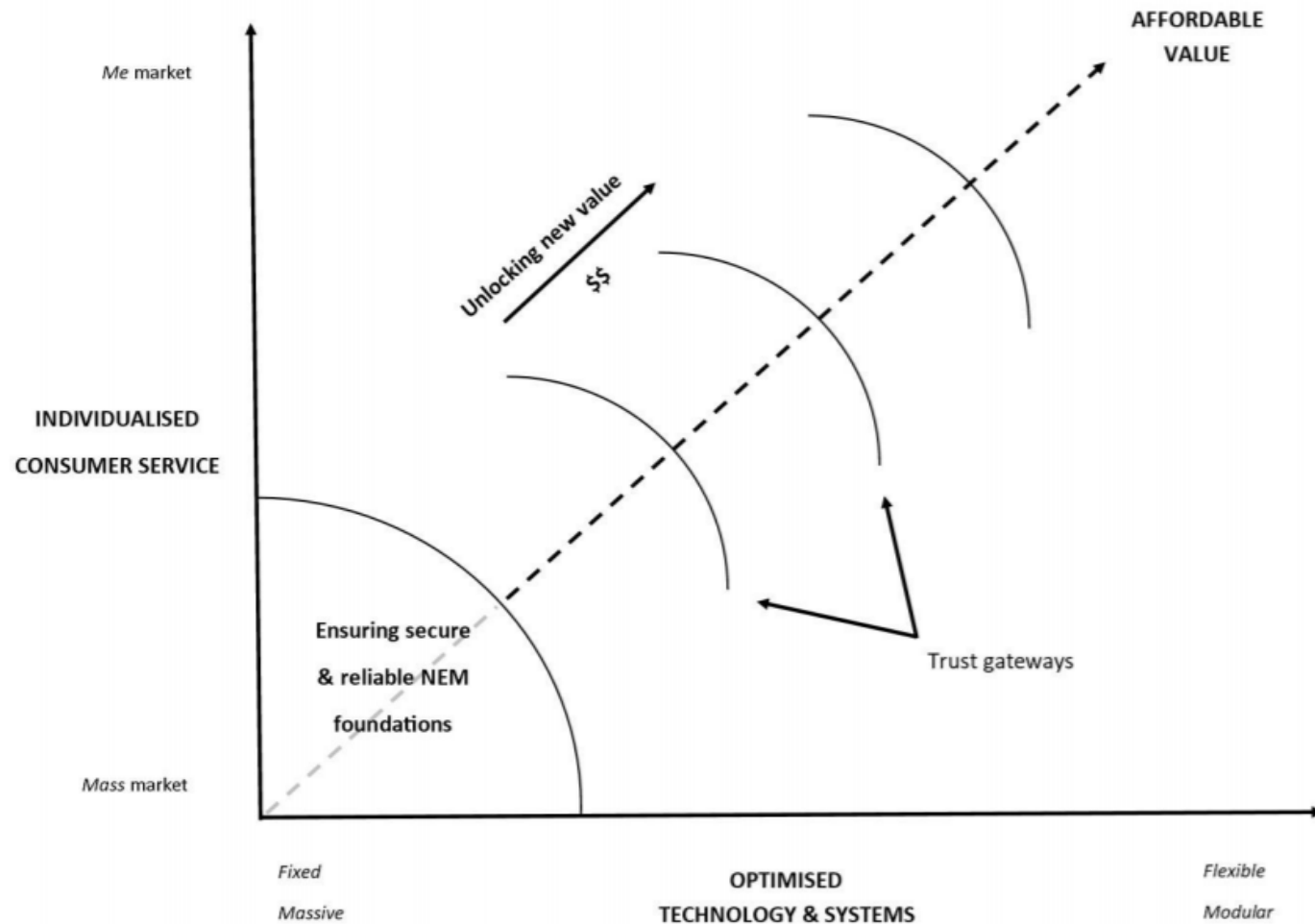
Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability

Regulatory Concepts and Funding



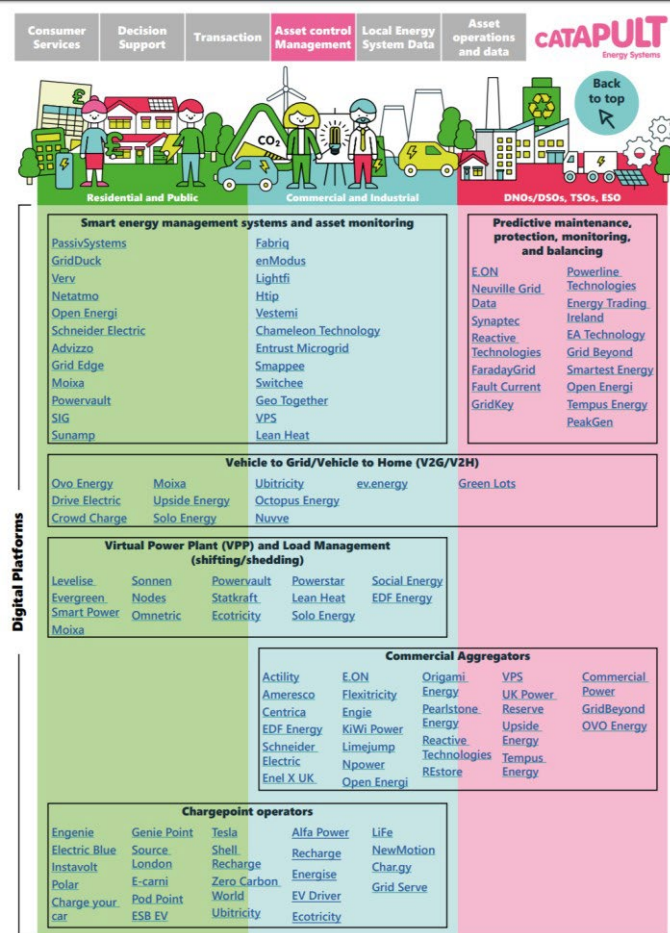
Out of date market designs? Is the task just to update to reflect new systems and incentivise new behaviours?





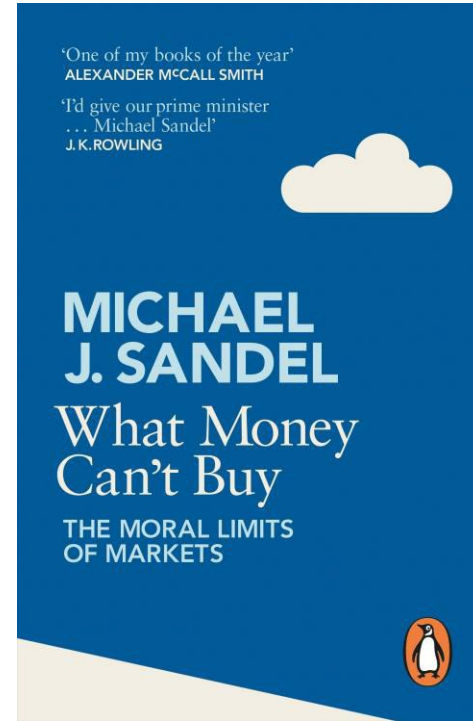
Fit for purpose? Are energy regulatory frameworks ready for the 'two-sided market'?

Is the next airbnb on this list?

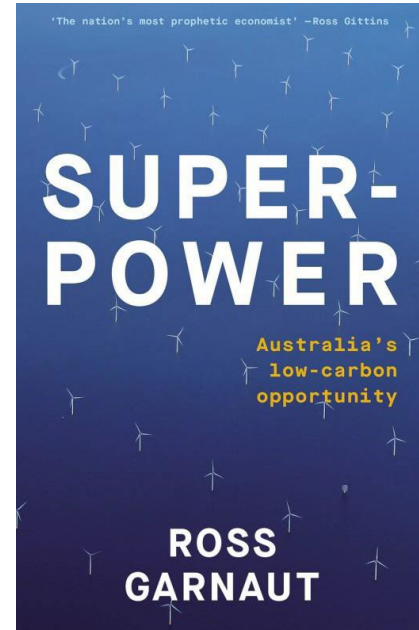
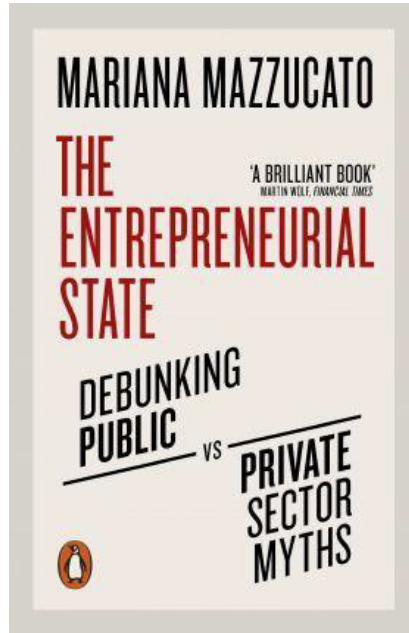
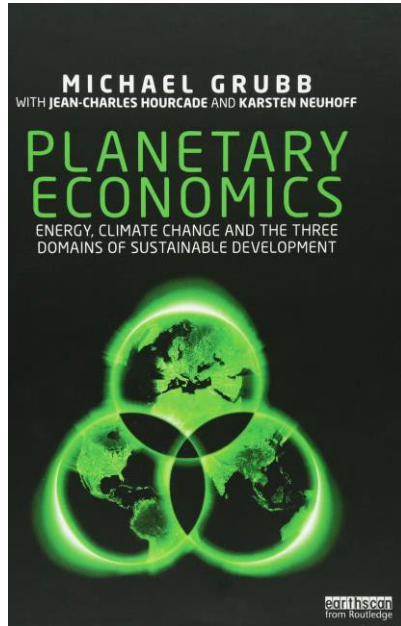


A bridge too far? Are some services not amenable to markets?

“Today, the logic of buying and selling no longer applies to material goods alone but increasingly governs the whole of life. It is time to ask whether we want to live this way.”



Are there missing markets? A role for government to drive transformation?



A New Energy Compact? Hot on the heels of Tim Berners-Lee ...



Opinion

I Invented the World Wide Web. Here's How We Can Fix It.

I wanted the web to serve humanity. It's not too late to live up to that promise.

By Tim Berners-Lee

Mr. Berners-Lee is a co-founder of the World Wide Web Foundation.

Nov. 24, 2019



Wren McDonald

CONTRACT
FOR THE WEB

5.5 High level timeline



ACT at the Forefront

- Government Policy
- Technology accelerating
- Consumer support

Transition is Now in ACT

- New problems
- New Thinking

Partnering

- Risks
- Costs
- Benefits

Conversations

Trust