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#### Energy Consumers Australia Submission to the Electricity and Energy Sector Plan

Energy Consumers Australia appreciates the opportunity to provide comment on the Electricity and Energy Sector Plan Discussion Paper. Our full submission responding to the questions asked in the Discussion Paper is attached.

Energy Consumers Australia represents residential and small business energy users, advocating for a future Australian energy system that works for, and benefits, the households and small businesses who use it.

We welcome the objectives and purpose of the Electricity and Energy Sector Decarbonisation Plan; in the past we have seen additional and unnecessary costs added to energy bills because of a lack of coordination of Australian energy policy. And we strongly endorse the commitment in the Plan to coordinate across other sectoral decarbonisation plans.

Australian consumers have consistently indicated their support for renewable energy. They want the future energy system to be affordable, simple, easy to manage, clean and fair.

However, they are also telling us that they are finding it difficult right now. They're facing a higher cost of living and greater numbers of households and small businesses are reporting being under financial pressure. Energy prices are a critical stressor.

At the same time, decision-making about energy is becoming more complicated – new technologies and market arrangements provide opportunities for people to manage and minimize their energy bills, but they're struggling to find trusted advice.

Achieving a net zero energy system plan in Australia requires the <u>active and willing</u> assistance of every one of those households or small businesses to support the transition: to improve the energy performance of their homes and business premises, including by investing in all-electric homes and vehicles, as well as to bear the substantive system costs of transitioning away from fossil fuels. Most people support the energy transition, but they need more help from government, and are looking to government to take the lead.

Our submission outlines a number of recommended actions to be considered within the plan, but I want particularly to single out three urgent priorities.

The first is that the Government commit funding for the creation of a One Stop Shop to help consumers navigate the transition. We see this as the easiest and most cost-effective way to cut through the noise – the barrage of confusing information that is currently overwhelming people. The business case for a One Stop Shop is clear, and its potential value is significant – to help people undertake what will be complex, disruptive and expensive changes to their homes, as well as to deliver overall system benefits. Our submission accordingly begins with an outline of the value and potential models for delivering that assistance.

Second is the need for policy and regulatory reform. There has been substantial work done to ensure reliability and security of supply in the transition away from fossil fuels, but we have not undertaken the same depth of analysis and research to understand how energy performance - energy efficiency, fuel switching, load shifting and behaviour change - can support the energy transformation and reduce hills

We must address problems in the current governance framework underpinning National Energy Market decision-making, where the billions of dollars invested by consumers in renewable energy assets already are not being fairly rewarded in the market, and energy efficiency is not being adequately recognised. We have therefore sought the establishment of an overarching demand-side objective requiring decision-makers to prioritise energy efficiency.

And we have to ensure that the consumer protections framework is fit-for-purpose and providing people with the confidence to make decisions. Australians need robust and effective price protection and effective tools to navigate the market to empower them to make decisions, and ensure they are confident that they can find effective redress and external dispute resolution where they encounter problems. The framework should be built to accommodate the diversity of consumer preferences, values and needs, and with a firm goal that no one should be left behind in the transition, and that those who need help the most, can receive effective assistance.

The final priority is the need to actively build social licence for reform. The Australians most confident in the energy transition are those who feel they understand the need for change, what they need to do, and where they can get help. We encourage the Government to work with jurisdictions through the Decarbonisation Plan to build a unified narrative for consumers, to ensure all Australians feel that confidence. We believe that a critical step in securing that support is through providing Australians with a guaranteed right to access affordable, reliable and clean energy, codified in Australian law.

Energy Consumers Australia is as always happy to work closely with the Australian Government on the Electricity and Energy Sector Decarbonisation Plan, and on how we can support implementation of the actions outlined in detail in our submission.

For any questions about our submission, the best first point of contact is Kerry Connors, Director, Energy Inclusion at kerry.connors@energyconsumersaustralia.com.au.

Yours sincerely

Dr Brendan French Chief Executive Officer

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# **Submission to the Electricity and Energy Sector Plan**

April 2024





ENERGY CONSUMERS AUSTRALIA

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#### LIST OF RECOMMENDATIONS

Energy Consumers Australia makes the following recommendations in response to the questions posed in the Electricity and Energy Sector Plan Discussion Paper – the full rationale for each is outlined in the submission.

#### Supporting consumers through the energy transition

Recommendation 1: That the Commonwealth Government provide funding for the creation of a One Stop Shop to help consumers navigate the transition.

### Mobilising households' and small businesses' investment to transform energy

Recommendation 2: That the Commonwealth Government coordinate a new national partnership to support consumers' uptake of Consumer Energy Resources to realise the Integrated System Plan assumptions.

Recommendation 3: That the Government provide equitable access to Consumer Energy Resources to access the wholesale energy market and the Capacity Investment Scheme.

Recommendation 4: That the Australian Energy Regulator require distribution network service providers to develop and offer optional dynamic network tariffs.

Recommendation 5: That the Commonwealth Government deliver a clear, unified narrative on the energy transition, including the role for consumers.

#### Enabling electrification for a smooth transition

Recommendation 6: That the Commonwealth Government establish an overarching demand-side objective requiring decision-makers to prioritise demand-side resources.

Recommendation 7: That the Commonwealth Government reform National Energy Market governance to incentivise demand flexibility.

Recommendation 8: That Energy Ministers remove the distinction between electricity and gas consumers in legislation.

Recommendation 9: That all distribution networks are required to publish biannual plans that identify consumer energy resources (CER) opportunities for inclusion in the ISP, with common assumptions across gas and electricity.

Recommendation 10: That governments phase out new connections to the gas network for residential and small business premises.

Recommendation 11: That the Commonwealth Government provide tailored support for consumers who face financial or structural barriers to transitioning off fossil fuel gas in their homes and businesses.

Recommendation 12: That governments develop a plan to ensure the safe and orderly transition of the gas network in a way that does not leave a high financial burden or unsafe service for the last households using the gas network.

Recommendation 13: That the Commonwealth Government make clear that 'green gases', such as green hydrogen and biomethane, are not a viable alternative for households or most small businesses.

#### Building Australia's clean energy workforce

Recommendation 14: That the Commonwealth Government's strategy for workforce development also addresses skills shortages at the local level, to support people to improve the energy performance of their homes and small business premises.

#### Maximise outcomes for people and businesses

Recommendation 15: That Energy Ministers mandate robust price protection and provide effective tools to navigate the market.

Recommendation 16: That Energy Ministers reform the consumers protections framework to ensure it is fit for purpose in the future energy market.

Recommendation 17: That Energy Ministers collaborate to ensure consumers can easily access free and independent external dispute resolution and the Ombudsmen's jurisdiction is expanded to include all energy services.

Recommendation 18: That Energy Ministers improve incentive and assistance measures to address the barriers faced by consumers.

This section also recommends the following specific measures:

Culturally and linguistically diverse (CALD) consumers

- That the Commonwealth Government fund a pilot mobile Community Energy Hub in Western Sydney.
- That the Australian Energy Council and the Australian Energy Regulator (AER) partner with culturally and linguistically diverse (CALD) community groups to improve the quality of information and assistance for CALD consumers.
- Federal, State and Territory governments to advance housing reforms to improve the energy efficiency of all Australian homes.
- All three levels of government to provide practical and targeted assistance to help decarbonise and lower energy bills, particularly for those least able to do it on their own.

Addressing financial barriers to CER and home energy upgrades

 That the Commonwealth Government expand the Household Energy Upgrades Fund and align with other programs that target consumers' different levels of ability to pay. This should include:

- Enabling free or low-cost finance options to help households improve their energy performance and access CER.
- Grants or subsidies targeted to those least able to afford to improve their energy performance and access CER.

#### Small business

 That Commonwealth, State and Territory governments co-design with small businesses practical financial assistance to support their energy transition.

#### **Tenants**

- That State and Territory governments mandate minimum standards of energy efficiency for rental households and ban the rental of properties below minimum standards from 2027.
- That the Commonwealth Government work with other jurisdictions to consider the design of incentive mechanisms that preclude using improved energy performance to increase rents.

#### Social Housing

 That all governments set clear targets for energy efficiency upgrades for all social and community housing, that prioritises the upgrade most likely to deliver lower bills and better amenity to residents as a priority.

#### Low income

 That the Commonwealth Government increase income support for low-income households and consider a social tariff that removes cross-subsidies.

#### First Nations

- That Energy Ministers commit to ensuring that all Australians have access to critical consumer protections, regardless of their income, personal circumstance, supply arrangement, or location.
- That the AER is provided with the mandate to track significant measures of energy hardship for all Australians.

#### Embedded network residents

- That governments expand consumer protections to the equivalent of what on market customers receive, where practical and applicable.
- That governments develop an effective compliance and monitoring framework.

Recommendation 19: That governments work directly with communities to develop place-based approaches and effective benefits-sharing to maintain social licence with respect to transmission infrastructure.

#### Other gaps in Australia's energy sector decarbonisation policy

Recommendation 20: That governments secure social licence for the energy transition by providing Australians with a guaranteed right to affordable, reliable and clean energy.

Recommendation 21: That the Electricity and Energy Sector Plan set tangible, measurable and consumer focused targets.

**Energy Consumers Australia** 

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Recommendation 22: That the Commonwealth Government review all relevant legislation and rules that are creating barriers to action for consumers.

Recommendation 23: That the Commonwealth Government engages with all levels of government to identify and scale up best practice local government and jurisdictions' programs that provide effective support to consumers in the energy transition.

# CUTTING THROUGH THE NOISE: THE CASE FOR A ONE STOP SHOP

Energy Consumers Australia has been advocating for governments to provide proactive, targeted and accurate assistance to households and small businesses through a One Stop Shop.

People have consistently told us that they are finding the decision-making environment overwhelming – it is confusing, overly complicated, and they are not sure who to trust.

We see this model as providing significant potential benefits to individual households and small businesses, as well as supporting the transition to a net zero energy system.

The following outlines the various benefits of a One Stop Shop – we have provided this as a separate section to our submisison to the Plan as we see this model supporting the Electricity and Energy Sector Plan in various ways.

#### Why a One Stop Shop needs to be established now

In today's environment of high energy prices, increasing complexity, low trust in industry and time poor households and businesses, we are not providing consumers with the support to transition away from fossil fuels.

Australians are currently facing a cost-of-living crisis. Energy prices have increased more than other essential services, with electricity prices increasing by 124% and gas prices by 145% since 2008. This is contributing to the growing energy divide, with those on the lowest incomes telling us they pay 13.6% of their income on energy.

At the same time, decision-making about electricity is becoming more complex. New and emerging technologies, smart devices, consumer energy resources (e.g. rooftop solar and batteries) and market arrangements are rapidly changing the landscape and altering the choices facing consumers. These technologies and market developments are providing different ways for consumers to manage their energy, and so their bills. But they are also contributing to an increasingly complex set of choices that consumers must make in relation to how they use electricity.

In addition, households and small businesses will need to do much of the heavy lifting to achieve Australia's carbon emissions reduction targets by electrifying their homes and business premises. The Australian Government has committed to a carbon reduction target of 43% emissions reduction by 2030 and a target of net zero by 2050, enshrining this in law. To achieve this, over the next two to three decades:<sup>2</sup>

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<sup>&</sup>lt;sup>1</sup> Energy Consumers Australia analysis of ABS Consumer Price Index Data

<sup>&</sup>lt;sup>2</sup> See Energy Consumers Australia, <u>Stepping Up: A smoother pathway to decarbonising homes</u>, August 2023.

- Around 4.3 million households in the National Energy Market who are currently connected to the gas network need to switch their hot water, space heating and cooking appliances from gas to electricity
- 15 million passenger vehicles need to be swapped for electric vehicles
- Millions of homes will need to be renovated to improve their energy performance to manage higher electricity use and so bills.

Electrification of households and small businesses over coming years has already been factored into the Australian Energy Market Operator's Integrated System Plan (ISP) – its roadmap for how the national electricity market will develop over the next twenty years.

The scale of the change required at the household and small business level is unprecedented, and needs to be delivered in the context of not only high prices and complexity, but low trust: 69% of households do not feel confident that the energy market is working in their long-term interests. Many households and small businesses will be unable to make the necessary changes on their own. A coordinated and proactive approach to supporting consumers across Australia is required.

Providing that assistance is integral to a successful energy transition, but we are concerned that the current approach will fall short. Consumers are provided with information in a haphazard, limited and confusing way, leaving it up to them to navigate multiple sources, identify what is relevant, how they can use it to make decisions that suit them and, critically, it relies on consumers acting on those decisions.

#### Creating a One Stop Shop

A One Stop Shop is needed because there is a fundamental gap in the current mechanisms supporting consumers to make energy decisions, which becomes more important as we transition to a net zero economy.

Implemented properly, a One Stop Shop will:

- Help consumers reduce their energy bills and electrify their homes and small businesses.
- · Help achieve national carbon emissions reduction targets.
- Introduce new jobs in a transitioning sector.

A One Stop Shop will also contribute to improved outcomes in the energy sector, including:

- Supporting consumers to transition away from fossil fuels and, in doing so, help realise the assumptions in the electricity system operator's Integrated System Plan in respect of consumer uptake of rooftop solar, batteries and electric vehicles.
- Helping manage electricity demand, and so reduce pressure on the national grid.
- Supporting customers as new energy policies are implemented, such as the accelerated roll-out of smart meters in Queensland, NSW, ACT, South Australia and Tasmania.

<sup>&</sup>lt;sup>3</sup> Data from Energy Consumers Australia's <u>Energy Consumer Sentiment Survey</u>, December 2023.

#### Consumers need practical support, not just information

To deliver an equitable transition to a low carbon energy system, we need a fundamental change in the way that we support consumers to make decisions about energy in their homes and businesses. Households need the right information, at the right time, from a trusted source, that is clear, and in their language, to empower them to make decisions that are right for their situation.

Research commissioned by Energy Consumers Australia found that, despite high levels of concern about rising energy bills, half of household energy consumers have not actively searched for information that may assist them.<sup>4</sup> Of the consumers that had looked for information on reducing their energy use and bills, many found it hard to source the information they were looking for (43%), and too often the information they could find was neither relevant nor easy to understand. In addition, household energy consumers reported that the information about energy they were receiving was often not from organisations or channels that they trust.

A number of other recent studies<sup>5</sup> also demonstrate that current arrangements to inform and assist consumers are not fit-for-purpose and do not enable effective decision-making for consumers in respect of their energy bills, appliance choices and usage.

There is an information deficit today and while measures to increase consumer awareness and literacy will help, this is likely to be only one part of the overall solution. With the increasing complexity and interrelatedness of decision making, consumers need practical and tailored advice and support to confidently be able to make decisions affecting the way they use energy.

Existing arrangements often focus on expanding consumer awareness and information but place the onus on the consumer to follow through and make the decision. In a market where there is low trust and increasing complexity, this approach is unlikely to be successful. A recent survey<sup>6</sup> we conducted clearly demonstrates the failure of current consumer engagement

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<sup>&</sup>lt;sup>4</sup> Energy Consumers Australia, <u>Household Energy Consumer Information Research</u>, November 2023.

<sup>&</sup>lt;sup>5</sup> See, for example: Australian Energy Foundation, Effective Energy Consumer Advice Models, August 2022; Frederiks, E.R., Stenner, K., and Hobman, E.V. Household energy use: Applying behavioural economics to understand consumer decision-making and behaviour, Renewable and Sustainable Energy Reviews, Volume 41, pp 1385 – 1394, 2015; Nicholls, L., Arcari, P., Glover, A., Martin, R., and Strengers, Y. Engaging households towards the future grid: Experiences, expectations and emerging trends, March 2019; Nicholls, L., & Strengers, Y. Peak demand and the "family peak' period in Australia: Understanding practice (in)flexibility in households and children. Energy Research and Social Science, Volume 9, pp. 116-124, 201; Strengers, Y., Nicholls, L., Glover, A., Arcari, P., and Martin, R. Engaging households towards the future grid – An engagement strategy for the energy sector. Monash University, 2019; Thomas, J., Barraket., J., Parkinson, S., Wilson, C., Holcombe-James, I., Kennedy, J., Mannell, K., Brydon, A. Australian Digital Inclusion Index: 2021. Melbourne: RMIT, Swinburne University of Technology, and Telstra, 2021.

<sup>&</sup>lt;sup>6</sup> Energy Consumers Australia, <u>Household Energy Consumer Information Research</u>, November 2023.

mechanisms in the energy sector: of 2500 consumers independently surveyed across the country, fewer than half had any memory of seeing, hearing or reading anything in the previous year that would help them with their bills or usage. Of those that did recall communications about energy use, mostly it was a retailer ad on television.

Clearly, consumers want to reduce their bills (81% tell us they've tried) but they don't know how or where to go. When they do find information, they are confused by it and untrusting of the source. Further, what communications mechanisms do exist are neither memorable nor useful.

Aggregators Energy retailers

Manufacturers

Manufacturers

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Other trades and professional professional standard professional service industry

Consumers

Contractors

Contractors

Communities, not for proffs, etc.

Owner occupiers

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Independent statutory

Strata

Real estate agents

Strata

Strata

Single parent household

Strata

Small

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Governments

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Strata

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Governments

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Federal

Property

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businesses

Stata

Agriculture

Property

Fig. 1: Consumers have to navigate a complex and confusing web of decisions and organisations

#### Consumers need a One Stop Shop

We recommend the nature of consumer support in the energy sector be fundamentally refocused towards more practical enablement and delivery in the form of establishing a One Stop Shop.

The aim of a One Stop Shop is to provide effective and interactive support to enable consumers and small business to make decisions which help them lower bills and benefit from technologies improving their energy use.

One Stop Shops can take many different forms depending on the particular market circumstances and objectives. However, the underlying theme is to act as a trusted service throughout the whole consumer journey to better enable consumer participation and lower costs – both for the individual and the energy system.

A comprehensive One Stop Shop would be a trusted voice and help consumers make decisions to help reduce their bills and decarbonise their homes. Examples are set out in Figure 2 below. Informed decisions by households and small businesses simultaneously deliver wider energy system benefits, reducing the need for network investment with improved demand management and realising ISP targets for energy efficiency, battery uptake and electric vehicles.

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The One Stop Shop also needs to cater for the range of different barriers that individual consumers may face in making and acting on energy decisions that are right for them. These include, for example, poor literacy and numeracy skills, access to finance and cognitive load.

#### Models for a One Stop Shop

Creating and making an entity responsible for helping consumers achieve these levels of investment is critical and has proven successful overseas. Examples include:

- The Energy Trust of Oregon, which provides information and rebates to improve energy efficiency, free energy assessments, and contractor connection to residential and business customers. Households and businesses have saved US\$10.6 billion on their energy bills since 2002.<sup>7</sup>
- Electric Ireland Superhomes, which engages a team of advisors, specialists and contractors all under one roof (accredited by a public authority) to provide tailor-made subsidies and deliver home energy retrofits. The organisation aims to deliver 35,000 home retrofits by 2030, and between its launch in February 2022 and December 2023 enabled over 1,700 home upgrades, with an additional 800 applications underway.
- New York Energy Research and Development Authority, which
  offers energy bill assistance, free energy audits, technical advice
  and support for qualified homeowners and renters. Since 1998,
  efficiency programs have saved enough energy to power 1.6 million
  homes each year.

Examples of the types of decisions that a One Stop Shop could support and examples of how informed decisions by households and small businesses will deliver benefits to the wider energy system are set out in Figure 2 below.

<sup>&</sup>lt;sup>7</sup> The Energy Trust of Oregon's Executive Director presented on the consumer and system value and benefits of the Trust – see

https://energyconsumersaustralia.com.au/news/foresighting-forum-2024-energising-australians

Figure 2 How a One Stop Shop can help participating consumers...



#### ...and deliver benefits to the overall energy system.



Recommendation 1: That the Commonwealth Government provide funding for the creation of a One Stop Shop to help consumers navigate the transition.

The following outlines ECA's response to the questions posed in the consultation paper.

# MOBILISING CONSUMER INVESTMENT TO TRANSFORM ENERGY.

Question 1: What actions are needed to attract the required large scale private capital and household investment in the energy transformation, with or without government intervention?

Household and small business investment in the energy transformation holds the promise of improving our energy system for all stakeholders: reducing bills for those who invest; lowering overall system costs, thereby reducing the bills for everyone; and enabling a more resilient, efficient and flexible energy system that provides additional benefits for all users.

Household and small business investments in the energy transition deliver significant benefits to all energy consumers, but more could be achieved.

Multiple studies in Australia and overseas have demonstrated the range of benefits of consumer energy resources (CER).

A CER-heavy energy system capitalises on Australia's unique strength in the global energy transition: we lead the world in consumer participation in the energy system with rooftop solar. The Australian Energy Regulator's (AER) *State of the Energy Market 2023* report notes that across the National Electricity Market (NEM), 23% of total generation is from rooftop solar, making it the largest generator in the NEM. (Black coal is second, with 21%.) The Australian PV Institute estimates more than 30% of houses in most states and territories already have solar. Queensland and South Australia lead the pack with an estimated 45% of dwellings with rooftop solar; despite being the most populous state, New South Wales ranks fifth with roughly 31% of houses estimated to have solar.

There is, however, significant untapped potential to deliver greater benefits.

ClimateWorks' 2023 Report on Climate Ready Homes<sup>8</sup>, demonstrated the clear benefits - to consumers and the energy system - of improving the thermal efficiency of homes, combined with electrification to make appliances more efficient. ClimateWorks' modelling estimates that thermal upgrades, combined with electrifying hot water and cooking appliances, saves people living in detached houses on average between \$1,850 and \$2,200 a year off their energy bills. Occupants of townhouses similarly save between \$1,270 and \$1,480 a year, and people in apartments between \$1,030 and \$1,200 a year.

<sup>&</sup>lt;sup>8</sup> See ClimateWorks (2023) Report on Climate Ready Homes

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The 2019 Independent Review of the Greenhouse Gas and Energy Minimum Standards<sup>9</sup> (GEMS) Act found that minimum efficiency standards for appliances save the average Australian household between \$140-220 on their electricity bill each year (or about 10-15% of the average annual bill at that time). In April 2022, ARENA research<sup>10</sup> found \$8-18 billion of consumer benefits from avoided generation and storage costs solely from the flexibility of a high "DER" scenario. That study did not include the benefits of avoiding network investments, but a 2021 Baringa study<sup>11</sup> commissioned by the ESB found more than \$11 billion in network benefits from CER flexibility just from avoiding or deferring network investments.

Recent UNSW research for Solar Citizens <sup>12</sup> points to significant potential savings - \$1300 per year from an annual average household bill - from actively deploying rooftop solar on apartment buildings, social housing and private rental homes. People living in those types of homes currently face significant structural barriers in the energy transition.

An energy system with significant CER is also significantly lower risk. In *Small is Profitable* <sup>13</sup>, Amory Lovins outlines 207 benefits of distributed resources. Many of these benefits account for the lower risk of smaller resources built closer to where energy is consumed and the shorter time required to build and deploy these resources. An energy system and transition dependent on a small number of centralised power plants that require new transmission lines to be constructed concentrates risk around both those power plants and the energy networks that connect them. By contrast, CER can be built more quickly without the need for new network assets. Not only do CER tend to fail less often – and less spectacularly than large-scale power plants – but when they do fail, they are cheaper and simpler to repair. Multiple small resources are less likely to simultaneously fail than one large resource, improving resilience.

Additional CER, particularly through new initiatives that more consumers can participate in – such as community solar banks, solar on apartments, and smart water heater demand response programs – offers an opportunity to build upon the success Australia has already had in the transition.

Realising those benefits is, however, far from certain. It will require changes in government policy, market body rules, and industry practice, not to mention an ongoing willingness of people to believe and invest in the energy transition.

<sup>&</sup>lt;sup>9</sup> See <u>Independent Review of the Greenhouse Gas and Energy Minimum Standards</u>

<sup>&</sup>lt;sup>10</sup> See <a href="https://arena.gov.au/assets/2022/02/valuing-load-flexibility-in-the-nem.pdf">https://arena.gov.au/assets/2022/02/valuing-load-flexibility-in-the-nem.pdf</a>

 $<sup>^{11}</sup>$  See <a href="https://www.datocms-assets.com/32572/1629948077-baringaesbpublishable-reportconsolidatedfinal-reportv5-0.pdf">https://www.datocms-assets.com/32572/1629948077-baringaesbpublishable-reportconsolidatedfinal-reportv5-0.pdf</a>

<sup>&</sup>lt;sup>12</sup> See https://www.unsw.edu.au/newsroom/news/2024/04/Untapped-solar-rooftop-potential-costing-Australian-billions-each-year-new-report-finds

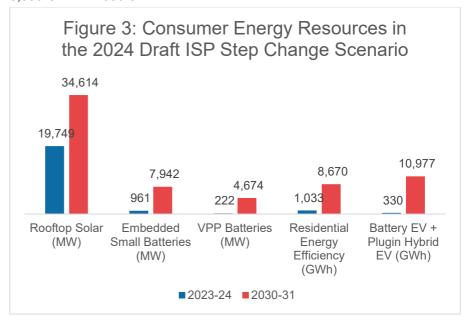
<sup>&</sup>lt;sup>13</sup> For a presentation of his analysis, see <a href="https://rmi.org/insight/small-is-profitable-the-hidden-economic-benefits-of-distributed-generation-and-other-distributed-resources/">https://rmi.org/insight/small-is-profitable-the-hidden-economic-benefits-of-distributed-generation-and-other-distributed-resources/</a>

Energy efficiency is regularly regarded as the least-cost energy resource in the world, but current policy and regulation is not adequately incentivising the demand or supply side. Energy Consumers Australia's survey data indicates that consumer sentiment is currently misaligned with the ISP's assumptions.

The short-term household and small business investment assumed in the Integrated System Plan (ISP) is staggering. Figure 1 depicts the assumed volume of CER in the Draft 2024 ISP Step Change Scenario, both in 2023-24 and then at the beginning of the next decade, when Australia's climate target under the Paris Climate Agreement hits.

Rooftop solar, already Australia's largest deployed generating resource, is anticipated to grow by 75% during the period examined – modest compared to the other resources. There are two types of small-scale batteries: "embedded" ones which operate outside of a "virtual power plant (VPP)", and those within a VPP. Those battery investments are expected to grow more than 700% and 2,000% respectively.

Residential energy efficiency is likewise projected to grow more than 700% in the remainder of the decade, while electric vehicle energy consumption is projected to grow more than 30 times. Though not shown in the image, the ISP also assumes that non-transport electrification in households will increase an astonishing 100-fold, from 30 GWh in 2023-24 to more than 3,500 GWh in 2030-31<sup>14</sup>



<sup>&</sup>lt;sup>14</sup> All data from Figure 1 and the above paragraph from AEMO, <u>Draft 2024 ISP Chart Data</u> (21 Dec 2023).

By assuming the uptake of these consumer resources, the Integrated System Plan avoids, displaces, or otherwise delays the need for other, larger investments in the supply side of the energy system.

However, Australia lacks any coordinated plan across governments to achieve these levels of household investment and consumer energy resource growth.

Recommendation 2: That the Commonwealth Government coordinate a new national partnership to support consumers' uptake of Consumer Energy Resources to realise the Integrated System Plan assumptions.

## Consumers and communities must be fairly rewarded for the services their resources provide to the energy system.

Given the large uptick in consumer energy resources assumed by the ISP, and the shared recognition that CER provides broader system benefits, there is a natural tendency to advocate for subsidies or incentives to bring these resources online. A challenge, however, with such an approach is that it fails to acknowledge that many – though not all – the services provided by CER could be delivered by other larger scale energy resources. Subsidising CER owners without a clear rationale for the subsidy level risks deepening the energy divide by enabling CER owners to reduce their energy bills while those without CER continue to pay high prices.

By contrast, ensuring that CER owners are rewarded for the services they provide the system enables them to be fairly compensated for the benefits they deliver and to compete against larger-scale resources. While it will still provide an avenue to CER owners to reduce their bills more dramatically than their neighbours, these bill reductions will be commensurate with overall cost reductions throughout the system and should also deliver savings for all consumers.

Table 1, adapted from ECA-commissioned research, *Unlocking the Value of Community-Scale Storage for Consumers*<sup>15</sup>, helps demonstrate the issue with the current approach within the energy system and its markets to storage.

Household storage provides more potential value to the energy system than large-scale, transmission-connected storage, but legacy market designs primarily provide value and financial rewards to large scale assets within the transmission system. For example, all battery types can provide generation capacity (sometimes called 'resource adequacy') to the system, but the initial design of the Capacity Investment Scheme only rewards large scale, transmission connected storage.

<sup>&</sup>lt;sup>15</sup> <u>https://energyconsumersaustralia.com.au/publications/report-unlocking-value-community-scale-storage-consumers</u>

While this example focuses on energy storage, flexible demand like smart hot water systems and dynamic electric car charging, similarly suffer from an inability to receive benefits for the services they offer.

Table 1: Monetisable Benefits of Energy Storage			
Benefit Category	Transmission- scale storage	Household Storage	
Energy	<b>~</b>	<b>~</b>	
Frequency Control (FCAS)	<b>~</b>	<b>~</b>	
Capacity	<b>~</b>	<b>~</b>	
Avoided distribution investment		<b>~</b>	
Reduced solar curtailment		<b>~</b>	
Voltage support		<b>~</b>	
Storage provides value which already can be fully monetized by the owner.	Storage provides value which cannot currently be fully monetized by the owner.		

The existing energy system and market structures were developed in the 20th century, for 20th century technologies. Today's energy market needs to reflect today's energy technology, and ensure that consumers and communities are rewarded for the services their resources can provide to the energy system.

We outline two ways to help overcome these existing market barriers and ensure that CER owners are fairly rewarded for the services they provide.

### Providing equitable access to the wholesale energy markets and Capacity Investment Scheme

Households have the potential to provide tremendous benefits to the energy system through flexible demand, but that potential will be unrealised if these resources fail to have reasonable access to the wholesale energy market.

The clearest example of this uneven access is in the Commonwealth's recently released Capacity Investment Scheme which has so far excluded community and consumer storage, even though they can provide the same dispatchable capacity as large-scale storage, often at lower cost. The recent Design Paper on expanding the Scheme states, "the intention is to include [consumer and community] technologies in future clean dispatchable tenders," but there is no detail about how or when this change will happen. Community-scale storage and consumer energy resources should be able to earn the same underwriting support as large-scale storage. The next tenders should clarify that smaller storage types are eligible.

But the problem is much broader than the Capacity Investment Scheme. The Australian Energy Market Operator (AEMO) provides small-scale resources with access to the wholesale electricity market via Small Generation Aggregators, registered participants in the National Electricity Market that supply energy from one or more small-scale generating units. While this may appear to provide small resources with market access, it does not.

There are at least two issues with the current access regime. First, it only provides market access for "small generating units," leaving energy storage and flexible demand outside of the aggregation scheme. Moreover, under the market rules, Small Generation Aggregators can "only aggregate rooftop PV if there is a separate connection point and NEM compliant metering installation for each rooftop PV" 16 This metering requirement adds significant cost to any installation, creating an unnecessary burden for CER to access the wholesale market.

In 2021, the Federal Energy Regulatory Commission (FERC) in the United States created Order 2222 to facilitate participation of CER in wholesale energy markets in the U.S<sup>17</sup>. Subsequent to this Order, the individual system operators – AEMO's peers – were required to submit proposals demonstrating how they intended to comply with the Order. FERC required ISO-New England to revise its proposal because the metering requirements - similar to the ones AEMO imposes - were found unduly burdensome<sup>18</sup>.

It is important to underline that equitable access is not equal access: requiring small scale generators to have the same metering and telemetry requirements as large-scale generators fails to provide equitable access because it creates undue costs and burdens on small-scale resources.

The Commonwealth's CER Roadmap does not so far seem to be focused on solving these fundamental issues to ensure that CER can have equitable access to the energy market. It is essential that the Commonwealth work with AEMC and AEMO to help understand these issues so that consumer resources are rewarded for the value they provide.

Recommendation 3: That the Commonwealth Government provide equitable access to the wholesale energy market and the Capacity Investment Scheme.

#### Network tariffs that support consumers

The Australian Energy Regulator should require all distribution network service providers (DNSPs) to provide opt-in, time-varying and location-specific network tariffs.

<sup>&</sup>lt;sup>16</sup> AEMO, Small Generation Aggregators in the NEM, 2023

<sup>&</sup>lt;sup>17</sup> https://www.ferc.gov/ferc-order-no-2222-explainer-facilitating-participation-electricity-markets-distributed-energy

<sup>&</sup>lt;sup>18</sup> FERC directs ISO New England to revise its metering posture for Order 2222 compliance," Renewable Energy World, 20 March 2023

The value of any CER to the energy system depends on its specific location and the conditions on the system at any given time. Network areas with significant distribution network constraints, abundant solar generation, and expected increases in network expenditure are more likely to be valuable locations for consumer energy resources. Time and location varying network tariffs can provide clear signals to consumers and their agents about the value of CER in specific places.

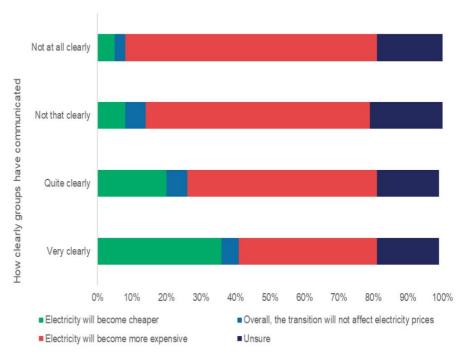
While many DNSPs are beginning to provide time-varying export tariffs, these are not particularly dynamic across the year. Moreover, most network values vary significantly based on their specific location: some transformers, substations and suburbs would benefit more from CER like flexible EV charging and distributed storage than others. But few, if any, DNSPs vary their tariffs within their service area. More accurate price signals, through time and location varying network tariffs, can help reward CER for the values they provide to the local network.

Recommendation 4: That the Australian Energy Regulator require distribution network service providers to develop and offer optional dynamic network tariffs.

# Ensuring people understand the transition to a net zero energy system

ECA's surveys demonstrate that when consumers feel they have received clear communications from governments, they feel more positive about the energy transition.

Figure 4 – Clear communication improves consumer sentiment of the energy transition.



Governments have a vital role to play in explaining to consumers the urgency and need for a transition to a net zero energy system. A clear, national communication approach would include:

- Setting clear policy on the future direction of household and small business energy use, including getting off gas (discussed further below).
- Explaining to consumers why they are being asked to change the way they use energy, so their expectations about the energy transition are clear.
- Targeting all segments of our communities through campaigns with dedicated funding and success metrics.

Recommendation 5: That the Commonwealth Government deliver a clear, unified narrative on the energy transition, including the role for consumers.

# ENABLING ELECTRIFICATION FOR A SMOOTH TRANSITION

2. What actions are required to ensure Australia's energy systems can enable increased electrification, while maintaining equity, reliability and security?

Australia's energy system can support increased electrification and consumers can even benefit from it. ECA's *Stepping Up* report found that embracing electric vehicles and replacing gas appliances with electric ones are likely to provide net benefits to all consumers, even those who do not own electric cars or install new electric appliances.

As the CSIRO's technical report explains:

Electrification of vehicles and gas appliances adds more to the volume of electricity sold than it does to peak demand growth. This leads to higher utilisation of existing electricity infrastructure, particularly of the distribution network sector, which means that distribution networks can reduce the price per unit of energy delivered through their grid. This higher volume effect was strongest under vehicle electrification with shared household benefits of up to \$500 a year. Shared benefits from gas electrification were significant (up to \$90 a year) but smaller<sup>19</sup>.

These findings did not assume significant changes in car charging behaviour or in appliance use. Rather, they looked at experience overseas and in Australia to develop broad behavioural ranges about when and where people charge their electric cars and found that such inherent behaviour led to these shared benefits.

 $<sup>^{19}</sup>$  <u>https://energyconsumersaustralia.com.au/wp-content/uploads/CSIRO-Technical-Report-Stepping-Up.pdf</u>

However we see substantive structural barriers in the path to electrification that sit at the heart of NEM governance.

We recommend two actions to ensure that Australia's energy systems can enable increased electrification and provide additional consumer benefits:

- Implementing an overarching demand-side objective that requires decision-makers to prioritise demand-side resources as 'the first fuel' and ensures that least-cost energy resources, such as CER, are prioritised; and
- Redefining consumers within the National Gas Law and National Electricity Law.

#### Prioritising least-cost energy resources

We encourage the Government to establish an overarching demand-side objective that requires decision-makers to prioritise demand-side resources as 'the first fuel'. That means decision-makers should first look to how demand-side resources – energy efficiency, CER, flexible demand, storage etc – could be used to strengthen, augment or expand the energy system.

Moving from a broad objective to a clear obligation is critical. To be effective, it should mandate demand side opportunities be prioritised in system planning and forecasting, and decision-makers to actively consider demand-side resources first.

California has a "loading order" which mandates that "energy efficiency and demand response be pursued first, followed by renewables and lastly clean-fossil generation" to meet new energy demands. We recommend a similar statement for the development of new energy infrastructure nationally, which would prioritise the role of CER and demand side resources generally in meeting new energy needs.

The European Union's <u>energy efficiency first principle</u> <sup>20</sup> requires countries to consider energy efficiency solutions in energy system and non-energy sector planning, policy and investment decisions. It is tied to an energy savings target and has been effective in generating new and increasingly ambitious energy efficiency policy measures.<sup>21</sup>

We see value in establishing an annual Energy Efficiency Statement of Opportunities (EESO), which was recommended by a number of advocates in the development of the National Energy Performance Strategy, but disappointingly was not taken up.

Analogous work is conducted in the US and referred to as *Energy Efficiency Potential Studies*. These potential studies include the investigation of technical, economic and achievable potential for energy efficiency and demand flexibility measures (Figure 5 refers).

An EESO, and its identification of energy efficiency and demand flexibility targets, could be incorporated into the *GenCosts Report* or used to improve

<sup>&</sup>lt;sup>20</sup> See <a href="https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-first-principle\_en">https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-first-principle\_en</a>
<sup>21</sup> Santini and Thomas, Regulatory Assistance Project: Article 7 of the Energy

<sup>&</sup>lt;sup>21</sup> Santini and Thomas, Regulatory Assistance Project: Article 7 of the Energy Efficiency Directive 3.0 Nov 2020 <a href="https://www.raponline.org/wp-content/uploads/2020/11/rap-Article7">https://www.raponline.org/wp-content/uploads/2020/11/rap-Article7</a> policy brief 251120.pdf

the ISP's current forecasting assumptions for energy efficiency and demand flexibility. The EESO could disclose maps of efficiency potential for prioritisation of efforts and programs across residential, commercial, transport and industrial sectors. The EESO could also provide sufficient evidence for a robust plan-based energy performance target that can be integrated into future updates of the Strategy. This would allow a more diligent process and methodological rigour to setting targets. In the absence of an EESO-like approach, which is not uncommon in other countries, we also suggest below key targets that may inform the Strategy framework.

Total energy that could be saved by efficiency measures.

Technical potential

Cost-effective measures compared to supply-side energy resource alternatives.

Achievable potential

Figure 5: Energy Efficiency potential classifications

(Adapted from: US EERE, 2020)

Recommendation 6: That the Commonwealth Government establish an overarching demand-side objective requiring decision-makers to prioritise demand-side resources.

#### Ensuring the NEM supports demand flexibility.

Demand flexibility is under-utilised currently but has tremendous potential benefits for both the energy system and individual households and small businesses, rewarding their investment and behaviour change. It is used most often to describe how consumption can be reduced at peak times to lower wholesale prices or reduce congestion on the grid.

We commissioned KMPG to provide advice on how the system could better support demand flexibility – where consumers reduce, shift or increase their energy use at or for specific times.

KPMG's analysis notes the potential value of building demand flexibility as a reliable and established resource – Figure 6 below identifies the potential peak demand reduction that could be contributed by demand flexibility, of 8.5% by 2053 consistent with AEMO ISP forecasts, 10% by 2030 consistent with the NSW Peak Demand Reduction Scheme, and 15% by 2030, using international benchmarks.

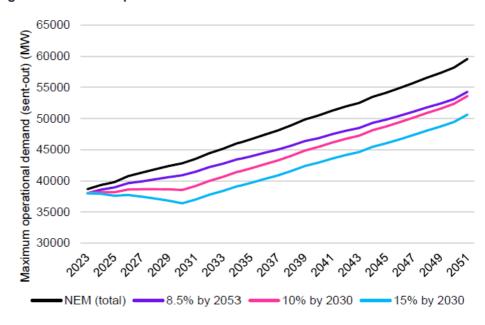


Figure 6: Estimated peak demand reduction

(Source: KPMG report<sup>22</sup>)

The KPMG analysis identifies 6 key enablers of demand flexibility which should be actively built into governance arrangements. Those are outlined in Table 2 below.

Table 2: Key enablers for demand flexibility

ENABLER	GOVERNANCE IMPLICATIONS
Integration into system planning	Market bodies should be required to consider energy performance as the first fuel and prioritise demand side opportunities wherever possible.
Technology capability	To ensure that we have the platforms to support consumer response, the Strategy should support  acceleration of the smart meter roll-out  unlocking CER benefits, including through the introduction of flexible trading arrangements
Information flows	Ensuring platforms and policies for consumers and regulators can easily capture and safely share relevant data, as well as interoperability standards that enable devices and appliances to easily engage in demand response programs and services.

 $<sup>^{22}</sup>$  See  $\underline{\text{https://energyconsumersaustralia.com.au/publications/supporting-demand-flexibility-inthe-energy-transition} \ \ p \ 21$ 

Adequate compensation	Programs and policies that recognise and reward consumer assets and behaviour, rather than penalise people when they do not have the capacity or motivation to shift demand
Clarity on responsibilities	The Strategy should acknowledge that current consumer protections are no longer fit-for-purpose <sup>23</sup> , and the consequent need for a review that provides consumers with most agency, clear protections and rights across all energy suppliers, and access to effective dispute resolution. Government and regulators should be resourced and empowered to undertake research to identify where different consumers might have opportunities, or face barriers to engagement.

Energy efficiency is the cheapest way to meet consumers' energy needs. By improving insulation, for example, people won't need to use as much energy to heat or cool their homes, saving them money on their energy bills.

Implementing energy efficiency, flexible demand, rooftop solar and small-scale battery measures across the energy system reduces the need for costly new generation and transmission infrastructure. Further, as households electrify, energy efficiency measures will become more important for managing electricity bills.

Recommendation 7: That the Commonwealth Government reform National Energy Market governance to incentivise demand flexibility.

## Addressing the anomalous distinction between electricity and gas consumers

The National Gas Law and National Electricity Law make the unhelpful assumption that gas and electricity consumers are distinct entities. In fact, all gas consumers are electricity consumers, and the decisions made about gas consumers impact electricity consumers and vice versa.

As the Grattan Institute states, "There should be a single legal framework for energy, with the consumer at the centre" Otherwise, the AEMC and AER can – and perhaps must – make decisions about gas consumers' long-term interests without regard for the long-term interests of electricity consumers.

<sup>&</sup>lt;sup>23</sup> See ECA submission on AER review of the Consumer Protections Framework at https://energyconsumersaustralia.com.au/wp-

 $content/up loads/20221221\_Submission-to-MF eather-on-AER-Review-of-consumer protections.pdf$ 

<sup>&</sup>lt;sup>24</sup> https://grattan.edu.au/wp-content/uploads/2023/06/Getting-off-gas-why-how-and-who-should-pay.pdf

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In practice, our market bodies should recognise the interconnectedness of the gas and electricity systems.

Recommendation 8: That Energy Ministers remove the distinction between electricity and gas consumers in legislation.

#### Protecting consumers in the move to a fully electric system

- 3. What insights do you have on the pace, scale and location of electrification, and how to embed this in system planning?
- 4. How can electrification efforts be sequenced to align with expansion of electricity generation and network capacity?

Better energy system planning can improve sequencing between increasing electricity use and expanded generation and network capacity.

At the moment, the prevailing approach to electrification is that it is entirely consumer and market led, which means that those least able to electrify will be the last using gas – and therefore paying more to maintain the network. That approach is creating uncertainty for consumers on the pace, scale and location of electrification.

Table 3<sup>25</sup> provides high level statistics about Australia's gas and electricity networks. Not only does the electricity network have more than twice as many customers as the gas network, but the value of the regulated asset base is also nearly ten times higher. Combined with insights about the benefits of electrification to all electricity consumers, rapid electrification is likely to offer limited risks to the electricity networks and multiple benefits. Our concerns on the pace, scale and location of electrification focus primarily on the impacts of electrification on the future of the gas network and the remaining gas customer base.

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<sup>&</sup>lt;sup>25</sup> The data in Table 12 is ECA analysis of data from AER Infographics sourced from the 2022 Electricity Network Performance Report and 2022 Gas Network Performance Report

Table 3: Comparing East Coast Gas and Electricity Networks				
	Electricity Networks in 2021		Gas Networks in 2021	
Customers	10.7 million		4.34 million	
Customer Increase	1.0% (from 2020)		1.57% (from 2020)	
Total Revenue/ Customer	\$1,056		\$369	
	Transmission (in Millions)	<b>Distribution</b> (in Millions)	Transmission (in Millions)	<b>Distribution</b> (in Millions)
Network Revenue	\$2,270	\$9,030	\$194	\$1,400
Operating Expenditure	\$580	\$3,010	\$63	\$450
Capital Expenditure	\$1,370	\$4,110	\$80	\$604
Regulatory Asset Base (RAB)	\$21,800	\$79,900	\$1,630	\$10,200

There is some potential to strategically decommission parts of the gas network – particularly in areas where the cost of maintaining the existing gas network is likely to be high. While there is little of this work underway in Australia, ECA has been working with the Brotherhood of St. Laurence to investigate this opportunity more thoroughly. In California, there is an active research project focused on answering, "How can targeted building electrification paired with tactical gas decommissioning provide net gas system savings while promoting equity and meeting the needs of local communities?" <sup>26</sup>

### Ensure distribution system planning supports the long-term interests of consumers

The bulk of the network is in the distribution system. As Table 3 demonstrates, electricity distribution networks have a regulatory asset base valued at nearly \$80 billion, nearly four times higher than the electricity transmission network. Gas distribution networks have a regulatory value of \$10 billion, more than five times higher than the value of the gas transmission network.

<sup>&</sup>lt;sup>26</sup> https://gridworks.org/initiatives/gas-decommissioning/; ECA hosted a webinar focused on future gas system planning, which included speakers from California and the UK who are <u>can be viewed here</u>.

Table  $4^{27}$  demonstrates the status of gas and electricity network planning in Australia today. As it shows, there is relatively little gas planning compared to electricity planning – indeed, there is effectively no gas network planning in Australia today, aside from that which is required for network expenditure proposals. Such proposals are only required every five years and only look out five years in advance. In other words, there is scant, if any, long-term gas and electricity planning focused on the distribution system, despite the fact that our gas and electricity distribution systems are more than four times the value of the transmission systems.

Table 4: The Status	of Gas and Electricity	/ Planning
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	Electricity Planning	Gas Planning
AEMO	<ul> <li>Integrated System Plan</li> <li>System Security         Planning     </li> <li>Electricity Statement of         Opportunities     </li> </ul>	Gas Statement     of Opportunities
Networks	<ul> <li>AER Expenditure         Reviews</li> <li>Distribution Annual         Planning Reviews</li> <li>Transmission Annual         Planning Reviews</li> <li>Regulatory Investment         Test</li> </ul>	AER Expenditure     Reviews

We propose several concrete steps to improve both gas and electricity planning which can help improve certainty that the network infrastructure will be ready for increases in electricity use, and that the gas network is decommissioned as responsibly as possible.

First, both gas and electricity distribution network service providers should be required to develop biannual Integrated Distribution Plans that are published every odd year (while the ISP will continue to be published in even years, e.g. 2022, 2024, etc)<sup>28</sup>. The ISP fails to consider the potential impacts of distribution system constraints on the ability of CER to provide energy to consumers and the broader system at certain times, though such

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 <sup>&</sup>lt;sup>27</sup> ECA analysis of National Electricity Rules (Sec 5D) and National Gas Rules
 <sup>28</sup> ECA hosted a webinar focused on integrating transmission and distribution system planning, which included overseas speakers can <u>be viewed here</u>.

constraints already exist. Better planning of the distribution network can help identify such constraints and enable AEMO to incorporate them into the ISP.

Furthermore, local electricity networks can better develop and identify specific locations for CER projects. Most of the CER projections used by AEMO for the ISP are developed on a postcode level basis, but this locational data is not used by AEMO because the lack of information about distribution network constraints renders it useless. Such CER projections and distribution plans can also help better identify areas of the network where CER is most valuable and should be encouraged or targeted. Better distribution network planning is required to develop the more locationally and time varying network tariffs highlighted above.

Additionally, there should be common assumptions used across electricity and gas distribution and transmission plans. AEMO spends significant time and resources to develop its *Inputs, Assumptions, and Scenarios* report and these assumptions should be common across all distribution system plans, unless the DNSP has a good reason to diverge. At present, gas and electricity networks use vastly different assumptions about the energy transition. These inconsistent plans and assumptions create the very real risk that networks will plan for and build the networks to accommodate two inconsistent energy futures – one where all consumers electrify, and another where they do not – and consumers will pay twice. Using common assumptions across all plans can avoid this misstep.

Recommendation 9: That all distribution networks are required to publish biannual plans that identify CER opportunities for inclusion in the ISP, with common assumptions across gas and electricity.

# GROWING ALTERNATIVE LOW CARBON FUELS, AND MANAGING FUEL SECURITY

Question 5. What policy settings and certainty are required to support a fair, equitable and orderly transition for the decarbonisation of both natural gas and liquid fuels?

Achieving the government's net zero target by 2050 will require households and small businesses to stop using gas to heat their water, homes and businesses and to cook.

#### Phase out new gas connections

Currently, around 4.3 million homes in the East Coast are supplied by a gas network. Although the number of new customers is decreasing relative to previous years, every day more Australian homes and businesses are spending money to connect to gas. By not making clear to consumers that this is only a short-term supply solution, and allowing industry to keep connecting households to gas, Australian governments are increasing the

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number of consumers exposed to additional costs and barriers as the energy system moves away from fossil fuels.

We strongly support the Victorian and ACT governments' decision to phase out new gas connections. All jurisdictions should embrace this approach in a coordinated and consistent manner. Phasing out new gas connections sends a clear message to consumers that they will need to plan for a transition away from gas. It also helps improve affordability for all consumers. New all-electric homes are roughly the same price to build as dual fuel homes but are much less expensive to operate than homes with gas.

Furthermore, traditionally gas networks subsidise new connections with funding from the existing consumer base. Phasing out new connections avoids placing this additional cost on the existing gas consumer base. Avoiding unnecessary gas network costs is particularly important given that the new infrastructure for new connections will only last roughly 25 years and the network could become uneconomic well before then.

Continuing to invest in new infrastructure places significant risks on consumers who are unable to switch away from the gas network. Those who remain connected to the gas distribution network will have to pay a greater amount of network charges to recover the lost revenue from those exiting consumers. This will lead to increased gas bills for the remaining customers, putting added pressure on consumers who are already struggling. These impacts would prompt more consumers to leave the network, creating a self-reinforcing effect.

Once a critical mass of customers leaves the gas distribution network, it may become uneconomic for it to remain operational, as the costs per customer will simply be too high. This would force all remaining consumers to switch to electric alternatives (or in some small business cases, a switch to LPG), even if they can't afford to. A decline in gas customer numbers causes other potential risks for the operation and safety of the distribution network (e.g., difficulty maintaining pressure in gas pipelines).

We were disappointed to see that the Government rejected recommendation 39 from the Climate Change Authority's (CCA) 2023 Annual Progress Report which called for the Commonwealth to "Work with state and territory governments to agree on a coordinated, nationally consistent approach to phasing out new gas connections for residential and small commercial buildings and phase-out for existing gas connections".

We strongly support the Government leading a nationally consistent approach to transition away from fossil fuel gas and provide residential and small business consumers with reassurance and a clear direction. Consumers, especially vulnerable consumers who cannot transition away from the fossil fuel gas network, should not be burdened by the energy transition.

Consumers tell us they want Government, not industry, in control of the transition. They expect Government to provide clear, consistent and timely information, and create regulations to protect them.

Recommendation 10: That governments phase out connections to the gas network for new residential and small business premises.

#### Assist people to electrify their homes and businesses.

As noted above, our research demonstrates that households who electrify (including transport) will see direct benefits through their bills.

ECA's Stepping Up modelling indicated that the average household would see a cost benefit of more than \$2000 a year from 2030 from going allelectric and undertaking energy efficiency measures (compared with a fossilfuelled household). Households with solar and batteries will save an additional \$1,250.

The ACT Government's approach has been effective in alerting households to the benefits of electrification and to helping them take action.

Our research finds that ACT households are more likely to be thinking about and transitioning off gas than other jurisdictions in Australia<sup>29</sup>. This reflects the benefits and impact of clear communication: the ACT Government Integrated Energy Plan outlined why the ACT is transitioning its energy systems and phasing out fossil fuel energy; it also provided a pathway to realise this goal.<sup>30</sup>

The messaging is relatively straightforward - consumers will not be able to use gas after 2045; when a gas appliance dies, it should be replaced with an electric one; and tells people that switching to an electric car and all-electric appliances can save money and reduce emissions.

Critically, consumers are also supported to make decisions that are right for their circumstances via an online tool, developed by the ACT Government in collaboration with Choice.

Unfortunately, making the switch is not straightforward for consumers who face financial or structural barriers:

- Brotherhood of St Laurence's <u>Enabling Electrification</u> 31 report found that households in financial stress were likely to be experiencing multiple stressors, and could be deterred by the perceived cost of electrification. The research underlined the need for evidence-based information, better targeted promotion of programs, including through trusted networks, and help addressing capital barriers.
- For consumers who rent or live in apartment buildings, electrification will be a negotiated process, where the power to make decisions is not solely in the occupant's control.
- For small businesses, further consultation will be needed to identify the unique barriers they face in the transition. Small businesses often face high barriers to decarbonising and use more energy than

<sup>&</sup>lt;sup>29</sup> ECA, Homeowners are increasingly considering swapping gas appliances with electric ones (January 2024).

<sup>&</sup>lt;sup>30</sup> ACT Government, Make Your Next Choice Electric (2024).

<sup>31</sup> See <a href="https://www.bsl.org.au/research/publications/enabling-electrification/">https://www.bsl.org.au/research/publications/enabling-electrification/</a>

households. Supporting small businesses creates an opportunity not only to help them manage their bills, but lower overall energy system costs. We are aware that for some small businesses, electrification of existing appliances or processes might be very difficult or near impossible. A better understanding of these cases and what alternatives and support could be provided for them will be essential for the small business community.

While there is no one silver bullet solution that will fix the diverse issues encountered by consumers, we see considerable value in the Government actively guiding consumers to where help is available; so that consumers understand where they can seek assistance and have confidence that help will be accurate, timely and independent.

The One Stop Shop outlined in section 1 would be an example of a mechanism that can cut through the noise to match consumers with existing programs, advice, information and tools to help them get off gas.

Recommendation 11: That the Commonwealth Government provide tailored support for consumers who face financial or structural barriers to transitioning off fossil fuel gas in their homes and businesses.

#### Planning for an orderly and equitable transition to all-electric

As more households electrify, gas bills for those that remain on the network will increase. The last households left on the gas network will face significantly higher bills for energy than those who have already electrified, and those last households are likely to be those that can least afford higher energy bills. Further, a decline in gas customers could cause potential risks for the operation and safety of the network (e.g. difficulty maintaining the pressure in gas pipelines).

Phasing out new gas connections will limit new growth on the gas network, however, the issue of the remaining asset must be addressed in a clear and coordinated way.

We encourage the Commonwealth Government to work with jurisdictional governments and market bodies on planning for a safe, orderly and equitable end to the distribution gas network.

Recommendation 12: That governments develop a plan to ensure the safe and orderly transition of the gas network in a way that does not leave a high financial burden or unsafe service for the last households using the gas network.

Question 6: What actions are required to establish low carbon fuel industries in Australia, including enabling supply and demand, and what are the most prospective production pathways?

Our research<sup>32</sup> found that the Commonwealth Government is the second most trusted source of information (after consumer advocacy organisations) on energy usage and bills for households.

Australians are looking to the Government for clear direction on the future of energy, which includes the role that 'green gases,' such as hydrogen, might play. The Government needs to send a clear message that while there will be a role for 'green gases' in Australia's energy future, this won't include the use of hydrogen and biomethane in homes and small businesses.

The Grattan Institute's report <u>Getting off Gas</u><sup>33</sup> clearly outlines the practical and policy risk of keeping 'green gas' options on the table for households. These include the safety risks of hydrogen gas in homes, logistical challenges of switching over millions of gas appliances to hydrogen alternatives, and the cost associated with hydrogen gas as a fuel compared to electric alternatives.

The Victorian Government listed electrification and energy efficiency as the favoured energy solution for fossil fuel alternatives in residential and commercial buildings<sup>34</sup>. A consistent, national message would help consumers and the industries that support them feel confident to make decisions about their energy future.

Recommendation 13: That the Commonwealth Government makes clear that 'green gases' such as green hydrogen and biomethane are not a viable alternative for households or most small businesses.

# BUILDING AUSTRALIA'S CLEAN ENERGY WORKFORCE

Question 8: What actions are required to ensure workforce requirements for the energy transformation are met, while supporting equitable outcomes?

Ensuring people can access trusted tradespeople.

We endorse the EESP's recognition of the need to develop a clean energy workforce but encourage Government to look not just to the workforce to build renewable energy generation, but also to local tradespeople to help people take action in their homes and business premises.

<sup>&</sup>lt;sup>32</sup> See Energy Consumers Australia, <u>Household Energy Consumer Information Research</u>, November 2023

<sup>33</sup> See https://grattan.edu.au/report/getting-off-gas/

<sup>&</sup>lt;sup>34</sup> Victorian Department of Energy environment and Climate Action, <u>victorias-renewable-gas-consultation-paper-050923-engage-victoria fada (1).pdf</u> (pg. 11)

Our <u>Energy Efficient Housing</u><sup>35</sup> research indicated very strong levels of support for Government action to improving the energy efficiency of Australian homes.

But we also heard significant levels of concern about shortages of building materials (44% of respondents were extremely or very concerned) and difficulties in finding skilled tradespeople for residential renovation and building projects (43% were extremely or very concerned). When we asked focus groups what would help, they indicated that any new reforms should be accompanied with education for:

- Homeowners to encourage them to see the value in making the necessary changes – including the provision of case studies and a mobile app to help owners assess their home's current energy efficiency, obtain tips on changes to make, and the power bill savings they could make.
- The building sector, to create alignment and build competence.
- Local authorities to create alignment in relation to what they would approve.

There is already a national shortage of workers in key occupations to support uptake of consumer energy resources, particularly those in the electrical trade.<sup>36</sup> Without policy interventions this issue will increase as households increasing adopt consumer energy resources.

Equally, the existing workforce does not necessarily have the skills, awareness or motivation to provide consumers with advice on replacing gas appliances that have failed with efficient electric alternatives. For example, when a gas hot water system fails, typically these need to be replaced urgently on a like-for-like basis, and consumers may not have the right information, advice or time available to investigate alternatives. If people don't trust the advice of their tradesperson, they are unlikely to take action.

Recommendation 14: That the Commonwealth Government's strategy for workforce development also addresses skills shortages at the local level, to support people to improve the energy performance of their homes and small business premises.

<sup>&</sup>lt;sup>35</sup> ECA-Renew, Energy efficient Housing 2022; see

https://energyconsumersaustralia.com.au/?s=energy+efficient+housing <sup>36</sup> ABC, Electricians are in high demand, so why are almost 40 per cent of apprentices considering quitting? (August, 2022).

#### MAXIMISING OUTCOMES FOR PEOPLE AND **BUSINESSES**

Question 9: What actions are required to ensure better energy outcomes for people and businesses, and maximise their benefit from the energy transformation?

We are pleased to see the Discussion Paper notes the significant impact that cost of living is having on households and acknowledge that consumers are concerned about ongoing energy affordability. Our survey data shows us that consumers are worried about energy costs. In December 2023, more than half of Australian households told us there that their electricity bill is one of the top three expenses they are concerned about paying right now. When we asked households about the future, it remains the primary concern. 78% of households are concerned that energy will become unaffordable for others in the next three years and 56% are worried it will be unaffordable for them.<sup>37</sup> Price remains the top priority for most consumers who are looking around for a better offer.

We are particularly concerned that the ACCC's December report<sup>38</sup> found that the 'loyalty tax' has not been eliminated but has shifted to consumers on market offers who are not regularly engaging with the market or who find it impossible to engage. The ACCC found that 47% of households were paying a price equal to, or higher than the DMO or VDO, and four in five households could pay a lower price by switching.

Engagement with the market and "shopping around" for a better offer is positioned as a key way for consumers to find a fair price. However, we know that this is becoming increasingly difficult for many consumers. While consumers tell us they prioritise price and affordability, complexity in the energy market poses obstacles to achieving this. The AER's Towards Energy Equity Strategy identifies how a complex energy market has the potential to cause consumers harm and prevents consumers from acting in their own interests. 39 Last year, despite record high energy prices, a cost-ofliving crisis, and a ramping up of messaging from governments and industry encouraging consumers to switch, only one in five households said they had switched retailer or plan. But significantly, a further one in four said they had considered switching but decided against it, with many saying it was either too complicated, too time consuming, or too confusing. We found equivalent results for small businesses.

As the energy market transitions, energy products and services are becoming increasingly complex. Consumers are being asked to transition away from simply being supplied with and using an essential service towards playing an active, participatory role in the market. At a minimum, this means shifting the times when they use energy in their homes and businesses but could be as complicated as navigating solar export options, such as export

<sup>&</sup>lt;sup>37</sup> ECA, Energy Consumer Sentiment Survey, December 2023

<sup>38</sup> ACCC, <u>Inquiry into the National Electricity Market</u>, December 2023

<sup>&</sup>lt;sup>39</sup> AER, *Toward energy equity*, October 2022

tariffs or dynamic operating envelopes, or even participating in the wholesale or ancillary services markets (such as through virtual power plant arrangements). As we transition to a more renewable future, with variable electricity generation, these types of product offerings will likely become more common.

These issues are exacerbated by the complex nature of energy markets. The figure below maps the consumer decision-making process for just one type of consumer energy resource – a battery. It demonstrates how confusing the journey is for any individual, let alone one that might have additional barriers.

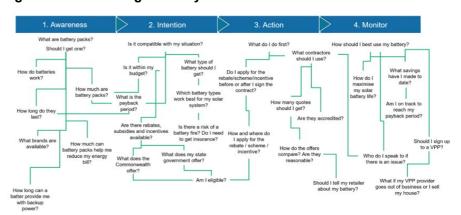


Figure 7 - Purchasing a battery

Consumers don't have the information they need to deal with this complexity. Around half of households and small businesses don't believe their energy company provides them with useful information. Our October 2023 consumer survey found 36% of households don't know what time of use tariff they are currently on.<sup>40</sup>

For consumers who do not have access to the protections in National Energy Retail Law or Rules, the challenges are greater again. Recent research by the ANU Centre for Aboriginal Economic Policy<sup>41</sup> revealed that Indigenous rural and remote communities are significantly more likely to miss out on the full range of vital consumer protections that the rest of Australia enjoys, including protection from disconnection for life support customers, guaranteed minimum service levels, mandated public reporting on the number and frequency of disconnections, effective complaints and dispute resolution, and the ability to easily install rooftop solar to help bring down high energy bills.

First Nations people told the government that "Unreliable and unaffordable power not only puts First Nations people's mental, cultural, and physical health at risk, but stands in their way to access information services, resources and work opportunities, including the means to generating an

<sup>&</sup>lt;sup>40</sup> ECA, Energy Consumer Behaviour Survey, October 2023

<sup>&</sup>lt;sup>41</sup> See White, Riley, Wilson, Markham, O'Neil, Klerck and Napaltjari Davis (2024)

income"<sup>42</sup>. People living in remote communities felt locked out of the benefits that other Australians have and pointed to the impact of poor energy efficiency on their bills, but their inability to make change.

We need reform to ensure that consumers can understand the energy products and services they are buying. This is critical in building the trust and confidence in the energy market that is needed for a smooth energy transition.

As we note above, we believe there is a role for a One Stop Shop for energy advice and support for consumers. Such a service could support individual consumers to make the right energy decisions for their needs – providing the right information at the right time.

Given the challenges that consumers already face in the complex energy market, we consider that switching rates are not a good indicator of a well-functioning market for an essential service. Clearly the market is not working in the consumer's interest.

We know that engaging with the market is a challenge for many consumers – not because of their ability, but because energy market contracts, tariffs and pricing are too complex. This will only increase as further complexity is introduced.

There are multiple signs that consumers are struggling to navigate the energy market. As we've outlined above, too many people are paying more than they need to, and don't know what tariff they're on. They're not confident or aware that switching deals will leave them better of, and the process is complicated, time-consuming or confusing.

## Energy price reform – ensuring consumers have appropriate protection and help.

In this context, the Default Market Offer (DMO), and the Victoria Default Offer (VDO) in Victoria, have a clear role in protecting consumers to ensure they are not paying unreasonably high prices. Robust price protection is needed to ensure consumers are not paying unfair prices, regardless of whether they are actively engaging or not. Tools to navigate a complex energy market (such as the reference price) are also needed for those consumers who do engage.

However, we are concerned that that the DMO is no longer fit for purpose and consider it needs review.

In addition to our concerns outlined above, the transitioning energy market is complicating the function of the default offer and reducing the relevance of the reference price. Designed to compare simple offers based on price, the reference price does not offer assistance to consumers wishing to compare the benefits of more complicated plans such as those designed for electric vehicle charging or offering access to a virtual power plant.

<sup>&</sup>lt;sup>42</sup> See Interim Feedback Paper,p 13

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Changing usage behaviour is complicating the determination of an annual usage amount. New energy products and services are allowing consumers to become increasingly diverse in how they use and produce energy. Going forward, it will become increasingly difficult to determine a broader representative usage profile that reflects how consumers actually use energy. As a price cap, this has the potential to cause harm if a consumer uses more than the defined amount. As a reference price, it also has the potential to cause harm if, for example, a consumer uses more energy in peak times than the AER's pattern outlines, leading to higher bills than what was advertised initially.

The objectives of the DMO and reference price are contradictory. As the energy market grows more complicated, so too does the importance of the two benefits outlined by the ACCC. The inability of many consumers to engage will increase alongside the need to provide them with a fair price for energy. Additional considerations in the DMO that do not apply to these consumers, such as acquisition costs and a competition allowance, should not be included in order to provide them access to a fair price. However, this contradicts with the role of the reference price which applies to all consumers. 43

The role of price protection, and consumer protections more broadly in the transitioning market is a crucial one – foundational to building consumer trust and confidence.

We recognise that there are consumers who will be willing and able to engage with dynamic pricing, and who can benefit from load-shifting at times when the price of energy is high. Fr some consumer, complexity may offer benefits – those who've invested in CER can benefit from time-varying tariffs, for example.

However, a foundational principle must be that protection is provided to those with the least capacity – less able to respond to price volatility and more likely to be harmed by rising energy bills. That cohort of consumers requires robust protection. It is time to prioritise consideration of a social tariff to support those consumers – to protect them from price volatility and ensure they retain access to energy at a price they can afford.

We recognise that in a market where complexity is increasing, it will require further work and analysis to design the most appropriate mechanisms for price protection. ECA would welcome the opportunity to work with the Commonwealth to ensure that price protections meet the diversity of consumer need.

Recommendation 15: That Energy Ministers mandate robust price protection and provide effective tools to navigate the market.

37

 $<sup>^{43}</sup>$  See ECA's  $\underline{\text{Submission to the AER's DMO Issues Paper}}$  for further detail on our concerns.

### Building a fit for purpose consumer protection framework

We agree with the AER's recent review which found the existing consumer protections framework is not fit-for-purpose for the future energy market.

In our view, a fit-for-purpose framework includes consumer agency, consumer protections and rights, and free and independent external dispute resolution services. We have addressed the issue of consumer agency earlier in this submission and focus here on the issues of consumer protections and external dispute resolution.

Regulatory frameworks are not keeping pace with the transition. We are pleased that the CER Roadmap intends to address issues around technical standards. Appropriate standards and guidelines for products, product installation and operation, as well as associated services are a key enabler to good consumer outcomes.

New technologies and business models are challenging current consumer protections, often outpacing the development of product standards and guidelines, as well as the compliance and enforcement regime. We also see high levels of non-compliance with technical standards which leads to lower efficiency for the individual and higher risks for grid safety. Technical standards need to be developed not only for industry, but also for consumers, to support their investment in, and use of, new energy technologies. We recommend clear, accessible standards and guidelines that ensure both the safety and the performance of products and services. This should include installer accreditation processes.

We consider the CER Roadmap to be also an appropriate channel to address issues around device interoperability. Interoperability is an essential part of the transition towards a decentralised, low emissions, renewable energy system. Developing capabilities that allow consumer energy resources, such as rooftop solar or electric vehicles, to be orchestrated will be essential in integrating these technologies into the current energy system and so, in addressing technical standards, the CER Roadmap should also focus on consumer outcomes and ensuring social licence.

We believe the consumer protections framework should apply to all energy consumers, regardless of their supply arrangements and are concerned that that there are some cohorts of consumers who are not able to access the same rights and protections as others.

Recent research has made visible the significant harm experienced by Aboriginal and Torres Strait Islander people who are supplied under different arrangements from other Australians and who do not receive comparable levels of consumer protections or assistance.<sup>44</sup>

In addition, consumers supplied under embedded network arrangements often face a lack of consumer protections, lack of retail competition and a limited compliance framework. This can lead to poor consumer outcomes

<sup>&</sup>lt;sup>44</sup> See White, Riley, Wilson, Markham, O'Neil, Klerck and Napaltjari Davis (2024) and Longden, Quilty, Riley, White, Klerck, Davis, Jupurrurla (2022).

and an inability to effectively remedy these poor outcomes under the existing regulatory framework.<sup>45</sup>

Recommendation 16: That Energy Ministers reform the consumer protections framework to ensure it is fit for purpose in the future energy market.

Ensuring consumers can easily access effective dispute resolution.

Access to free and independent external dispute resolution is an important feature of the energy market. As business models and energy services develop through the transition, it is essential that these services keep pace.

Currently, dispute resolution can be a confusing journey for consumers, with different pathways depending on the issue they face – does it relate to a specific piece of technology or is it a new energy service from their energy retailer? This lack of a single point of accountability or assistance frustrates consumers and reduces their trust in the energy industry and the energy transition. Ultimately, if people must seek alternative, complex, and often costly forms of redress, this will only lead to yet more disengagement in the market, and further poor outcomes for consumers. 47

We recommend that the jurisdictional ombudsmen's jurisdiction is expanded to include all energy services.

Recommendation 17: That Energy Ministers collaborate to ensure all consumers can easily access free and independent external dispute resolution and the Ombudsmen's jurisdiction is expanded to include all energy services.

### Closing the energy divide

We have previously called for a government commitment to an energy transformation that leaves nobody behind and ensures that all consumers have the same level of protection, regardless of their income, personal circumstance, supply arrangement, or location. We continue to advocate for this objective.

There are often assumptions that only a marginal number of Australians face barriers to easily accessing efficient, reliable, and affordable energy. However, our research finds that the large majority of households (82%) are likely to face one or more barriers, depending on the energy decision.<sup>49</sup>

<sup>&</sup>lt;sup>45</sup> See ECA Submission to the AER <u>Review of the Exemptions Framework for Embedded Networks</u> (February 2024) for further information.

<sup>&</sup>lt;sup>46</sup> For more information, see <u>this analysis</u> from the Energy and Water Ombudsman NSW or the <u>VOICES report</u> from the Energy and Water Ombudsman Victoria.

<sup>&</sup>lt;sup>47</sup> University of Sydney, *What will energy consumers expect of an energy and water* ombudsman scheme in 2020, 2025, and 2030? October 2019.

<sup>&</sup>lt;sup>48</sup> ECA, <u>Submission to the First Nations Clean Energy Strategy Consultation</u> <u>Paper</u>, February 2024.

<sup>&</sup>lt;sup>49</sup> ECA, *Understanding the energy divide* (December 2023).

This is similar for small businesses, in fact, they often have less control over their energy choices than many households.<sup>50</sup>

Our research is also indicating growing numbers of households increasingly self-identifying as experiencing financial pressure. Our ECSS data shows that around 20% of all consumers are experiencing financial pressure, and that in each income bracket, at least 50% of consumers tell us they are either under financial pressure or managing to pay bills with nothing left over. Interestingly, the perception of being under financial pressure is growing among higher earning consumers.

I am under financial pressure

100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

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Figure 8: Consumers reporting as in financial pressure

Correspondingly, our data shows a sharp decline across most income brackets as those who identify as financially comfortable, including those earning higher incomes.

<sup>&</sup>lt;sup>50</sup> ECA, <u>Small Business Energy Consumer Information Research</u> (November 2023).

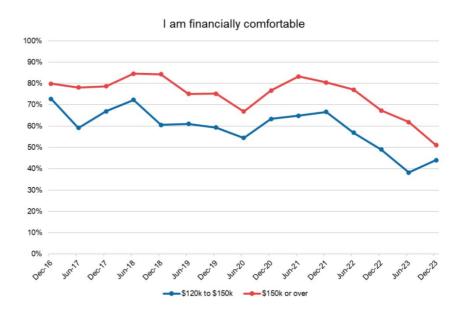


Figure 9: I am financially comfortable

The energy transition promises low-cost, efficient and reliable energy for all—but we need to ensure it is designed and delivered for and with consumers to ensure that no one is left behind.

Recommendation 18: That Energy Ministers improve incentive and assistance measures to address the barriers faced by consumers.

### Design for diversity and aim for equity.

ECA's Supporting Households to Manage their Energy Bills: A Strategic Framework<sup>51</sup> was designed precisely to help decision-makers ensure that their programs or policies will reach targeted households. The Framework:

- Identifies the range of actions that households can take to manage their energy bills.
- Details where households have similar needs and constraints, and groups them according to how they receive and act on information and assistance measures.
- Recommends initiatives and tools that will be of most value to those consumers.

The Framework also identifies the range of decisions that consumers can take to manage their energy bills or energy usage, and uses the COM-B framework<sup>52</sup>, to consider how consumers' ability, opportunity and motivation

<sup>&</sup>lt;sup>51</sup> Acil Allen (commissioned by ECA), <u>Supporting Households to Manage their Energy Bills: A Strategic Framework</u> (November 2018).

<sup>&</sup>lt;sup>52</sup> See https://thedecisionlab.com/reference-guide/organizational-behavior/the-com-b-model-for-behavior-change

will change depending on the energy decision – e.g. a renter can't install solar panels but can change energy retailers.

We have provided some specific examples below of barriers that consumers may face depending on the specific energy decision, using the three dimensions of ability, opportunity, and motivation, and recommended solutions. <sup>53</sup>

We note that some consumer cohorts face compounding barriers in all three dimensions for many energy decisions. The following should not be read as an exhaustive list of what's required, but instead a reflection of current research.

### **ABILITY**

Broadly, **ability** refers to people's personal circumstances - such barriers for example include literacy, numeracy, digital literacy, and proficiency in English. A significant proportion of Australians have poor literacy, numeracy and problem-solving skills<sup>54</sup>, and a tenth of all Australians are categorised as highly excluded from digital services<sup>55</sup> - that number is higher again for First Nations people.

Where policies, programs and products are designed without an understanding of where, when and how people might encounter barriers, people are locked out.

We recently undertook work in partnership with Sydney Community Forum to understand the often-compounding challenges facing consumers of culturally and linguistically diverse (CALD) backgrounds. <sup>56</sup> Our research used the Queensland University of Technology toolkit to support CALD Australians. <sup>57</sup>

ECA and Sydney Community Forum made the following recommendations:

- That the Commonwealth Government fund a pilot mobile Community Energy Hub in Western Sydney.
- That the Australian Energy Council and the Australian Energy Regulator partner with culturally and linguistically diverse (CALD) community groups to improve the quality of information and assistance for CALD consumers.
- Federal, State and Territory governments to advance housing reforms to improve the energy efficiency of ALL Australian homes.

<sup>&</sup>lt;sup>53</sup> This framework was also used by Acil Allen in their report to the Energy Security Board on <u>Barriers and enablers for rewarding consumers for access to flexible DER and energy use: Rapid evidence review</u> (June 2022).

See <a href="https://www.oecd.org/skills/piaac/Country%20note%20-%20Australia final.pdf">https://www.oecd.org/skills/piaac/Country%20note%20-%20Australia final.pdf</a>
 RMIT et al, <a href="mailto:Measuring Australia's Digital Divide">Measuring Australia's Digital Divide</a>. Australian Digital Inclusion Index 2023 (2023).

<sup>&</sup>lt;sup>56</sup> ECÀ, <u>Understanding the diversity of consumers and their experiences of the</u> energy system:

<sup>&</sup>lt;u>Culturally and Linguistic Diverse Consumers</u> <u>Edition</u> (April 2024) – see <a href="https://energyconsumersaustralia.com.au/publications/report-insights-understanding-diversity-consumers-experiences-energy-system-cald-edn">https://energyconsumersaustralia.com.au/publications/report-insights-understanding-diversity-consumers-experiences-energy-system-cald-edn</a>

<sup>&</sup>lt;sup>57</sup> Queensland University of Technology, <u>Supporting CALD Australians to be</u> empowered energy consumers: Toolkit of recommendations (August 2023)

All three levels of government to provide practical and targeted assistance to help decarbonise and lower energy bills, particularly for those least able to do it on their own.

### **OPPORTUNITY**

**Opportunity** depends on a range of factors that influences people's physical and behavioural flexibility, such as scope to improve their home, access to liquid funds, or scope to reduce or shift their energy use.

Our regular *Energy Consumer Behaviour Survey* identified a growing divide in ownership of CER between people who own a house, and people who live in apartments, rent, identify as being under financial pressure, or are younger.<sup>58</sup>

The energy transition can mean significant upfront costs for consumers. While many of these will be obvious to a consumer (such as the cost outlay for solar and storage, or changing an appliance from gas to electric), there are also costs that may be unexpected. These include electrical wiring upgrades to their home (which are often costly), and charges for abolishing a gas connection. We note that the AEMC has recently suggested that governments consider funding arrangements to support remediation where site defects are detected as part of the smart meter rollout. <sup>59</sup> Such financial support could be used to leverage multiple consumer benefits, such as better access to CER.

The Government's Household Energy Upgrades Fund initial package is a great start, but more is required to ensure all homes and small businesses are future-ready.

We recommend the Commonwealth Government expand the Household Energy Upgrades Fund and align with other programs that target consumers' different levels of ability to pay. This should include:

- Enabling free or low-cost finance options to help households improve their energy performance and access CER.
- Grants or subsidies targeted to those least able to afford to improve their energy performance and access CER.

Further, for small businesses, any change is a cost to the business, such that a clear value proposition must be articulated to make the time and financial investment worthwhile.<sup>60</sup> Our *Small Business Energy Consumer Communications Research* highlighted the significant role of perceived or actual barriers in preventing small businesses from acting:<sup>61</sup>

- 60% of small businesses agreed that "if we don't act now to try and reduce our business's energy use, energy will cost us much more in the future."
- 32% believed that "the type of business means that it's hard to make changes."
- 28% believed "it costs too much money to make the changes."

<sup>&</sup>lt;sup>58</sup> ECA, *Understanding the energy divide* (December 2023).

<sup>&</sup>lt;sup>59</sup> AEMC, Review of the regulatory framework for metering services (August 2023).

<sup>&</sup>lt;sup>60</sup> ECA, <u>Power over their Power: Small Business Perspectives on Energy</u> (November 2023).

<sup>&</sup>lt;sup>61</sup> ECA, <u>Small Business Energy Consumer Information Research</u> (November 2023).

As such, we recommend that Commonwealth, State and Territory governments co-design with small businesses practical financial assistance to support their energy transition.<sup>62</sup>

Only 52% of Australian households live in stand-alone homes that are owner-occupied. 63 Under current policy settings, landlords are not incentivised to improve the energy performance of their rental properties or invest in CER since they do not typically receive the benefits of these changes. Units and other non-standalone dwellings also face additional challenges. Many of these buildings have shared energy services, like shared hot water provided by a central boiler, and changing these services can require agreement from all or most owners. They also have limited roof space for solar, and challenges in sharing the costs and benefits of solar.

We recommend providing funding, developing new policies and standards, and/or removing red tape to allow those in rental properties and apartment blocks to access clean technologies and energy efficiency measures.

For renters, this should include:

- That State and Territory governments mandate minimum standards of energy efficiency for rental households and ban the rental of properties below minimum standards from 2027.
   We note the UK has trialled this approach, which has been successful in improving rental properties.<sup>64</sup>
- That the Government work with other jurisdictions to consider the design of incentive mechanisms that preclude using improved energy performance to increase rents. We note that at a time of housing shortage when there is increasing pressure on rents, any incentives must minimise any pass through of costs to tenants. Our Energy Efficient Housing research indicated that 49% of landlords would increase rents, even if they'd received financial incentives.<sup>65</sup> We acknowledge that this is not an easy task but see it as an important and missing piece of the policy toolkit to drive change.

For social housing, we acknowledge that the Government's Household Energy Upgrades Fund is a good start but emphasise that support must be expanded to ensure all homes can benefit from the energy transformation. **We recommend this include:** 

 That all governments set clear targets for energy efficiency upgrades for all social and community housing, that prioritises the upgrade most likely to deliver lower bills and better amenity to residents.

<sup>&</sup>lt;sup>62</sup> ECA, <u>Power over their Power: Small Business Perspectives on Energy</u> (November 2023).

<sup>&</sup>lt;sup>63</sup> ECA, <u>Stepping Up: A smoother pathway to decarbonising homes</u> (August, 2023) p

<sup>&</sup>lt;sup>64</sup> GOV UK, <u>Domestic private rented property: minimum energy efficiency standard - landlord guidance</u> (April 2023).

<sup>&</sup>lt;sup>65</sup> Renew (commissioned by ECA), *Energy Efficient Housing Research* (August 2022).

### **MOTIVATION**

**Motivation** refers to whether a consumer will act on their ability and opportunity to make an energy transformation change. Barriers include:

### Lack of clear policy direction.

Our December 2023 Energy Consumer Sentiment Survey finds that only 16% of households think that how the transition to renewable energy will affect them has been clearly communicated by Federal Government. <sup>66</sup> This is slightly higher for small business at 25%. <sup>67</sup> Further, we know that when consumers see a clear plan from government, they are more likely to act. For example, our Energy Consumer Behaviour Survey finds that in the ACT (which has developed clear intention to achieve electrification) households are more likely than in any other state to have considered getting off gas, with 55% having considered this (compared to, say, only 26% in WA). <sup>68</sup>

### Lack of easy to access, trusted information.

Our research finds that of those households that had looked for information on reducing their energy use and bills, many found it hard to source the information they were looking for (43%) and too often the information they could find was neither relevant nor easy to understand. <sup>69</sup> This is similar for small businesses. <sup>70</sup> In addition, consumers reported that the information they were seeing was often not from organisations or channels that they trust. Lack of accessible and simple information is a significant barrier to consumers investing in CER.

Existing approaches to resolving information gaps tend to focus on expanding consumer awareness and information but place the onus on the consumer to follow through and make the decision. In a market where there is low trust and complexity, this approach is unlikely to be successful.

Section 1 above discusses in detail our recommendation to address this, namely the provision of trusted and independent energy advice and support, through a One Stop Shop, to ensure consumers can make the choices that best suit their needs and circumstances.

We note that while for some, access to the right information at the right time from a trusted source will be sufficient, others will also require financial support, more hands-on assistance, or updated regulations and policies to ensure optimal energy outcomes.

The *Electricity and Energy Sector Plan* must consequently address all three of these categories to ensure optimal energy outcomes for consumers. As we advocate in our *Stepping Up* report, governments need to "step up" to smooth the path for households to benefit from the energy transformation – which will inevitably be expensive and disruptive for many consumers.<sup>71</sup> Certainly, consumers expect this support from governments.

<sup>&</sup>lt;sup>66</sup> ECA, Energy Consumer Sentiment Survey (December 2023).

<sup>&</sup>lt;sup>67</sup> ECA, Energy Consumer Sentiment Survey (December 2023).

<sup>&</sup>lt;sup>68</sup> ECA, Energy Consumer Behaviour Survey (October 2023)

<sup>&</sup>lt;sup>69</sup> ECA, Household Energy Consumer Information Research (November 2023).

<sup>&</sup>lt;sup>70</sup> ECA, <u>Small Business Energy Consumer Information Research</u> (November 2023).

<sup>&</sup>lt;sup>71</sup> ECA, <u>Stepping Up: A smoother pathway to decarbonising homes</u> (August, 2023).

### Consumers facing particular challenges.

As discussed above, our research has consistently demonstrated that there is no one-size-fits-all solution; all policy will require some level of tailoring to diversity of consumer experiences. Policies and programs should begin with a consideration of the barriers different consumers face for that energy issue/decision, to best understand which form of assistance will be most effective for different types of consumers.

Below we further identify some consumer cohorts that face greater challenges in accessing the benefits of the energy transformation, and provide recommendations for enabling better consumer outcomes (acknowledging that the Government is already actively pursuing some of these):

### Low-income households

Our *Energy Consumer Sentiment Survey* shows that the lowest income households are paying over five times more on energy than the highest earning group. The Meanwhile, concerns about ability to pay electricity bills increased 10% from December 2022 to 2023. However, assistance is not keeping pace with changing circumstances, particularly in an economy that has experienced low wages growth over a decade, and cost-of-living pressures rising. As such, we recommend that the Commonwealth Government increase income support for low-income households and consider a social tariff that removes cross-subsidies. We see these as more effective, long-term solutions than one off rebates to consumer bills for example.

Further we emphasise the importance of the Data Regime in the Government's Energy Equity Work Program, which can support the design and evaluation of effective solutions.

### First Nations people and communities

Recent research has made visible the significant harm experienced by Aboriginal and Torres Strait Islander people in remote communities, where their supply arrangements deny them access to the basic consumer protections around disconnection and hardship that the rest of Australia is afforded <sup>73</sup>

The harm caused by that approach is significant.

We recommend that Energy Ministers commit to ensuring that all Australians have access to critical consumer protections, regardless of their income, personal circumstance, supply arrangement, or location.<sup>74</sup>

We also recommended expanding the AER's mandate to track significant measures of energy hardship for all Australians. This expansion is necessary to ensure regulators and decision-makers have access to a comprehensive understanding of the various forms of hardship

<sup>&</sup>lt;sup>72</sup> ECA, <u>Understanding the energy divide</u> (December 2023).

<sup>&</sup>lt;sup>73</sup> See <u>White, Riley, Wilson, Markham, O'Neil, Klerck and Napaltjari Davis</u> (2024) and Longden, Quilty, Riley, White, Klerck, Davis, Jupurrurla (2022).

<sup>&</sup>lt;sup>74</sup> ECA, <u>Submission to the First Nations Clean Energy Strategy Consultation Paper</u> (February 2024).

experienced by Australian energy consumers and the ongoing and enduring implications of this hardship.

### Embedded network residents

Consumers supplied under embedded network arrangements often face a lack of consumer protections, lack of retail competition and a limited compliance framework. This can lead to poor consumer outcomes and an inability to effectively remedy these poor outcomes under the existing regulatory framework.

To address this, we have previously recommended expanding consumer protections to the equivalent of what on market customers receive, where practical and applicable. 75 We have also called for an effective compliance and monitoring framework be developed and implemented to ensure future registrations provide and deliver clear and direct ongoing consumer benefit, whether that be reduced energy bills or access to shared consumer energy resources such as solar, batteries, EV charging on the premises.

### Question 10: What social licence and circular economy aspects should be considered as part of the pathway for the energy transformation?

### Trust and social licence are critical for a successful energy transition.

As has already been discussed, consumers are increasingly investing in CER and participating in the energy transformation. Harnessing the opportunities of this will require working with consumers to understand their values and expectations for their investments. Only by understanding consumer values can we build a system that meets their needs. For example, while integrating CER into the energy grid poses both challenges and opportunities for system operators, it is important to remember that consumers don't see their investments as a problem or challenge to be managed.76

Further, only 31% of Australian households and 37% of small businesses feel positive that the market is working in the long-term interests of consumers. 77 This trust and confidence will only further erode if the energy transformation is not delivering on their values and needs. As such, we need to build an energy system that works for consumers and is centred on their needs, instead of imposing upon them system-focused solutions.

This is particularly important when we consider the potential of demand side participation and coordinated CER storage to lower energy costs and improve affordability for all consumers. While AEMO's 2024 Draft Integrated

<sup>&</sup>lt;sup>75</sup> ECA, <u>Review of the Exemptions Framework for Embedded Networks</u> (February 2024).

<sup>&</sup>lt;sup>76</sup> Newgate Research (commissioned by ECA), Community Attitudes to Rooftop Solar and the AEMC's Proposed Reforms (July 2021).

77 ECA, Energy Consumer Behaviour Survey (December 2023).

System Plan assumes a level of demand-side participation and coordinated CER storage in the future capacity of the NEM (see the figure below), it notes that ensuring this capacity will depend on a strong enabling environment to support consumer involvement.<sup>78</sup>

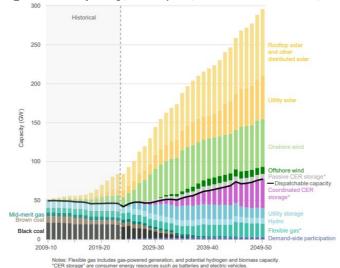


Figure 10: Capacity, NEM (GW, 2009-10 to 2049-50, Step Change)

Source: Draft 2024 Integrated System Plan

Further, a crucial expectation of these services is that it will have the 'smarts' to help manage the import and export of electricity to the grid. However, if consumers do not see the value of participating in these services or making the intended behavioural changes (and which may require giving some level of control over their vehicle to another party), they will simply choose not to take part.

Our research finds that while households are willing to use smart appliances to reduce their bills, most respondents also wanted to maintain control – wanting to either set the smart appliance controls themselves (41%) or have override capability (53%).<sup>79</sup>

Monash University's *Digital Energy Futures* project, which delved deeply into these issues, provides some insight on policy priorities. It found trust is critical to engaging households in demand response.<sup>80</sup>

Aligning demand management approaches with household concerns will help to build trust. The research identified six foundations of demand management to help design demand management policies and programs, inform communications with consumers, and ensure that trust is built:

 Household-facing energy language and research: Monash noted that "the absence of centralised, strategic coordination limits the

<sup>&</sup>lt;sup>78</sup> AEMO, *Draft 2024 Integrated System Plan* (January 2024).

<sup>&</sup>lt;sup>79</sup> ECA, Energy Consumer Behaviour Survey (October 2023).

<sup>&</sup>lt;sup>80</sup> Monash University, *Digital Energy Futures: Demand Management Opportunities* (December 2021).

ability of the energy sector to productively engage households in Australia's transition to the 'future grid' and no organisation is currently tasked and resourced for this role"81.

- Awareness of peak demand and surplus solar electricity as system challenges – consumers weren't aware of the system impact of variable supply. Consumers' willingness to limit their use to respond to supply constraints depended on the communications.
- Rewards instead of penalties: people are understandably wary of time of use pricing structures that penalise use at times when they feel they have limited flexibility. That, coupled with existing high mistrust in energy companies, is more likely to have counterproductive outcomes.
- Recognition of community, system and sustainability impacts presenting benefits solely in financial terms reduces the opportunity to leverage other motivations.
- Access to tailored energy feedback and practice insights information and data should be translated into meaningful insights or feedback.
- Partnering with households and organisations people may be more open to change when they hear about it from friends and trusted voices.

In October 2023, we commissioned a desktop review to better understand the challenges and opportunities of transmission infrastructure expansion through the lens of energy justice. 82 While this is not a space that ECA traditionally operates in, we were interested in better understanding parallels of building social licence in this context with consumer issues.

The research identifies a range of opportunities for all stakeholders, including:

### Place-based approaches that leverage innovation

- Regulators and policy-makers should consider taking proactive steps to enable broader place-based approaches to the transmission infrastructure expansion across the National Electricity Market, particularly within planned renewable energy
- Governments should leverage innovative opportunities through holistic place-based approaches; removing structural barriers; prioritising strategic assessments; leveraging the potential of planning systems to achieve better outcomes; driving greater consistency across jurisdictions; and ensuring that learnings from fresh approaches are shared across jurisdictions to enable continuous improvement.

<sup>82</sup> Sustainable Solutions Advisory (commissioned by ECA), Enabling energy justice through place-based approaches to expanding transmission infrastructure (October 2023).

### · Community engagement

- Engagement with community in relation to transmission infrastructure expansion should be meaningful, early, inclusive, continuing and focused on building trust.
- Engagement should be grounded in a dialogue with the community in a shared vision for the future of their place, and the broader reasons for the change required to their place and ensure that diverse perspectives are heard, including in relation to challenges that involves for their place and the opportunities for the future.
- First Nations perspectives should inform genuinely place-based approaches to transmission infrastructure expansion and renewable energy zones through First Nations led engagement and a commitment to enabling opportunities for their communities.
- Where there are existing community initiatives, engagement processes should consider how to tap into existing momentum and community-led action to drive place-based change and create a sense of ownership of the change process. Local business should also be engaged.

### Partnerships, benefit-sharing and new forms of energy governance

- Policy and rule makers need to ensure that the policy and regulatory frameworks for the transmission infrastructure expansion effectively and adequately support the consideration of economic, environmental and social factors, support meaningful engagement, benefit-sharing and new forms of energy governance.
- Networks and industry need to take proactive steps towards partnerships and benefit-sharing and explore opportunities for community ownership of transmission infrastructure through new forms of energy governance.
- The valuable role that Local Government can play should be integrated into place-based approaches to transmission infrastructure expansion, benefit-sharing and partnerships and new forms of energy governance.
- Governments should enable, encourage and incentivise networks, industry and Local Government to implement partnerships, benefit-sharing and new forms of energy governance.

To realise these opportunities will require Governments at all levels, networks, industry and community to work genuinely and respectfully together to shape the future of our places. Acting now to pilot place-based approaches powered by new forms of energy governance can unlock a better, stronger future for our communities.

Recommendation 19: That governments work directly with communities to develop place-based approaches and effective benefits-sharing to maintain social licence with respect to transmission infrastructure.

# OTHER GAPS IN AUSTRALIA'S ENERGY POLICY

Q11. What are other gaps in Australia's energy sector decarbonisation policy and what actions are required to address them?

## Establishing a right to access affordable, reliable and clean energy.

Energy is fundamental to access a reasonable standard of living in Australia; basic human needs such as clean water, cooking, nourishment, education, work, adequate housing, modern healthcare, communication depend on a person's access to affordable and reliable energy.<sup>83</sup>

The essentiality of energy has long been acknowledged by governments, used to justify strong regulation of electricity and gas markets and suppliers to ensure ongoing supply, as well as government programs aiming to maintain access for households who may be struggling to afford their energy.

Recognising the essentiality of the service, each state and territory in Australia - directly or through national market regulation – has established rules around electricity and gas prices, reliability and safety standards, and contingency plans in the event of a retailer failure. And in acknowledging the harm caused by lack of access to energy, all Australian governments provide assistance in diverse forms to energy consumers. The aim of those market interventions is to ensure ongoing access, with disconnection as a last resort.

Energy Consumers Australia has previously called for contemporary architecture that affirms a commitment by national and jurisdictional governments to a national and integrated energy transition that leaves nobody behind and outlines a shared vision of consumer participation. The energy market of 2023 is fundamentally different from that of 2013, and it is continuing to change. New technology – digitalisation and the move to renewable and decentralised generation – as well as decarbonisation of the energy sector have challenged the regulatory and legislative framework.

An explicit commitment from governments that they will prioritise access because energy is an integral element of a reasonable life will support ongoing social licence for the energy transition. That is increasingly important as consumers are being asked to accept higher energy bills in the short to medium term to pay for the energy transition, to invest their own money in their homes and business premises, and to change the way they think and use energy.

It emphasises the expectation that all consumers should be able to access a service as essential as energy and provides momentum to act on this

<sup>&</sup>lt;sup>83</sup> See Full article: Conceptualising Energy Justice in the Context of Human Rights Law (tandfonline.com)

expectation. Thoughtful alignment and consideration of effective policies to deliver affordable, clean and reliable energy to all Australians will help to address the current inequities of access and prevalence of energy poverty.

We see significant benefits in codifying access to energy (electricity) as a right in Australian energy law, and support that the right includes that it be reliable, clean and affordable. <sup>84</sup> Australia has committed to Goal 7 of the UN Agenda for Sustainable Development to 'ensure access to affordable, reliable, sustainable and modern energy for all'. Without embedding that right in law or regulation, it will be difficult to achieve that goal.

### Why energy needs to be affordable

In our view, affordability should be included as a further dimension of the right to energy given it is a major barrier to access.

In Australia, energy is nearly always delivered through some form of commercial contract. For most Australians who have trouble affording their energy bill, remedy is found through mandatory assistance from their energy retailer, or through government support through grants, concessions and rebates. While these supports have enabled many consumers who are facing financial difficulties to access energy and energy services, there remain current and pervasive inequities of access to affordable energy across Australia.

When energy becomes unaffordable and thus inaccessible it becomes harder to keep homes thermally safe, as well as to store food and medicine correctly, creating increased vulnerability to poor health and wellbeing outcomes and resulting in direct consumer harm.

The protections provided to consumers through the current regulatory framework vary across Australia and do not provide an adequate safety net.

### Why energy needs to be reliable

Energy must be reliable for the same reasons it must be affordable – it is essential to enjoy a reasonable standard of living. Reliability standards for industry are therefore created on the premise that energy is an essential service and set with an expectation that outages are minimal, and problems fixed quickly. In our view, access to reliable energy means supply needs to be resilient, dependable and secure.

Cost-effective renewable technology means it is now within our capability to deliver resilient, dependable, and secure energy in rural and remote communities.

### Why energy needs to be clean

Our research tells us consistently that all Australian consumers want and value clean energy. Our Forethought Research (2019) made it clear that consumers want clean energy, with an overwhelming number of participants

<sup>&</sup>lt;sup>84</sup> We note that this is being actively discussed in the European Union, where the notion of energy justice is being analysed from energy's impact on climate change as well as energy poverty. Common across that discourse is that the traditional energy sector governance is no longer fit for purpose (see for example <a href="Heffron"><u>Heffron</u></a> 2023; <a href="Heffron"><u>Heffron</u></a> and Fontenelle 2023)

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believing that renewables were the future and wanted Australia to be a country that moved towards a smaller carbon footprint. Whether passionate about the environment or not, many consumers in the study expressed a view that cleaner, more sustainable energy was important.<sup>85</sup>

In our December 2023 Energy Consumer Sentiment Survey, 25% of households surveyed saw a rapid transition to renewable energy sources as one of the most important challenges ahead, while 27% saw replacing old coal and gas plants with new more efficient technology as a priority. These were values only behind affordability (72%) and energy resilience to extreme weather events (39%)<sup>86</sup>.

As we transition to meet our net zero targets, it is not only obvious but imperative that the energy we use is clean, and that all Australians have access to energy that is clean.

### Embedding energy as a right in practice

The inclusion of this right in energy laws and rules enables a range of benefits.

It makes clear that ensuring access must be a societal priority, and so where there are Australians who are not able to access energy that is affordable, reliable or clean, then governments must take remediation action.

Codifying the right in energy law facilitates clearer responsibilities of government and industry in delivering affordable, clean and reliable energy to all Australians.

While there are anomalies in the current regime, we believe the governance structure underpinning the National Energy Market provided sound scaffolding for its creation and growth - national legislation and rules that are overseen by an intergovernmental agreement that outlines the respective role and responsibilities of Commonwealth and State and Territory governments, and those of market bodies. We see value in continuing a hierarchy of intergovernmental agreement, legislation and rules.

We believe that the inclusion of a right to affordable, clean and reliable energy into energy law and rules will support a just transition. It emphasises the importance of an equitable, participatory and sustainable shift towards the decarbonisation of the Australian energy system. It also draws attention to the importance of ensuring the benefits of the transition are shared by all Australians, and that no one gets left behind.

Recommendation 20: That governments secure social licence for the energy transition by providing Australians with a guaranteed right to affordable, reliable and clean energy.

<sup>85</sup> Introduction and Context (energyconsumersaustralia.com.au)

<sup>&</sup>lt;sup>86</sup> ecss.energyconsumersaustralia.com.au/sentiment-survey-dec-2023/featured-content-household-sentiment-dec-2023/

### Targets that deliver clear benefits to consumers

Setting clear targets is essential to spur action of energy performance measures, as well as to improve their effectiveness. Targets that are measurable and achievable, delivering benefits to consumers as well as to the energy system set a successful direction to achieve our net zero by 2050 goal through an efficient, reliable, flexible, modern, and — most importantly — affordable energy system for all Australians.

The Discussion Paper notes Australia's Paris Agreement commitment to reduce emissions by 43% by 2030 and the Government's overall target of a net zero whole-of-economy by 2050.

Limited tracking of success and monitoring progress, however, prevent us from knowing how far we are from reaching these targets. Buildings account for about a fifth of those emissions<sup>87</sup>, yet the responsibility for delivering is spread across national, state and territory and local governments.

ECA's starting point is that by 2050 we cannot still have Australians living and working in poorly or uninsulated, very cold —or very hot— buildings, spending too much on energy and having their health and wellbeing impacted by poor indoor air quality.

The targets in the Plan should reduce the deepening energy divide and commit to an energy transition that leaves no one behind. Homeowners of separate (free standing) homes invariably find it easier and more cost-effective to improve the energy efficiency of their homes, fully electrify and install distributed generation and storage to reduce their overall energy consumption and save on bills.

The other half of Australians households face discouraging barriers to take part in the energy transition, conflicting messages and serious disincentives to act, which will lead to increasingly higher bills. To this end, the Strategy must ensure energy performance is a whole-of-community effort towards net zero homes and businesses that deliver benefits for all Australians.

### Commitment to an inclusive transition

The EESP needs to provide a pathway to a net zero future for <u>all</u> Australians, not just those who have the means and capacity to improve the energy performance of their homes and business premises.

Therefore, we suggest that the Plan considers as a meta target:

Meta Target 1: <u>All</u> homes and small businesses in Australia are net zero by 2050, if not sooner.

On the affordability aspect, we draw attention to the fact that a meta target for net zero homes and small businesses by 2050 doesn't necessarily mean energy efficient, affordable, healthy, comfortable, and flexible homes and businesses not until 2050.

<sup>&</sup>lt;sup>87</sup> See <a href="https://www.dcceew.gov.au/energy/energy-efficiency/buildings#:~:text=Data%20from%20the%20department%20shows,direct%20carbon%20emissions%20in%20Australia">https://www.dcceew.gov.au/energy/energy-efficiency/buildings#:~:text=Data%20from%20the%20department%20shows,direct%20carbon%20emissions%20in%20Australia</a>.

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If the EESP is successful in improving Australia's energy performance by encouraging energy efficiency, load shifting, electrification and behaviour change, this is an achievable meta target that will undoubtfully deliver major benefits to consumers by reducing energy costs and freeing disposable income for other important needs and wants.

A complementary meta target that reflects energy affordability could be coupled with the net zero meta target, as suggested below.

### Meta Target 2: Energy costs represent a small and manageable proportion of households and small business input costs

To deliver those overarching targets, the EESP should consider smaller, tangible, and action-oriented targets that can be delegated appropriately to a responsible entity.

Clearly defined targets should be intentional, purposeful, ambitious and aim to deliver system and consumer benefits altogether. Targets are critical enablers of the sustainable and net zero future we envisage and must play an important role in scaling up the market, the workforce and the innovation in products and services needed to meet everchanging consumers' needs.

The International Energy Agency (IEA) suggests six categories of energy efficiency targets that can be directly broadened to performance measures<sup>88</sup>: energy intensity (including fuel-switching outcomes), energy consumption (which can encompass demand flexibility and load shifting), policy progress, energy productivity, energy elasticity and transactional targets.

We expect that the EESP considers all these options, as seen in Figure 8, when defining more specific targets. More importantly, such targets should be able to be directly transposed into actions for specific geographic regions or economic sub-sectors.

Additionally, as we experience the many changes in our energy system in the next decades, targets in the Strategy should be updated to consider the supply/demand balance, i.e., if we continue to see the early retirement of coal power plants, how can energy performance on the demand side further contribute to energy security, reliability and affordability?

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<sup>&</sup>lt;sup>88</sup> See https://iea.blob.core.windows.net/assets/8c0b7b02-3f86-4662-815f-13d260dd6f99/EnergyEfficiencyTargetsEnergyEfficiencyInsightsBrief.pdf

Figure 8: Energy performance target categories

#### **ENERGY INTENSITY**

 A reduction in energy consumption per unit of activity, such as GPD.

### ENERGY PRODUCTIVITY

 An increase in activity per unit of energy consumed.

### **ENERGY CONSUMPTION**

- A reduction in energy consumption relative to a base year, projection, or benchmark;
- A change in consumption through load shifting and flexibility to optimise supply and demand balance.

### **ENERGY ELASTICITY**

 A reduction in the ratio of energy consumption growth to activity growth.

### **POLICY PROGRESS**

 An increase in the impact of energy efficiency policies.

### TRANSACTIONAL

 An increase in market penetration of energy efficient goods or services.

### (Adapted from IEA,2017)

### The role of targets

The targets in the EESP should consider that energy performance improvement on the demand side is not a voluntary action; it's an imperative and systemic approach to achieving a least total-system-costs energy system.

The design of targets should recognise their impact on consumers, and how that may differ across different types of households and small business. They should acknowledge the different needs of consumers, and support consumer engagement. Targets should be measurable.

Recommendation 21: That the Electricity and Energy Sector Plan set tangible, measurable and consumer focused targets.

## Ensuring Australia's national, state and local laws and regulations supports consumers to take action.

We regularly encounter legislation and rules that can delay or even obstruct action to improve action by households or small businesses to taking action to decarbonise their homes and premises.

Those can range from the AEMA's objective of promoting the use of gas in regional Australia, to local council planning regulations that use heritage regulations to obstruct household rooftop solar PV or charging stations for electric vehicles.

They throw up significant – sometimes insurmountable – inadvertent barriers to individual action, adding to cost and complexity for households.

We recommend that the Plan include a commitment to review legislation or rules that are presenting barriers to improved energy performance.

That review can be undertaken in a number of methods, including providing consumers with assistance and advice when they encounter such a barrier

and being able to capture and report to government on the problem, or leveraging networks such as the Australian Local Government Association to share information where planning regulations encourage perverse outcomes.

Recommendation 22: That the Commonwealth Government review all relevant legislation and rules that are creating barriers to action for consumers.

Delivery of the plan will be most effective with all governments working together.

The Sector Plan acknowledges that there are important enablers to action – for example workforce development or rebates and concessions – that sit outside the remit of Energy Ministers.

We welcomed the acknowledgement that the Electricity and Energy Sector Plan should align with the other decarbonisation sector plans to set whole-of-government targets (such as having all Australian homes renovated to a 5-star level by 2035) and whole-of system targets (such as setting emissions saving targets in line with Australia's international commitments).

State and Territory Governments have been active in delivering policies and programs to help households and small businesses reduce their energy use, invest in energy efficient appliances, or upgrade their homes or buildings.

Local government plays an important, but too often overlooked role in this space:

- Promoting community-based programs to reduce climate emissions, such as energy efficiency upgrades, solar installations.
- Providing advice to consumers on the actions they can take to reduce their energy bills or manage their energy use – see, for example, Zero Carbon Merri-Bek's Electrify Everything<sup>89</sup> advice, based on solid consumer research.
- Making planning decisions on new builds and renovations, including on the installation of solar panels and electric vehicle chargers.
- Working with local tradesmen and builders, including in some jurisdictions providing certification of building upgrades.
- Sharing information and intelligence through networks such as Zero Carbon Merri-Bek's community of practice.

These community-focused programs have proven very effective in delivering improved energy performance of homes, and providing homes and businesses with tailored advice and information that has helped them manage energy use. Those programs can work with local community groups and networks, and accommodate differences (in housing stock or climate, for example) particular to a region or neighbourhood. Those are particularly valuable in rural and regional areas, where the energy, economic and social infrastructure to support a program can be widely variable.

<sup>89</sup> See https://zerocarbonmerri-bek.org.au/energy-switch/go-all-electric/

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There are also existing local government networks, such as Zero Carbon Merri-bek's community of practice, who are already sharing information around strategies and programs to assist their constituents.

We strongly support the Strategy's intention to build close collaboration with jurisdictions, and recommend it consider how it could engage with local government to help local government identify the most effective programs to assist their communities and consumers, and capture community initiatives and learnings to share with other jurisdictions.

Recommendation 23: That the Commonwealth engages with all levels of government to identify and scale up best practice local government and jurisdictions' programs that provide effective support to consumers in the energy transition.

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