

Good morning, everyone.

It's great to be here with you in Adelaide, an appropriate place to discuss the energy system transformation we are all living through.

Only when you visit South Australia can you simultaneously go back in time (from the East Coast) by half an hour and travel forward by ten years.

This place and its unique circumstances have been the leading edge for so many of the changes that are underway and more, no doubt, that are yet to come.

I was really pleased to be asked to speak at this Conference about the integration of renewables and distributed energy resources into the grid, to bring a focus on consumers, and in particular Australia's 10 million households and 2.5 million small businesses.

I will start though – with your permission – by throwing a bomb.

At Energy Consumers Australia we don't say distributed energy resources. And we don't really talk about integrating them into the grid.

We say these things are consumer energy resources because that's where they exist: where consumers are. They are at the centre of our system, not on the periphery. Conveniently located where we need them: where consumption happens.

And the big challenge that is before us? We say it isn't integration -- as if the whale of the system stands ready to swallow up this minnow, if only the minnow were more willing to become lunch...

The challenge is reimagination. What does a better system, that places people and their needs and resources at the centre, look like? And how might we get there?

This preferred energy future is something we spend a lot of time thinking about and asking consumers about. It's what I'm going to talk about today, and it can be boiled down to four words.

Least cost, most participation.

That is the energy system that empowers consumers, which is great, because it also happens to be the kind of system that is best placed to deliver on our

national goals and commitments: a net zero energy system, which delivers both affordability and security.

That's the good news. But before I explore some of what this will mean, I want to make a couple of things clear.

This isn't the easiest way to create a future energy system.

Consumer voices and needs are diverse. Listening and responding to them takes work.

Consumer energy resources are varied and access to them must be earned, not assumed.

And behaviour change where the existing behaviour is ingrained, and some might say dates back to when Edison was a boy, is more or less the hardest kind of change to bring about.

Which means securing and maintaining a system where consumer participation is a cornerstone requires commitment and adaptation.

And that's from both consumers and system planners.

But the benefits are clear if we can achieve it.

The last time I gave one of these speeches I ended by saying, "For the changes that we see as necessary to become reality, requires **a kind of grand bargain** between consumers and those who run the system.

What did I mean?

In this new reality, consumers will have new opportunities and new benefits but also new responsibilities and sometimes even new limitations.

They will be required to make changes to the habits of a lifetime. The appliances they use to cook their dinner and heat their home. The times of day when they carry out certain tasks. The way they power their own transport. And more.

We are asking them to make these changes. Mostly, we are just assuming they will. But what are they being offered in return?

And what has been done to earn their trust that the system asking so much of them is one that has their best interests at heart?

Today I want to explore the idea of a grand bargain a little more. What needs to be offered by both sides and what is at stake if we can't get this right.

At its core sits a fundamental challenge...

When it comes to the energy transformation, our research shows that consumers care most about affordability.

More than they care about the nation's emissions, or their own carbon footprint, or the security of energy supply, or their personal sense of independence and control.

Though they do care about these other things too.

Retail electricity prices have been high for the past decade and are likely to stay that way for the foreseeable future. And consumer trust in the system is consequently low.

Delivering a transition with affordability for all requires optimising consumer participation.

And participation? Well, that requires trust.

So you can see we've all got a pretty big job ahead of us.

What do we mean by least cost?

The starting point for any grand bargain has to be a shared vision. That is where least cost, most participation comes in.

Our energy system is entering a period of massive investment. How much further retail prices will rise, and how consumers experience that as increased bills will partly depend on how efficient the investment is and how efficiently we use those resources.

And every dollar that gets invested in building our future system gets passed back to consumers in one way or another. That means we can't afford – they can't afford – to spend one dollar more than we absolutely need to.

Least cost is a principle that needs to be an article of faith at every point: where assets are located, how they are built, and how they are efficiently operated. We need to ensure that we are fully utilising the capacity of the network assets that consumers are paying for, which is why we support congestion management reform, for large generators as well as those generating from their rooftops.

Going further, least cost also means unlocking the potential of the demand side.

We can see energy efficiency starting to have a bit of a moment, as a community of changemakers and advocates, including Energy Consumers Australia, begin to gain traction with their arguments for supporting Australians to optimise the use of electricity in their lives, homes and businesses.

We are positive about the potential for the *National Energy Transformation Partnership* that has been agreed by all Energy Ministers to better integrate all of the areas in which energy will touch consumer lives. That means joining together planning around gas, electricity and transport so that we can see the complete picture of the future energy system and its interdependencies.

We also need a plan to include energy efficiency and consumer energy resources as options with their own costs, supply-curves, and procurement approaches that can deliver a least cost future.

[ARENA research](#) has found these resources could reduce electricity system costs by \$6-\$18 billion.

Given the size of the prize, we should take every opportunity to include both demand and supply solutions as part of the market design. For example, we know that including energy efficiency and demand response within a capacity mechanism provides early, relatively lower cost options than building new, large assets.

So that's least cost. But what do we mean by most participation?

Historically the role of consumers in our energy system was to do just that: consume. They were end users of a product that was carried into their homes and businesses by a vast external network.

Obviously, that's all changed now. Increasingly, consumers are generators, storers and sharers of electricity. Increasingly, how they use those electrons will matter too. What time of day and how much and with what kind of appliances – moving from gas to electric, and switching to electric vehicles.

Most participation doesn't mean most complexity. It doesn't mean every single Australian will need to become an energy market expert in order to be able to put the kettle on, have a shower or heat and cool their homes.

That is not what consumers, or the vast bulk of them, tell us they want.

To me it means this...

Consumers understand and broadly consent to how their assets (including smart appliances) will be used and why. They have a sense of participation set at a level they choose and with a sense of control they feel comfortable with.

For some that will practically be expressed as a high level of automation. For some it will be control that is willingly delegated to a third party. For some it may be a simple 'set and forget' and for others it might be a more complex series of actions designed to maximise efficiency and reduce cost.

Just as some people trade on the stock market every day, others trust an investment manager to do it for them and many of us... just check in on our superannuation every now and then and don't think too much about it.

The overriding principle should be settings and a market that provide consumers with the most agency tailored to their individual needs and preferences.

That means allowing them a sense of control in a way that is intuitive, easy and transparent. They are able to see what is being asked of them and what is offered in return.

But there's another side to this too.

Most participation also means most people participating. Nobody left behind.

Last week the Chair of the Australian Energy Regulator, Clare Savage released their *Towards Energy Equity*, which is a strategy for an inclusive energy market.

We agree with the AER that energy inclusion is essential to our energy transformation.

We need to get better at harnessing and coordinating assets like rooftop solar, batteries, electric vehicles and hot water systems so that they save money for their owners AND help the system run more efficiently.

But that's not enough. We know there will be millions of Australians who can't buy these technologies because they can't afford them, but also because they live in an apartment, or are renting.

Their participation and their ability to share in the benefits is every bit as important when it comes to delivering a least-cost system.

I'll come back to that a little later.

We're assuming more participation. We need to commit to it.

The energy system isn't just transforming, it's expanding.

Of course, this is literally true. Over the coming decade we'll see countless billions invested in adding new generation, storage and transmission.

But that's not the only expansion. The energy system is expanding its footprint in the lives of consumers in a way that past generations could scarcely have imagined.

By 2050, the Australian Energy Market Operator's *Integrated System Plan* predicts the amount of electricity used by Australians will have doubled. Why? Because it will power every aspect of their lives.

How important will electricity be to the average Australian when we get to that point?

Think of some of the current concerns that might be front of mind for the average Australian:

- High petrol prices
- High gas prices
- High prices for groceries and manufactured goods
- Rising interest rates
- And, of course, rising electricity prices.

Already we are seeing the interconnectedness of these things but it's not hard to see how that gets magnified when manufacturing, transport and all facets of powering a home or business are all fully electrified and all of these concerns are suddenly inseparable.

Our ability to work, to communicate, to entertain ourselves and to organise our lives, all require electricity. In the future that's envisaged this will extend to all appliances in our homes, to our own personal mobility and transport and to the cost of everything we buy.

Electricity has long been an essential service but it is becoming ever more essential – assuming an unchallenged centrality in the lives of Australians. It will have an outsized ability to make things possible and the same outsized ability to cause harm.

That is the future system planners foresee but it's not the world we are living in now. And when I look at documents like the *Integrated System Plan* it seems to me that we are making a lot of assumptions about what consumers will do in the future without having any plan to secure their cooperation and consent.

If we look at all the investment that has been projected for the supply side, adding new power generators, batteries and other storage and building out the transmission network we are looking at upwards of \$320 billion.

That's obviously a huge number and it is vital that we keep it as low as possible, remembering that every dollar spent will be passed back to consumers in some way.

But I want to make another point here. There's a tendency, I think, to approach this figure as a necessary investment and to think about it in terms that make sense to us when it comes to such things: Minimising risk and providing certainty for investors. Getting planning and the regulatory environment right to deliver investment at the right pace and in the right places.

We don't tend to think that way when it comes to the people side: what we are asking of consumers.

Think of it this way. There are over 10 million electricity connections across Australia. That includes 10 million households and small businesses.

We are expecting them, over coming decades to replace their petrol-powered car with an EV. To perhaps install rooftop solar or a home battery. To replace their gas heaters and hot water systems and cooktops with electric models. To install energy efficiency upgrades in their homes and businesses.

If, and I'm being extremely conservative here, we say each one of these 10 million consumers invest \$50,000 in doing just some of these things... we are talking about a \$500 billion investment from consumers in the future energy system.

That's the scale of what we are asking. And that's before we even get to the challenges of behaviour change and what that looks like from a consumer point of view - to use less electricity or to use more electricity when it is abundant and cheap during the day.

Some would have you believe we are overcomplicating things. That a mixture of market forces and price signals will drive the huge shifts in behaviour and investment that are needed.

This is a kind of wish fulfillment paired with magical thinking and it's at the heart of our planning right now. It's that most typically Australian of approaches to a complex change.

"She'll be right, mate".

Well, I say she may not be right.

So what do we need to do? Where can the grand bargain start?

Many Australians face significant barriers to making these changes. If they are renting, or live in an apartment, or are under financial pressure, they are far less likely to own on-site generation and storage technologies. They are also unlikely to be making the shift to smart appliances and switching away from fossil fuels any time soon.

And for those who might be able, the question becomes: are they ready?

Have they been supported, encouraged and incentivised to a point where the value proposition is clear and the road to implementing it feels doable?

We know that half of all Australians (49%) feel they do not have access to the information they need to make decisions around energy. In that context, who could blame them for taking a 'wait and see' approach?

The absence of clear, trusted and practical advice and linked financial supports means millions of Australians lack the confidence to act. Their uncertainty translates as inaction, even though their awareness of the need to act has grown.

The answer lies in trust.

Our Pulse Survey in August revealed that just 37% of consumers have confidence in the energy system to look after their long-term interests.

Think of all the things I've mentioned earlier, when it comes to expectations around how Australians will change their behaviour, invest their money and make their energy resources available.

Why would they do it?

What we are measuring is not just consumer confidence in the system, **it's confidence in the system to look after their interests**

The point here is reciprocity. Without it there can be no grand bargain.

Here is what the energy system needs to offer consumers, if it wants to unlock the benefits that will flow from their participation.

The first thing is nobody gets left behind.

All over Australia there are people who, for many different reasons, live on tight margins. For them, a sudden 25% rise in electricity costs – coupled with interest rate rises, and other inflation-related costs is potentially catastrophic.

As a system and as a society our answer to them can't just be: tough luck.

They face a set of circumstances they could not have foreseen and to which they have in no way contributed.

They need urgent, direct assistance to avoid falling into the kind of energy debt that can cripple families for years.

Or to avoid the kind of energy rationing that we already know is happening and that can have harmful impacts on the health and wellbeing of families and individuals.

And they need better consumer protections – so that they are not taken advantage of, treated badly or preyed upon by bad actors or simply by the complexity of the system itself.

The next thing is we need a vision and a plan for people

It's a cliché we use about our kids: if you can't see it, you can't be it. But it applies equally here.

How good have we been at laying out what the energy future will look like from the point of view of different types of consumers?

For renters? For older Australians? For small business owners? And so on...

Consumers - I am here to tell you - just do not understand this because nobody has tried to help them understand it.

How is the future energy system going to be better than today?

When is it going to be better?

Is it going to be better for everybody?

What will be asked of me?

There is need for a national conversation on a large scale and alongside it there is need for a plan for this shared vision of consumer participation to be integrated into the *Integrated System Plan*, and the various partnerships and strategies across all levels of government.

We need the plan for what is going to be happening in consumers' homes and businesses.

How will Australians use electricity in the future, across many areas of their diverse lives and in their businesses, and what is the roadmap for moving from the current state to this future one?

Australians deserve to know.

Once we have acted to restore trust and win social licence for a preferred future and the changes it requires, we need to look at the next step.

If we know, and consumers know, what actions are needed...

What barriers prevent them acting and what might empower them to do so?

There are plenty of barriers currently, and I have talked about some of them already today.

They include financial barriers but also informational ones, access to trusted advice, technology, language and cultural barriers, the confusion of dealing with a web of different programs and incentives or simply the current insufficiency of those incentives to make behavioural change feel worth it.

We need to systematically dismantle these barriers wherever we find them and replace them with **enablers** that make it easy, beneficial and desirable for consumers to make the changes we ask of them.

That should include things like minimum energy efficiency standards for rental properties, so that tenants don't have to live in draughty homes that are the equivalent of tents.

It should include subsidies to help households and businesses convert from inefficient and gas-fuelled appliances to efficient electric ones.

It should include programs to increase the energy efficiency of millions of homes through better insulation and glazing – lowering electricity bills in the process.

I have said the goal here is a least cost, most participation future and that the necessary precondition for this grand bargain is reciprocity and trust.

Well that's what we are calling for.

This week we'll be asking ministers from across all states, territories and the Commonwealth to consider taking steps to create an Energy Trust of Australia.

It's a big idea for a big challenge. Energy trusts have been really effective in places like Oregon, Ireland and in Europe¹. But an Australian version on a national scale would be a world-leader in a fast-emerging field.

I am talking about a new, highly-visible flagship for how consumers interact with the energy transition. How they gain confidence and how that confidence translates into action.

It could act as a one-stop-shop that draws together:

- trusted, practical and independent information and advice;
- in-home advisory and energy audit services;
- seamless and easy-to-access subsidies, incentives and enabling programs; and
- accredited and knowledgeable tradespeople

The reason for doing this is to supercharge participation and bring down bills – at a time when retail prices could still be high - and we have the evidence that it can work.

In the Oregon example we can see that the trust has cost consumers \$2.7 billion since 2004 but delivered \$9.7 billion in bill savings.

If all of these things I have talked about today seem like a lot, remember that we are spending \$320 billion on the supply side.

¹ See Energy Cities, <https://energy-cities.eu/publication/how-to-set-up-a-one-stop-shop-for-integrated-home-energy-renovation/>

If they seem messy and difficult, know that so too is building 10,000km of transmission through the streets and backyards and farmland of countless Australians.

Nothing about this is easy but we are doing it because we have to, to limit global warming, and because we see a future on the other side that is better. But that has to mean better for people. And by people we have to mean *everyone*.

We can't just assume that's what the outcome will be. Because there's a lot going on right now but that's not the course we are currently on. It's the right moment now to correct that course, and that means opening our eyes to what's available and what's necessary over on the people side of the system.

That's the conversation we are keen to be a part of.