

Alastair McKeown
EnergyAustralia Chief Financial Officer

Speech to the 56th Annual Australia-Japan Joint Business Conference
15 October 2018

Making a modern energy company

Thank you Madam Chair;

Today's theme of "taking the long view" could not be more important for the Australian energy sector and for EnergyAustralia.

We currently face an energy trilemma of sustainability, affordability, and reliability, and today I want to outline the challenges we face in trying to address this.

Many of the people and companies represented here today will have a significant role in helping deliver that transition to a more sustainable, affordable, and reliable energy future.

I am CFO of EnergyAustralia.

We are an integrated energy business that generates, buys and manages energy for over 1.7m customers around the country.

It sounds straightforward, but lately it's been anything but.

Australia is at the forefront of the global energy challenge:

How do we transition to a modern lower emission energy system?

No country has made the transition successfully.

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No country on can give us a blueprint of how to transform an energy system based on coal to one reliant on renewables, with low or zero emissions.

We're in uncharted territory and the eyes of the world are on us.

Renewables were the fastest growing energy source worldwide in 2017.

With China, the United States and Japan leading the growth in renewables-based electricity generation.

But Australia is at the front of the pack in how quickly renewable energy is being deployed.

And we expect the pace to quicken.

Our energy system was designed decades ago around large power stations generating dispatchable energy in regional areas.

Coal is now largely regarded as a legacy technology; but it still produces more than 70 per cent of our electricity and will be with us for some time to come but one by one these plants will close.

That's great for the environment.

But transitioning to cleaner sources of energy needs careful planning if we are also to deliver affordable and reliable power.

Customers have already paid the prices for mistakes in Victoria and in South Australia.

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The system must adapt to intermittent power.

Depending on your assumptions about economic growth and industry transformation, the market operator AEMO estimates it will cost between \$8 billion and \$27 billion to replace retiring generation capacity and meet consumer demand.

That investment is needed over the next two decades.

It's an enormous task, however we already have a good idea of what the future looks like.

It will involve: wind, solar, batteries, demand response, intelligent energy management systems and pumped hydro supported by fast-start gas plants.

These are the technologies that will likely come to underpin energy supply in Australia as progressively coal-fired power plants are retired.

However the critical missing piece, is a national energy policy which brings all these elements together into a coordinated, orderly package

Without such a policy, decision-making can be haphazard and dispersed, and not just between states and territories.

Increasingly it's also spread across the hundreds of thousands of homes which are making and selling their own power.

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We came close recently to a national energy policy with the National Energy Guarantee.

Unfortunately it fell at the last hurdle.

Instead, we have governments warning of market intervention, making already difficult investment decisions even harder.

But I remain an optimist. I believe that energy can be fixed.

While a clear, national energy framework would be a huge step forward I don't think we can wait.

As the ancient Chinese philosopher Lao Tzu said: "Denying change is like holding your breath: Even if you can do it, it does not generally end well."

I think the same of true of waiting on energy policy.

So within this context what is EnergyAustralia doing?

Often when you are faced with a complex task it is hard to know where to start, but thankfully at EnergyAustralia we don't have that problem, because we always start with the customer.

Our purpose is to lead and accelerate the clean energy transformation for all, no matter what you earn or where you live.

Our customers are our greatest asset and like all good businesses we invest in our assets and for us that means projects that help deliver better outcomes for our customers.

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We currently have all the existing and planned capacity the system needs.

The National Energy Market has around 50,000 megawatts of installed capacity. (AEMO including rooftop solar of circa 7000MWh)

Average demand is around 22,000 megawatts, yet some 37,000 megawatts of renewable generation is proposed beyond the 11,300 megawatts already built or committed - AEMO

Our exam question for the next decade is not about building more generation – it's about ensuring the different types of generation work seamlessly and support a stable grid.

Earlier this year EnergyAustralia completed a program to sign power purchase agreements supporting some 500 megawatts (MW) of renewable projects , but we also have continued to invest on other opportunities.

- In April we acquired two gas-fired power stations in Victoria, representing 950 MW or up to 9 per cent of the state's capacity.
- In New South Wales we're progressing permits for 1000 MW of new gas-fired capacity, with the aim of taking one of these to a final investment decision in 2019.
- In South Australia we are evaluating a potential pumped hydro power project with generating capacity of 250 MW.
- We are also participating in a \$35 million Australian Government initiative to deliver 200 MW of energy reserve or "demand response". This is an innovative program which

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recruits underutilised assets and involves both large commercial and industrial customers as well as residential customers curtailing demand in critical peak periods and.

- We have committed \$50 million to two commercial-scale battery projects in Victoria, and
- We continue to make significant investments in customer service. That may seem tangential to the energy trilemma, but it seeks to address a critical challenge of the modern retailer – affordability and ease of service.

There's a lot more to do, and we can't deliver the clean energy transition on our own – that will take government and industry working together.

Unfortunately, uncoordinated intervention, even if well intentioned, can have unintended consequences which add to, rather than relieve, the pressure on prices.

We believe a market-based approach will provide the most efficient and affordable outcomes.

So what will take to succeed in this new era? – We believe successful energy companies will be those which think and act differently, particularly in the solutions they offer and the capabilities they value.

More than that, it will be about the culture of the business.

We have seen the disruption that Uber and Airbnb have caused.

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Energy is not immune.

If customers' needs are not met they will either go elsewhere, or seek alternative solutions.

Technology will also continue to be a critical component of the puzzle.

It will help us optimise the business we have and drive innovation across the energy value chain.

EnergyAustralia is a consumer of technology. Generally, we don't make bets on specific technology.

Our preference is to incorporate technology into our business either directly or in partnership.

The criteria we apply is that it must improve the customer experience. For example, by lowering the cost of energy, putting customers in control of the energy they use or providing an easier customer experience.

With demand response we are working with business and residential customers to moderate their energy consumption for short periods, to offset extreme demand or during emergencies.

It's one way to better optimise the energy network, easing the strain on the electricity system and avoiding involuntary load shedding.

It seems counter intuitive that an energy company might want its customers to use less energy, but when customer do so they save money, they help the environment and when combined with great customer service means they stay with us longer.

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Our partnership with Toyota Tsusho is example of how we are exploring opportunities for products and services to help our customers manage their energy consumption and save money.

We've started with a test and learn approach and regard this as a fantastic opportunity for our customers to gain access to a pipeline of new products and services.

So what does all this mean for investment in the long term?

From where I sit I can see the overall number of potential investment opportunities increasing with varying degrees of capital investment, risk profile and payback.

When we consider these opportunities we do use long-term market scenarios to test each investment, but we always come back to how a proposal might benefit customers and aid the transition of our portfolio (energy, people and systems) to a more flexible portfolio that delivers sustainable, affordable and reliable energy.

EnergyAustralia's heritage in traditional, dispatchable generation is extensive, but we don't have the same experience in emerging technologies.

It is an inescapable fact that the modern generation portfolio will feature a greater number and variety of assets and technologies and that not all of our investments and projects will deliver as expected. Investing in this environment is not easy and requires new capabilities and different thinking from management and investors.

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In this challenging time EnergyAustralia is very fortunate to have a strong and supportive Board of Directors and owner, in the CLP Group, one of Asia-Pacific's biggest power companies, which itself has a deserved reputation for prudent long-range investment.

There is a wonderful story that Sir Michael Kadoorie, the chairman of our owner CLP Group, tells about patience. When he was learning the family business he approached his father, Lawrence, with an investment proposal.

The idea promised a return over 20 years. Lawrence paused for a moment or two, then asked his son: "Why such a short a time frame?"

This philosophy of investing for the long term still remains strong across CLP.

So before I finish today I would like to thank everyone for the opportunity to explore this very important topic.

It is a topic that will continue to be at the forefront of not just the Australian economy but many economies and industries around the world.

We believe we have most of the pieces of the puzzle to move towards a more sustainable, reliable and affordable energy system.

But it will require us to explore new technologies, new partnerships, as well significant inward investment into Australia.

Despite the challenge resulting from the lack of a clear energy policy EA continues to do the right thing with the support of strong shareholders,

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And we are investing to deliver on the energy trilemma.

One final thought I will leave you with which I believe can be traced back to the Medieval Japanese Omi merchants

- What is good for the customer
- will be good for me
- and will be good for society.'

That sentiment is truer today than ever.

Thank you.