Good morning

My name is Ross Edwards. I am the Markets Executive at EnergyAustralia.

I would like to acknowledge the traditional custodians of the land on which we meet and pay respects to the Wurundjeri people of the Kulin Nation.

We pay respects to the Elders of the community and extend our recognition to their descendants.

[pause]

My topic is something EnergyAustralia works toward each and every day as the energy sector continues its rapid transformation:

The dream of 100 per cent renewable electricity, a highly reliable grid and significantly cheaper wholesale prices.

First – a bit of about us:

EnergyAustralia has 2.4 million accounts across eastern Australia. We supply energy to residential and business customers from a mix of coal and gas, but increasingly, it's coming from renewable energy sources.

Supporting our goal of being carbon neutral by 2050, we have the rights to more than 800 megawatts of solar and wind farm power purchase agreements.

Through these long-term agreements, worth almost $3 billion, we underpin around 6.5 per cent of the large-scale wind and solar projects in the market.

That's something we are very proud of.

Looking at the generation market more broadly, the story on the ground is one of rapid progress with more than 25% of our energy coming from renewable sources, with a record 7.0 gigawatts of new renewable capacity installed last year.

To put this in perspective, this is more than twice the maximum demand of South Australia built in just one year.

This has been a significant achievement.

The existing power system and power stations were inherently designed to cater for variability in demand.

But the unprecedented scale of growth in renewables – is testing our system's flexibility.

With this variability, you could almost say that my team has turned from traders to become weather watchers! As wind is often having a bigger impact on pricing than demand…

To provide some insight into the challenges that my team faces on a regular basis, I'm going to outline two different scenarios that took place recently.

On 12 May, it was a still, slightly cloudy day. Nothing unusual for Autumn but the team was closely monitoring the forecast as the wind was predicted to drop. Which it did for hours.

The sun had set, and total wind generation across the NEM over the evening peak ended up less than 600 megawatts as the demand increased to over 24,000 megawatts. EnergyAustralia ran all our available gas power assets.

Just two days later, it was a very different story.

Wind output sat at around 4000 megawatts across the National Electricity Market and not even our intermediate gas plant, Tallawarra A, was needed.

Increasingly we need to be prepared for anything and this is with 25% renewables….

So, how do we transition to a 100 per cent renewables while maintaining security, reliability and affordability?

At EnergyAustralia, we propose three areas of focus:

- We need to be making the right investments in the grid to support low emissions objectives;

- We need the right market design to deliver the best outcomes for customers; and

- We need a range of flexible technologies to support the transition.

Together, we believe focusing on these three areas will provide the path to a modern energy system comprised of reliable, affordable and cleaner energy supplies.

[pause]

First, on the grid:

At EnergyAustralia, we are supportive of regulatory tests and similar processes so that they flush out the possible solutions and compare their benefits and costs.

There has been significant focus on the grid investments required to support the renewable energy build-out with the actionable Integrated System Plan projects and Renewable Energy Zones.

However, the costs of new transmission is significantly higher than originally anticipated and we need to make sure we are still making the right choices for customers, based on the updated costs and alternatives.

We should embrace a smarter grid that uses technology to make the most of the investments we have already made.

[pause]

Now to the market design:

Our power system needs signals for different types of reliability services, just as it does for the various system security services.

Historically we have had a few larger assets provide these services almost as a by-product of generating energy.

Given the growth of renewable generation, and the government targets for more over the next 10 years, there is now a need to define and create signals that the power system requires to help keep the lights on.

EnergyAustralia is very supportive of the work being done by the Energy Security Board to define the reliability services that are required to complement renewable generation.

And more broadly, with their post-2025 program, to ensure we have the right physical assets for a secure and reliable energy system into the future.

Additionally, we support the work of the Australian Energy Market Commission on the system security services required to keep the power system operating, and within its technical limits.

These are all heading in the right direction but we are only part way through that process, with some important work ahead, and a need for all stakeholders to align on some pragmatic solutions.

[pause]

Now my third point – flexible technologies to support the transition.

Improvements in technology and business models are being made all the time – but we want to avoid being locked into a single technology or solution.

The current system mostly relies on thermal and hydro-powered generators to fill the gaps created by renewables, dialling them up and down as much as possible.

Many of the older thermal assets were designed for baseload operations rather than flexible operations.

Their operating regimes will change over time to make room for the renewable energy. This will be a significant challenge with operators balancing the need for flexibility and reliability in a lower wholesale price environment.

Batteries both distributed and large scale, pumped hydro, and fast-start gas, are rightly in focus.

We see continuous, dispatchable gas plants remaining important to deal with unforeseen interruptions to the system and through times, such as wind droughts or extreme weather events, when batteries can’t yet store enough energy.

Gas generation will not be displacing renewable energy, it will be filling the gaps to provide reliability as we retire coal from the system.

By way of example, during the January bushfires last year, the interconnector between New South Wales and Victoria went offline.

Our Tallawarra power station quickly came online, and in a collective effort from the entire NSW generation fleet, helped to provide reliable power – and prevent a disastrous state-wide blackout.

At the other end of the power system, virtual power plants can be harnessed to provide capacity when required. And of course, not to be understated are the benefits associated with demand response.

It's an effective way to help smooth the transition by lowering peak demand across the energy system.

EnergyAustralia's demand response capacity now stands at over 110 megawatts. This includes more than 360,000 household customers in our PowerResponse program.

And it's our ambition that this number climbs because we know it's a proven approach that's a win for customers, helps reduce emissions, and benefits the system during peak demand.

[pause]

In addressing the issues raised today, we see states playing a greater role as they seek to deliver objectives beyond just energy.

This is clearly the case for emissions, with states all having net zero and renewable targets, supported by a range of models to deliver these outcomes.

These new investment models need to work within the foundations of the energy market with operational decisions to be based on wholesale price signals, to avoid unintended consequences.

In this rapidly changing world, we need a fair balance of risk allocation to enable investment but not to the point where customers are saddled with all the long term consequences.

In particular, we should be mindful of important lessons about long-term energy contracting in dynamic markets.

[pause]

So what has EnergyAustralia been up to in this space.

While it might be difficult to commit to new projects, it's not impossible – and EnergyAustralia has made considerable progress in the last few months.

They are also good examples of governments and industry working together to deliver the best outcome for customers.

We announced that our Yallourn power station in Victoria will retire in mid-2028 instead of 2032, which included a multimillion-dollar package to support the Yallourn workforce.

We also committed to building Australia's first four-hour utility-scale battery of 350-megawatt capacity by 2026 in the Latrobe Valley – larger than any battery operating in the world today.

The facility will provide an economic boost for Victoria's Gippsland region, and complemented by other technologies, will help to secure Victoria's energy supply and enable more renewables to enter the system.

Through our approach, we want to demonstrate that coal-fired power can exit the market in a way that supports our people and ensures customers continue to receive reliable energy.

In Queensland we're underpinning the 250-megawatt Kidston pumped hydro project being developed by Genex with seven hours of storage. We congratulate Genex on recently achieving financial close.

And just this month, we gave the green light to Australia's first net zero emissions, hydrogen and gas power plant, Tallawarra B, to be situated in the Illawarra region.

Once developed, the 315-megawatt facility will be capable of delivering reliable power to around 150,000 New South Wales homes, contribute $300 million to the economy and create 250 well-paid jobs during construction.

Tallawarra B will also help kick start the green hydrogen industry.

Through these projects, we are investing in a range of flexible energy technologies as we think they will all have a role to play to ensure there is reliable and affordable supplies of energy when our customers need it.

[pause]

The energy transition is happening faster than any of us expected.

And we all need to be ready for that to accelerate further, as globally, countries challenge themselves to make 2030 the new 2050.

If there is one thing to walk away with based on my presentation today – it's this:

As an industry, we need to maintain reliability and security as we transition to a lower emissions future, supported by the right market design.

And in this pursuit, we must keep customers front of mind

Because if we don't get it right, they're the ones that pay.

Thank you.