## **LGT 2025 Climate Conference**

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## The Hon Matt Kean

**Chair - Climate Change Authority** 

## **Keynote address**

Check against delivery

Can I begin by acknowledging the Traditional Owners, the Cammeraigal people of the Eora nation, on whose land we meet. I'd like to pay my respects to their Elders, past, present and emerging.

It's an honour to address the LGT 2025 Climate Conference, joining such a distinguished list of speakers at this, one of Sydney's most-beloved landmarks.

For generations, Taronga Zoo has done so much to foster our innate love for nature and advance conservation. Taronga's efforts to breed and release endangered species back into the wild are rightly regarded as world-class ... but sadly demand for such services is only likely to grow.

Last month, the Australian Government's inaugural National Adaptation Plan found the risks to ecosystems, landscapes and seascapes was already "very high".

And by 2050 - just 25 years away - those risks may become "severe".

Consider if global warming reaches 2 degrees above pre-industrial levels by mid-century, a more than inconvenient but plausible possibility.

Researchers estimate between 40% to 70% of Australia's native plant species will effectively be outside their original range.

As the adaptation plan states in stark terms, "[s]pecies will be forced to move, adapt to the new conditions, or die out".

I'm sure Taronga doesn't want to see such a world – and neither should anybody else!

Fortunately, the people gathered here today – and many others like you – have the will and the wherewithal to do something about it.

Before I elaborate, can I take a moment to thank US Vice President Al Gore.

Aside from Al's tireless and inspiring efforts to halt global warming, I'm only standing here in my current capacity as chair of the Climate Change Authority because of his audacious and timely intervention in 2014.

Back then, Al helped convince mining billionaire Clive Palmer to use his party's senators to block the Abbott Government's bid to abolish all the previous government's legislated climate agencies.

Julia Gillard - who you'll hear from this afternoon - had skilfully navigated minority-government constraints as Australia's 27<sup>th</sup> prime minister, to introduce Australia's first serious climate action just three years earlier.

Anyway, it was thanks to Al's powers of persuasion that the independent climate authority was spared, as was the Clean Energy Finance Corporation and the Australian Renewable Energy Agency.

The Renewable Energy Target out to 2030, too, retained most of its ambition.

The difference made on that one June day, a decade-plus ago, is hard to over-estimate. It must surely be worth millions of tonnes of greenhouse gases that Australia avoided emitting.

The intervention also meant that when the Authority recently presented its 2035 emissions advice to the Albanese Government, Australia was much further down the net zero track than we otherwise would have been.

By happy coincidence, Australia's renewable energy just last month overtook coal for the first time in our grid – supplying almost half our electricity.

We have more to do, of course, but it's a moment worth celebrating.

Al, it's great that you're here to bask in the glow – and Julia too – because you deserve to receive our thanks in person!

Can we take a moment to show our appreciation!

So, let's examine how Australia is positioned...

In my view, it's not an exaggeration to state that this nation stands as a beacon of promise in a sea of uncertainty.

The Government, as you may know, has lately accepted my Authority's advice on setting Australia's 2035 emissions target.

The 62-70 per cent reduction on 2005 levels is among the more ambitious globally in absolute terms.

It's even more so when our swelling population is taken into account, converting to 76-81 per cent in per capita terms.

But goals, of course, don't kick themselves. We are going to need supportive and enduring policy, and private capital – lots of it.

As head of an independent agency – and fellow recovering politician – it's not for me to muse on the politics of the day.

However, few democratic governments enjoy as large a lower-house majority as the Albanese Government does.

Stability, though, is not the same as inertia. After all, we have 2030, 2035 and 2050 emissions goalposts to strive for...so there is little time to spare.

The public – and investors – can be confident that with each passing month and year, those posts will be harder to shift...barracking from some sections of the crowd and media, notwithstanding.

The Authority I head will soon publish our annual progress report – a scoreboard, if you will – that tracks how our emissions are faring.

This year's report is well in the works, and we'll include recommendations on how and where Australia needs to lift our performance. Stay tuned!

As Al Gore and the world's scientific academies have rightly been warning us for a couple of decades, decarbonising our economies is not an option – it's a necessity.

It's in our national and international interest, and we owe it to the generations to come that we get it done – and we get it right.

To Australia's advantage, we enjoy abundant renewables resources above the ground, and a periodic table's worth of critical minerals below it.

My aim today is to detail the scale of the investment we'll need to wean ourselves off fossil fuels – and convert the promise of a new, decarbonised economy into reality.

I mentioned earlier the good news that energy from our wind, solar and hydro plants <u>overtook coal for the first</u> time last month.

Globally, we're witnessing similar trends. Renewables eclipsed coal generation worldwide for the first time in the first half of 2025, according to the think tank Ember

In China, solar energy output was up a remarkable 43%, and wind output up 16% – more than enough to meet a rapid increase in electricity demand during those 6 months.

In India, clean power is taking off too...with solar installations in plants on rooftops up a staggering 70% in the first 9 months of year, to almost 30GW.

Low-cost solar is rapidly spreading everywhere, with Africa's PV imports from China jumping 60% this year, according to the Financial Times.

Those changes are stunning enough but falling battery prices will add to the momentum. Indeed, storage is transforming the economics of electricity at a rate we're only beginning to fathom.

Take California, where batteries alone supplied a record-high 37% of load one day earlier this week...and met more than 30% of peak evening demand for two hours.

Yes, the Trump Administration has pulled the US out of the Paris climate agreement, but California and other states are still in the race.

California retains its mandated goal of net zero greenhouse gas emissions by 2045 – and that state would be the world's fourth-largest economy if it were a separate nation.

When it comes to storage construction at least, Australia is giving California a run for its money...

Australia has plans to increase our battery capacity 11-fold by 2027, lifting capacity to 108 gigawatt-hours, the FT noted this week.

That tally is slightly larger than the present level of grid batteries in the entire US, placing Australia behind only China and the United States in the storage sprint.

Some of you flying into Sydney would have looked down on roofs glinting in the sunshine as the rays bounced off the solar PV.

Australia leads the planet in PV on household rooftops, with more than a third of our homes sporting panels. And now batteries are being included.

A new Government program that cuts the cost of batteries to households by about a third has already resulted in about 90,000 systems being installed since July.

The action on the home front is exciting because it hints at the grassroots possibilities of this transition – and the savings available when there's power to the people.

Companies that aggregate consumers' solar and batteries can turn virtual power plants into actual profits.

Not only do residents joining such schemes benefit from lower power prices. Everyone gains when less network construction is needed, and if wholesale power prices don't peak as much during high demand times.

Before long, more electric vehicles – those batteries on wheels – will have the capacity to discharge into the grid.

Again, creating opportunities for firms nimble and innovative enough to build trust with customers, creating and sharing value in the process.

The lessons being learnt here will be transmitted far and wide if Australia is successful in its bid to host next year's global climate summit, or COP31.

We can't lose sight of the magnitude of the task ahead. But if the scale of the transformation is immense, so are the investment opportunities.

As the analysis accompanying the Authority's 2035 emissions target advice showed, we're going to need all parts of the economy contributing.

The progress made over the past two decades will have to be exceeded in just the coming 10 years.

Since 2005, average emissions reductions have been about 9 million tonnes of carbon-dioxide equivalent each year.

To reach our 2035 goal, those reductions are going to need to accelerate to between 19 and 24 million tonnes, annually.

Since 2005, the largest source of emissions reduction has been the land sector. We've slowed land-clearing and boosted tree planting, and other sequestration efforts.

We think the land can do more out to 2035, with one emissions reduction pathway envisaging the revegetation of an additional 725,000 hectares.

That's about 60% of the size of Greater Sydney or a bit over twice the area of greater Nashville, Tennessee, to offer an international comparison.

But the main reduction action will come via the electricity sector.

That industry still accounts for about a third of national emissions. But with renewables and storage, we can step up the electrification of most of the economy.

Add in energy efficiency, and we can achieve much quicker reductions in carbon pollution, while lowering power bills.

Part of Australia's challenge is that large sectors of the economy are still posting rising – not falling – emissions.

For so-called stationary energy – particularly important for the liquefied gas industry – emissions are up almost 18% since 2005.

For transport, they're up 20%, and fugitive emissions have increased 8%, the Government's greenhouse inventory shows.

To achieve the transition off fossil fuels, we will need a tripling of utility-scale solar energy and a four-fold increase in wind energy capacity by 2035, the Authority's targets advice to the Government showed.

Large-scale storage will need to expand six-fold, and rooftop and other distributed solar capacity will have to double to 48GW.

To move those electrons around will require the building of new or augmented high-voltage transmission, in the order of 5,000 km over the next decade – on a grid that spans about 40,000 km now.

Supply chain snarls, tariff wars, skills shortages, planning and other issues will influence the ultimate cost of all that construction...but the sums add up to a lot.

BCG, a consultancy, had a stab at estimating them.

They calculate Australia will need to lift wind generation capacity from 13GW now by a further 43GW by 2035.

That's the equivalent of building 30 Golden Plains wind farms – a project in western Victoria – with a total investment tab topping \$100bn.

Solar farms will also need to swell by another 17GW, or about 37 of the Western Downs solar farm in size. That plant, in southeastern Queensland, is the nation's largest – for now – with more than 1 million solar panels.

We'll also need about 18GW of extra utility-scale batteries by 2035.

Combine big solar and big batteries, and you're looking at a cost approaching \$40 billion, BCG reckons.

Remember that extra 5,000 kilometres of new transmission lines I mentioned just a few moments ago?

The Australian Energy Regulator had clocked the cost at almost \$48 billion. Announced over-runs – so far – have lifted that bill above \$68 billion, BCG notes.

Seriously, though, we are talking about some big numbers...and we're obviously not alone in the world when it comes to seeking finance to decarbonise.

In Australia's favour is policy stability and a firm direction of travel, with trusted, independent regulators like the Australian Energy Market Operator.

Some might gripe about the scale of such outlays. We should remember, though, that we would have to replace ageing coal-fired power plants. And we do have to turn over our vehicle fleet and appliances every so often.

It's fortunate we live in an age that the lowest-cost replacement – whether a generator, heater or even car – is likely to be electric, or soon will be.

And few nations can match Australia's natural blessings of abundant sunshine and wind to power them all.

Along the way, we'll be saving billions of dollars on burning finite fossil fuel and we can limit some of the resulting climate impacts.

Indeed, those impacts are already costing us plenty. There's a whole, emerging industry of climate resilience that is going to need financing.

We're going to require a lot of innovation and nous that private capital can bring to adapt our cities, regions, and lifestyles.

Will the fellow species we share this amazing planet be able to adjust, too?

It's here, in places like Taronga, that those wonders are on show...and where previous visitors have sought to inspire and move audiences.

One of them was the great – and now, sadly, late – Jane Goodall, who cherished her handful of visits...and where she provided solace and encouragement to the primates on both sides of the glass enclosures.

There's been a chapter of Jane's youth-led conservation group at Taronga for almost 30 years. Some of those graduates might well be here today...moving on from Roots and Shoots to Suits, you might say.

Setting aside astute comments released posthumously about launching various political and business leaders into space, she always remained firmly grounded.

She showed us the very definition of what constitutes a worthwhile life, and never stopped reminding us that what each of us does matters.

"You cannot get through a single day without having an impact on the world around you," Jane said.

"What you do makes a difference, and you have to decide what kind of difference you want to make."