Delivering decarbonisation and energy security

Thank you John.

Minister the Honourable Jaala Pulford, ladies and gentlemen…

I too acknowledge the Traditional Owners of the land on which we meet, and the 23 Traditional Owner Groups, and six Aboriginal Land Councils, who Santos works with in our operations around Australia.

It's a pleasure and an honour to be here today with the leaders of Australia's resources sector.

A sector that:

- Contributes around 10 per cent of Australia's Gross Domestic Product
- Directly employs a quarter of a million Australian workers
- Accounts for about 70 per cent of the nation's exports

- And generated record export earnings of $425 billion last financial year.

A sector that is still a powerhouse of the Australian economy and part of our social fabric.

The last time I was at a Miner's Club, I was playing the bagpipes with the Alloa Colliery Pipe Band at the Fishcross Miners' Welfare Club in central Scotland.

Coal mining is probably Scotland's oldest major industry, dating back to the 12th century.

At its peak in the first half of the last century, mines stretched coast to coast across the country – from Ayr in the west to Fife in the east.

While the free-market reforms of Margaret Thatcher were its death warrant, the demise of coal began with competition from cheaper fuels and the emergence of nuclear power soon after the Second World War.

This included the North Sea oil boom from the late 1960s.

But the real story of coal in Scotland is a social and political one.

The rise of industrialisation and economic growth in towns and villages across the country.

The benefit of secure employment – contrasted with new occupational hazards of the industrial age.

A story of struggle in those same towns and villages when mines and industries closed – towns and villages which remain disadvantaged to the current day.

And a story of rising concern about climate change, that was just emerging at the end of Scotland's coal era.

That story gave rise to Scottish nationalism and today's fierce independence movement.

The same pressures are just as relevant today in Australian resources.

The forces of competition, advances in technology driving changes in demand, and above all, the energy transition and our social licence.

How we navigate through these issues will shape Australia's future social fabric and prosperity.

We can already see the faultlines between regional and outer suburban Australia, and the wealthiest electorates in our cities – nowhere more starkly than in the results of the recent federal election.

Our task is to help build a more united, and outward-looking Australia:

- Through our investment in regional communities right around Australia
- Through the safe, secure and well-paid jobs we provide

- Through care for our workforce, Indigenous cultural heritage and the environment
- Through meaningful climate action
- And through a just energy transition.

Now is not the time to look inward.

Global trade and investment has been the foundation of Australia's prosperity for more than half a century:

- Providing good jobs for Australian workers
- Generating export income and government revenues which have paid for our high-quality infrastructure and services, from transport to health and education
- And providing access to international markets at a scale that has enabled us to support our own smaller domestic market at the same time.

Inward-looking nationalism is a recipe for fewer jobs, a weaker economy and poorer communities.

We do not want an energy transition that looks like the demise of Scottish coal.

As we seek to decarbonise our economy, including the mining industry, what I want to leave with you today is a sense of the criticality of natural gas and carbon capture and storage in achieving that goal.

I was talking to Sanjeev Gandhi this morning, the CEO of Orica, and he told me how critical Orica is to the world's mining industry.

And Orica's ammonium nitrate industry is almost entirely dependent on natural gas supply.

As a producer country, we take for granted the wealth of the resources that guarantee our energy security and our modern living standards.

But the concerns of consuming nations, who don't have the resources we do, are very different.

Having just returned from Japan and Korea, what was most striking to me was the level of concern about energy security.

Because they recognise that national security starts with energy security.

Our customers in Asia want to be assured that they can continue to rely on Australian resources for another 30 years or more, to provide the energy security they need for social stability and economic prosperity.

The energy security to underpin their manufacturing industries, which supply the motor vehicles, computers, televisions, electrical and white goods found in every home in Australia.

Australia simply cannot retreat from its global role as a supplier of the critical fuels and minerals that support the peaceful, rules-based world we have enjoyed for the last seven decades.

Australia’s competitive advantage is our natural resources and the ingenuity of our people in developing them.

This is a role we should be proud of – Australia has helped to lift hundreds of millions of people out of poverty in Asia over more than half a century.

Yet last year, the world saw a reversal in global progress towards achieving universal access to clean and affordable energy.

There are now more people in the world without access to reliable electricity than before the pandemic.

At the same time, global CO2 emissions from energy combustion and industrial processes reached their highest level ever.

Coal-fired power plants met half the increase in global electricity demand in 2021, with total coal generation also reaching an all-time high.

This occurred despite renewables-based electricity generation also reaching an all-time high.

However, according to the World Health Organisation, the increase in emissions from coal-fired power generation in 2021 wiped out all the avoided emissions from renewables.

The gains the world had made from coal-to-gas switching – saving around 500 million tonnes from 2010 to 2018 – also reversed.

Those gains are equivalent to replacing 200 million cars with electric vehicles, running on zero-carbon electricity, over the same period.

But as gas demand increased, a lack of new supply saw prices rise and some countries switched back from gas to coal.

This was a direct consequence of producer nations' policies slowing down new gas supply.

We are watching an energy crisis play out in Europe right now, but we have on our east coast a prime example of what happens if the energy transition is focused only on stopping new oil and gas projects.

We've had a decade of moratoriums, shutdowns and lockouts in resource-rich states and territories.

Fourteen scientific inquiries into the safety of onshore gas development – all of which concluded that our activities can be conducted safely.

As I have said for a number of years, the scarcity of new developments today is frightening, with forecasts of tight supply over coming years.

Since 2012, Santos has spent more than $1.5 billion trying to get our Narrabri gas project approved and developed – a project that is 100 per cent committed to the domestic gas market.

Customers are crying out for this gas with more demand than we can meet when it comes to market around 2026.

And I am trying to bring Narrabri to market earlier if that is possible.

Shortages in the domestic market and the price shocks we have seen in recent weeks have nothing to do with the behaviour of gas producers or exporters, who are doing everything they can to support the market right now.

This is the consequence of more than a decade of energy policy failure that has stopped the industry developing more gas supply in a timely manner.

As a result, our energy system is no longer resilient enough to cope with:

- Short-term coal generator shutdowns

- High coal prices – up 400 per cent on last year – that are limiting access to coal for generators, and diverting more coal to exports
- Interconnector maintenance
- Low solar generation – down more than 25 per cent in May compared to April
- Pipeline capacity constraints
- And the bursts of cold weather that we are experiencing right now on the east coast.

This is an unprecedented confluence of events.

Gas demand here in Victoria yesterday and today – the first two days of winter – is about the same as the peak day last winter.

East coast gas use in May was up by a massive 35 per cent on April and accounted for almost 10 per cent of east coast electricity generation – not because of gas exports, but because the energy system simply cannot cope with coal outages and unexpected events such as low renewables generation.

Up until April this year, domestic gas prices had been tracking for many months at about one third of the LNG netback price at Wallumbilla.

Ironically, there has been much hype over the last week about the UK's introduction of a profits tax on the oil and gas industry, but no mention of the 80 per cent investment allowance that was a key element of the policy.

The real story of last week's profits tax was the incentive to invest in more supply as the UK desperately seeks solutions to offset meteoric wholesale energy price rises.

The message from the UK is:

- Invest in more supply or pay more tax.

It comes at a time when companies in our sector around the world are being asked to return more to shareholders, who are being pressured not to support investment in new supply projects.

But we need investment in both new supply to support our existing energy system and the decarbonisation projects that will enable an orderly transition, not the chaos we are seeing today.

This is the only way the world can achieve net zero by 2050 and continue to work towards other important human development goals such as universal access to reliable energy and lifting people out of poverty.

As I have said many times, more supply is the only sustainable way to put downward pressure on prices and ensure liquidity of supply in the market.

We must maintain the momentum of the energy transition without compromising energy security – and that includes affordability.

And we can only do this through decarbonisation, not defossilisation.

The oil age that started in the 1800s has enabled the biggest leap in human progress ever – and it occurred over just a couple of hundred years.

Demonising fossil fuels will only lead to higher prices.

Life expectancy has more than doubled globally since 1900.

And the wide inequality in life expectancy across the globe has an undeniable correlation with access to reliable, affordable energy, and everything that enables.

Oil, gas and coal still make up about 80 per cent of primary energy, the same as 45 years ago.

And the world will still be using oil and gas in 2050, according to the International Energy Agency's most ambitious scenario for Net Zero by 2050.

Renewables can make great inroads into the electricity sector, but electricity accounts for only 20 per cent of total energy.

The other 80 per cent is fuels and feedstocks.

And today, we simply don't have alternatives to replace oil and gas in the myriad uses that go far beyond electricity generation and transport.

Those uses include:

- The fertilisers that have allowed us to produce more food using less water and less land
- The cement and steel that have built our modern cities
- And the polymers that are the building blocks for the clothing, plastics and chemicals we use every day.

More than half the natural gas produced today is consumed in sectors other than electricity and transport – it's used to make things.

So, if we want an economy that makes things, we are going to need oil and gas, because renewables cannot replace them as

feedstocks for fertilisers and polymers, or in high-temperature applications such as brick and cement kilns, steel furnaces and aluminium pot lines.

There is a fundamental disconnect between what the world says it wants from the energy transition and its consumption patterns.

In the Asian region, LNG demand is set to double by 2050.

China, Korea, Taiwan, Indonesia, Malaysia, the Philippines, Thailand, Vietnam, Bangladesh and India are all forecast to consume more LNG in 2050 than they did in 2020.

In these markets, LNG will replace dirtier fuel sources for direct cooking and heating, and allow for further electrification of these growing economies and the phase-out of coal over time.

With 10 LNG projects and 89 million tonnes of capacity, spanning Western Australia, the Northern Territory and Queensland, Australia is a very important supplier of LNG

across the Asian region – with a 40-year history of stable and reliable supply.

And thanks to our large natural gas resources of nearly 270,000 petajoules, the opportunity is there for us to continue to supply Asia for at least another 30 years.

Importantly, that will also ensure our own energy security.

Because it has been investment from our partners and customers in Asia that has always enabled us to develop our resources – both for export, and to provide for our own needs.

Without that investment, the small size of Australia's domestic market compared with Asian markets could never have underpinned the scale of capital required to develop resources like Queensland's coal seam gas or remote offshore gas in northwestern Australia.

But energy security, globally and at home, must also come with emissions reduction.

The 6 per cent increase in CO2 emissions we saw in 2021 was in line with the rise in global economic output – the strongest coupling of CO2 emissions with Gross Domestic Product growth since 2010.

So, if we are serious about decarbonisation and the energy security to keep our economies strong, we must find ways to make natural gas and other hydrocarbons cleaner.

No technology can make a bigger difference to the energy transition than carbon capture and storage, with the IEA saying it will be almost impossible to achieve net zero by 2050 without it.

However, the new focus on stopping oil and gas projects in environmentally-responsible jurisdictions such as Australia is centred around discrediting CCS – a proven technology for low-cost, large-scale emissions reduction.

Carbon capture and storage will enable us to reduce emissions from the production of natural gas and LNG, but more

importantly, it provides the opportunity to help our customers reduce or offset emissions from consumption.

And CCS will enable the production of clean fuels such as hydrogen from natural gas – eliminating Scope 1, 2 and 3 emissions, and, very importantly, at prices that customers will be willing to pay.

In 2050, under the IEA's Net Zero scenario, about half the world's gas production would be used to make hydrogen and about 40 per cent of the world's hydrogen would be made from natural gas.

We know CCS works, it's been done before and there are now 27 commercial projects operating around the world today.

Most of these are in the United States, which has a policy framework that strongly incentivises CCS, including through tax credits and an investment by the Department of Energy of more than US$10 billion to accelerate CCS, direct air capture and industrial emissions reduction.

The biggest CCS project in the world is in Australia at Gorgon's LNG project in Western Australia.

It has successfully stored six million tonnes of CO2 since it started up in 2019.

And at Santos, we are building a 1.7 million tonne per year CCS project at Moomba, in South Australia's Cooper Basin.

The exciting thing about the Cooper Basin is that there is storage capacity for up to 20 million tonnes of CO2 per year for up to 50 years.

Not only will our Moomba project be one of the biggest in the world, it will be one of the lowest cost, at around US$24 per tonne.

That is very competitive compared to prices in a number of carbon markets.

At Moomba, we are also trialling CSIRO and other Direct Air Capture and Post Combustion Capture technologies.

These exciting technologies have the potential to negate emissions elsewhere in the economy, especially in hard-to-abate sectors that Australia still needs.

Sectors that manufacture essential everyday products like fertilisers, mining explosives, cement, steel and polymers.

Earlier this year Santos and our joint venture partners commenced front end engineering and design on our Bayu-Undan CCS project in the Timor Sea, northwest of our Darwin LNG project.

We are looking at a storage capacity of around 10 million tonnes of CO2 per year – using existing infrastructure, once production from the field ceases.

This would enable us to store 2.3 million tonnes of CO2 per year from our Barossa gas project, making it one of the lowest-carbon intensity LNG projects in the world.

Bayu-Undan is a low-cost, large-scale, commercial CCS proposal that could also store CO2 from our customers in Asia – and this was the subject of some of my discussions in Japan and Korea last week.

It is a serious proposition that CO2 could be captured in industrial processes offshore and shipped to Australia – if we are willing to take advantage of that opportunity to build a new carbon storage business using our vast natural resources.

In Western Australia we are looking at the potential for our Reindeer facilities to be used for CCS when gas production ends.

Reindeer is close to large industrial sources of CO2.

And large demand sources for natural gas and potentially hydrogen, including in the Pilbara iron ore province, where decarbonising the mining fleet and reducing diesel dependence is one of the industry's key challenges.

Just as our customers in Asia have looked to Australia for energy resources for decades, they are now looking to us to help them decarbonise their economies through CCS.

Importantly, our CCS projects are at the low end of the global CCS cost curve, giving Santos and Australia a critical competitive advantage at a time when the need to accelerate CCS deployment globally has never been greater.

According to the IEA's Net Zero by 2050 scenario, CCS will be required to store 7.6 billion tonnes of CO2 each year by 2050, nearly 200 times the amount we store each year today.

This is a fantastic opportunity for Australia – to grow our LNG trade and investment, and build new, exciting opportunities in decarbonisation through carbon capture and storage, and clean fuels projects such as hydrogen.

It is also the best way for Australia to deliver a just energy transition – utilising:

- The skills of our existing workforce

- Our existing infrastructure
- And the nation's large carbon storage resources
- To develop low-cost, low-carbon LNG and clean fuels for our customers in Australia and Asia.

This is a smart energy transition for Australia that will keep our regional communities strong, continue to generate export earnings, government revenues and jobs – and provide the affordable, reliable energy we need to support our domestic economy.

Thank you.