

Speech – CEDA’s Energy Series Lunch:

Securing a reliable and responsive energy market

Thursday 29 June 2017

Introduction

- Before I begin, I’d like to acknowledge the Gadigal people of the Eora Nation, who are the traditional custodians of the land on which we meet.
- I’d also like to pay my respects to their elders past and present.
- Good afternoon ladies and gentlemen.
- Thank you, CEDA, for the invitation to me today to talk about this critical issue: maintaining a secure and reliable energy market for NSW.
- I became Minister for Energy 4 months and 30 days ago, a little more than a week before a heatwave hit Eastern Australia.
- New South Wales demand peaked at 14,181 megawatts (MW). This was 563 MW shy of the record peak demand on of 14,744 MW on 1 February 2011.
- There’s no better way to understand how an energy market works and doesn’t work than a heatwave.

- And there's no better way of understanding the capacities and vulnerabilities of our generators than being in a heatwave.
- For the NSW Government, it was an opportunity to do some meaningful things. Not just to get through the week, but to look ahead to the big challenges we face.
- That Friday was a white-knuckle ride.
- Our thermal generators were stressed, coal plants built as many as 45 years ago operating in temperatures beyond those for which they were built.
- Two key peaking generators were out at critical moments, for example due to failing when switching fuels.
- We set new records, with 27% of generation from clean energy in front of and behind the meter at the peak time of 5pm.
- Our diverse energy mix and interconnections, which underpin our resilience, were of tremendous assistance.
- But fuel availability became a growing concern as the heat dragged on and on for days
- And coal stockpiles dwindled
- And gas lines got thin.

- We all pulled together to avoid residential and commercial load-shedding, but our most significant industrial user, Tomago Aluminium, was curtailed.
- The day highlighted the paradigm shift that is occurring in energy.
- Our old paradigm was based upon a notion of a baseload of energy demand being supplied by large thermal generators, and then a peak.
- Over the coming decades, this will change.
- This new paradigm is about better forecasting demand, factoring in intermittent sources, and then balancing the rest through dispatch and demand management.
- This is the forecast-and-balance paradigm.
- This paradigm shift will occur as the generating mix changes in both size and fuel type, efficiency grows, and demand changes.
- The critical role of solar, the need to manage demand, and the dispatch of Snowy, were all on display on February 10 and 11.
- It will mean that things we took for granted – inertia, frequency control, firm capacity – will need a greater focus, and even sophisticated markets of their own.

- So, firstly, we decided for a transparent and open look at our security situation, to capture those actions that were just not getting the focus they deserve in a year of constant media announcements about energy.
- We established the NSW Energy Security Taskforce under NSW Chief Scientist and Engineer Professor Mary O’Kane, immediately after the heatwave.
- The taskforce was set up to look at extreme weather events and energy emergencies, and see what needed to happen to minimise risks for this summer.
- It recommended a range of actions, from better co-ordination, to a stronger focus on fuel availability, and improved voluntary demand management.
- Its primary recommendation – no surprises – was to land the Finkel Review to restore confidence to invest.
- It canvassed frankly the opportunities and challenges with intermittent energy sources, and squarely set our focus on addressing them, not railing against them.
- Our energy system is a system as well as a market, and we need co-ordination and practice to ensure our system performs when needed.

- We're working with Audrey Zibelman to put this into practice for the coming summer, and I welcome the confidence she's brought to the NSW market.
- Secondly, we started creating opportunities for the new paradigm in energy to demonstrate its value.
- This is critical for an orderly transition.
- During the heatwave, I lead a many-day campaign of demand management, calling on the community to moderate its use. It removed around 1.4% of state demand at a minimum.
- There are too many parts of the market where "theoretically" things should be happening, but where we don't factor in the misaligned incentives of market participants, or we don't welcome changing technology.
- An example is the five-minute rule – aligning settlement of the gross pool market with its 5 minute dispatch, instead of smoothing prices over 30 minutes.
- It's a classic example of a rule made to suit existing technologies. I have supported change so we can benefit from new technologies such as batteries.
- The third thing we did was refuse to play politics with energy.

- Not just because people are sick of it, but because nobody benefits from it.
- That day, I acknowledged the role played by all generation technologies in meeting the peak, including the effort of the 350,000 households with rooftop solar.
- Clean energy performed as forecast. Thermal generation did not.
- We refused to enter the national narrative in which opponents of clean energy fought opponents of fossil fuels.
- We value the energy equally from each, as they are fundamentally important to our energy security.
- You can't ignore the role that will be played by clean energy due to one simple matter – cost.
- Clean energy has gone from relatively expensive to the cheapest new build technology in a few short years.
- It will be dramatic and disruptive.
- And we have always underestimated it.
- Year on year, the International Energy Agency gets it wrong when forecasting the uptake of renewables.
- Costs are declining faster, and uptake accelerating.

- Narendra Modi's election dramatically altered the fortune of solar, accelerating India's transition. A few years ago, people were asking "would there be any renewables in India". Now they're asking "how soon will it be a majority".
- In NSW, clean energy made up 19.6% of generation last year. For the first time, non-Snowy Hydro sources generated more than Snowy at over 10%.
- This trend is set to continue. It's manageable in terms of security and reliability with the right policy settings.
- And due to dramatic price reductions, it's critical in delivering affordable energy into the future by reducing the price impact of gas generation.
- But on our resources, we need to take a global view, and understand that our domestic mix may not mirror our neighbours and trading partners.
- We back the mining industry in NSW, which is very important to regional communities, and our high quality coal will remain an important export for us.
- But domestically – we could see a situation in the 2030's where existing coal plants struggle to compete during the day because new solar is cheaper.

- It highlights the need to heed investors in their rationale around which technologies they chose, think ahead on storage, and seriously consider Snowy 2.0.
- We've also refused to buy into argument against privatisation or deregulation.
- The proposal of the NSW Labor Opposition to reregulate prices makes it very clear that there is politics in energy yet, and more false hope to pedal.
- In the ACT there is still price regulation, yet electricity prices went up 19% this year.
- Regulated tariffs still pass on the costs of wholesale and distribution.
- Consumers have voted with their wallets, shopping around and finding a better deal..
- NSW remains committed to a private sector-led national electricity market, more than any other jurisdiction in Australia.
- The fourth thing we did was to use energy policy to deliver energy policy, not other policy objectives.
- Energy policy needs to focus on affordable, secure, and reliable energy generation.
- It's not an industry development policy. It's not an environmental policy, but it cannot ignore environmental factors. It's not a social policy.

- But good complementary policy should deliver these.
- We need the right settings for the confidence of investors, to provide energy to consumers.
- As investors, you face two great risks.
- The first risk is Government.
- There is risk that Government gets involved in the wrong way in the market.
- The Government should resist the urge to get back involved in generation.
- Any gaps should be filled by lean interventions which support existing private sector proposals.
- The second risk is carbon.
- Investors know that emissions are expected to go down in the future.
- The breadth of support for the Paris Agreement has led to a process of risk management around carbon.
- That's good, and it should be up to the private sector to assess and manage technology risks.
- And it's not ideological. Whatever your view on the science, carbon is risk, that's how investors see it, and this is an exercise of risk management.

- Policy should welcome all technologies on a level playing field, and not act as a proxy war on coal or on renewables.
- Our state's net zero emissions by 2050 aspiration is a pragmatic understanding of the Paris agreement.
- Not having a policy doesn't provide any certainty, because all investors are factoring in that there will be a policy at some stage, in some form.
- That's our national problem, and I know Josh Frydenberg gets it.
- NSW won't play politics on this question.
- It's disingenuous for Federal Labor to say they want to end the politics, but immediately to put up their demands.
- It's now up to the Federal Government to do the further work they've indicated that they will do. And that's reasonable.
- I'm not going to box them in, or prejudge.
- They know that NSW at COAG Energy Council will support initiatives that boost investor confidence, and put downward pressure on prices.
- We look forward to them coming back following that additional work, that they are going to do on the 50th Finkel recommendation.
- We need a credible policy. It doesn't need to be perfect.
- And we cannot let the perfect be the enemy of the good.
- A lack of certainty means we get more expensive gas generation, and disorderly early closure of coal generation.

- That's why we've supported the Finkel process. It's the last best chance to deliver good energy policy.
- We're also gearing up to deliver sensible complementary policy which addresses barriers to energy efficiency, and accelerates key technologies for the market.
- Through the Climate Change Fund, we've done a bottom-up barriers analysis to energy efficiency. The Draft Plan to Save NSW Energy and Money builds on our energy saving scheme, and is the biggest energy efficiency policy in the country, targeting up to 5% of state energy use by 2025.
- It covers new appliance standards, improved building standards, retrofit programs, audit programs, and a big focus on improving housing for those in need.
- It also has a big focus of the sustainability of our larger industrial users and manufacturers
- Energy efficiency is critical to delivering lower bills, and NSW shows a way forward. The National Energy Productivity Plan can and should be more ambitious.
- On clean energy, we've looked at where Government plays a role in piloting and demonstrating new technologies and ways of doing things.
- We need to learn by doing.

- That's why we're part of the demand response pilot as announced by ARENA last week.
- We have also consulted on policies to support electric cars, fuel switching for industrial users, demonstrating flexible generation, and removing the barriers to the market-led take-up of distributed energy.
- On clean energy and efficiency, programs worth \$400 million over 5 years that could deliver bill savings similar to those suggested in the Finkel Review are currently being finalised.
- These build upon our Renewable Energy Action Plan, led by our Renewable Energy Advocate Amy Kean.
- The private sector has indicated its confidence in NSW.
- The Clean Energy Council recently reported that over 1 gigawatt of renewable energy capacity, worth over \$2 billion in investment, is under way this year in NSW.
- From Parkes to Glenn Innes to Bodangra, there's a boom under way.
- More megawatts than in any other state.
- These are regional jobs, and new clean supply to underpin future security and put downward pressure on prices.
- The barbeque stopper on energy is price.
- I'm angry that NSW has been sideswiped by two national factors which are driving up prices.

- Tightening electricity generation supply without sufficient confidence to invest on one hand, and high gas prices which are now the marginal generation cost on the other.
- These are national factors which need national solutions.
- It's hurting industry, and hurting families.
- NSW has done the right things on electricity.
- We sold the remaining generators.
- We ended the gold-plating of the networks, guaranteeing lower prices in 2019 than in 2014, and moved to increase the role of the private sector.
- We'd leased the transmission network and significant stakes in distribution networks, bringing a new focus on efficiency for customers.
- We deregulated retail energy prices.
- We ended the cost blow out of the solar bonus scheme, saving consumers \$2 billion.
- As assessed by IPART, NSW has a competitive electricity market, with new entrants offering new products, and consumers shopping around.
- We now need new supply to bring down prices.
- That means new least cost generation as proposed by the private sector.

- There's no silver bullet in the interim, and aware of that, we've expanded our hardship programs, which are now \$1 billion over 4 years.
- For those in hardship, we're co-investing in better appliances and retrofits, piloting co-investment in solar, and have expanded access to emergency rebates.
- And I brought together retailers at a round table and laid down a challenge on hardship customers, that has seen them up their support programs considerably.
- On gas, this Government inherited an unsustainable mess from a Government with a record of corruption in the resources space, in which the community saw the gas industry as having lost its social license.
- Instead of a moratorium, NSW led a scientific process under the Chief Scientist and Engineer Professor Mary O'Kane, which led to the NSW Gas Plan.
- We reset the sector, bought back licenses and creating a world-class science-led framework, with appropriate protections, which is a model for other states.
- The Santos Narrabri project, with the potential to supply 50% of our domestic gas needs, is now in the planning system.

- Our state has never been a gas exporter. The idea that NSW's gas sector was supposed to save the nation from the way the LNG sector grew is curious. It was never predicated on it.
- Nonetheless, we are doing our bit.
- I recently launched the final stage of the gas plan – the NSW Strategic Release Framework for exploration.
- The new process ensures rigorous assessment before exploration, including consultation, and competitive granting of licences to the most appropriate explorers.
- The independently chaired Advisory Body has been asked to assess two new areas of conventional gas prospect– the Bancannia Trough, north of Broken Hill, and the Pondie Range Trough, north of Wilcannia.
- But back to Electricity. There's a lot to like in the Finkel Review.
- Alan's Finkel has done a great job to manage affordability, reliability and security objectives in the context of lower emissions, taking into account changing technologies and consumer choices.
- The detailed work will be critical to get a package of reforms that hang together and doesn't impose unnecessary costs.
- The modelling is conservative. Solar costs are lower in output and higher in price than what we're seeing in NSW, and Alan has made a similar point about wind.

- This should give hope that investment will lead to even lower bills into the future.
- His approach also allows us to make the most of our existing coal plants and their low cost power. The coal sector should accept the Finkel framework as potentially the best deal that coal will get.
- It's in our interest to use our existing coal plant to avoid costly gas in the transition.
- Unilateral actions and announcements from federal and other state governments are increasing due to price pressures. Frankly, it's getting a little out of hand.
- NSW is the strongest supporter of a private sector-led market. As the balancing middle of the market, we know we're all in this together.
- Without reform, the National Electricity Market could start to resemble Voltaire's view on the Holy Roman Empire – which he quipped was neither Holy, nor Roman, nor an Empire.
- Without reform, the National Electricity Market will not be truly national, may not provide enough electricity, and will not function well as a market.
- We are absolutely committed to securing our State's energy supply now and into the future.

- NSW relies on it. Our businesses rely on it. Our people rely on it. And they're relying on the NSW Government to play its part.
- We are more than up to that challenge.
- And we'll be working with AEMO to make sure that national policy uncertainty does not leave NSW short.
- Together with industry, science, and the creativity and commitment of our citizens, we will meet the challenge.
- One hard thing is to explain what the future could look like.
- Let's dwell on one exciting opportunity, Snowy 2.0 proposal, whose business case I eagerly await.
- 2,000 megawatts of dispatch is a game-changer.
- It could potentially support as much as 5,000 megawatts of intermittent energy to form a baseload of affordable clean energy, even when wind doesn't blow and sun doesn't shine.
- We in NSW are starting to see a future in which two new energy spines will provide us with security into the long term.
- The first running from west to east – South Australia to Snowy unlocking Riverina solar and Western Division solar and wind. Providing greater interconnection in the South East, and a huge balancing battery in Snowy.

- The second running from the Hunter to Queensland, tapping wind in the tablelands and solar from the Central West, with the Hunter's existing coal-fired infrastructure making it ideal for a balancing battery and bioenergy hub, with greater north-south interconnection.
- Finkel starts to make this possible. Many commentators wonder how we've got where we are.
- A nation with every natural advantage, facing potential shortfalls in energy.
- Simply, we must end the self-indulgent climate culture war.
- Get everyone out of their trenches.
- Our only task is to drop the politics, and just fix it.