



Speech

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NEW STRATEGIES TO REGAIN OR RETAIN AN ENERGY ADVANTAGE

Thank-you for having me. I think it's important that there be a dedicated C&I stream to these events and I'm very pleased to speak at this one. As we know, this is a much debated, though still often misunderstood, part of Australia's energy landscape.

It's unfortunate that there remains a misconception in Australia's public debate about energy that big customers and big suppliers have to be at loggerheads about what should be done and are unable to work together; or that the energy strategies of C&I customers are static rather than dynamic and changing; or indeed, that the outlook for customers is wholly dependent on government policy.

You all know that this isn't the case. Rather: companies throughout the energy supply chain – customers, generators, retailers and infrastructure operators – are innovating, are adapting and are working together on new strategies to regain competitive advantage.

It's that collaboration that will be essential if we are to regain an energy system that capitalises on Australia's natural advantages, and which can underpin both future industrial investment, alongside growth in the energy sector.

I have been asked to speak today about *New Strategies to Regain or Retain an Energy Advantage*.

Looking through the agenda, it seems you will hear from various speakers about how particular companies or industries are trying to do just that: from underwriting investments through long term power purchase agreements; to making investments in efficiency; moving into wholesale markets for the first time; examining alternate fuels and energy inputs; and, changing the way companies manage their demand. Indeed, at the customer level, there's actually a heck of a lot being done, just as I know there is in other parts of the supply chain.



So what I thought I would do this morning is three things:

Firstly, I want to spend a few minutes talking about energy transformation in the USA, and what we can learn from it. The reason for that is that in the US we see a country that has regained an energy advantage many thought it was losing, and that transformation is having a profound impact on not just the US domestic economy, but also on the dynamics of global manufacturing.

I'll then spend a few minutes talking about what big Australian manufacturers themselves are doing to regain an energy advantage and unpack some of the themes I just mentioned.

Finally, I'll spend a few minutes talking about the role of governments in all this, which I regard as primarily to set the vision; to enable and encourage innovation; to remove existing barriers to competition and growth; and it must be said, to intervene where it is in the national interest, but not to regard intervention as a long term solution.

But before I do that, let me briefly introduce Manufacturing Australia, so that you know whose perspective it is that I'm outlining.

Manufacturing Australia is an organisation run by the CEOs of Australia's largest, Australian-headquartered, manufacturing companies, many of which are energy intensive manufacturers.

These companies operate some 300 plants and smaller facilities nationwide, and provide employment to around 250,000 Australians, directly and indirectly.

They are also increasingly multinational. While retaining the benefits for the nation of being Australian headquartered, they are expanding their footprint through foreign direct investment in more than 20 countries globally, while exporting to more than 50.

One of the great things about manufacturing plants is that they are typically in outer suburban and regional centres, where they provide stable, long term, skilled jobs; where average salaries are usually over \$100,000 per year. These are the kind of jobs around which you build communities, buy a home; set up businesses; raise families; join footy clubs; and, take dance lessons.

So when I think about regaining Australia's energy advantage, I'm not thinking about inputs, or what we need to put into our energy system to make it work: what mix of renewables do we need; what NEM rules do we need; what number of competitors is just right.



All of those are important, but if the pursuit of a perfect market design is what guides our decision making, we miss the big picture.

When I think about regaining our energy advantage, I'm thinking about outputs. Can our energy system, whatever it looks like, support the next generation of Australian manufacturing jobs. Can it put Australia back on the map for domestic and international manufacturing investors alike, and can it create the conditions where our manufacturers, as well as our energy sector, can prosper and grow.

That's our shared challenge.

USA Experience

So let me now spend a few minutes talking about the link between energy and manufacturing in the USA, and what we can learn from it.

I've chosen the USA because, as I mentioned, their energy transformation has been so compelling. But also for a simpler reason, which is that Australian manufacturers are spending lots of money to grow in the USA, and it's worth unpacking why.

The United States has long been the single largest destination for outbound Australian investment, comprising more than a quarter of all Australian overseas investment last year, and with total cumulative investment more than seven times what Australia has invested in China.

Today, manufacturing makes up half of Australia's direct investment in the United States.

Amongst the Manufacturing Australia membership alone, new capital expenditure in the USA has been more than \$8bn in the past decade.

There are many drivers of the resurgence in US manufacturing, and many reasons why it's a compelling place for Australian manufacturers, in particular, to invest, but unquestionably the abundance, diversity and affordability of energy is chief among them.

But it wasn't always the case, as people in this room are sure to know. In fact, in many respects Australia and the USA have reversed their respective energy fortunes over the past decade.

When I worked in the USA in 2007-08, the Henry Hub spot price for gas spiked to more than \$13 US Dollars per Million Btu. It had been higher a couple years earlier.

Today that spot price is in the mid \$2 dollars.



On average, manufacturers in US today are paying around 30% less for electricity and 63% less for gas than they were a decade ago. Compare that with Australia, where households today pay 70% more for electricity and 47% more for gas than they did a decade ago, while for manufacturers, it's around 175% more for electricity and 150% more for gas.

Of course, it's not just prices that have tumbled in the US. So too have emissions.

In the past decade, US CO₂ emissions have decreased by almost 800 million tonnes. In the same period, Australian CO₂ emissions have *increased* by about 10 million tonnes. The inputs to this transformation are, of course, well known and well documented so I won't spend too much time on them, but in short:

- Discovery and development of America's abundant shale gas resources has coincided and partnered perfectly with tumbling prices for wind and solar energy, adding to the already diverse energy mix in the US.
- Without the high firming costs we have experienced here that combination has displaced many of the higher emitting generators in the country, while driving prices down.
- By accepting the role of gas as a transition fuel and, indeed, a perfect complement, to renewables, the USA has been able to achieve what has eluded Australia: lower emissions, lower prices and more reliability.

For mine, the most important lesson for Australia from America's energy transformation of the last decade or so is that energy policy doesn't have to be binary.

We don't have to choose between emissions reduction *or* lower prices; reliability *or* affordability. The US experience shows us that if you embrace new technologies and support competitive markets, but with measures in place to make sure domestic customers benefit, then you can solve for emissions reduction, reliability and affordability simultaneously.

But what else can we learn from the US energy transformation?

For mine there are **four things**:

1. Number one, the US has benefited from a very clear vision about what its energy market should look like, and what its purpose is. And it's all about delivering for customers and underpinning growth across the economy.



In his 2012 State of the Union address President Barack Obama made energy independence and value adding through manufacturing a major theme, pledging to create 600,000 jobs by the end of the decade by safely developing natural gas for the benefit of domestic customers.

In fact they vastly exceeded that goal, with US Department of Labor statistics showing that between 2010 and 2018 more than a million manufacturing jobs were created in the United States. Reuters analysis attributes about two thirds of the manufacturing job creation to foreign direct investment, of which we are a small part.

2. The second lesson is that the US has **many suppliers** of energy, creating a naturally competitive and transparent market, whereas here we don't. Now we can't expect to replicate that entirely in a nation of 25 million people, but there is a role for governments in Australia to **incentivise and lift up juniors** to increase competition in Australia's energy market.
3. Number three, the US has brought **abundant supply to market**. They've done that by embracing new technologies, without picking winners, and by having policy settings that put **domestic customers first**. In Australia, the government has a role to play in ensuring domestic energy needs are adequately met, at competitive prices. A short market will always be an expensive market, and those that benefit from market tightness should not alone determine when the market is fully supplied. In the electricity markets, well designed reliability standards are key to that. In gas, the Queensland Government has shown leadership by allocating new gas tenements for domestic use, which I'll touch on later.
4. Number four, the US energy industry has **brought communities and customers along** with them, sharing in the benefits and demonstrating the link between competitive energy and a buoyant domestic economy. In Australia, that means a **fair return for landholders** and communities, and **producers working with customers** and State governments to ensure the community sees the benefit of energy investment.

So if that's what's happening in the USA, what can we do here?

Well let me first talk about what commercial and industrial customers are already doing, and then look at what governments can do in partnership with industry.

Our public debate about energy tends to position large energy customers as either passive and complacent victims of energy transition, or worse, "part of the problem"



On the contrary, we are part of the solution.

Manufacturing Australia's members are amongst the largest buyers of renewable and low emissions energy in Australia, underpinning investments through long term power purchase agreements. To name just 2 examples:

- Last year, Bluescope signed Australia's largest ever solar PPA, underpinning a 500,000 panel farm to be built in the NSW Riverina,
- While Packaging manufacturer Orora last year signed Australia's first "base-load renewable deal" to power operations in Victoria and NSW, underpinning multiple renewables projects to reduce volatility and high price exposure.

So too in gas markets, where large customers are underpinning exploration and development, especially by junior and mid-cap gas companies eager to work with domestic customers.

- Earlier this year, SENEX announced it would supply three leading Australian manufacturers – CSR, Orora and OI – with gas from its Project Atlas in the Surat Basin, made possible through the smart policy support of the Queensland Government.
- Incitec Pivot, an Australian fertiliser and explosives manufacturer, has partnered with Central Petroleum to explore for gas in the Surat Basin in an effort to secure the long term future of its Queensland plants and employees.
- And Brickworks, Australia's largest brick manufacturer, has signed a long term supply agreement with Santos to help underpin gas development in NSW, while also working with a range of producers as it prepares to become a wholesale gas market participant from 2020.

It has always been the role of "baseload" energy customers to partner with and underpin investments in energy generation through long term contracts - regardless of shifts in generation technology.

As the generation mix shifts towards renewables and lower emissions technologies, so too will customers. What's important is that the pace and nature of change is carefully managed and achievable, and that we acknowledge the limitations of some industrial processes to transition, either physically or economically.

One thing that has changed with shifts in generation is the priority placed upon demand side management, which I'd like to spend a moment on now.



By “load-shedding” and moderating demand when needed, manufacturers have long provided system stability to the National Electricity Market. In the past, when generation was less intermittent this was more or less an emergency response. Today, of course, it is core business for many large energy customers.

As the intermittency of our generation increases, it becomes ever more important to retain large interruptible loads that can be shed in times of peak demand when wholesale prices are high.

Paying energy users to reduce demand instead of turning on more expensive generators makes sense, but only if it is done in a way that firstly respects the physical limitations of plant and equipment – not every load can be shed instantly, or repeatedly, or for long periods of time – and secondly that rewards customers for doing so through a market that is transparent and competitive.

Next month, the Australian Energy Market Commission will release its draft determination on a Demand Side Response rule. If we are to have a competitive market for demand response, it needs to be transparent and dispatchable. Customers should be able to use an aggregator to improve competition and retailers should not be default gatekeepers of the demand market.

I’m sure you will hear more today about other strategies being pursued by C&I energy customers: from examining alternate fuels like hydrogen and biowaste, to testing alternative production methods. But in the interests of time, I’d like to use my final couple of minutes to make a few remarks about the role of governments in regaining Australia’s energy advantage.

I said earlier that the United States’ energy transformation had been underpinned by a firm vision for what its energy market should look like, and how it needed to deliver for customers.

Federal, State & Territory governments in Australia have an opportunity, particularly as we enter a new Federal Parliament, to re-consider what it is we are trying to achieve through energy policy and market reform: is it modest improvement on the status quo, or do we want to see energy once again as a source of global competitive advantage for Australian industry.

Right now, high energy costs are reverberating through the Australian economy: a sustained 25% increase in wholesale electricity and gas prices would cost more than 33,000 jobs, see GDP decline by 1.15% and an annual economic loss of some \$19bn, which in 2015 was the national value of Australia’s third largest export industry: international education.

But if we can turn that around, as the USA did, then the inverse can be the case.



There are several important policy developments emerging:

- By unlocking new gas tenements specifically for use in domestic manufacturing, the Queensland Government has provided a template for how gas should be developed in Eastern Australia. The lowest cost, lowest emissions, least disruptive way to solve East Coast Gas challenges is to develop new gas, close to customers, and make sure that gas goes to domestic customers. Queensland is already doing that, NSW can do it too, and so should Victoria when its moratorium on conventional gas exploration ends in 2020.
- Meanwhile, the Federal Government is making practical use of its balance sheet by underwriting new generation investments to help firm renewables, reduce volatility in the NEM and increase competition in the generation market, and the re-integration of emissions reduction into the federal energy portfolio is the right move.

We shouldn't abandon hard fought principles that the best outcomes for consumers are delivered through competitive markets, functioning effectively. Interventions should be temporary, carefully considered, and intended to get markets back on track, not replace them.

But when intervention is necessary and in the national interest, we shouldn't resile from it. Those who insist that a market that delivers windfall profits to energy producers while putting customers out of business is proof the market is working, do just as much damage as those who see the solution as depriving energy producers the ability to run profitable businesses.

I believe that if we can draw a line under some of the ideological, winner takes all, mindsets – on all sides of the energy debate – which have stymied progress towards a solution that should be based on compromise, not consensus, we will go some way towards redefining a vision for Australia's energy advantage, and the nation will be better off for it.

Thankyou.