

# **SPEECH**

**The Hon Ian Macfarlane MP  
Minister for Industry**

**Keynote address to the**

**Annual Foundation Dinner of the University of Sydney's  
Electrical and Information Engineering Foundation**

**Nicholson Museum, Quadrangle, University of Sydney**

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**\*\*Check against delivery\*\***

## **Acknowledgments**

- The Hon Warwick Smith—Chairman of ANZ Bank Limited (NSW & ACT)
- John Grill—President, Electrical and Information Engineering Foundation
- Alan Cameron—Deputy Chancellor
- Professor Mary O’Kane—NSW Chief Scientist and Engineer
- Professor Archie Johnston—Dean of Engineering and Information Technologies
- Professor Trevor Hambley—Dean of Science
- Professor Gregory Whitwell—Dean of The University of Sydney Business School
- Distinguished guests, members of the foundation, alumni

## Introduction

Thank you for inviting me to give this year's foundation dinner keynote address—it's always a pleasure to visit Australia's first university.

I appreciate your commitment to engage with industry and Government.

It's important that education and industry are on the same page.

Consider for example developments in your discipline over the past 400 years.

After electrical engineering pioneer William Gilbert created the first instrument to detect electricity in 1600, it took more than two centuries before efforts were made to apply electricity to practical use by way of the now obsolete telegraph.

But what happened afterwards? The time lag between later communication technologies like fax, email and text messages was progressively reduced.

These changes have transformed the way people live and work, with the biggest impact in recent years seen in information technology.

We're now witnessing technological advances, innovation, and changing consumer preferences and workplace practices on a scale never seen before.

That means what was a priority for industry only a year or two ago may now be consigned to the fringes of business and industrial activity.

By the same token, scientific breakthroughs made by university researchers today could improve industry operations tomorrow if both sectors stay engaged.

## **Bridging the gap between industry and science and research**

Greater engagement between universities and industry will ensure graduates are equipped to meet the needs of industry when they join the workforce.

Last Friday, I launched the Global Innovation Index, a world-leading report that assesses progress made with innovation policies worldwide.

Australia improved its overall ranking in the 2014 index—from 19th last year to 17th out of the 143 economies that were assessed this year.

And our strengths in trade and competition were recognised with a top ranking.

Our high-quality tertiary education, research and development systems, and ICT strengths played a significant role in how we performed.

But the report shows we need to do more to boost innovation output. To do that, we must strengthen the links between science, research and industry.

This is the key to improving our national competitiveness, and it is a central theme of the Prime Minister's National Industry Investment and Competitiveness Agenda.

Government's essential task is to get the fundamentals right for industry: that means low, simple and fair taxes; stable and predictable policy settings; effective administration; efficient services and strong infrastructure.

And strengthening links between science and industry will only improve our ability to streamline administration and deliver services as efficiently as possible.

It is not enough to have great research and good business, and it is not enough to be early adopters of other countries' ideas.

We need researchers to be at the forefront of developing new products and new industries, and better and more efficient ways of doing things.

As engineers, you have always been the link between invention and commercial reality.

And your foundation's efforts to help bridge this gap are so important.

I applaud the relationship the School of Electrical and Information Engineering has built with organisations such as Ausgrid, TransGrid, and AEMO.

I'm pleased to know that the School and the Engineering Faculty perform well in international rankings.

We've seen engineers of high calibre in your alumni, like Rhett Butler, John O'Sullivan and David Skellern who were recognised for their outstanding contribution to Australia in the 2012 Australia Day Honours.

It is testament to the strong leadership and vision within the school and faculty, as well as the teaching and research support provided by this foundation.

## **Securing our energy future: Energy White Paper**

The Government has committed to a set of signature reforms to grow the economy, while addressing rising business and household costs.

Securing our long-term domestic energy needs, maintaining international competitiveness while meeting international obligations, and growing our export base are fundamental to a strong economy.

The Government will deliver an Energy White Paper to ensure industry and consumers can have certainty and confidence in Government policy.

To address the challenges facing our energy sector and provide this certainty, I am pleased to be leading the development of the White Paper that will articulate a coherent, consistent and integrated national energy policy.

It will be clear on the outcomes we are striving for, consistent in the means and mechanisms we will use to get there, and won't be cluttered by unnecessary regulatory burden or ad hoc policy settings that do not operate in a coherent framework.

The White Paper will consider:

- the supply and use of Australia's energy resources to deliver security of supply
- increases in new energy sources to ease demand and supply constraints
- regulatory reform to put downward pressure on price rises
- improvements to our outlook capacity to allow us to be more dynamic in responding to change

- options for improving our energy productivity throughout the whole supply chain.

We've made good progress and I will soon be releasing a green paper, outlining the challenges we face and the Government's policy proposals.

I will also be seeking ideas from all stakeholders about how to create an energy future that benefits Australians.

Sydney Uni's contribution to energy research, including power systems and next-generation grid technologies, is important to Australia's energy future and I encourage you to be involved in the white paper's development.

## **Renewable energy**

I commend the engineering faculty for its work in renewable energy.

As renewable energy becomes more affordable and popular with consumers, research into intelligent grids by the School of Electrical and Information Engineering and others will be crucial in facilitating its greater integration.

The Australian Government supports the development and use of renewable energy as an important part of our nation's energy mix.

Likewise, traditional energy sources including coal, oil and gas will continue to be a vital part of our energy supplies for many years to come.

A diversity of energy sources in the market is crucial for our energy security.

It gives Australia flexibility in future energy choices and enables us to respond to the conditions of the day, while also reducing emissions.

Many renewable energy projects, backed by private sector investment, have benefitted from significant Australian Government funding in recent years.

The Government is investing over \$1 billion in nearly 200 renewable energy projects through ARENA—the Australian Renewable Energy Agency.

We are keen to see these projects deliver new and better renewable energy technologies for Australia and deliver value for taxpayers' money.

Over \$400 million of Government funding has been provided to schools, local governments, not-for-profits and households to install renewable technology, energy efficiency upgrades and understand and change energy use behaviour.

And the Renewable Energy Target has underpinned many more billions of dollars of investment in renewable energy generation.

The energy market has changed significantly in recent years. With falling demand we are now in a situation of oversupply and reports from the Australian Energy Market Operator indicate that new generation investment is only occurring in renewables, predominantly wind energy, encouraged by the RET.

Upon coming to Government we committed to a review of the Renewable Energy Target.



We want to make sure that the target continues to be appropriate and that the scheme continues to operate efficiently and effectively.

The independent review panel has been closely considering this question over the past few months meeting with very broad range of stakeholders and working through thousands of submissions.

The panel is weighing up the evidence it has received from stakeholders through submissions and consultations.

The Government will wait until it receives and considers the panel's report before making a decision on the future of the scheme.

We are, however, aware of the large scale renewable energy investments already made under the scheme.

The review will take into account existing investments and the impact any proposed changes will have.

I expect the review to be completed soon and the Government will respond as quickly as it can to provide policy and investment certainty for the industry.

This Government is also keen to put the nation's financial position on a more sustainable footing by making savings in the Budget across Government programmes.

That is why we have introduced the ARENA Repeal Act to Parliament and intend to move the agency's functions into the Department of Industry to focus on the \$1 billion of existing investment returning \$1.3 billion to the budget.

We have also been clear that we do not support \$10 billion of taxpayers' money being spent through the Clean Energy Finance Corporation on projects deemed too risky by the private sector, or displacing private investment.

### **Meeting our emissions reduction commitments**

Now that the carbon tax has been abolished, we will establish an Emissions Reduction Fund to meet our international commitment to bring down Australia's emissions to 5 per cent below 2000 levels by 2020.

The \$2.5 billion fund will create positive incentives for industry to innovate and pursue the most efficient emission reduction projects

It will create a market for abatement and encourage investment in emission-reduction activities—from energy efficiency in buildings to the capture and combustion of coal mine gas, landfill gas and biogas.

### **Energy market reform**

Australia's energy markets, aided by responsible regulation, provide the best mechanism for determining the energy choices that we make.

Regulation should support, not hinder, the effective operation of the markets, while ensuring that the interests of consumers are protected.

One reason we abolished the carbon tax was to ease the cost pressures it was imposing on households and businesses through rising energy bills.

The carbon tax was making an already a challenging situation worse.

In recent years, we've seen electricity and gas prices go up for a range of reasons, including investment in network infrastructure and emerging gas export markets.

Give engineers a problem and they'll fix it. In response to reliability issues in the 90s, reliability standards were tightened and networks were augmented in a way that sees Australia benefit from network reliability of 99.98%.

And Australians have come to expect such reliability by perhaps without fully realising that it comes at a cost.

At the same time, we are experiencing significant reduction in household demand. The exit of energy intensive industries is also reducing demand.

This has left a smaller customer base to cover larger network charges and changing pressures for us to think about.

New and emerging technologies such as solar PV, storage and electric vehicles are also likely to change how the market operates.

This dynamic energy landscape is creating a fundamental shift in the way electricity is produced, supplied and used in Australia.

This is a change that calls for a strategic approach to future energy market reforms.

I am working with my state and territory colleagues through the COAG Energy Council to ensure our energy markets are well placed to respond to these changes.

The primary aim of our reform agenda is to ensure that consumers pay no more than is necessary for a reliable and secure supply of electricity.

The reforms will also help businesses improve efficiency and ensure they and consumers can adapt to changing market circumstances.

The measures range from enhanced network regulation and competition to greater consumer engagement and protections in the energy market.

Good progress has been made.

For example, the Australian Energy Regulator is operating under new rules that allows more discretion when setting network prices “in the long term interests of customers”.

Under these rules we’ve already seen reductions in the network costs that customers will pay in NSW and ACT from 1 July this year.

Changes to the Limited Merits Appeal process made last December have ensured that the long-term interests of consumers are the primary focus of all regulatory decisions.

Other progress is also being made in areas to empower consumers including consideration of mechanisms that could provide for customer preferences to be more explicitly taken into account when setting reliability standards

But more work is still needed if we are to see proper engagement from consumers and a market that can support choice and innovation.

Rule changes are underway to encourage and support business-led competitive roll out of smart meters and allow innovative tariffs as an incentive for more efficient electricity use.

The COAG Energy Council is seeking advice from its officials on the potential challenges to and risks facing Australian electricity networks over the next two decades.

This advice will inform the Council about the implications of these challenges for the statutory and regulatory framework within which the industry operates.

### **Smart Grid, Smart City Project**

The results of the Smart Grid, Smart City Project will also inform the Energy Council's strategic work.

You will be aware of the Smart Grid, Smart City Project, given this university's research interests in smart grids.

The final results of this project, which rolled out Australia's first commercial-scale smart grid, will be published and presented to industry at a one day workshop here in Sydney next week.

Current analysis, based on the medium scenario, shows smart grids have the potential to deliver about \$27 billion in net benefits out to 2034.

The final project reports and supporting material, along with extensive data from the trials, will be made available in the projects Information Clearing House from July 29.

Access to this information on the information Clearing House will be important in helping industry and researchers undertake their own analysis.

There are a range of findings from the project that will support and potentially influence current energy market reforms being undertaken.

Data like this will help in network regulatory reform, smart metering, demand side market and retail energy pricing reforms.

## **Coal seam gas**

Before I conclude I would like to touch on the issue of gas.

There is a need for a clear vision here in New South Wales about the future of coal seam gas and strategies must be put in place to deliver outcomes.

At the moment, only around 3 per cent of the gas that is used in New South Wales is produced in the state.

The eastern Australian gas market has traditionally enjoyed low domestic price, but it is inevitable prices will rise.

Reserves are getting more expensive to develop and linkages are increasingly being made to international markets.

In fact, gas prices on the East Coast are likely to move closer to the higher international gas prices.

The unusual element being that the scale in both ramp-up in CSG and LNG projects is unprecedented, so this brings new market uncertainties.

This Government is focused on ensuring the current transition period does not extend longer than a functioning market otherwise would.

The most sensible method to address this step change is to unlock more domestic gas supply by developing an onshore gas industry.

This will apply downward pressure on price.

There are matters of market transparency and fluidity that we will continue to work through, co-opting our state and territory counterparts where appropriate.

Regulators can work with bodies such as the Independent Expert Scientific Committee and CSIRO to address uncertainties or community concerns.

There are huge amounts of work going in every state, in every institution and at the federal level through our national scientific agencies, to ensure that risk management

This aims to establish more community confidence in the industry – something we can only do if we work together.

It is imperative that the coal seam gas industry obtains social licence to operate in the state by having the highest operational standards and adhering to land access codes.

It's something I've witnessed in Queensland where the gas industry has spent years working with the community, becoming part of the community.

Providing jobs, supporting regional businesses and other industries like agriculture, and sharing the economic benefits throughout the region. But it is an ongoing task.

The Australian Government supports the responsible development of gas based on three co-existence principles:

- access to agricultural land be allowed only with the farmer's agreement
- there is no long-term damage to the underground water resources, and
- agricultural production is not permanently impaired.

### **Privatisation of energy assets**

The Australian Government supports the disaggregation and privatisation of government-owned energy assets throughout Australia.

The process and outcomes of the sale of state and territory government-owned utilities are a matter for the respective governments.

To encourage this process, the Australian Government is investing \$5 billion through the 2014–15 Budget to establish the Asset Recycling Initiative.



This initiative will provide incentive payments to states and territories that sell assets to reinvest the proceeds in productive infrastructure across the country.

It will create opportunities for investors, including Australian superannuation funds, to invest in quality infrastructure assets around Australia.

We're seeing signs of strong support from states and territories for the Australian Government's push to get infrastructure investment moving.

At the Council of Australian Governments meeting in May, all Governments signed the National Partnership Agreement on Asset Recycling.

This unanimous support for the agreement demonstrates constructive and cooperative federalism at work.

### **Concluding remarks**

Our nation's energy sector is critical to a productive and competitive economy.

It is vital for creating jobs and encouraging ongoing investment in the country.

But a rapid transformation is occurring across the energy sector, with new types of generation coming online and customers using energy in varied ways.

This calls for a strategic approach to tackling emerging challenges in the sector, while making the most of the new opportunities on offer.

The Government is committed to establishing a policy framework that takes a comprehensive approach to securing our energy future across the energy mix.

We will continue to work with our state and territory colleagues to strengthen regulatory outcomes that support more efficient energy markets.

But higher education institutions like yours have a role to play.

Through greater collaboration with industry, you can apply your engineering research in industry to improve outcomes for all, including households.

(ENDS)