

Address to PricewaterhouseCoopers Forum
Executive Director
International Power Australia
Tony Concannon

10 February 2011, Melbourne

Good morning. My name is Tony Concannon, I am a Chartered power engineer by profession and have worked in the electricity sector in Europe, Asia and Australia during the past 25 years. For the past 7 years I have headed-up IPR's business in Australia which consists of coal, gas and renewable technologies and retail. It is the largest private producer of electricity generating 12% of the energy in the Eastern States, and supplies 350,000 electricity and gas accounts.

Introduction

I will start with a short introduction and share with you my thoughts on the state of the electricity sector.

I work for a Company called International Power plc. Last week we completed a transaction to merge with the international generation business of GDF-Suez to form the world's largest independent power producer in over 30 countries with 66,000MW¹ of power plant in operation and 22,000MW under construction. Our core business is the wholesale production of electricity and we have a diverse portfolio of fuel

¹ Gross MW capacity in operation

and technologies with 60% gas-fired, 18% are hydro and renewables and the balance are coal and oil-fired.

The future is Electricity. It is unequalled in being able to transfer large amounts of energy at the speed of light and multiple fuel sources can be used to generate it including fossil fuels, renewables and nuclear. It will provide more and more of your energy needs including transportation in the future. It is simply the most exciting energy sector to be in.

And so turning to the electricity sector in Australia....

I consider the Australian generation sector has been in a difficult space since the start of 2008, and this continues to be the case.

The cloud above it is large and includes regulatory threat (including emission reduction and a possible mining tax), a straining grid system, the expensive cost of multiple (and overlapping) schemes which are now starting to flow through to consumers, retail pricing is still being interfered with in all States except Victoria, and there remains an unfinished privatisation process in the Eastern States – despite 16 years of trying².

I suggest there are four key issues which still need to be addressed:

a. Well design regulation which delivers a smooth transition

² Many other countries have overtaken it e.g. in 2010, Turkey successfully privatised 13,000MW plus all its distribution and retail businesses

Existing capital intensive infrastructure does have to be changed over the next 10 to 20 years and new technology developed but it should be done in a manner which provides a smooth transition which maintains reliability of supply and avoids the destruction of investor value as a result of any material change in law.

A power station has a design life that typically spans 10 to 15 Federal Governments (i.e typically 30 to 60 years), and cannot respond to policy and/or regulation materially changing once it is built.

I read that “Uncertainty is costing the electricity sector”, but I don’t agree. It’s the fear of poor policy being formed which is.

With over 90% of energy from brown coal, and no proven technology to remedy the moisture in the fuel, Victoria – and the private sector - would be the State hit the hardest if the policy settings were not properly designed.

b. Attract investment to the electricity sector

The reality is no new debt has been raised for any coal-fired power plant (black or brown coal, new or old) in Australia – and recall 90% of the energy is generated using it in the three most populated States. Investors have been spooked by the prospect of abrupt regulation since 2008.

Lenders³ want their money back fast and are imposing new constraints on expenditure.

\$50 billion of investment is estimated required in the generation sector over the next 10 years – it is just as capital intensive as the petroleum and minerals sectors. If the policy settings are designed well and are attractive to existing and new investors then capital will be attracted to Australia in both existing and new infrastructure.

c. Affordable electricity prices

It is worth remembering electricity prices in Australia are still one third to half of the price in OECD countries - predominately due to 30,000MW of coal-fired power plant using the vast, low cost coal reserves that Australia has which in turn provides over 83% of the electricity. This cost advantage continues to underpin the Australian economy, particularly manufacturing.

The truth is low emission technologies cost more, and this needs to be fed into the electricity tariff. Gas prices in the Eastern States are expected to be increasingly linked to oil and/ or LNG prices which in turn will increase the cost of generation by over 100%.

I do dismay when I hear of cross-subsidies for coal mine development, solar feed-in tariffs and other expensive “bolt-on’s” because they are not viable. They blunt the price signal to consumers and mask the consequence of poor policies.

³ \$20 billion of existing debt in generation

And lastly,...

d. “Price on Carbon”...and what does it mean ?

If you ask what people mean when they say “price on carbon”, most are not sure. It could mean a tax on greenhouse gas (GHG) emissions, or some market for trading GHG emissions. A tax appears simpler but in reality is similar in complexity.

There a multitude of serious questions to be answered including what cost will be passed through into the electricity tariff and what is the impact on the life of capital intensive infrastructure as a result of the change in law ?

What is the cap trajectory that Australia will describe for itself – the primary determinant of carbon price under a market based scheme – and will the increasing hint of a nuclear policy shorten the lives of other fossil fired and/ or renewable power plant ?

So in summary, it all hinges on good policy and investor confidence being in place which will encourage innovation, respect existing investments and allow the sector to compete for both global and domestic capital.

I look forward to genuine engagement between the Government, the Opposition and the electricity sector, with the objective of producing well designed policy which achieves all of these aims.

Thank you for listening.

FACTS

Generation - there is 48,000 MW of generating capacity installed and this produced 228 TWh of energy during 2009 to serve the needs of 21 million people in Australia. 90⁴% of electricity supplied today in Queensland, NSW and Victoria is produced using coal and peak demand continues to grow by around 2% pa in most States mainly due to population growth and the increased use of air conditioning and appliances.

Emissions – 35% of Australia’s emissions are from the electricity sector (about 200 million tonnes per annum) and Australia’s total emissions represent 1.5% of global greenhouse gas emissions. There is no commercial technology available today to capture and store greenhouse gas (GHG) emissions on a large-scale basis from any fossil-fuel source (coal or gas): the technology is in its infancy, and is not expected to be commercially developed until 2025-2030⁵.

Current coal exports have 630⁶ million tonnes of GHG pa embedded within it. These exports are expected to double by 2030 i.e. to 1,300 million tonnes of GHG pa.

Capital - the global financial crisis since the end of 2008 has resulted in less capital being available, and increased global competition for it. There is \$20⁷ billion of existing debt in place in the electricity generation sector, and \$100⁵ billion more is needed by 2020. There is a very high risk this capital will not be secured for Australian generation projects unless Policy is well designed.

Renewables - the legislation is likely to be amended and passed. 41 TWh of energy pa by 2020 equates to the build of 14,000MW of wind⁸ at a cost of \$35 billion⁹. But IPRA have always maintained that this is not the total cost for wind generation because you then need to add on the cost to reinforce the Grid (\$2.5 to \$7 billion¹⁰), and additional fast-response capacity to “firm-up” intermittent renewable generation (8,000MW of OCGT and CCGT plant) at \$9 billion¹¹.

This totals a figure of \$46 to \$51 billion to save 400¹² million tonnes of CO₂ over a period to 2030 which equates to \$127 per tonne of CO₂. In simple terms it means the cost of this renewable generation equates to a wholesale electricity price of \$150 to \$200 per MWh – the current price is \$35 to 40 per MWh.

⁴ Actual generation using coal-fired power plant during 2009 (black and brown coal)

⁵ Global CCS Institute (www.globalinstitute.com)

⁶ ABARE report (2008/09). 1Te of thermal coal = molecular weight of CO₂/ Atomic weight of Carbon x approximate fraction of carbon in a Tonne of thermal coal = 44/ 12 x 0.8 = 2.9 Te CO₂ per Te of thermal coal

⁷ esaa survey Q1 2010

⁸ Using a 33% load factor for wind

⁹ Source: windfarm suppliers at \$2,500/ kW (2010 \$)

¹⁰ Source: NGF

¹¹ Using 4000MW of OCGT and \$900/kW and 4000 MW as CCGT at \$1,300/kW to meet a limit of 30% renewable beyond which IPRA considers there will be Grid stability problems.

¹² 700 million tonnes of CO₂ to 2030 less 300 million from gas-fired power plant to support wind farms gives a net saving of 400 million tonnes

Since 2008, an impressive 1,400MW of wind generation has been built and/ or committed to but if you look closer you see that State Governments have contracted 61% of this – not the market. It is predominately for desalination plants - i.e. 854MW of this will not contribute to the LRET target. The balance is a mixture of retailer offtake and some taking a (risky) “punt” on the spot electricity and REC markets.