



**Australian Energy Market Commission**

## **SPEECH BY CHAIRMAN JOHN PIERCE AT WORLD FORUM ON ENERGY REGULATION**

### *Towards Smart Regulation: Efficient market outcomes in periods of transition*

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#### **Check against delivery**

Good morning and thank you for inviting me to speak with such a distinguished panel on such a topical topic.

Smart Regulation may be interpreted as referring to good regulatory practice or more specifically, regulatory practice in the context of the smart grids and the technological developments that are revolutionising the energy sector.

At the risk of spreading myself too thin I will refer to key aspects of both, but as I hope you will see, they are related.

Of course whether any particular set of regulatory arrangements can be considered “smart” or not depends on both its objective and the context within which it is being applied.

In the provision of advice to governments on market and regulatory development, and when making the statutory rules that govern the sector, the Australian Energy Market Commission is bound by an explicit, focussed objective function:

To make decisions that are or are likely to be in the long term interest of consumers with respect to a defined set of parameters that we would all recognise as the traditional concerns of energy policy - price, reliability, safety, security of supply and the like.

Note that the term “consumers” is taken to refer to end users in general. We are not in the business of trading off the interests on one group of consumers against another.

And beyond being concerned with the efficiency of price levels and structures, affordability objectives of governments are handled by income policy instruments rather than through energy prices.

Environmental policy objectives and implementation are likewise handled by other arms of government. However with respect to those that have systemic effects on the energy sector, such as climate change policies I would suggest that while government can specify its objectives or outcomes - say an emissions target for the sector - energy market institutions are in the best position to design the means or instruments used to achieve them in a manner compatible with the mechanisms and means of exchange of energy markets.

For the mathematically minded, I would describe what we do as maximising an objective function subject to specified constraints. As far as possible we like to avoid giving institutions multiple objectives that require regulators and officials to “balance” things or trade objectives off against one other. This can only be done via subjective value judgements, and that’s what we pay politicians for and the political process as distinct from regulation, is designed to reveal.

The Australian National Electricity Market has the following characteristics:

- A transparent and competitive energy only wholesale market with “over the counter” and exchange traded derivatives contracts;
- A highly competitive retail sector, such that for most consumers retail price regulation has been removed; and
- An ex-ante incentive based regulatory framework for the transmission and distribution network sector.

The outcomes experienced by consumers have been influenced not only by these three factors, but also by non-price, consumer protection regulations; network reliability standards; the service offerings of retailers, and the impact of government policies that are implemented outside of the energy market governance arrangements such as the Federal Government’s Renewable Energy Target and, at least in the past, state government feed-in-tariffs for residential solar panels.

We have been on a fairly consistent reform path over the past 25 years or so, as part of a broader microeconomic and competition policy reform agenda.

It started with widespread recognition of the relationship between productivity growth and the potential growth in economic output, and the contribution that domestic stationary energy made to that objective.

Within this part of the economy it commenced with a competitive generation sector which then supported development of a competitive retail sector.

More recently it has focussed on capturing the value of demand side participation and embracing a consumer driven transformation of energy

service. It will be the options available to consumers enabled by technology and the choices they make that drives the way the energy sector develops. This is challenging traditional business models, the way we divide the energy services supply chain into its components and hence where we draw the line between what needs to be regulated and what does not.

Demand for electricity traded on our National Electricity Market has fallen for each of the last three years and an average 1.7 per cent in the past five years. This underlying trend is projected to continue and is largely explained by a combination of three factors:

#### Solar PV –

Around 1.3 million households have installed solar PV systems (of around 9 million households).

Total installed capacity reached more than 4000 MW in 2015, equivalent to around 7.5 per cent of total installed generation capacity in the National Electricity Market. That's a big change when you consider Australia had virtually zero PV capacity as recently as 2010.

#### Changing structure of the Australian economy –

This is part of a long term trend with average annual energy growth rates falling in every decade since the 1960's. It was 9 per cent in the 1960s, 7 per cent in the 1970s, 5 per cent in the 1980s, 3 per cent in the 1990s, 2 per cent in the 2000s and, perhaps inevitably, negative in most years since 2010.

There are 120,000 fewer Australians employed in the manufacturing sector than there were 10 years ago, and its contribution to total Australian output is less than half what it was four decades ago.

#### Energy efficiency –

The Australian Energy Market Operator estimated total energy savings of around 10 per cent annually over the next three years, due to more energy efficient air conditioning, refrigeration and electronics.

As a result, it is expected that no additional electricity generation capacity will be required in our National Electricity Market for the next decade.

Despite this, almost 1200 megawatts of wind capacity has been added in the past two years and around 650 megawatts of committed projects remained committed at July 2014. You might ask what's driving supply, if not demand: It is driven largely by Australia's Renewable Energy Target, which has been the subject of much debate, with an awakening to the consequence of misaligned energy and environmental policy objectives.

I might come back to that a little later in our panel discussion.

Falling demand is matched in consequence by the increasingly sophisticated ability of consumers to actively participate in markets and the technological change that is supporting that participation.

So how are we most likely to achieve efficient market outcomes during this period of transition and change?

By having energy market and regulatory arrangements that are both flexible and resilient enough to respond, whatever the future may bring.

Flexible, responsive markets are characterised by market participants that have the information, tools and exposure to price signals which enable them to adjust. So that consumers, rather than regulators, are in a position to decide if the value to them of what they are being offered is greater than the costs to the system of providing it.

So what does that mean in practice?

Rapid advancements and widespread adoption of distributed generation, smart technologies and connected home products and services, as well as advances in storage are just a few of the game changers that allow consumers to decide for themselves what is in their own interests.

Retailers are evolving from managers of margins between wholesale and retail prices and volumes to suppliers of energy services and new energy service companies are entering the market.

The boundaries between what needs to be subject to economic regulation and where competition is viable are being re-drawn.

The energy regulator's role then becomes to do no more than necessary to support the participation of individual consumers in energy markets.

And that's really what Australia's 2012 Power of Choice reform package is about. We're about 3 years through this 5-year reform program.

My colleague Paul Smith, spoke in more detail about the Power of Choice reform package earlier this morning.

But briefly, the package includes:

Flexible cost reflective network pricing –

Retailers and consumers cannot be expected to make efficient choices unless the revenues of network services are recovered via price structures that better reflect the cost consequences for networks of their individual decisions.

Breaking the monopoly on metering services –

A draft rule that the AEMC currently has out for consultation makes it clear we intend a market led approach to the deployment of new metering technologies. This means investment in metering services will be driven by consumers choosing products and services enabled by this technology that they value at a price they are willing to pay.

And we've been careful about the minimum specification of those meters because we don't know where the technology will go in the future.

Giving consumers access to better consumption information –

And of course consumers need access to their data to figure out how these tools and pricing mechanisms can be of most benefit to them.

All of this has been designed as cohesive and integrated market wide reform program to increase demand side participation in our electricity market.

An important implication of this approach – “flexible markets which can respond to change” – is that regulators need not be wedded to one particular view of the future. We must be aware of and prepared for the changes in technology and business models that are on the horizon without placing bets on what will actually happen.

The AEMC has significantly increased the amount of time we dedicate to looking at emerging trends of significance to market development. We have new work-streams which are looking at:

- How the consumer protection and regulatory environment needs to evolve to support the very different approach to energy retailing that is emerging – a range of new players, most with a very strong technology focus, are offering services similar to traditional retailers.

We want consumer protection mechanisms that meet government policy objectives while not stifling innovation and choice.

- How network businesses particularly may evolve into two way platforms for the flow of energy.

As a first step we're considering how storage may be integrated across the grid but that's just part of a larger look at how network service provision may change over the next decades

And of course, if we want to know where the energy market is going we need to better understand consumers themselves.

So I thought I'd finish briefly with a bit of a proposal.

The AEMC carries out an annual Retail Competition Review – which assesses the state of competition in retail energy markets across Australia.

Our colleagues in New Zealand carry out a similar piece of work but last year included a comparison of consumer activity and behaviour between New Zealand, Australia, Texas in the United States and Alberta in Canada.

Many of you would also carry out your own research and analysis.

And while we have some good international data on switching via the VaasaETT utility customer switching research project, I'd like us to consider what might be possible if more of us worked together on an international analysis of competition in energy markets that might cover a broader range of topics including aspects such as:

- Barriers to retailers entering, expanding or exiting the market;
- The degree of independent rivalry;
- Customer satisfaction with market outcomes; and
- Whether retail energy prices are consistent with a competitive market.

This would provide us with more insight into how markets are delivering benefits to consumers and in a more comprehensive and systemic way.

Many of us are facing similar challenges and the more we can learn from each other's successes, the better.

**ENDS**

**John Pierce**

Chairman

Australian Energy Market Commission

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