

AUSTRALIAN ENERGY WEEK 2017

Keynote Address

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Introduction

Imagine a world without electricity. That is the line that stuck out for me when I was reading Dr Finkel's blueprint a couple of weeks ago. And I've been trying to imagine it ever since.

I have lived in country where the electricity supply was neither secure nor reliable – the country was in the middle of a brutal civil war. Cutting off electricity supply was a deliberate strategy to wear people down. No power for lighting, elevators, television – nothing at all...and for weeks at a time. But that was Lebanon. And it was 30 years ago.

Trying to imagine the lives of most of us here in Australia today without electricity is harder. Without energy, what would my household be like most evenings? We use electricity and gas for cooking, heating, powering computers, charging iphones and the almighty ipad for essential viewing of the Octonauts and Charlie and Lola.

Electricity (and energy more broadly) plays a key role in the lives of every single Australian. Not just a “nice to have” role – it is essential. Other services – like health, education and banking – cannot exist without energy. Australian businesses depend on energy. In fact, secure, reliable supplies of energy distinguish the first world from the third. It underpins our lifestyles and drives our economy.

This is why it's so important to have an energy sector that is resilient. And one that delivers what households and businesses want now, and in the future.

Which is a good Segway to my presentation topic for today: “are market mechanisms adequate to facilitate change” – specifically, can markets facilitate the transition to a lower carbon energy system.

The answer is yes....with a twist. But let me unpack that a bit.

Can markets facilitate change?

The changes we are seeing in the energy sector today seem big, but change in the sector is not new. In fact it's one of the few constants. There is a lot going on in energy – a lot going on in the world.

A decade ago Australia's population was nearly 20 million. Now it's 24. The first smartphone was unveiled. Now there are 16 million in Australia alone.

In the NEM 10 years ago there were around 300 generators. Now there are 1.6 million. It cost about ten thousand dollars to put a PV system on your roof. Now you can buy one on your credit card.

Some changes have been slower and predictable. Others have not. But change across the economy and in the energy sector is continuous. It's part of the human condition – to develop, improve, progress. As Benjamin Franklin, one of the American Founding Fathers said, *“When you're finished changing...you're finished”*.

We are never going to be able to predict exactly the types of technology that will “make it”, or how households and businesses will want their energy made, packaged and delivered. We can't know exactly how consumer behaviour and new technology will impact the energy market. And that is okay.

But this element of uncertainty is why markets are so important.

It's interesting...people often speak about the “market” like an intangible object that is separate somehow from the people that participate in or benefit from it. But the energy market is actually just a process that allows consumers to choose what they want, and a way of interacting with energy businesses, to get it.

When they are allowed to function correctly – markets deliver a whole range of information about what is needed, and the tools to deliver it. It's “the market” that will invest to deliver the transition to a lower carbon energy system, and a lower carbon economy more generally.

In the absence of markets, we leave all the decisions to a small group of central planners. We let them decide what, and where to build generators and networks and we let them decide the types of energy services we receive.

Without a market, we also place all the risks (and the costs of any mistakes) on energy consumers or tax payers. Either way, it's households and businesses that pay. And at the Commission we think that it's better to avoid this.

To use an example from another sector to illustrate the point: Remember the videotape format war of the 80s Beta versus VHS? Since then we have had Blu Ray, DVD, digital TV and who knows what's next?! Think of the risk taken-on by investors in these technologies! And think of the taxpayer money saved by not subsidising any of them!

How the Commission shepherds change in the consumer interest

So what is our role at the Commission in facilitating this change to a lower carbon energy system? Put simply, we are here to keep regulatory frameworks up to date so that energy markets can evolve in a way that delivers the best outcomes for customers, over the long term. When we amend the rules and provide advice to governments we stick to a few key principles:

- Supporting effective consumer choice - so consumers can decide when the value of using energy is greater than the cost of producing it;
- Promoting competition where possible and well-designed regulation where it is not;
- Creating signals to drive efficient investment;
- Acknowledging uncertainty so that instead of making things happen, we create an environment to let things happen if they deliver the best outcomes.

Benefits our market has delivered

So how have these principles helped the market develop so far?

Before the NEM was established, governments were in charge of building enough generators to meet consumer demand. Had these arrangements continued, we would have seen the equivalent of two new Eraring-sized power stations built over the decade. That's 6000-odd megawatts of generation sitting idle because forecast consumer demand never eventuated.

Instead, the market was introduced, and price signals from the spot and contracts markets drove just enough new generation investment where consumers wanted or needed it. As demand flattened in the early 2000's, price signals would have slowed generation investment had it not been for various government schemes that supported specific technologies.

On the retail side of things, markets have created choices that would not have existed in a centrally planned system. New retailers, products and services, using an increasingly wide range of technologies, are appearing in the market because of two waves of reforms.

The first was the structural reform of the industry in the late 1990s where the vertically integrated industry was disaggregated and the competitive wholesale and retail markets were formed.

The second wave, was a set of foundations we laid in the energy market rules to drive innovation and consumer choice.

I'm talking about rules that have made it easier:

- choose and switch retailers
- access and understand consumption data and
- receive and respond to price signals

I'll give you a few examples:

- If you've got a solar/battery set-up you can find retailers that will use your energy use and generation patterns to optimise your system in line with wholesale price signals.
- If you have a swimming pool you can find a bundled offer for electricity, pool equipment and services, that automatically cleans your pool when electricity is cheapest.
- There are retailers that will use your consumption data to find the best retail offer out there, and automatically switch you when savings are available.
- If you're a real energy junkie, you can sign up with a retailer that gives you real-time usage information so you can turn appliances on and off remotely from your smart phone.

Most Australian consumers can get all this and do all this because we have an energy market that puts them in the driver seat if that's what they want.

By carving up the supply chain to encourage competitive generation and retail sectors, we are saying to energy businesses *"consumers are paramount, go and fight for them"*.

By regulating monopoly assets we're saying – *"be as efficient as possible so consumers can use you, but must not pay more than necessary for the privilege"*.

By putting governments in charge of policy, but giving the rule making, system operation and regulatory functions to separate bodies, we're saying *"this sector needs to be able to adjust continuously and predictably, so here are some specialist agencies to make it happen"*

By giving everyone – industry, consumers and governments alike – the ability to suggest and help design new rules, we're saying *"you all need to play your part to make this work, now and in the future."*

Markets shortcomings and overcoming them with careful use of regulation and good governance

But at the Commission we don't just blindly accept markets. We support them when the evidence shows they deliver the best outcomes for consumers. And we make tweaks when they don't.

Markets tend to offer the most efficient and lowest cost way of discovering what technologies and services work best for consumers, and shepherding change in that direction.

But we acknowledge that markets suffer when there is information failure, inadequate competition, or other factors that distort price and other important signals. There are a range of tools we can and do use to overcome these without wading in boots and all and taking over:

- Information and reporting requirements can even-out the playing field and increase transparency.
- Facilitating negotiations and interactions between participants to minimise the likelihood of disputes and stalemates
- Also, Short term regulatory obligations can be used as a stepping stone to transition to market mechanisms in time.

You would have seen these mechanisms (and more) applied in our work at the Commission. For example:

- We are making more information available on the gas bulletin board – and making that information easier to access and interpret.
- We have introduced an independent expert into the transmission connections process, who will help solve issues between parties before they escalate.

- In our system security work we are looking at regulating the level of inertia to maintain the stability of the power system in the short term until new services develop over time and the market can take over.

However, each time we use one of these regulatory tools, we have to think “how much extra cost, and how much extra risk will consumers have to bear as a result of this?”.

That’s the key trade-off: we could regulate everything, but it would be more expensive and it would stifle innovation.....We could regulate nothing, and consumers would be completely exposed. So we have to strike a balance.

Going back to the original question – can markets deliver change? Yes. Markets are a low cost way of shepherding change while encouraging innovation. Are they perfect? No. So we use regulation when the market – for whatever reason – is not delivering outcomes that benefit consumers.

We have been doing that since energy markets started in Australia (and indeed regulation is used in similar ways to support many other markets).

Decision making processes

The question then becomes less about whether markets can deliver the necessary transition, and more about whether our market structure – which includes the decision making and governance processes – can deliver it.

Based on my experience to date, my answer is also yes.

Just as we have overcome technical and geographical challenges in the past, we are confident that the processes and decision-making responsibilities set out in our market structure will support the transition underway right now. But it relies on each of us playing our role and sticking to it.

Governments set the policy parameters. This is a critical function that they must do. Given the essential role that energy plays in our economy more generally, it is no surprise that the “energy experience” is, and must be, affected by things that sit outside the energy market rules, and outside the energy portfolio. And governments are in the hot seat when it comes to making these cross-portfolio trade-offs. It is their job, and they are best placed to do that.

Using energy market design to help deliver other objectives.

Over time we have seen how other policy objectives have affected how households and businesses get, use and pay for energy. In the past it has been social policy, and environmental planning. Right now it is emission reductions.

The way in which these external objectives are pursued, has implications for how effectively the energy market can work in the long term interests of consumers. As our markets have become more sophisticated, it is more critical than ever to think about how external objectives will impact energy markets.

That’s not to say external objectives should not be pursued. It is about how they are pursued. Let me unpack that a bit.

- If the instruments used to achieve social or environmental objectives are compatible with the way energy is bought and sold, the market can continue to deliver secure reliable energy at lowest cost.
- If the risks of investing to meet that social or environmental objective are allocated to the parties most able to manage those risks, then customers won't have to pay for other people's mistakes.
- If policy mechanisms used to meet these other objectives don't depend on a single version of the future, then the energy market will find the best and lowest cost way to meet it, and meet consumer needs as well.

We call this "integration": Using the fundamental elements of the energy market to help deliver other, clearly articulated objectives.

At the Commission, we consider that the market processes of experimentation and discovery can support the lowest cost transition of the energy sector even while pursuing other external objectives.

Working together to support the transition

It's clear however that the challenges we are facing right now are complex. They are interconnected. Some of them are urgent. And some serious coordination across governments and energy institutions is needed to support the transition.

There is an expectation that regulatory frameworks will respond to change in a more timely manner. The three market bodies – the Commission, the Regulator and the Operator – are keenly aware of this. We have always worked together to deliver the reforms customers want and expect. But we recognise the need to do this better.

And so we've set up a formal structure for sharing information, identifying issues and coordinating responses to actions in relation to priority energy matters. Collectively we will be able to provide a whole-of-sector perspective, and enhance the quality of advice going to the COAG Energy Council.

We need your help.

But market bodies and governments are not the only ones with responsibilities. In Australia, we have a unique governance framework that provides a role for market participants, consumers and all other interested parties. Having moved away from the all-knowing central planner model, you all play a role in helping our markets evolve to benefit consumers.

When the Commission was first established, we used to get a handful of rule change request each year and we'd work with an equally small number of stakeholders to make them.

We've now made more than 220 new rules, we have hundreds of stakeholders, and it is a consumer – not a government or market body – that has suggested one of the biggest changes we have considered in many years – a move to 5 minute settlement of the spot market.

On the practical side, the Operator is continually adapting the way they run the system to accommodate new technologies, incorporate new information and deliver the actual changes in the system that are contemplated by the regulatory changes.

The Regulator has had its role expanded over the years to correspond to the increasing engagement from consumers. They have taken on consumer protections, monitoring of the wholesale market and new responsibilities when it comes to network regulation.

None of this has been easy or straight forward. And nor should it be.

Conclusion

In conclusion my mind turns again to another American – I have just returned from the US! In relation to going to the moon President John F Kennedy said: *“we do these things not because they are easy, but because they are hard. Because the challenge is one we are willing to accept. One we are unwilling to postpone.”*

I’m not suggesting we are going to the moon, but this quote is appropriate for many challenges. Change, transition, disruption - whatever word you want to use for it - will continue in the energy sector. Adapting the formal arrangements to keep up with the change is sometimes complex, its technical. It’s certainly interesting.

There are nine different governments, a good number of institutions, and many more stakeholders all trying to deliver the best outcomes for customers – and all with a different opinion of how to do it. We could go back to a more centralised model, allowing decisions to be made by a select few, with the rest of us just accepting our fate. It might be easier....

But the easy way out will not deliver the best outcomes for consumers, especially in the longer term. So, like JFK so aptly said: we don’t do things because they are easy.

We do them because energy is fundamental to our economy, to essential services, to jobs, businesses, households...to people’s lives. It’s worth making the effort...taking the harder path.

That’s what I think about every day. It’s what our 85 staff at the Commission think about.

It’s why we are intent on working with all of you to shepherd change through energy markets. To deliver the best possible outcomes for consumers, no matter what the future is.