Australian Energy Market Commission

SPEECH BY CHAIRMAN JOHN PIERCE AT ENERGY STORAGE AUSTRALIA CONFERENCE

"The integration of energy storage: Preparing markets for technological change"

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Check against delivery

Thank you and good morning ladies and gentlemen. It's a pleasure to be here with you today. And to see so many who are engaged with the future of our energy market.

All of us are seeing accelerating change in energy market dynamics.

The AEMC has a clear objective in the face of changing technologies, business models and consumer preferences. We want a resilient energy market, one that is flexible and can adapt to whatever the future may bring. One that is efficient, secure and reliable, keeping prices as low as possible for consumers. How this is achieved, however, will no doubt be radically different because of these changing market dynamics.

The role of the Commission is to make the rules that govern how the energy market operates. That is, the competitive wholesale and retail sectors and the way networks are regulated. An important part of market governance, and the way the rules keep pace with changing market dynamics, is that anyone, apart from the AEMC itself, is able to submit a rule change request. The rules are changed in response to requests brought to us by people like you - individuals, community groups, government, regulatory bodies and industry. So the power to change the market and regulatory arrangements that govern the sector is literally in your hands.

The AEMC also conducts market development reviews and advises the Energy Council of state, territory and federal ministers, under COAG. All of this work must be aligned to the legislated national energy objectives for electricity, gas and retail markets.

By itself, our work cannot lead to a resilient, responsive energy sector. How you as individual businesses and organisations respond, the strategies you pursue and the priorities you set are also a critical determining factor.

Consumer choices are driving the application of new technology

To this end, we consult widely with the increasingly broad array of organisations that have a stake in the future of our energy market. Every 2 years, we review the strategic priorities for development of the market. These priorities help guide the AEMC's program of work, particularly how we develop new work-streams and consult with stakeholders. We would also hope it informs those of you who have an interest in the way the sector develops and may see a need to change the rules.

Next week, we will be launching the priorities for the upcoming period. During our public forums and discussions over the last few months, many of you agreed that there are 3 priorities, focusing on consumers, gas and market development.

Consumers are increasingly at the heart of the energy system and driving change.

Starting with the proposition that generally speaking, it's consumers themselves who are in the best position to decide what works for them, much of our efforts over the past five years have been in driving more opportunities for consumers to make informed choices about the way they use electricity based on the benefits that end-use services provide to them.

The Power of Choice reforms in particular have laid the foundation for the energy system to be positioned to respond to new technologies in a way that is in the consumer's interests. These technologies are changing how consumers participate in energy markets and include battery storage but also microgeneration, smart devices and connected home products and services.

These technological changes sometimes drive predictions of achieving an energy nirvana or imminent Armageddon. Regardless, we need to look beyond the widgets to focus on the *function* they perform and adjust the regulatory and market processes to accommodate them. Many of the functions they perform are not new – what is new is that the technology allows these functions to be performed much closer to, and within the control of, consumers.

Battery storage technology is a great example of this.

We label this the 'consumer-driven transformation' of the energy sector.

What we are particularly wary of are proposals that seek to use regulation to impose solutions or particular technologies on consumers. Imposed solutions generally come at the expense of competition. And they also tend to result in consumers, rather than energy businesses, bearing the risks of technology deployment.

For example, we don't think it's appropriate for networks to put storage behind the meter as part of providing regulated network services. Although networks may argue that this enables them to operate the network more efficiently, in reality it would damage the development of a competitive energy services sector which gives consumers the best opportunity to decide which product or service best suits them.

It also enables network businesses to re-enter a competitive part of the market where – as natural monopolies – they do not belong.

So our approach is to support the development of a competitive market in energy storage technologies. One that encourages efficiency through businesses competing to provide consumers with the energy services that they value.

Under this approach, storage would only be installed where consumers want the services that energy storage can provide. This could include potentially cheaper electricity, back-up power, environmental benefits, and the opportunity to sell excess energy – all at a price that consumers are willing to pay.

An example of this approach is our Competition in Metering reforms, where, in response to a rule change request, we propose to remove the regulatory barriers to competition in metering services. In removing the networks' monopoly, we want consumers, via their participation in the competitive retail services market, to be able to choose the 'smart meter' products and services they want.

We believe these metering reforms will allow investment, innovation and technological development in response to consumer preferences - guided by price signals - rather than the networks' preferences and solutions imposed by regulation.

In effect, the new technologies now available to us, of which storage is but one example, provide us with the opportunity to redraw the lines between economic regulation and competition. It will be companies operating in this competitive retail energy services sector that will need to find the combination of services and technology that best meets consumers' needs.

Adaptable regulatory framework to accommodate new business models

As we know, we are at an inflection point in energy markets with changes in the costs, technology, consumer preferences, patterns of demand and environmental policy. All these elements are conspiring to create opportunities for new business models to emerge.

So it's critical that market and regulatory arrangements create the right conditions for business evolution that promote the long-term interests of consumers.

One issue that will be close to your hearts is who should control the storage device when it is behind the meter? Should it be the consumer, the energy services company, the retailer or the network business?

In a consumer-controlled model, we'd see consumers themselves buying batteries directly, along with optimising software so the battery can store power at times of low prices (or from their own solar PV), and then discharge at times of high prices.

Or an energy-service company could manage the device on their behalf.
A retailer-controlled model would see retailers providing storage to consumers through, say, a lease or power purchase agreement. The consumer gets a 'less than socket' electricity price while the retailer controls the device to hedge against wholesale and distribution prices.

All of these are compatible with the idea of a competitive energy services sector.

Then there's the network-controlled model. One example is where the network owns the storage asset behind the meter and socialises the cost across all customers.

The concern is that network-controlled storage would act as a barrier to the other models. For example, networks would have an incentive to make connections onerous and costly if they have a competing business interest in network-controlled storage.

Drawing the line between what is contestable space and what is subject to economic regulation

Thinking about the way that regulatory and market arrangements evolve, and the way that governments review consumer protection frameworks, we can see the need for a clear set of principles behind where the line is drawn between what is subject to economic regulation and what is contestable.

The ability of storage to generate multiple value streams is central to our thinking about which services should be contestable and which should be regulated.

Let me give you a recent example to illustrate this.

A trial of energy storage is happening on ElectraNet's transmission network in South Australia. ElectraNet is part of a consortium that includes AGL Energy. AGL is an electricity generator and a retailer. The consortium plans to trial a storage device on ElectraNet's network to provide network support as an alternative to network augmentation to address network capacity issues.

It will be located near a major wind farm and it's hoped the trial will show how storage can help the network cope with integrating an increasing amount of renewable generation.

As providing network support, which is a regulated service, the project also has other potential contestable value streams.

Wholesale energy revenue is one of them. With wind generation often occurring at night when demand and prices are low or negative, the storage device could store electricity when prices are low and release electricity when prices are high.

Another contestable value stream is reducing losses when the network is congested. The storage device could be used to store energy when the network is congested and capture energy that would otherwise be lost. It would then release its stored energy when capacity is freed up again.

A third contestable value stream is in ancillary services support. Storage can help maintain key technical requirements of the power system like frequency and voltage. These services are acquired by the Australian Energy Market Operator on a competitive basis as part of the wholesale spot market.

So we want market and regulatory arrangements capturing these multiple value streams so that there is strong separation between the regulated and competitive

services provided by the storage asset. We want to see the benefits of the value stream accruing to the right market participant. In this South Australian example, this would mean benefits accruing to AGL including:

- The market trading benefits
- the 'saved' energy benefits during periods of network congestion because AGL is owner of the wind farm
- And the ancillary services support benefits because AGL is operating the device.

To be clear, we believe network businesses should use storage where it is more efficient than network augmentation or other demand management options to meet network requirements. And the regulatory framework already has incentives for network businesses to adopt non-network solutions, including demand management and energy storage. Many have already embraced innovation allowances for storage projects.

What we are intent on doing, is drawing the line between what is subject to economic regulation and where competition can be effective, in a way that enhances competition in the contestable energy services sector. This means regulated network businesses being unable to use either the financial resources provided by regulated network revenues, or information that they gather as network operators, in a way that limits competition in energy services.

To use a sporting analogy, every player on the energy sector playing field should understand the position they are playing.

So where to from here?

Networks need to demonstrate how they're going to partner with people competing in the energy services space to help them respond effectively to consumer demands.

Governments quite rightly see the need to focus on the energy-specific consumer protection frameworks, and the relationship between these and the more general Australian consumer law. In doing so, we would expect that they approach it through the lens of continuing to promote effective competition for the provision of energy services.

Conclusion

Let me finish by saying that these are exciting times in the dynamic energy sector.

Energy storage is one technology that is generating a lot of interest in its ability to transform energy systems.

We believe that new technologies bring the market much closer to, and within the control of, consumers.

We can be certain that 'consumer-led transformation' of the energy sector will continue unabated. And we remain committed to market and regulatory arrangements that create the right environment for business evolution that promotes the long-term interests of consumers.

In the pursuit of this, we are mindful of the importance of where to draw the line between what should be contestable and what should be subject to economic regulation.

Thank you and I am happy to take your questions and comments.

ENDS

John Pierce
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Australian Energy Market Commission