



06 June 2018

VISION CRITICAL - OPENING ADDRESS TO ENERGY NETWORKS AUSTRALIA CONFERENCE BY ANDREW DILLON, CEO

Good morning everyone, I'm Andrew Dillon from Energy Networks Australia and it is my great pleasure to welcome you all to Energy Networks 2018.

This conference has been running for some 25 years in various forms and, like the energy sector itself, has evolved greatly. Earlier incarnations of our biennial conference were technically focused events for small audiences.

Even if we go back just a couple of decades, it is hard to imagine anyone in our sector could have foreseen the climate we are operating in today.

What hasn't fundamentally changed is who we are and what we do. We are energy networks, supplying gas and electricity to virtually every household in Australia, as well as powering businesses large and small across the whole economy. It's our workers who are out there after storms, bushfires and floods getting the lights back on. We plan our networks to keep electricity flowing through summer peaks and gas flowing to keep us warm in winter.

As the energy sector changes, the role of networks will become ever more critical.

This year's conference theme, Vision Critical, is instructive. We are taking a look at where we are, how we got here and how we can best map out the terrain ahead of us in order to continue to deliver for our customers.

While you hear plenty of talk about threats to the energy industry, I see great opportunities. Our generation sector has already started its transformation from a coal-based fleet to one powered primarily by renewables. This must be accompanied by timely and strategic investment in new transmission lines to better link electricity coming from renewable energy zones to our customers. Developing and delivering on the vision to do this, while balancing the energy trilema, is our challenge.

We know that it's not just large-scale renewables being deployed. Australians love household solar like no other country on earth. In Queensland more than 32 per cent of households have a PV system. South Australia is also above 30 per cent and WA above 25 per cent. Here in NSW, it's 17 per cent and growing fast. To put this into perspective, the equivalent figures for Hawaii and California, thought of as global renewable energy leaders, are only about 20 per cent.

Until now, our distribution networks have done a remarkable job as a sponge, soaking up all this solar generation and managing the growing two-way flows. But parts of our networks

Energy Networks Australia www.energynetworks.com.au Unit 5, Level 12, 385 Bourke Street Melbourne VIC 3000 P: +61 2 6272 1555 E: info@energynetworks.com.au Energy Networks Association T/A Energy Networks Australia ABN: 75 106 735 406 already can't handle any more solar and as many of the early adopters also install batteries, we could have a real problem on our hands managing the security and reliability of the energy system.

It's with this challenge in mind that Energy Networks Australia will soon release a joint consultation paper with AEMO on how we develop Open Energy Networks to manage these changes and deliver value for those who have solar and storage – and those that don't. We have to get this right and we need and encourage your participation in this consultation to help us find the way to make "plug and play" a reality.

Until recently, gas was seen as a separate discussion to the transformation in electricity. But recent developments open up the exciting prospect of using electrolysis to convert excess renewable electricity into hydrogen and then store it in gas networks. While this is just one storage method it has two huge advantages – our gas networks are already in the ground and our gas system has a storage capacity that's equivalent to 6 billion Telsa Powerwalls. Yes, 6 billion.

We can and should learn from what other countries are doing to manage the energy transformation. Many see hydrogen as a real opportunity. And the common response to the growth in intermittent generation is to develop a more integrated grid—a more connected future.

While I see opportunities right across the network sector, if there's one thing we must learn from the rise of Uber and AirBNB, it's that complacency is a killer when it comes to technology disruption. We have to innovate and collaborate to deliver the services our customers want and need today – and into the future.

At Energy Networks Australia's Gala Dinner in November last year, our Chief Scientist Alan Finkel presented our Innovation Award to SA Power Networks for its "Salisbury Trial"; an Adelaide-based project in which 100 customers received battery storage systems. This trial resulted in a myriad of benefits for individuals, communities and enterprise. Reduced bills for customers, increased backup power for communities and deferral of an almost \$3M network upgrade.

What is really striking about not just the Salisbury project, but all of the projects from right across the sector nominated for our awards, was how instrumental to success collaboration and innovation are. Innovative concepts require collaboration and partnership in order for ideas to reach fruition. This is our future.

We must also ensure that all our innovative work, regardless of where it sits within a business, is aimed squarely at improving consumers' experience, as that, ultimately, is what we are here for.

Stepping back, it's clear we are living in the most momentous period of innovation the energy sector has seen since the days of Tesla, Edison and Westinghouse. These challenges

will require just as much fresh thinking from policy makers as from energy network businesses themselves.

The policy approach should be based on the likely real outcomes for all energy customers, not theoretical ones. During a time of rapid technological change, we have a shared responsibility to ensure Australian electricity customers do not miss out on the opportunities for integrating new technologies into the grid in ways that can not only make them money, but lead to reduced costs for all consumers. Our current pricing structures are at the top of the to-do list: the status quo is fundamentally unfair and in desperate need of reform to improve electricity network services and allow better responsiveness to customer choice in technology and service.

The Energy Networks 2018 program has been designed to reflect the priorities of Australia's electricity transmission and distribution businesses, gas distribution businesses and our key stakeholders.

Our collective investment in efficient infrastructure, embedded generation, emerging technologies, demand response and consumer engagement are combining to deliver more agile networks.

None of this is possible without recalibrating the relationship between networks and customers based on meaningful engagement and services that reflect their needs.

Equally, none of this is possible without investor confidence in a stable, incentive-based regulatory framework, as consumers have a direct interest in the sector being seen as low-risk, and hence able to access low-cost capital.

This vision of a smarter and more customer-focused energy system was also a passion of one of our life members Terry Effeney, who passed away two months ago. It is appropriate for us to mark Terry's contribution to our industry here today. As well as having a long and distinguished career with our Queensland networks, Terry was a key driver of our Network Transformation Roadmap. I believe Terry would certainly have enjoyed the forward-looking discussions we have on the program for the next two days.

Energy Networks 2018 would not be possible without the generous support of our valued sponsors.

- I would like to acknowledge our Platinum sponsor, Landis & Gyr, with whom we now have a well-established working relationship, delivering our biennial conference for the third time.
- Thanks also to our gold and silver supporters: The Boston Consulting Group; Indra and Gentrack;
- Concurrent session sponsor ABB;
- Digital sponsor Siemens;

 And to Zinfra – our espresso bar sponsor; S&C Electric Company our daily catering sponsor and Litmus Group, our Charge Bar and Plenary session sponsor.

We are grateful for your support and hope to continue to work with you to deliver events such as this in the years to come.

Energy Networks Australia is also delighted to welcome for the third time the CSIRO as its affiliated partner for Energy Networks 2018. The work we did in partnership with the CSIRO to deliver the Network Transformation Roadmap last year has laid the pathway forward for our sector.

I'd like to thank all our exhibitors for their support and the work of the Program Development Committee. The high calibre program is testimony to the work of this group and I thank you all for your contribution.

Energy Networks Australia is proud to partner with CitySmart to deliver "Reduce Your Juice", giving you an opportunity to learn first-hand how this revolutionary behaviour change program reduces household energy use by changing the way households think about electricity. Over the next two days you will have the opportunity to trial Reduce Your Juice, compete in live challenges among your colleagues and engage in bite sized educational Powerhacks across email, Twitter and the app. There are some great rewards on offer, including a Samsung smartwatch worth \$600.

There is free wifi here in the International Convention Centre and we want to take this opportunity to encourage you to download both the Energy Networks 2018 app and the Reduce Your Juice app. You can sign-up now at reduceyourjuice.com.au/energy18. Play the Cheat the Chill game this morning and you can start going into the prize draws, the first being for a wireless power charging bank. Keep an eye on your email and mobile to find out if you are one of the winners.

I would also like to announce that in lieu of speaker gifts, we have chosen to make donations to the Australian Tech Girls Movement. This organisation has a target of directly engaging 10,000 girls in STEM - that is Science Technology Engineering and Maths - across Australia and New Zealand by 2020.

The energy sector is full of people with these valuable skills sets, but they are mostly men. Promoting and supporting diversity in our industry, particularly at senior levels, is a priority for us. As a signatory to a Leaders Pledge on gender diversity, I am pleased that we do not have any panel and leader groups that are all male. Programs like Tech Girls will help us move more quickly to a world where diversity is the norm.

I encourage all delegates to take an active part in the program over the next two days by sharing your unique ideas and expertise. The more we collaborate, the more we all learn.

For those of you on Twitter, please keep an eye on tweets from @EnergyNetworks18 and include #energy18 in your tweets to be part of the discussion.

It's now my great pleasure to introduce the NSW Minister for Energy, The Honourable Don Harwin. He was elected to the NSW Legislative Council in 1999 and was Council President from 2011 to 2017. Importantly for us, on 30 January 2017 he was appointed Minister for Energy. He had to learn quickly as less than a fortnight later, the state was facing record heat and record electricity demand.

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Energy Networks Australia represents Australia's electricity transmission and distribution networks and gas distribution networks. Our members provide energy to virtually every household and business in Australia.