

Welcome to the Electricity Authority's stakeholder function. Since the last Downstream Conference, the Authority has had four new members appointed. A principal reason for this evening's function is to introduce these new members and provide you with an opportunity to interact with them informally.

Allan Dawson worked at M-Co on developing the rules for the New Zealand electricity market before becoming chief executive of the Energy Market Company in Singapore. Following that, he was chief executive of the Independent Market Operator in Western Australia for several years. Allan is a former chair of the international body for energy markets, the Association of Power Exchanges. He lives in Christchurch.

Sandra Gamble is an electrical engineer by training, with significant experience working in the regulated energy and water sectors in Australia. Sandra is chair of the Authority's System Operator Committee, which oversees the Authority's relationship with Transpower in its capacity as system operator. She is based outside Sydney.

Mark Sandelin is a partner in the law firm MinterEllisonRuddWatts (MERW). He has over 30 years' experience as a commercial litigator and significant corporate governance experience, having served on the MERW board for 16 years, six as executive chair. Mark is also deputy chair of Fairway Resolution Ltd, which is a Crown-owned entity. He is chair of the Authority's Audit and Risk Committee. He lives in Auckland.

Lana Stockman recently returned to New Zealand from Australia, where she was vice-president regulation at Aurizon Network, a listed company offering rail and road freight solutions. Prior to that, she was a general manager at Energy Australia, a board member of ERAA and a member of the Ministerial Advisory Council on smart meters in Victoria. Before going to Australia, Lana worked at the Electricity Commission and the Authority. The earlier years of her career in electricity were with Meridian Energy. She has degrees in engineering and finance, and lives in Masterton.

Susan Paterson is the other member of the Board, apart from me. Susan is a pharmacist by training and an MBA graduate from London Business School. She has senior management experience in a number of companies in New Zealand and from a decade working in the USA and Europe. Susan was project director for the Wholesale Electricity Market Development Group in the early 1990s, a director of EECA and spent over eight years on the Transpower Board from 1999. She is now a full-time company director. Susan is chair of the Authority's Compliance Committee. She lives in Auckland.

In conjunction with this function, the Authority is releasing a publication about *Adjusting to New Zealand's Electricity Future*. This brings together a number of themes in recent Authority publications and some of the rationale behind our current work programme.

I will not go over the publication in any detail, but draw your attention to some of its key points:

Historically, what has excited policy interest in the electricity industry has been reliability and prices. If the “lights go out” or even if there is a widespread concern they could, the public and politicians become interested. If prices rise much faster than the general level of prices or much faster than expectations, the public and politicians become interested. We saw this at work in New Zealand in the 2000s and we have seen it recently in Australia and the United Kingdom.

In recent times, sustainability or, more specifically, the share of renewables in generation has been added to reliability and prices as a factor that interests the public and politicians. The problem many countries face is that increasing the share of renewables in generation can adversely affect, in very significant ways, both reliability and price trends.

New Zealand is very well placed, relative to most other countries, to pursue increased electricity from renewables while avoiding material issues in terms of the costs of supply and the reliability of supply.

New Zealand has a lot of renewable generation capacity that has already been through the resource consenting process. There is enough to cater for any growth in current uses and make a major contribution towards electrifying the provision of transport and process heat.

Sure, consents lapse over time, but there have been enough cases through the Environment Court for the requirements for consenting a geothermal, hydro and wind plant to be pretty well understood.

Moreover, the cost of electricity from these new renewable generators, when operated to capacity, is likely to be close to the current average wholesale price of electricity, limiting any upward pressure on prices.

New Zealand, because of its significant hydro resources and the design of its electricity markets, has a nimble and reliable electricity system. It is very well placed to cater for further large increases in the absolute quantity of renewable generation and a material increase in the share of renewables in the total mix beyond the current approximate 85 per cent level.

That we are well placed is not grounds for complacency, however. We need to further evolve regulatory and market arrangements to promote competition, reliability and efficiency in the industry. That is what the Authority’s work programme relating to market design is aimed to do.

The paper we are releasing tonight also notes that while a big increase in the total quantity of electricity from renewables is very unlikely to present challenges on either the reliability or pricing fronts, the same is not the case for removing the last few percentage points of back-up support from fossil fuel generators, given current technology.

With current technology, to ensure reliability with no fossil fuel back-up generation, we would need to have spare renewable capacity that is idle much of the time. The effective cost of the electricity these plant would produce in the few hours they operate would be high, and this would impact on the prices that consumers pay.

Technology is, however, not static in the electricity industry. Reductions in costs of batteries, improvements in demand response and pricing or a whole range of things we have not yet considered could happen and resolve this issue. The best way to ensure this happens, in my opinion, is to promote a competitive and efficient electricity industry.

Thank you for your attendance this evening. I hope you enjoy the event and that those of you attending Downstream gain a lot from it. My colleagues and I look forward to meeting with you this evening and over the next couple of days.