14 December 2022

Submission to the Wholesale Market Competition Review

Electra Limited (Electra) owns and operates the electricity lines and assets in the Kapiti and Horowhenua districts. We welcome the opportunity to submit on the Electricity Authority's *Promoting competition in the wholesale electricity market in the transition towards 100% renewable electricity*, Issues Paper, 12 October 2022 (the Issues Paper). Nothing in this submission is confidential.

At question 4 of the Issues Paper, the Authority asked—

> "Do you agree that the lag in investment is not due to anticompetitive behaviour to slow down investment and discourage entry, or can you provide instances or other evidence?"

Our submission focuses on answering question 4 as we believe there is a weakness in the New Zealand market that is enabling anti-competitive behaviour, which has lagged investment and is discouraging market entry. This market weakness is a sticking point that, until addressed, will continue to be a roadblock to New Zealand realising its 100% renewable energy goal.

Further enhancements are needed to the wholesale electricity market

Further enhancements are needed to the New Zealand electricity market as we transition towards 100% renewable generation. Our view is premised on the findings of the *International Energy Agency, Energy Policies of IEA Countries, New Zealand 2017 Review* (the IEA New Zealand 2017 Review)[1]. Particularly chapter 6 special focus on renewable energy, evaluating opportunities and challenges for increasing the share of renewable energy to 90%.

It has been five years since the release of the IEA New Zealand 2017 Review, and much has changed since its release, not least of all a goal shift from 90% to 100% renewable generation. We acknowledge that the Authority has made many changes to the wholesale electricity market since 2017 to support market competition. However, we do not believe that the

[1] A copy of the IEA New Zealand 2017 Review can be found on its website at Energy Policies of IEA Countries: New Zealand 2017 Review – Analysis - IEA

Authority has gone far enough as it has yet to address the 'elephant in the room'; the presence of an oligopoly in the New Zealand electricity wholesale market.

What are gentailers, and why is it a market problem?

Four New Zealand wholesale electricity market generators also operate as energy retailers (Contact, Genesis, Meridian, and Mercury), commonly referred to as 'gentailers'. Gentailers supply over 80% of the generation into the wholesale electricity market[2]. The problem with this concentrated structure is that a small number of market participants have disproportionate market power. Meaning there is an oligopoly present in the New Zealand wholesale electricity market.

The IEA report observed that—

> "Under the current spot market arrangements, the risk management of the gentailers (physical hedging strategy) is driven by the ownership and the vertically integrated structure rather than the seasonal price fluctuations during a dry year; the high prices in the spot market benefit the generation business at the expense of the retail segment; when spot prices are low, the loss or profits on the generation side is offset by increased profits in the retail arm."[3]

The problem with allowing an oligopoly to exist in a competitive market is that they dominate and can maximise their profits while minimising competition via non-price competition and product differentiation. Profit maximising behaviour by the oligopoly makes it difficult for other market participants to make a market offering in direct competition with the oligopoly. A situation comparable to monopolies, only gentailers are not regulated under Part 4 of the Commerce Act 1986.

The Authority appears unconcerned about the impact gentailers have

The Authority appears to justify the presence of an oligopoly in the wholesale electricity market.

> "Market concentration is somewhat inevitable in New Zealand with its small population, though the current configuration is also a legacy of historic government decisions, including the building of hydro schemes, the break-up of the Electricity Corporation NZ and the asset swaps under the Electricity Industry Act 2010."[4]

The IEA identified the negative impacts that gentailers can have on competition, transparency, and innovation, including:

- undermining the development of a more competitive physical market
- limiting the scope for new entrants
- undermining timely and efficient financial market development
- limiting the degree of innovation, especially in products and services
- reducing the degree of competitive pass-through of efficiency gains, reducing the effectiveness of consumer choice and market participation behaviour.[5]

We acknowledge that the Authority has taken actions to reduce the negative impacts of the gentailers on the wholesale electricity market. It has prompted competition through market

[2] The Issues Paper, paragraph 2.12.
[3] The IEA New Zealand 2017 Review, page 72.
[4] The Issues Paper, paragraph 2.16.
[5] The IEA New Zealand 2017 Review, page 67.

improvements, including through the promotion of the Utilities Disputes scheme and consumer switching via Powerswitch 'what's my number'. Further, there are now a a range of hedging products to support new entrants.

While the Authority's initiatives have gone some way to address the market power of the gentailers, the Authority has not gone far enough. We appreciate that gentailers are permissible under the Electricity Industry Act 2010 and that vertical separation of retailing and generation would require a legislative change outside the Authority's powers. However, we believe there is more the Authority can do to reduce the impact of the gentailers on the wholesale electricity market.

There are steps that the Authority can take to reduce the gentailers market powers further

We believe there are two material changes that the Authority could make to the wholesale energy market that could increase competition and reduce gentailers' market dominance

(i) apply a price cap to spot prices—currently the spot market is uncapped, except for scarcity events

(ii) introduce a capacity market—New Zealand does not have a capacity market or capacity payments; instead, a half-hour instantaneous reserve market operates alongside the energy market. Energy, instantaneous reserve prices, and volumes are determined at the exit points and nodal pricing.

Apply a price cap to spot prices

The IEA New Zealand 2017 Review formed the view that the liquidity and depth of the hedge market could be enhanced by addressing the market dominance of the gentailers by ensuring that all retailers use this market.

> "The financial market can effectively moderate incumbent gentailers' behaviour and encourage them to look to more efficient means to manage their risk exposures rather than to physically hedge their positions. Around 90% of the financial market is locked up because of the dominant position of the gentailers in the market, a barrier to the development of more liquidity."[6]

Applying a price cap to spot prices is one way the Authority could remove the barrier and promote more liquidity. The IEA suggested that—

> "During normal times, setting an ex-ante value of lost load (VoLL) price cap – at least for an interim period while the cap product develops sufficient liquidity and depth – would help to moderate the infinite price exposure risk, to increase the number of counterparties (beyond the gentailers) and keep prices at reasonable levels. The VoLL expresses the average willingness to pay to avoid an additional hour without power."[7]

The IEA New Zealand 2017 Review states that provided the VoLL is set at a sensible level, 'the missing money problem' ceases to be an issue. The missing money problem refers to the idea that prices for energy in competitive wholesale electricity markets may not adequately reflect the value of an investment in the resources needed for reliable electric electricity? service.

In August 2021, the Security and Reliability Council released its paper The Value of Lost Load, which determined the value of the VoLL to be $20,000/MWh. The Commerce Commission has

6 The IEA New Zealand 2017 Review, page 103.

7 Supra n6.

since used the VoLL in setting its third price-quality paths (DPP3). The Authority used the VoLL recently when determining the new Transmission Pricing Methodology (TPM) to commence from 1 April 2023.

The New Zealand wholesale electricity market is an energy-only market without a price cap; this means prices can be infinitely high except in times of scarcity. The market is dominated by the gentailers who control upward of 80% of the generation capacity. This market dominance invites anti-competitive behaviour to increase prices, thereby maximizing profits. We believe that capping spot prices will go a long way to mitigate the gains from such behaviour.

Introduce a capacity market

The IEA New Zealand 2017 Review noted that the New Zealand wholesale electricity market has no capacity market. A capacity market acts as an insurance policy against future blackouts. In the UK, the capacity market ensures the security of electricity supply by providing a payment for reliable sources of capacity. Participants in the capacity market operate under a prescribed framework, the Capacity Market Rules.

Capacity markets are resource agnostic as they do not have an inherent resource preference. Participants bid into capacity auctions and are issued capacity agreements where they are successful bidders. The agreement acts as a 'forward' to supply energy at some time in the future. In the UK, this delivery date can be as far as three years away and is called the Base Residual Auction. Smaller auctions occur every year up to the delivery date to cover any shortfalls arising since the original bid three years prior.

A capacity market operates separately from the energy market, which provides the energy under the normal course. The capacity market encourages investments in alternatives such as renewable, peak thermal, and demand-side resources (e.g., instantaneous reserves). This investment suppresses prices within the energy market by meeting peak demand at a lower cost.

New Zealand has a reserves market. We have been participating in the reserves market through the aggregator Enel X by offering load not used for network purposes into the market. The economic incentives encourage the participation of load control in support of energy shortfalls. A capacity market would complement the reserves market by encouraging further investment and participation of distributed energy resources (DER) providers. This is whether they are embedded within the distribution network or grid-connected.and therefore support grid stability through an economically efficient method.

Decarbonisation will likely cause more renewables to enter the New Zealand wholesale electricity market. Opening a second and separate capacity market to the wholesale energy market will go a long way to supporting new entrants. Creating the opportunity to participate in two markets is likely to reduce the gentailers dominance, particularly if the gentailers are prohibited from bidding incumbent generation into the capacity market.

Closing comments

We disagree with the Authority's position that the lag in investment is not due to anti-competitive behaviour to slow down investment and discourage entry. Contrary, we believe that the lag investment is due to the existence of an oligopoly in the New Zealand wholesale electricity market due to the continued presence of the gentailers. We have referenced the IEA New Zealand 2017 Review findings to substantiate our views.

The wholesale electricity market has undergone several changes over recent years that have enhanced competition and opened the market further to new entrants. Unfortunately, while steps in the right direction, these changes have not been enough to reduce the market dominance of the gentailers. The Authority must acknowledge the disproportionate market power that the gentailers have in the wholesale electricity market; it must take further steps to curtail that market power.

In this submission, we have presented two additional steps that the Authority could take to reduce the gentailers market powers further, being:

(i) apply a price cap to spot prices; and

(ii) introduce a capacity market.

These are not easy solutions, requiring further consideration and extensive consultation. We encourage the Authority to look further than the solutions in its Issues Paper as it evolves the market regulation under which the New Zealand wholesale electricity market operates.

Yours sincerely

Dylan Andrews
Chief Operating Officer — Lines Business
dylan.andrews@electra.co.nz