19 October 2018

Miriam Dean CNZM QC
Chair, Electricity Price Review Panel

Dear Miriam

Electricity Authority Electricity Price Review submission

Thank you for the opportunity to submit our views on the first report of the Electricity Price Review. The complexity of the industry gives rise to a wide range of issues that make a comprehensive review such as that being undertaken by the panel challenging. We believe the panel's report is an excellent starting point for industry discussion, particularly given the tight timelines constraining the review. We have kept our submission comments reasonably brief in order to avoid overloading the review with statistics and analysis, and focused on those areas where we believe we have something to add or can usefully provide clarification.

We have included some high level comments in our submission about the potential for unintended consequences that could arise from any interventions or market changes that may be introduced as a result of the review. We believe this remains one of the key risks of any review process, particularly where decisions are being taken about market issues that can have wider impacts on outcomes such as system reliability and environmental sustainability. We suggest an approach where a transparent set of high level principles are used to test and rank potential policy options.

We have identified some areas where we believe changes can be made to the current market arrangements to address some of the problems identified in the report. These have been noted in our submission. We have also prepared a brief summary of the major projects being undertaken by the Authority and how they contribute to the trilemma of fairness, affordability, and competitiveness that the panel is seeking to advance.

As was noted at the meeting with the review panel on 4 October 2018, the Electricity Authority has prepared a joint submission with the Commerce Commission on the regulation of those areas of the industry where both organisations have common interests.

Please find attached the following three items:

a) Electricity Authority Electricity Price Review submission

b) Electricity Authority work programme summary

c) Joint Electricity Authority / Commerce Commission submission

If you have any questions arising from our submission please contact Rory Blundell, General Manager of Market Performance. The Authority remains committed to assisting the panel where possible as the review proceeds.

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Yours sincerely

James Stevenson-Wallace
Chief Executive

ELECTRICITY PRICE REVIEW

SUBMISSION FORM

How to have your say

We are seeking submissions from the public and industry on our first report into the state of the electricity sector. The report contains a series of questions, which are listed in this form in the order in which they appear. You are free to answer some or all of them.

Where possible, please include evidence (such as facts, figures or relevant examples) to support your views. Please be sure to focus on the question asked and keep each answer short. There are also boxes for you to summarise your key points on Parts three, four and five of the report – we will use these when publishing a summary of responses. There are also boxes to briefly set out potential solutions to issues and concerns raised in the report, and one box at the end for you to include additional information not covered by the other questions.

We would prefer if you completed this form electronically. (The answer boxes will expand as you write.) You can print the form and write your responses. (In that case, expand the boxes before printing. If you still run out of room, continue your responses on an attached piece of paper, but be sure to label it so we know which question it relates to.)

We may contact you if we need to clarify any aspect of your submission.

Email your submission to energymarkets@mbie.govt.nz or post it to:

Electricity Price Review

Secretariat, Ministry of Business, Innovation and Employment

15 Stout Street

PO Box 1473

Wellington 6140

Contact details

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Use of information

We will use your feedback to help us prepare a report to the Government. This second report will recommend improvements to the structure and conduct of the sector, including to the regulatory framework.

We will publish all submissions in PDF form on the website of the Ministry of Business, Innovation and Employment (MBIE), except any material you identify as confidential or that we consider may be defamatory. By making a submission, we consider you have agreed to publication of your submission unless you clearly specify otherwise.

Release of information

Please indicate on the front of your submission whether it contains confidential information and mark the text accordingly. If your submission includes confidential information, please send us a separate public version of the submission.

Please be aware that all information in submissions is subject to the Official Information Act 1982. If we receive an official information request to release confidential parts of a submission, we will contact the submitter when responding to the request.

Private information

The Privacy Act 1993 establishes certain principles regarding the collection, use and disclosure of information about individuals by various agencies, including MBIE. Any personal information in your submission will be used solely to help develop policy advice for this review. Please clearly indicate in your submission whether you want your name to be excluded from any summary of submissions we may publish.

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Summary of questions

Part three: Consumers and prices

Consumer interests

1. *What are your views on the assessment of consumers' priorities?*

The Authority believes that the *Electricity Price Review's (EPR) report* confirms that the current electricity market is generally performing well for most consumers. We acknowledge there are some areas of the market that could be adjusted to:

- improve outcomes for more consumers in the future
- ensure reliability and sustainability gains continue to be delivered as the industry and wider economy evolve over the coming decades.

Changes should be enduring to avoid unintended outcomes
Any changes need to be enduring as we look to build a framework for the future operation of the market. There is a very clear risk of creating unintended outcomes if poorly worked-through policy interventions are introduced without an understanding of their full implications for the electricity market and wider economy. Once those interventions are put in place, it may be very difficult to unwind them (or mitigate their flow-on impacts) if they prove to be badly targeted or have unforeseen consequences.

It's important to balance objectives
It is essential key aspects of the industry (such as reliability), and the wider economy and environment (such as environmental sustainability) are balanced against the fairness objectives of the electricity price review. One of the difficulties in balancing those objectives is ensuring measures that achieve short term goals do not negatively impact on longer-term outcomes.

Trade-off principles could be adopted
We suggest a useful approach for assessing potential policy interventions would be to establish a set of principles for making trade-offs between policy options. This would help to provide transparent decision-making around the selection of any proposed interventions and lead to a greater likelihood of enduring solutions. The ACCC recommended the adoption of a number of principals as part of its *2018 Retail Electricity Pricing Enquiry*:

- reduce regulatory complexity where appropriate and focus regulation on consumer outcomes
- ensure consumers have access to necessary information and resources to make informed decisions
- promote fair and reasonable treatment of consumers in day-to-day engagement with market participants
- reduce the risk of inequity in outcome between consumers in the retail market
- ensure regulatory flexibility to support technological and market innovation
- understand the needs of vulnerable consumers and support their increased participation in the market.

These principles, or ones similar to them, could be used as a basis for ranking different policy initiatives. We recommend that the principles used for assessing policy initiatives as part of this review include wider operational and economic outcomes such as maintaining or improving reliability and sustainability.

Technology and innovation are central to competition

Technology and innovation shouldn't be thought of as being separate to competition – the two go hand in hand. One of the best strategies to enable innovation is to promote a vibrant and competitive retail market. The panel should be cautious of any market interventions that would dampen the strong competition in the New Zealand electricity market, as this would likely slow the pace of innovation in the sector.

The Authority is continuing to work on lowering barriers to entry to improve access to the market. We are also working to ensure that the Electricity Industry Participation Code 2010 (Code) is neutral when it comes to competing technologies and market innovations, so as to avoid favoring particular pre-determined outcomes by unintentionally shutting out other more effective solutions through biases or unnecessary restrictions in the Code.

2. *What are your views on whether consumers have an effective voice in the electricity sector?*

There are several ways consumers have an effective voice in the sector.

Choice is an important indicator of consumer voice

Consumers engage with retailers to get their power and in doing so make choices that indicate their preferences and expectations. Retailers respond by creating and competing on new and innovative plans. They have developed a number of distinct brands to differentiate their products from other competing retailers. Examples include promoting their supply as being "100 per cent renewable", offering "no frills" services, or bundling electricity supply with other fuels or services. One retailer in Auckland is focusing on the Asian community and provides Korean and Chinese language websites and call centre.

While these additional choices can make comparing plans more complicated for consumers, we believe this is an important aspect of retail competition as it allows consumers to best meet their individual needs, some of which will not be driven purely by the headline costs of the electricity being delivered.

Consumer responses to actions by retailers have been effective in the past at checking retailer behaviour. An illustrative case study of this is the Dunedin area in 2008 when Contact Energy increased its charges at around the same time its directors increased their fees[1]. Clearly consumers have a strong voice through the market and so long as retailers are responsive to their needs it will provide an effective way for consumers to participate in the future of the electricity sector. The best way to ensure they are responsive is through promoting competition among both established and new retailers

The Authority is a voice for the consumer

The Electricity Authority's statutory objective is to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers. Under the Act, "consumers" mean electricity consumers – residential, commercial and industrial. This means we place consumers' long-term interests at the heart of our work, rather than the individual interests of most market participants, such as Transpower, distributors, retailers or metering equipment providers.

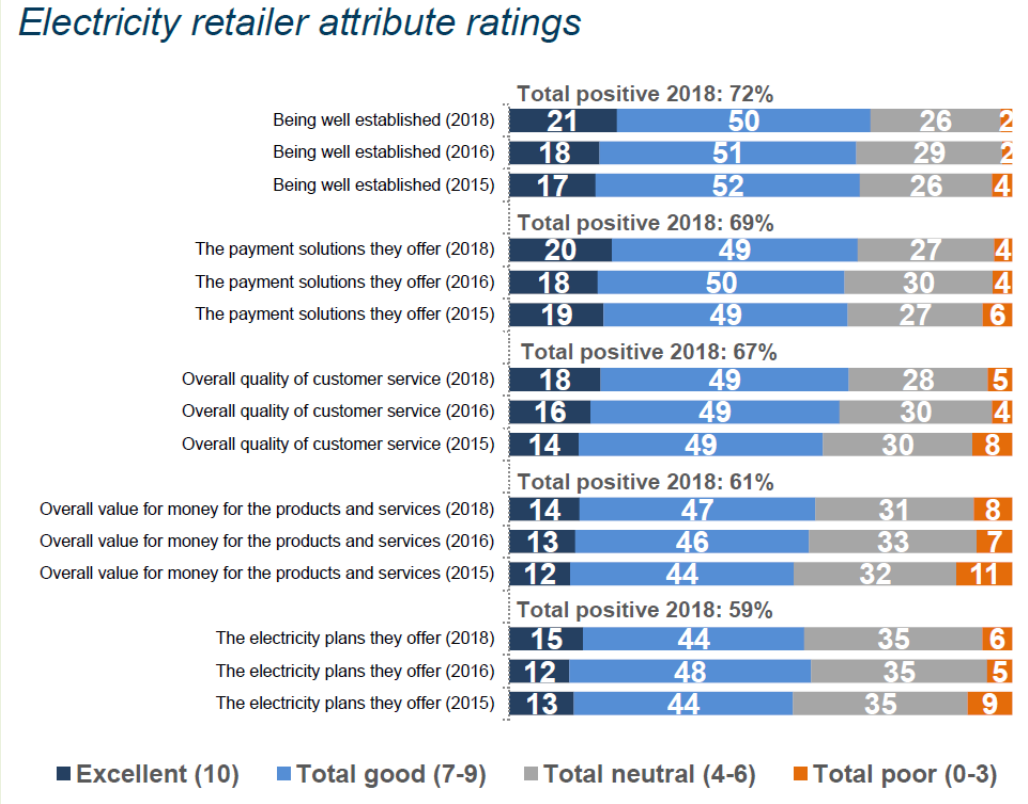
The Board members of the Authority are not representatives of market participants; they are charged with promoting the long-term interests of electricity consumers. The idea that Board members should represent market participants, as had been the situation when the market was based on a multi-lateral contract, was considered in the consultation surrounding the 2009 Ministerial Review of the electricity industry, and rejected.

[1] See www.emi.ea.govt.nz/r/vsxez for an illustration of the impact on Contact's customer numbers in the Dunedin area

3. *What are your views on whether consumers trust the electricity sector to look after their interests?*

We can provide some information and data to help answer the question as to whether consumers trust the sector to look after their interest.

The Authority conducts regular surveys of electricity consumers as part of its market monitoring function.[1] Results from the most recent survey were received by the Authority in September 2018, and will be published later this year. The survey indicates that consumers' attitude towards electricity retailers has generally improved over the past few years.



In 2014 we conducted a survey[2] that explored consumer activity and attitudes across a selection of overseas electricity markets in order to provide a benchmark of consumer views in New Zealand relative to other, similar, markets. New Zealand compared favourably to the three overseas jurisdictions where the surveys were conducted, with 68 per cent of consumers indicating they were satisfied with the overall service from their power company. This compares to 66 per cent of consumers in Texas, 51 per cent of consumers in Alberta, and 50 per cent in Australia. Texas has a highly competitive retail market.

A 2017 survey[3] of the public's perceptions of the electricity industry found that 59 per cent of people surveyed rated the industry's performance as 'good' when asked to consider the statement "There is a reliable supply of electricity each day, that is, a good balance is achieved between the cost to consumers of power cuts versus the cost of maintaining electricity supply" (up from 42 per cent in 2011).

[1] www.ea.govt.nz/about-us/what-we-do/whats-my-number/annual-review-of-the-whats-my-number-campaign/

[2] www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2015/consumer-survey/

[3] www.ea.govt.nz/about-us/corporate-projects/201718-planning-and-reporting/implementation/consumer-and-stakeholder-surveys-2017/

Prices

4. *What are your views on the assessment of the make-up of recent price changes?*

5. *What are your views on the assessment of how electricity prices compare internationally?*

It is important to recognise that prices in many jurisdictions are often driven by policy decisions that can involve either deliberate or unintended cross-subsidies between different consumer groups, or between electricity consumers and other government revenue streams (such as general taxation for example). As such, international electricity prices are not necessarily a good reflection of the actual costs of providing those services to each of the identified consumer groups in those countries (even with the tax components separated out as is the case with the OECD residential data price data).

The mix of infrastructure needed to securely deliver electricity to consumers varies significantly from country to country. Unlike many countries, New Zealand does not have any practical options when it comes to interconnecting with other jurisdiction's electricity systems in order to support system security. New Zealand also has a small population base compared to many overseas jurisdictions, which means we do not benefit from some of the scale economies that larger systems enjoy. The country is also long and stringy. Moreover, the steepness of the topography and frequent faulting means hydro generation, our main electricity resource, is relatively expensive compared with hydro generation in Canada and Norway, for example. Any robust comparison of international prices or costs therefore needs to be done in the context of a wide range of benchmark indicators.

6. *What are your views on the outlook for electricity prices?*

There may be some upward pressure on prices associated with meeting seasonal security of supply requirements if there's an increase in intermittent generation (see our response to question 28 on technology impacts below). However, the scope for more geothermal and some extra hydro do not make this inevitable.

A move to 100 per cent renewables, given current technology, would be costly due to the need to build generation that wouldn't be regularly used. This would have a knock-on effect on prices for consumers. But it is possible to increase total renewables without dramatically increasing prices for consumers, as long as low-cost back up generation such as thermal is available.

There are considerable potential economic gains to be had from reducing the daily variation in wholesale prices and better utilisation of transmission and distribution networks. Better transmission and distribution pricing, "real time" wholesale prices, open access to networks, and opportunities for consumers to buy and sell multiple services at their connection points are required to tap this large potential gain. The Authority's current work programme involves addressing the Code to meet these requirements.

Affordability

7. *What are your views on the assessment of the size of the affordability problem?*

While the affordability of electricity pricing needs to be considered in the wider context of income levels and social policies addressed at achieving national welfare outcomes, we believe there are some changes that could be made within the current electricity market that would help to achieve the review's objectives.

We acknowledge some sections of the community face significant challenges around energy affordability. A critical part of addressing the problem is to gain a better understanding of the characteristics of those groups. This would help best provide the tools and information needed to allow them to improve their 'situation' and, where necessary, obtain any assistance available to them. For example, while we are currently unable to provide robust statistics to quantify the number of households struggling to meet their energy needs, we note that a proportion of the residences meeting the definition of 'energy hardship', will be households such as student flats (where outgoings may be funded through accumulating debt) and retirees (where outgoings may be funded from past-accumulated savings).

We agree there are a significant number of households that could benefit from reviewing and changing their current electricity plans or providers. While some of these households may be aware of the potential savings but are not changing for their own reasons, of more concern are the households that are stretched financially but don't have the knowledge, confidence, or capability to change their provider or plan.

The Authority has been running the *What's My Number* branded consumer awareness campaign for several years.

Consumer NZ has successfully run Powerswitch for a number of years, having secured additional funding on the recommendation of the 2009 Ministerial review of the electricity industry. Having a highly reputable consumer-oriented not-for-profit run New Zealand's principal electricity comparison site has, in the Authority's view, worked very well for consumers. We are aware that overseas comparison sites run by commercial entities in competition with one another have generated issues as to whether they are unbiased.

With appropriate funding and oversight, it would be possible to expand the service in a number of ways.

- Increase the accessibility of the Powerswitch website, including updating the site to improve access through a wider range of internet enabled devices (eg,more phone-friendly).
- Provide multi-language support on the Powerswitch website to increase access to households where English is not the first language.
- Significantly improve the use of profile data obtained from website-users to gain a better understanding of the requirements and characteristics of the cross-section of users that are struggling to cope with the switching process, in order to improve the future targeting of awareness campaigns.

An important part of widening the scope of the campaign would be to improve the engagement with those consumers that are not technologically 'savvy' by establishing a strong relationship with groups that disadvantaged households often interact with.

This would include groups such as public libraries, budgeting advisory groups, social welfare agencies, social housing providers and MP's electoral offices. The primary focus would be on educating those groups about the options and channels open to electricity consumers so that they can more effectively advise the households they deal with. The Authority could be responsible for this extension work, which it has done in the past, or Consumer NZ could be.

We are considering whether it would improve the effectiveness of our *What's My Number* campaign if it were to be re-branded and re-launched as part of any expansion.

There is an opportunity for greater collaboration across government to address affordability. The amount of electricity consumed by individual households is the other key determiner of household electricity expenditure. There are steps that could be taken to reduce the consumption of disadvantaged households without reducing the benefits those households get from that energy consumption (and in many cases improving them).

EECA's energy efficiency programmes can play a key role in improving energy outcomes for consumers. The Authority could work closer with EECA to pursue policies focused specifically on those households that are struggling to meet their energy needs. Examples of initiatives that are already well established are improving the penetration of technologies such as LED lighting in homes, better household appliances, better heating technologies, and improving insulation. Better data on vulnerable consumers could be used to target those households where the provision of some form of assistance is most needed.

The "variabilisation" of fixed costs by lines companies and retailers (acknowledging that the Low User Fixed Charge tariff regulations require this for low-use consumers) also has implications for the affordability of electricity over winter months for some consumers. The combination of higher volumes over the winter months, and the higher variable-costs associated with low fixed-cost tariffs, results in electricity bills being generally much higher in winter than summer. Tariffs with a lower variable component and a higher fixed component will generally result in a flatter profile of charges over the year.

8. *What are your views of the assessment of the causes of the affordability problem?*

9. *What are your views of the assessment of the outlook for the affordability problem?*

Summary of feedback on Part three

10. *Please summarise your key points on Part three.*

The current electricity market is generally performing well, although there are some market areas that could be adjusted to improve outcomes for more consumers.

The fairness objectives the review is seeking to advance need to be balanced against wider industry reliability, environmental sustainability, and economic goals. We recommend the adoption of a set of principles for assessing and ranking potential policy interventions.

Technology and innovation are linked to competition. Market interventions that could reduce competition are likely to slow industry innovation.

We are continuing work to lower barriers to entry and ensure the Code is technology neutral. We have a number of projects we expect to complete over the next few years that are aimed at improving various aspects of the market.

Retailers are an important channel for consumers to voice their preferences. Consumer responses to retailer actions have been effective in the past at influencing retailer behaviour.

The Authority has been set up to promote the long-term interests of electricity consumers – residential, commercial and industrial. The focus of the Authority is not on promoting the interests of other industry participants, other than where that also contributes to consumers' interests.

Surveys conducted by the Authority suggest that consumers' attitudes towards the operation of the electricity industry are positive and generally improving.

Comparisons of New Zealand electricity prices to other jurisdictions should consider the widely varying differences in the characteristics of their systems and pricing arrangements. Often prices in overseas jurisdictions are not a good reflection of the cost of providing services as they involve deliberate or unintended cross-subsidies.

Affordability needs to be considered in the wider context of income levels and social policies. A better understanding of groups struggling with energy affordability is a critical part of addressing the problem.

The amount of electricity consumed drives household retail bills as much as prices do. Energy efficiency programs can play a key role in improving energy outcomes for consumers.

The "variabilisation" of fixed costs by distributors and retailers affects the difference between winter and summer bills. Higher consumption during winter, combined with higher variable rates, increases the variation between bills over the course of the year compared to tariffs with a higher fixed component.

Solutions to issues and concerns raised in Part three

11. *Please* briefly describe any potential solutions to the issues and concerns raised in Part three.

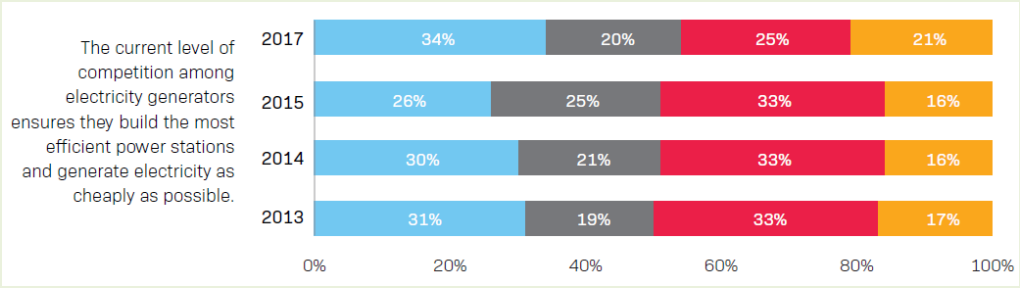
Consumer awareness and education campaigns can be extended to improve consumer access to information about retail options. The Powerswitch service could be expanded to improve its accessibility. Engaging and educating groups such as public libraries, budgeting advisory groups, social welfare agencies, social housing providers and MPs electoral offices could improve outcomes for consumer groups that are less technologically ‘savvy’.

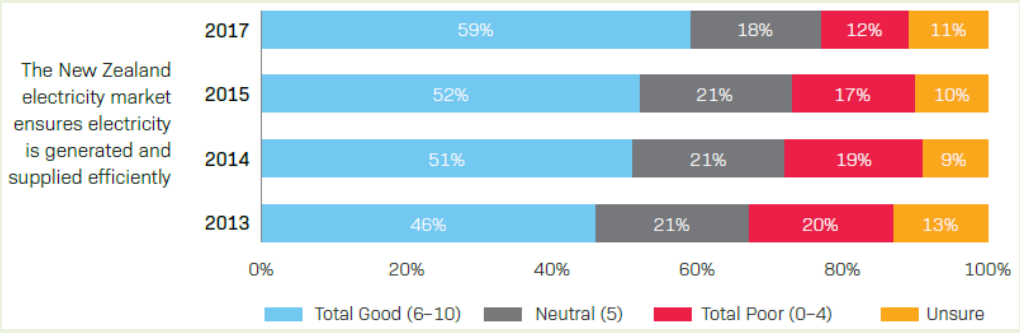
Part four: Industry

Generation

12. *What are your views on the assessment of generation sector performance?*

The Authority conducts a survey of the public's perception of the performance of the electricity industry every two years. A summary of 2017 survey results was published in the *Authority's 2017/18 Annual Report*[1]. The survey results suggest that the public's perception of the market has improved over the past few years.





Occasionally generators have the ability and the incentive to raise prices in the wholesale market. The Authority has two specific projects underway to address this.

1. Trading conduct provisions. A review of market participant conduct relating to events in the wholesale market in June 2016 (noted in the panel's report) highlighted potential issues in the Code relating to trading conduct.[2] Clarifications to the provisions covering trading behaviour are currently being considered by the Market Development Advisory Group. They are expected to submit a discussion paper to the Authority Board in May 2019.
2. Real-time pricing. The implementation of real-time pricing is expected to facilitate greater demand-side participation in the wholesale market – increasing the responsiveness of demand to changes in prices. This will further restrict the ability of generators to increase prices when they otherwise may have done so. There is huge potential for demand to play a more active role in setting prices and we see this as an inevitable and desirable market development. While the real-time pricing project did not receive funding as part of the Authority's budget in 2018/19, we are continuing with our Code design work and to seek funding for the capital costs of implementation. If funding is approved, the changes would have a targeted implementation date of 2021. The industry, which will bear all the costs through levies, has indicated it supports moving to real time pricing.

A report published by Dr. Stephen Poletti in September 2018 claims that generators are making excess profits. Dr. Poletti's analysis does not provide for generators recovering the capital cost of building generating plant, grossly understating the actual cost to generators of doing business. See our response to Question 18 on generator and retailer profits below.

[1] www.ea.govt.nz/about-us/strategic-planning-and-reporting/annual-report/

[2] www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2016/high-energy-prices-2-june-2016/

13. *What are your views of the assessment of barriers to competition in the generation sector?*

14. *What are your views on whether current arrangements will ensure sufficient new generation to meet demand?*

We believe that the current arrangements have been very effective at balancing the multiple goals of delivering a reliable, sustainable and cost-effective portfolio of generating plant for New Zealand. We have not seen any convincing evidence that an alternative market approach would deliver better outcomes as the industry and wider economy evolve over the coming decades.

Retailing

15. *What are your views on the assessment of retail sector performance?*

Caution needs to be exercised when using aggregated national retail statistics. For example, while it is true that the largest five retailers hold 88 per cent by ICPs of the residential market at a national level.

- There is no 'national' retail market. People buy power for their home within a local market at a network level. In 2008 the average market share of the largest retailer in each region was 71 per cent. In 2018 that number has almost halved and currently sits at 38 per cent, indicating that the market at that network level is far less concentrated than it was before. So while the market share at an aggregate level appears to have moved relatively little, at a network level there is actually a much more dynamic environment.
- The competitive "fringe" is extremely important to discipline the larger incumbent players. Outside of the largest five, the remaining 12 per cent of the residential market is served by some 29 brands. These entrants are forced to innovate to capture market share, and in some cases have experienced extremely rapid growth as a result. Electric Kiwi saw growth of 280 per cent off a base of 6700 customers across the 2017 calendar year. The impact of Uber on the taxi industry is a good example of how a new innovative competitor can materially impact on well-established business models.
- We would also recommend caution when using trends from 1990 when there is more recent data available. Electricity prices for residential consumers have been increasing since the 1990's, but there is strong evidence that residential prices at that time did not reflect the costs of supply. More recent price comparisons, when the underlying drivers of prices are more comparable, show that the costs associated with the competitive parts of the industry have remained approximately flat in real terms, and have now fallen for two out of the last three years.

We think that the lack of switching identified by the report (based on the 400,000 - 750,000 ICPs which have not switched) is overstated.

- Some of those consumers will have moved into a new house or flat and kept the current provider of the house (this will not have been recorded as a change) even though it may involve a change for the consumer.
- Some will have checked around and been satisfied with their current provider, either changing or staying with their current plan. A consumer that changes plans within their current provider is not treated as a switch.
- For some consumers the 'cost' of the time spent researching alternative retail options does not warrant the effort, given their expected gain from doing so (and they are happy with that decision).
- The TECT (Tauranga Energy Consumer Trust) rebates that Tauranga consumers receive strongly encourages them to remain with Trustpower. Tauranga has the highest retail-market concentration of all the network regions (as measured by the HHI index), and as the sixth-largest region this is likely to have a material impact on 'non-switching' statistics.

Consequently the number of truly unengaged consumers could be well below the range identified as being 'non-switching' in the report. The Authority has a project underway to review the current switching processes, with a view to further improving the ease of switching. We expect to complete that project in 2019.

Variation in retail prices within each network area is not necessarily indicative of problems with the retail market. The rise in the retail price variations in individual areas is what we would expect if we have been successful at promoting workable competition, and many new retailers and new product offerings are coming to market.

As retail competition increases, the product offerings and services provided by retailers increasingly differ. The key economic services provided by “traditional” retail products are:

1. Credit underwrite to the market: the retailer pays the wholesale market settlement and pays the distributor (and hence Transpower) whether the customer pays it or not. Credit risk varies considerably between customers.
2. Price risk management for customers: under the standard fixed-price variable-volume retail contract, the energy price risk associated with a variable consumer is born by the retailer. Customers’ consumption patterns, and therefore the price risk placed on the retailer, can vary significantly.
3. Dealing with fault inquires/other inquiries. Some customers are much more expensive to serve than others.

New retail offerings vary in the degree to which they offer these "traditional" services. For example, Flick provides limited credit risk cover to the market as it requires weekly direct debit payments. The credit risk cover provided by others also varies depending on the plan. Flick also provides no price risk management to its customers under its standard spot-price plan. Some other plans with time-of-use aspects provide less than complete price-risk cover for the customer. There are other new entrants and new products that provide no effective call-centre service for faults or only a limited on-line service. Therefore as the level of competition increases, the variation in the types of plans offered to consumers, and consequently the variation in the costs of those plans, will increase.

Further, new entrant retailers are generally very keen to build their customer base to achieve a viable scale. Most new entrants report accounting losses during their initial years of operation, and if the costs of their capital are also taken into account, they are likely to be making substantial economic losses. As such, the prices they are offering are generally below a sustainable level. Under workable-and-effective competition, efficient operating and capital costs should be fully recovered in the long run. As competition heats up, there will be more new parties seeking to build customer numbers to get critical mass, and this will tend to widen the spread of retail prices in the market.

16. *What are your views on the assessment of barriers to competition in retailing?*

Vertical integration

17. *What are your views on the assessment of vertical integration and the contract market?*

The 2009 ***Ministerial Review of the Electricity Market*** identified two key benefits associated with vertical integration across the retailing and generation sectors of the industry.

- There are risk management efficiencies that are difficult to achieve through contracts.
- Separation is likely to increase the risk of both the generation and retailing sectors, increasing the cost of capital as a result (difficulty in establishing long term contracts for securing generation investment was noted).

The review team was of the view that separation would not make a material difference to the hedge market or to retail competition (those being the desired outcomes some parties argue will result from the separation of generation and retail activities).[1]

The Authority's view is that this situation remains largely unchanged, insofar that any concerns with the operation of the electricity hedge market would be best addressed through contract market operational requirements rather than risk introducing potentially significant new costs associated with (say) the enforced separation of generation and retail functions.

We remain committed to continuously improving the flexibility and liquidity of the hedge market, building on the initial development work recommended by the 2009 Ministerial Review. The Authority does not have any active Code change projects underway in this area but our market monitoring activities continue to actively review the operation of hedge markets and we will take action if we see any developments that should be addressed. We are currently keeping a close eye on market-maker spreads to assess whether and how we might respond to rising spreads in near-dated monthly contracts.

The Authority is due to consult on its appropriations and proposed work programme for 2019/20. The proposed work programme includes the project *Hedge Market Enhancements*. It is anticipated that this project will consider one or more of the following initiatives.

- Evaluate options to improve the robustness of the current voluntary market making arrangements.
- Review and improve the hedge disclosure website.
- Evaluate the benefits of introducing a standardised schedule to the International Swaps and Derivatives Association (ISDA) master agreement for over-the-counter trades.

Discounting fixed price variable volume contracts

The panel invited views on whether retailers were systematically discounting fixed price variable volume (FPVV) contract prices to commercial consumers below prices in the forward electricity market (ASX). The analysis[2] published by the Authority in early 2018 calculated a 'margin' for each contract the Authority had data for, based on the average ASX 'price' at the time the contract was quoted, and the average energy price within each FPVV contract. While 12 per cent of those contracts were priced under the ASX price at face value, we do not believe that this is cause for concern.

- The margin below ASX was generally very small, and in many cases is only negative because we built some margin into the analysis by using ASX settlement prices rather than bid prices.
- Generator/retailers offering either low or slightly negative margins did so for only short periods of time, and their behaviour was generally consistent with a strategy of reducing unhedged generating capacity.

It is reasonable to expect such outcomes to occur in a normally-operating workably-competitive market. To preserve confidentiality we did not publish data that identified the generator/retailer specific margin data but we considered this information critical to our conclusion.

We also note that the 2018 ACCC *Retail Electricity Pricing Inquiry* found that over-the-counter contract prices were often under ASX prices in the Australian market. The ACCC recommended improving the transparency of trading by introducing contact disclosure requirements (and single out the approach in New Zealand as a good potential model to adopt), but otherwise appeared largely unconcerned by the difference in prices.

[1] Improving Electricity Market Performance: Volume Two – Appendices, Appendix 20: Rejected Options

[2] www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2017/review-of-fixed-price-variable-volume-commercial-offers/

18. *What are your views on the assessment of generators' and retailers' profits?*

We are not surprised the panel has been unable to identify excessive profits being made. If it were the case, we would expect to see widespread entry of generator-retailers keen to have a piece of the profits on offer.

The paper published by Dr. Stephen Poletti in September claiming generators are making excess profits is based on the premise that generators should not expect to recover the capital costs of the plant they construct. He reaches the conclusion that $5.4 billion of excessive profits were made between 2010 and 2016 by comparing the market to a benchmark where no plant pays off their fixed costs. This is a serious flaw in the assumptions underlying the analysis. As was identified in the *Price Review report*, prices need to be sufficiently high to allow generators to recover the full costs of their investment. This is particularly true in the case of renewable generation where the bulk of the costs are associated with the construction of the plant.

The *Price Review report* tracked wholesale prices against the long-run marginal cost of generating plant. This is a much more realistic approach than the approach used in Dr. Poletti's report. The size of the excess profits claimed by Dr. Poletti's report is not dissimilar to the size of the excess profits identified by the 2009 Wolak report that drew significant criticism at the time of its release. If the conclusion reached by either of these reports was true, it would clearly raise two questions – if such large excess profits were being made why is there no evidence of that in the generator's accounts and, given there are few barriers to entering that market, why are new entrants not flocking to build new generation to take advantage of those profits?

We do not think any serious policy advancements or insights will come from comparing a real-world market to highly suspect counterfactuals such as Dr. Poletti's report or the Wolak report, which in our view have served solely to create inaccurate impressions about the performance of the electricity market.

Transmission

19. *What are your views on the process, timing and fairness aspects of the transmission pricing methodology?*

It is essential that an enduring transmission pricing framework is put in place that facilitates the long term development of New Zealand's transmission in a way that best benefits consumers in the long run. Although meeting New Zealand's wider policy goals such as sustainability is not within the Authority's statutory objective, our transmission pricing proposal will also help these goals to be met in a way that won't unnecessarily raise electricity prices for consumers.

There are fairness issues with the current pricing methodology which are likely to become more pronounced with the forecast greater electrification and de-carbonisation of the economy. The current charging approach creates incentives that drive inefficient behaviours, resulting in unnecessary costs for consumers. The new technologies highlighted in the panel's report will further stress the existing arrangements. Transpower is forecasting further transmission investment driven by expected growth in demand. If the current methodology is retained we would expect to see more cost-avoiding behaviour on the part of some participants that could result in affordability issues for those parties who are unable to respond.

Fairness issues also arise when considering alternative approaches for recovering the costs of historical investments. There has been criticism from some parts of the country about proposals to apply benefit-based charges to assets that have already been built. It would be unfair to apply a benefit-based charge only to future grid investments and not to at least some large recent historical investments. It would be particularly unfair to a region like Taranaki, where there has not been much transmission investment in recent years[1]. This is because Taranaki may be likely to require a grid investment in the near future. If so, consumers in Taranaki would be required to pay most of the costs of that investment, while continuing to pay part of the costs of previous major investments from which they do not benefit much (such as the North Island Grid Upgrade, which mainly benefits consumers in Auckland).[2] Perceptions of unfairness would undermine the regime's durability, which would impact on efficiency.

The Authority has been working through a substantial review process with the industry, spread over several years, reflecting the importance for participants and consumers of any changes to the approach being used to recover the costs of the transmission network. Unfortunately, problems with an independently prepared cost-benefit analysis has delayed the implementation of a revised methodology.

The Authority is looking to implement a pragmatic solution that will achieve its efficiency goals, while remaining workable for Transpower as the grid owner and industry participants. We are continuing to work through suitable options and are well on track for coming back to the industry with a final proposal during 2019.

[1] Transmission investments made since 2003 make up 89 per cent of the regulatory asset base in the Auckland transmission region by value. By contrast, the equivalent figure for Taranaki is only 7 per cent.

[2] Several submitters to previous Authority consultations have made this point, including for example Orion. Orion is a distributor located in the South Island. It would appear unlikely to have benefited much from the recent substantial investments to upgrade the grid in the upper North Island.

Distribution

20. *What are your views on the assessment of distributors' profits?*

21. *What are your views on the assessment of barriers to greater efficiency for distributors?*

Our view is that there is a lot of myth with respect to access to data and the panel would be wise to interrogate this issue further before considering remedies.

At present we are not aware of any contracting barriers that are preventing distributors contracting with retailers or Metering Equipment Providers to get the data they need to run their businesses, and we would look to remove barriers if these were made clear to us.

22. *What are your views on the assessment of the allocation of distribution costs?*

23. *What are your views on the assessment of challenges facing electricity distribution?*

Distribution price structures need to change if New Zealand is to obtain the full benefits of emerging new technologies such as batteries and photovoltaic panels. Efficient distribution pricing is expected to drive savings such as lower distribution network costs, and the increased electrification of commercial and industrial processes, reducing carbon emissions.

The economic benefits are significant. For example, current distribution price structures give consumers incentives to overinvest in solar panels. In 2015 NZIER estimated the expected cost of this overinvestment was $2.7-$5b over 25 years.[1] Although equity considerations are not part of the Authority's statutory objectives, it is worthwhile to note NZIER estimated that this could add 10 per cent to the retail bills of consumers without solar panels over ten years – likely lower socio-economic households and renters. In effect, they will pay an ever-increasing share of the cost of providing the distribution network, cross-subsidising investment in solar panels.

We do not believe the process of reviewing tariffs is best managed using a centrally-planned approach. All communities are different, and the individual distributors face different circumstances with respect to the characteristics of their networks and their customers. Moreover, distributors face strong commercial incentives to reform their prices. This is why the Authority has preferred the industry lead the approach to distribution price reform.

The Lines Company's (TLC's) experience with implementing cost-reflective tariffs over the past ten years is a good example of the challenges associated with ensuring that consumers can both understand and respond to revised tariffs.

Working closely with their community has proved to be a critical step in developing a workable tariff solution for their distribution area.

Distributors have been working in recent years on analysing pricing options and resolving implementation issues. The Authority would like to see a transition to more efficient distribution pricing to progress with more urgency.

To this end, the Authority intends to amend the distribution pricing principles, to provide distributors clear expectations for distribution pricing, and to introduce a monitoring framework. The proposal is to publish the latter in the form of a star-rating of the efficiency of a distributor's tariff structure. We intend to publish a consultation paper on these proposals later this year, and engage with distributors in the new year.

We will also publish a short note in early November that will set out the reasons that electricity distributors should progress with pricing reforms, and the urgency of that, for the long term benefit of consumers.

We remain optimistic about distributors moving to more efficient tariffs without a need for direct regulatory intervention. Given the significant implications of the expected uptake of emerging technologies for distributors, a failure to respond to the well-understood need to improve tariff structures would raise serious questions about the effective governance of those distributors that did not act.

It is critical that distributors have systems in place that provide effective visibility of the operation of their low voltage networks in order to respond to the changes in the use of their network that will come hand-in-hand with the penetration of new distributed technologies. There are several technology options available to distributors. A good option could be for distributors, individually or in groups, to tender for solutions.

[1] NZIER, 2015. Effects of distribution charges on household investment in solar, available at www.ea.govt.nz

[2] See www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2016/review-of-tlc-pricing-and-load-control/

Summary of feedback on Part four

24. *Please summarise your key points on Part four.*

Surveys conducted by the Authority suggest that public perceptions of market performance are generally good and improving.

Current market arrangements are capable of delivering well balanced outcomes as the industry and wider economy evolve over the coming decades.

Electricity retail markets have become significantly more dynamic over time, evidenced by increasing competition at a regional level. Competition from smaller retailers is extremely important to discipline the larger incumbent retailers.

Cost increases associated with the competitive parts of the industry have been flat over recent years.

The number of 'unengaged consumers' is lower than high-level switching statistics suggest.

Variation in retail prices within regions, and increasing variation, is to be expected in a competitive retail environment as the range of services offered by retailers' increases, and new entrants seek to increase market share.

Concerns about hedge market liquidity should be addressed through adjustments to market operational requirements rather than introducing significant new costs associated with separating vertically integrated generator/retailers.

The Authority's finding that some fixed price variable volume contracts were quoted under the hedge market price is not indicative of systematic discounting by vertically integrated generator/retailers. It is reasonable to expect such transient outcomes to occur in a normally-operating workably-competitive market.

A recent paper by Dr. Stephen Poletti suggesting generators have made excess profits is seriously flawed as it grossly understates the full cost of generators doing business. If generators were making excess profits, we would expect to see that reflected in their accounts, and for there to be an influx of new entrant generators seeking excess profits. There is no evidence of either.

The current transmission pricing methodology creates significant fairness issues which are likely to become more pronounced in the future. The Authority is continuing to work through transmission pricing options and expect to present a final proposal to the industry in 2019.

There do not appear to be any barriers that prevent distributors from contracting with Metering Equipment Providers for the provision of data. Claims by some distributors that access to metering data is problematic may be overstated.

Distribution pricing structures need to change otherwise consumers will face much higher costs in the future due to the impacts of new technology. An industry-led approach to distribution price reform remains the best option, however the transition to more efficient distribution pricing needs to happen quickly.

Distributors need to have systems in place to provide detailed information about the operation of their networks to cope with the impacts of new technologies.

Solutions to issues and concerns raised in Part four

25. Please briefly describe any potential solutions to the issues and concerns raised in Part four.

The Authority is addressing the short term application of market power in the wholesale market through projects targeting trading conduct, and the introduction of real-time pricing.

Hedge market liquidity issues can be addressed through improvements to the voluntary market making arrangements, hedge disclosure requirements, and potentially the introduction of a standardised schedule for over-the-counter trades.

The Authority is intending to publish more comprehensive distribution pricing principles to improve guidance for distributors reviewing their pricing structures.

Part five: Technology and regulation

Technology

26. *What are your views on the assessment of the impact of technology on consumers and the electricity industry?*

27. *What are you views on the assessment of the impact of technology on pricing mechanisms and the fairness of prices?*

It is critical that distributors take steps to review and revise their price structures to facilitate the efficient integration of new technologies into their networks while delivering equitable outcomes for all of their customers. See our comments under Question 23 above.

28. *What are your views on how emerging technology will affect security of supply, resilience and prices?*

We agree the cost of technologies such as wind, photovoltaic panels, and batteries, are likely to continue to reduce over time. However, there are a number of challenges associated with the de-carbonisation of the electricity system (and wider economy) that will need to be addressed if system reliability and security is to be maintained or improved.

The management of dry year security will become increasingly important as demand increases and generation is de-carbonised. If there is significant growth in electricity demand in the future (driven for example by the electrification of industrial heat process and transportation), in the absence of major changes in costs of competing renewable technologies, much of that demand increase is likely to be met using intermittent forms of generation such as wind or solar[1]. While short term variability in output from those sources should be manageable without significantly impacting on total system costs, longer term variability associated with normal cyclical weather patterns may prove more difficult and complex to address.

Total wind output varies from year to year, and there is evidence that wind output is also loosely correlated to hydro output (that is, a dry-hydro year is also more likely to be a low-wind year). Ensuring there is sufficient capacity or other mitigation measures in place to cope with those dry/still years may result in higher total system costs than would be the case if the total annual generation from those intermittent renewal sources was more predictable. This could put some upward pressure on prices that may offsets gains from reducing technology costs, at least to some extent.

The average operating cost of thermal plant is likely to increase over time as fuel costs and carbon charges increase and, if the plant is used less frequently, the plant's capital costs will be spread over less units of output. If thermal generation continues to remain part of the wider generation portfolio mix in order to meet dry-year security requirements, there will be some upward pressure from this source on prices. Renewable alternatives, such as building excess wind capacity (for example), or developing long term storage options, would also place upwards pressure on prices.

On a more positive note, the uptake of technologies such as batteries that can facilitate the shifting of load or generation across the course of a day could yield considerable economic gains through reducing the daily variation in wholesale prices and the use of transmission and distribution networks. The resulting improvement in asset utilisation should put downwards pressure on the average total cost of delivered electricity over the long run.

[1] While high-temperature geothermal plant compares favourably from a cost point of view, the total potential generating capacity from this resource is limited.

Regulation

29. *What are your views on the assessment of the place of environmental sustainability and fairness in the regulatory system?*

We agree that a joined up approach between regulatory bodies and other government agencies, and with industry, would help to achieve environment objectives and to address energy hardship.

We believe requiring the Authority and Commerce Commission to explicitly consider fairness and environmental objectives would create adverse unintended consequences. In general it would be impossible for a regulator to avoid negative welfare effects on some parties when altering regulatory arrangements. Similarly, requiring a regulator to (say) give preference to consumer environmental objectives would require it to trade-off efficiency for the desired environmental objective. This would lead to generally higher costs and prices for consumers.

30. *What are your views on the assessment of low fixed charge tariff regulations?*

The Authority is aware of broad criticism of the low fixed charge (LFC) tariffs by a number of industry participants. As is noted in the *EPR report* the Authority believes the LFC regulations have only a limited impact on competition and the ability of retailers to offer efficiently-structured tariff options to consumers. However, based on industry feedback, we recognise the regulations are likely to be affecting the willingness of some retailers to offer some alternative forms of tariff.

The Authority notes the LFC regulations appear to be very poorly targeted at the groups and actions the tariffs were intended to support. We suggest they may be a good example of a policy intervention that resulted in unintended consequences because full implications were not worked through and understood prior to implementation (or, if they were, were discounted).

The Authority has a legal responsibility to provide the Minister with advice on any proposed changes to the LFC. As such, we have restrained from offering a view in this submission on the potential repeal of the regulations.

31. *What are your views on the assessment of gaps or overlaps between the regulators?*

We think there is an opportunity to improve the effectiveness of Part 3 of the Electricity Industry Act 2010.

The purpose of Part 3 is to promote competition in the electricity industry by:

a) prohibiting a person who is involved in a distributor from being involved in a generator where that may create incentives and opportunities to inhibit competition in the electricity industry

b) restricting relationships between a distributor and a generator or a retailer, where those relationships may not otherwise be at arm's length.

Part 3 cannot achieve its overarching purpose to promote competition by controlling for incentives and opportunities to inhibit competition in the electricity industry because:

- narrow focus: It focuses narrowly on distributor involvement in the supply of retail and generation activities, and does not consider distributor involvement in other contestable activities, particularly relating to distributed-energy related services
- silent on Transpower: It is silent on Transpower's ability to become involved in retail, generation and new distributed energy related business, even though this involvement potentially poses competition concerns.

Our preferred solution is to:

- expand the scope of Part 3 to cover distributor and Transpower involvement in electricity supply-related contestable activities – including, but not limited to, retail, generation, distributed energy resources
- introduce a Competition, Efficiency and Reliability test to determine the whether a distributors/Transpower involvement in contestable activities warrants restrictions on their involvement. This test would replace the thresholds
- provide flexibility in the remedies which could be applied to restrict involvement, including the existing legal/corporate separation and Code-based interventions.

Other potential changes to legislation aimed at improving the responsiveness of the regulatory framework to the changing industry environment include:

- revising s32(2)(b) of the Electricity Industry Act to address ambiguities in responsibility of the Authority and Commerce Commission, and allow the Authority to perform its functions and achieve its objectives
- providing a legislated process for managing regulatory overlaps. This process could be based on the process established by s54V of the Commerce Act.

These are discussed further in the joint Electricity Authority / Commerce Commission submission provided separately.

32. *What are your views on the assessment of whether the regulatory framework and regulators' workplans enable new technologies and business models to emerge?*

We think the regulatory framework can evolve relatively easily to accommodate tomorrow's technologies and business models. The Authority's tools – the Code and market facilitation measures – allow it to be flexible and make proportionate changes to reflect changing circumstances. We think legislative change is necessary to improve the operation of Part 3 and address ambiguity relating to responsibility for access to networks.

The Authority's work programme is very much focused on facilitating greater participation and innovation in technology and business models –in particular, our *Distribution pricing*, *Multiple trading relationships* and *Equal access* projects.

33. *What are your views on the assessment of other matters for the regulatory framework?*

We are well aware of the potential for the rule-making process to be out-paced by the changes facing the sector. This is a key reason our 2018/19 work programme is more focused and delivery oriented. That said technical or controversial issues can take some considerable time to resolve. We are redesigning our processes to draw more heavily on stakeholder input.

We have been told by industry participants that the absence of a best practice compliance framework in the electricity market is a barrier to entry. It has been explained to us that new entrants would be more confident in entering the market if they knew the Authority had enforcement responses available to it that are proportionate to the impact of breaches and the type of offending.

The Authority has long recommended to the Ministry of Business, Innovation and Employment that the Electricity Industry Act and the Electricity Industry (Enforcement) Regulations be amended so that the electricity market has a fit for purpose compliance framework. Three examples of where the current compliance framework is not best practice are listed below.

- The Electricity Industry (Enforcement) Regulations are based on the electricity market self-governance arrangements that ended in 2003.
- All compliance agencies should adopt flexible approaches using a range of enforcement tools. However, the Authority has no enforcement tools itself. Under the current compliance framework, all the enforcement tools are with the Rulings Panel.
- The Rulings Panel should be independent from the Authority. Currently the Authority funds, administers, appears before and is subject to sanction by the Rulings Panel. This is clearly an unsatisfactory arrangement and is contrary to the recommendations of the Legislation Design and Advisory Committee and the Law Commission.

Summary of feedback on Part five

34. *Please summarise your key points on Part five*.

The increasing penetration of intermittent renewable generation will have dry-year security implications. The need to meet dry-year security may place some upwards pressures on prices, partially offsetting the reducing cost of renewal generation technologies. The flattening of the daily demand curve by technologies such as batteries should help to improve asset utilisation, reducing the average cost of delivery.

A joined up approach between regulatory bodies and other government agencies will help to achieve environmental and energy hardship objectives. Requiring industry regulators to explicitly consider fairness and environmental objectives is likely to create adverse unintended consequences.

The Low Fixed Charge tariff regulations are poorly targeted and are negatively impacting on retailers' tariff options.

The current compliance regime is potentially acting as a barrier to market entry. We have been told that new entrants would be more confident in entering the market if they thought that a best-practice compliance framework was in place.

Solutions to issues and concerns raised in Part five

35. *Please briefly describe any potential solutions to the issues and concerns raised in Part five.*

A number of changes can be made to Part 3 of the Electricity Industry Act 2010 to improve the regulation of distributors' involvement in contestable activities such as distributed energy-related services.

The compliance regime should be reviewed to ensure that it is able to respond to unacceptable participant behaviour in a way that is proportionate to the impact of breaches and the type of offending.

Additional information

36. *Please briefly provide any additional information or comment you would like to include in your submission.*

Attached with our submission are the following documents:

- Electricity Authority work programme summary
- Joint Electricity Authority / Commerce Commission submission

Electricity Authority work programme summary

PROJECT DESCRIPTION	RELATING TO TRILEMMA	EXPECTED IMPLEMENTATION
Encouraging more consumer participation (formerly known as What's My Number). The previous incarnation of the What's My Number project encouraged consumers to 'shop around' by increasing awareness of the possible savings available, and that it is easy to switch. This concept is being reviewed and may be revamped, to address two matters: • to better engage consumers who are increasingly choosing between traditional and emerging innovative services and products, and between suppliers of these products (eg, solar, batteries, electric vehicles, et al). • to better encourage all consumers (with a focus on those in energy hardship) to shop around for better deals.	**Fairness** – consumers (including those in energy hardship) have equal opportunity to shop around for a better retail deal. **Affordability –** reduces the cost and effort to find a better retail tariff, and shows estimated savings from switching. **Competition –** consumers shopping around puts pressure on retailers to offer most competitive tariffs.	Board direction expected in 2019.
Default distributor agreement. This review considers amending the Code to introduce a default distributor agreement. This agreement is an important part of developing an equal access framework and promoting more participation, innovation and competition.	**Fairness** – retailers and other parties (especially new innovative third parties) will have a framework for equal access to the distributor's network. **Affordability –** reduces the cost and effort required to negotiate and enter into a contract for distribution services. **Competition –** retailers can compete on more standardised and equal terms and conditions on the same network and across networks.	2019 – pending declaratory judgment.
Multiple trading relationships. This project investigates whether there are inefficient barriers to multiple trading relationships developing as new technology emerges. Barriers could include the data exchange required for these relationships to exist and the technical ability to connect.	**Fairness** – will enable consumers to have a greater suite of multiple services to choose from. **Affordability –** ensures individual services are provided by the most efficient service provider, therefore reducing costs. **Competition –** allows new entrants to compete for individual services.	2020.

Electricity Authority work programme summary

PROJECT DESCRIPTION	RELATING TO TRILEMMA	EXPECTED IMPLEMENTATION
Distribution pricing. We want to reform to the pricing of distribution services through an industry-led initiative which promotes efficiency and competition, and facilitates innovation in technology and business models. More efficient distribution pricing will promote more efficient use of, and investment in, the distribution network and across the electricity supply chain.	**Fairness** – removes cross-subsidies among distribution network users by exposing a more efficient price signal. Without distribution pricing reform poor consumers will cross-subsidise rich consumers. **Affordability –** better pricing information will lead to improved decision-making by distributors and parties using distribution networks. This can lead to lower network costs. **Competition** – sends better pricing information which encourages the development of network support services from third-parties. Creates a level playing field for network and non-network solutions to compete fairly.	Revised Distribution pricing principles expected in 2019, then will be monitored for industry implementation.
Transmission pricing. We want to improve operational and investment efficiency in the transmission sector. A review of the transmission pricing guidelines will also contribute to efficiency in the broader electricity market.	**Fairness –** people won't have to pay for grid upgrades that don't benefit them and businesses will pay their fair share of grid costs. **Affordability –** better transmission pricing will result in lower costs for consumers, as people and businesses will be much less likely to spend money on investments that may not be needed, or are in the wrong place, or may cost more than alternative investments. **Competition –** sends better pricing information which promotes more efficient competition between generators, and more efficient decision making about location by large transmission users and by generators. Removal of distorted price signals will promote more efficient competition between demand response and generation.	Starting in 2020.

Electricity Authority work programme summary

PROJECT DESCRIPTION	RELATING TO TRILEMMA	EXPECTED IMPLEMENTATION
Equal Access. The Innovation and Participation Advisory Group (IPAG) are considering and reporting on: a) the effectiveness of the operation of the existing equal access framework for transmission and distribution networks, eg establishing the current feasibility for competitive supply of network support services; and b) potential options to strengthen the equal access framework.	**Fairness –** ensures all network users (including consumers) have fair opportunity to invest, own, use and connect distributed energy resources and receive a fair price for providing services. **Affordability –** Equal access will: (1) reduce the cost of providing the distribution line services, and (2) result in 'flow-on' cost reductions in other parts of the supply chain. **Competition** – reduces barriers for distributed energy resource owners (including consumers) to participate and compete across the electricity supply chain.	IPAG recommendations expected in December 2018.
Saves and win-backs. This project considers whether changes to the Code are required in response to the post-implementation review of the 'saves' Code provisions. It is important that new entrant retailers have a 'level playing field' for competing for customers, and that saves and win-backs do not impede efficient competition.	**Fairness –** promotes fair competition between established and new retailers. **Affordability –** retailers are encourages to offer their most competitive retail tariffs to consumers helping to address non-switchers missing out on good deals. **Competition –** promotes a level playing field for competition among retailers and helps reduce barriers to entry.	MDAG recommendations expected in April 2019, but could be earlier.
Hedge market enhancements. We have a continuing programme of initiatives to enhance the hedge market. As part of our BAU work, we continue to engage with the ASX to list the two hedge market cap products. We also intend undertake a new project entitled Hedge market enhancements on our 2019/20 work programme. This project will investigate the value of further development of exchange traded products, and evaluate incentive based arrangements for market making.	**Fairness –** provides participants with more reliable opportunities to mitigate trading risk. **Affordability –** increases confidence that participants can trade at robust and regularly updated prices. **Competition –** reduces barriers to market entry, especially for retailers, by minimising trading risks.	Caps listing possible in early 2019.

Electricity Authority work programme summary

PROJECT DESCRIPTION	RELATING TO TRILEMMA	EXPECTED IMPLEMENTATION
Spot market settlement on real-time pricing. We want to reduce barriers to retail competition and new technologies for demand response arising from current spot market arrangements. Enhancements to the spot market pricing arrangements have the potential to increase competition in the hedge and retail markets, and improve reliability and operational efficiency through greater technology adoption and demand responsiveness to spot market prices.	**Fairness –** prices are more actionable and reliable, so participants are less likely to regret decisions. **Affordability –** better pricing signals promotes more demand response, which means less likely to build expensive last-resort generation. Real-time prices promote deployment of new technologies like batteries. **Competition –** better pricing information reduces barriers to entry, promotes innovation and new business models.	'Go live' expected in 2021.
Review of spot market trading conduct provisions. This review of trading conduct provisions is in light of events that have tested these provisions. The review takes into account any findings from case studies, performance reports and compliance reports in order to ensure the trading conduct provisions are effective in promoting outcomes consistent with workable competition.	**Fairness –** minimises ability for generators to exercise market power and market manipulation. **Affordability** – better trading conduct reduces risk premiums and overall wholesale prices, making electricity more affordable. **Competition –** ensure wholesale market outcomes are consistent with workable competition.	Code amendment expected in 2021.
Switch process review. This review of the switching process is to recommend ways to ensure ICP switching processes in the Code, which govern the transfer of responsibility for ICPs between participants, remain fit for purpose over the next five years as technology and competitive business models continue to evolve	**Fairness –** assists in promoting fair competition between established and new retailers by reducing the opportunity for existing retailer to use the switch processes for "saves". **Affordability** – will make switching to lower cost retailers easier. **Competition –** reduces inefficiencies in the switching process that makes switching retailers difficult in some situations.	Code amendment expected in 2019.