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The Chair
Electricity Price Review
Ministry of Business, Innovation and Employment
WELLINGTON

By email: energymarkets@mbie.govt.nz

# TRUSTPOWER SUBMISSION: ELECTRICITY PRICE REVIEW'S FIRST REPORT

## Introduction

The Government's current Electricity Price Review (**EPR**) 30 August 2018 *First Report for Discussion* (**First Report**) provides an important opportunity to pause and reflect on:

- where the electricity market has evolved to; and
- whether further adjustment of the industry's governance and regulation is required to ensure the electricity market works for everyone as we journey to a low emissions future.

The First Report presents the Panel's findings on the current state of the electricity sector using the measures of competition and efficiency, reliability, affordability and fairness.

At a high level, the First Report:

- expresses general support for the competitiveness, efficiency and reliability of the current market arrangements; but
- highlights elements of the design of the current market arrangements that could be amended to rebalance affordability and fairness outcomes for certain customer groups.

This submission provides Trustpower's feedback on the Panel's First Report and comments on areas where we recommend incremental change may be required.

Our analysis and research suggests that both competition and the regulation of the monopoly segment are working effectively and delivering good outcomes for customers.

This does not mean that improvements cannot be made to ensure the electricity market continues to deliver efficient and fair prices as technology evolves and we transition to a lower emissions future.

We have proposed 25 different recommendations to address the matters raised by the Panel in its First Report.

## Structure of this submission

Our answers to the questions presented in the First Report are provided in Appendix 1 to this letter[1]. These answers are supplemented by more detailed information in the following accompanying papers:

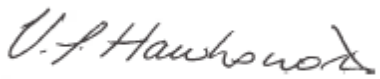
- **Attachment 1 - Meeting customers' energy needs** including an expert report from The Lantau Group *"Retail Competition Effectiveness"*;
- **Attachment 2 - Understanding retailer costs and risks**;
- **Attachment 3 - Improving transmission access regulation**;
- **Attachment 4 - Improving the efficiency of distributors and access to distribution networks**;
- **Delivering fairness in a competitive market** - forwarded to the Panel on 28 September 2018; and
- **Fit-for-purpose regulatory frameworks** - forwarded to the Panel on 28 September 2018.

For completeness we recommend that Appendix 1 and our accompanying papers are read as a package.

Trustpower would like to thank the Panel for the opportunity to provide our views on the First Report. The team looks forward to continuing to work with the Panel during the next phase of the EPR.

For any questions relating to the material in this submission, please contact me on 021 223 4609 or alternatively contact Fiona Wiseman, Senior Advisor – Strategy and Regulation on 027 549 9330.

Best regards,



**VINCE HAWKSWORTH**
**CHIEF EXECUTIVE**

[1] We follow the same section numbering adopted in the First Report for consistency.

## APPENDIX 1 - TRUSTPOWER RESPONSES TO THE PANEL'S QUESTIONS IN THE FIRST REPORT

### Part three of the First Report: Consumers and prices

### Consumer Interests

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

1.1.1 While we agree that there is a general increase in customer concern about the environmental impact of the electricity they use, our view is that customers are still predominantly concerned with "the basics":

a) good prices;

b) being valued as a customer;

c) great service; and

d) simplicity, both in the offers and pricing available and in the way they can interact with their retailer.

1.1.2 This suggests care needs to be taken not to conflate increased customer concern around environmental matters, with changing customer behaviour and decision making.

1.1.3 In our experience, for the vast majority of households, cost trumps environmental and social considerations.

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

2.1.1 As noted in our **Fit-for-purpose regulatory frameworks** paper, the technical and complex nature of many of the topics of relevance to customers in the electricity sector means that it is difficult for individual customers to seek to influence policy and regulatory outcomes.

2.1.2 This will only become harder as our markets and rulebooks go through a period of transformational change and interests of different customer groups diverge.

2.1.3 Accordingly in our **Fit-for-purpose regulatory frameworks** paper (and in our response to Question 31) we have suggested that a separate independent customer advocacy agency be established to ensure the necessary level of sophistication to engage with decision makers.

2.1.4 The establishment of a customer advocacy agency does not remove the need for:

a) regulated entities to consider establishing their own forums to engage with particular communities on different topics; and

b) further collaboration between retailers and distributors around customers' interests, as suggested by the Panel.

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

3.1.1 As a retailer, we work hard to gain and retain the trust of our customers as it is core to our business success.

3.1.2 We have provided evidence of some of the initiatives we use to gain and retain this trust in the attached **Meeting customers' energy needs** paper**.**

3.1.3 Our efforts, and those of our competitors with the same imperatives, are working well.

3.1.4 According to the UBS New Zealand Equity Strategy[2]:

> *"Consumers rate their electricity providers highly as almost four-fifths of respondents are either very or a little satisfied with their current electricity provider; half are very satisfied. Two-thirds also think that they get great or good value from their electricity provider while only one in 17 are dissatisfied and 1 in 16 think they get poor or very poor value. We believe this is likely to position the NZ utilities as one of, if not the, most popular electric utilities in the world."*

3.1.5 We do not expect that the pace and complexity of technological change will erode that trust.

3.1.6 On the contrary, we believe that technological innovations such as mobile apps and our Solar Buddies initiative (described in our **Meeting customers' energy needs** paper) can lead to a more inclusive, symbiotic and trusting relationship between retailers and customers.

3.1.7 However, we do have concerns that some of the new entrants to the retail sector may not afford the same priority as existing industry participants to compliance with the voluntary arrangements which have been developed to provide important protections for some of the most vulnerable customers.

3.1.8 These arrangements are described in our **Meeting customers' energy needs** paper. There seems to be little downside, and considerable upside in making these arrangements mandatory.

3.1.9 This is why we recommended this course in our **Delivering fairness in a competitive market** paper.

## Prices

### 4 What are your views on the assessment of the makeup of recent price changes?

4.1.1 Trustpower's assessment of the makeup of recent price changes is set out in our **Understanding retailer costs and risks** paper where we undertake a detailed analysis of retail operating costs, expanding on that presented in the First Report.

4.1.2 Our analysis shows that:

a) The retail market is highly competitive as evidenced by the flattened costs in the average residential customer's bill between 2011/12 and 2017/18;

b) Household energy costs have increased, on a percentage basis, at a lower rate than other categories of expenditure;

c) Retail operating costs are within the range experienced in other competitive markets; and

d) More specifically the:

   i. cost to serve has been very stable since 1990/01;

   ii. cost of churn has risen as the market became more competitive; but

   iii. cost of metering has not risen significantly, as technology has improved.

[2] UBS New Zealand Ltd. "*New Zealand Equity Strategy*" (13 September 2018, p. 9)

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

5.1.1 We set out our views on overseas comparisons in relation to retail operating costs in our **Understanding retailer costs and risks** paper.

5.1.2 More generally, we consider that New Zealand has a world-class electricity system which provides consumers with safe, reliable, mostly renewable electricity at a price comparable with other OECD nations. In fact, residential electricity prices are the 12th lowest out of 33 International Energy Agency (**IEA**) countries.[3]

5.1.3 We however caution against excessive use of overseas comparators as the New Zealand market is in many ways unique:

a) It has a long stringy transmission and distribution network, most major generation sources are remote from main population centres, and there is no interconnection with other states.

b) It has a high degree of renewable generation and susceptibility to low inflow periods, which differs to a thermal dominated system with stable and reliable fuel sources.

c) Its consumption rates are well above international averages[4] due to its poor quality housing stock (meaning it takes a higher amount of energy to heat many homes), and because of the predominant use of electricity as the primary heating source (many other counties use different fuels).

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

6.1.1 Our views are similar to those of the Panel around the outlook for electricity prices.

6.1.2 We have commented on the current gas market issues in our **Understanding retailer costs and risks** paper.

## Affordability

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

7.1.1 There is a difference between affordability (lowest possible energy prices for one's circumstances) and energy poverty (hardship as a result of the inability to meet energy needs).

7.1.2 As outlined in our submission on the Terms of Reference and in our **Delivering fairness in a competitive market** and **Meeting consumers' energy needs** papers, the ability to access affordable energy is driven by a combination of:

(a) energy prices;

(b) energy requirements (which are influenced by a range of unique factors including housing stock and the efficiency of heating appliances); and

(c) income levels.

[3] Note the IEA makes its price comparison using purchasing power parity (PPP) exchange rates to avoid creating a misleading comparison. Generally care is required when interpreting data of other countries as statistical methodology, purchasing power and transparency of information can vary considerably between countries. Likewise the taxation component can also vary significantly – as evidenced by Figure 9 of the First Report.

[4] New Zealand has the 6th highest household consumption rate out of 32 OECD countries.

7.1.3 There is also the question of whether all consumers know how to change their supplier if affordability (as defined in 7.1.1) is important to them.

7.1.4 In our **Meeting consumers' energy needs** paper we suggest that when assessing the size of energy poverty, the income expenditure measure (ten percent or more of income spend on energy) is a useful *starting point.* However it is also important to consider the other factors that impact on energy needs (including the state of the housing stock and household demographics) and prices (such as engagement levels). This will enable appropriate targeting of solutions for this subset of customers[5].

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

8.1.1 The First Report sets out a number of possible causes of different cost variations between customer groups. These causes apply to differing extents for different customer groups.

8.1.2 The range of causes suggests that:

a) a package of targeted solutions will be required to improve affordability (including for the subset of customers who experience energy poverty); and

b) a partnership between government, regulators and industry will be needed to develop and implement the various solutions.

8.1.3 Important components of this package are mechanisms which will benefit all customer groups, including the group often described as the 'working poor'. This includes measures to:

a) improve energy literacy and encourage greater engagement with the market so as to assist customers to obtain the lowest possible prices for their circumstances (for example, advertising campaigns, enhancement to the Powerswitch price comparison website, annual prompts on invoices and funding to budget agencies);

b) alter the allocation of distribution charges through pricing rules, to address matters such as commercial vs residential cost allocation and/or cost shifting incentives; and

c) restrict the extent to which suppliers can discriminate amongst their customers by charging more than is objectively reasonable for prompt or early payment.

8.1.4 In relation to the subset of customers who have serious issues with energy poverty, the additional measures will be required including:

a) targeted income support in the form of a revamped Winter Energy Payment and consideration of extra levies or a reallocation of existing levies (for example arising from reduced regulatory costs) to be applied in circumstances of energy hardship;

b) lower prices (for example as a result of Government agencies acting as procurement agent for groups such as beneficiaries or Housing New Zealand tenants); and

c) the provision of a guarantee by Government (or another financial arrangement) to address any access constraints for customers with poor credit histories or previous disconnections.

8.1.5 Further information about the mechanisms in 8.1.3 and 8.1.4 can be found in our delivering **Fairness in a Competitive market** paper and our **Meeting customer energy needs** paper.

8.1.6 One additional matter which stood out in the executive summary of the Panel's recently released *Initial analysis of Retail Billing Data* (**Data Report**), was the Panel's comment that the

[5] We support the submission by ERANZ on the First Report which provides further detailed views on this matter and is supported by advice from PwC.

biggest driver of differences across socio-economic groups is the effect of lost prompt payment discounts.

8.1.7 This is a matter which has been in the news recently with one of our competitors voluntarily offering to remove them. Trustpower has been considering a similar response. One of the reasons we have not done so is because for a significant portion of our customer base, these discounts act as incentive to pay for their essential services first and that incentive is helpful to their overall budget position.

8.1.8 Prompt payments also play an important part in the overall process by incentivising on time payment, which acts to keep collection costs for retailers lower. It would be a shame to lose these beneficial effects by removing prompt payment discounts without further research into all of the possible effects of removal. However we do accept that there are currently a broad range in the level of prompt payment discounts currently in the market and that some levels seem excessive relative to the costs of late payment.

8.1.9 A simple solution to this would be to cap the level of such payment discounts to a level that can be objectively justified. This is what we have recommended in our **Meeting customer's energy needs** paper.

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

9.1.1 As outlined above, we consider a targeted packaged of solutions is required to address affordability concerns over the longer term.

9.1.2 In relation to the competitive sector:

a) we recommend measures to lower energy consumption requirements. For example, the Governments current initiatives to upgrade housing (given New Zealand's higher than average consumption rates) will assist in this area, including KiwiBuild and the development of healthy home standards to improve the quality of rental homes in New Zealand. This would complement our solutions presented in Question 8;

b) we think that Government will need to be ever vigilant about the barriers to new investment (as noted in our responses to Questions 14, 19, 31); and gas market issues (as noted in our response to Question 35).

9.1.3 In relation to the monopoly sector:

a) we think it is necessary to address the equity issues arising from current pricing as it makes little sense to us to carry on down the path of permitting distributors to make their own interpretations of the cost reflective tariff structures and suitable transition arrangements (as proposed by the Electricity Authority) only to subsequently have another agency rule those price structures or transition arrangements as "unfair";

b) early and clear policy guidance is required, particularly on tariff structures which are likely to provide consumers with very volatile prices; and

c) our proposed process to amend price structures to address this issue is set out in our **Improving transmission access regulation** and **Improving the efficiency of distributors and access to distribution networks** papers and our response to Question 25.

## Summary of feedback on Part Three

### 10 Please summarise your key points on Part Three

#### *Consumers*

10.1.1 Consumers care about the environment but care about "the basics" more.

10.1.2 Measures to ensure consumers have a more effective voice in policy making and regulatory processes are required **(Recommendation 1)**.

10.1.3 Consumer/retailer trust is high as a result of the hard work put in by retailers operating in competitive markets but care needs to be taken to ensure that this isn't inadvertently undermined by some of the new entrants **(Recommendation 2)**.

#### *Prices*

10.1.4 We generally agree with the Panel's analysis on price trends and future price outlook.

10.1.5 A deeper dive into retail operating costs has shown that the cost to serve and cost of technology has been very stable while, as might be expected, the cost of churn has risen as the market became more competitive. Overall costs are in line with regulated costs overseas.

#### *Affordability*

10.1.6 Cost variations have multiple causes including the proper operation of the competitive market, engagements challenges for some parties, building and appliance standards, the design of access regulation, income levels and contract history.

10.1.7 This suggests a multi-faceted solution is required over the short and long term. This includes recommendations to:

a) address general affordability issues through nudges to promote competition, measures to reduce energy consumption and long-term fixed like improvements to the housing stock **(Recommendations 3-8)**; and

b) provide targeted assistance for those in energy poverty, which will require Government to take a predominant role as energy poverty is part of a broader issue with poverty in New Zealand **(Recommendations 9-10)**.

Our recommendations in response to Question 25 will also assist.

## 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.

Trustpower suggests that that the Electricity Price Review recommends to Government that it:

**Recommendation 1**: Establishes a new consumer advocacy body.

**Recommendation 2**: Enacts regulations which mandate:

- the voluntary good practice minimum terms and conditions for domestic retail contracts; and
- the voluntary guidelines on arrangements to assist vulnerable customers and medically dependent customers.

| | |
|---|---|
| **Recommendation 3**: | Requires retailers to limit the amount of discounts that they offer for early or prompt payment to what is no more than objectively reasonable in relation to the costs of collection for late payments. |
| **Recommendation 4**: | Provides a secure long-term source of funding for the continuation and development of the Powerswitch website to assist customers accessing the lowest possible electricity prices for their circumstances. |
| **Recommendation 5**: | Supports and funds the development of a multi-channel advertising campaign to further promote the benefits of switching retailers and build on the Electricity Authority's *"Whats my number campaign"* initiative. |
| **Recommendation 6**: | Enacts regulations that annually require retailers to include on their invoices details of their alternative offers, along with details of how to access the Powerswitch website to obtain information about competitor offers. |
| **Recommendation 7**: | Provides additional funding for existing community agencies such as Citizens Advice Bureau and Christians against Poverty and other institutions such as schools, helplines and energy advisors to increase energy literacy and understanding of energy supply options. |
| **Recommendation 8**: | Provides separate funding for ECCA to introduce new measures and enhance existing measures that assist residential customers to reduce their overall energy usage including with respect to insulation and efficient heating. |
| **Recommendation 9**: | Establishes an industry and stakeholder process to explore mechanisms by which the Winter Energy Payment could be reshaped into a more targeted mechanism to replace the LFC Regulations, possibly supplemented by extra levies (or a reallocation of existing levies) to be applied in circumstances of energy hardship. |
| **Recommendation 10**: | Explores mechanisms by which Government agencies:<br>○ could act as a procurement agent for groups of customers for whom electricity affordability is a real issue such as Housing New Zealand tenants or certain beneficiaries; and<br>○ provide a guarantee by Government (or another financial arrangement) to address any access constraints for customers with poor credit histories or previous disconnections. |

## Part four of the First Report: Industry

### Generation

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

12.1.1 We agree with the Panel's conclusion that:

> *"… overall, the generation sector is delivering reliable supply, low and falling emissions, and wholesale prices that are reasonable compared to costs of building new power stations."*

12.1.2 In relation to the perception of short-term market power in the wholesale electricity market, we note that this issue has been considered by the Electricity Authority on a number of occasions since its formation.

a) A recent example is the market conduct rules, which were introduced in 2014.[6]

b) For an example of the application of these rules, refer to the Electricity Authority's review of the events of 2 June 2016.[7]

12.1.3 Our view is that the current regulatory framework provides sufficient tools to address any short-term market power in this market.

[6] Available from <https://www.ea.govt.nz/dmsdocument/18165-gazette-notice>
[7] Available from <https://www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2016/high-energy-prices-2-june-2016/>

12.1.4 However, as outlined in our **Understanding retailer costs and risks** paper, the generation sector's performance can be adversely impacted by events in other markets such as current problems in the gas market. This issue is addressed further in our response to Question 36.

## 13 What are your views on the assessment of barriers to competition in the generation sector?

13.1.1 New Zealand has a balanced mix of small, medium and large generation stations and is poised to take full advantage of the global trend towards decentralised generation at the smaller end of the scale.

13.1.2 Although, as the First Report states, the five biggest generators account for 90% of the capacity, the respective shares of those five generators vary significantly.

a) For example, at the upper end of the scale is Meridian who accounts for 30% of generation capacity in New Zealand.

b) In contrast, our generation market share is only 4%. Our generation portfolio is perhaps better characterised as being the biggest of the smaller generators, as there are many examples of independently owned generators that are between 1 kW and 120 MW in scale (and we note that the Mokai geothermal station at 113 MW is larger than any of our power stations).

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

14.1.1 Achieving the Government's target level of 100% renewable electricity generation (in a normal hydrological year) by 2035, or any target close to this[8] will require substantive investment in generation to occur, both to meet the target and to support the anticipated electrification of the economy and wind-down of carbon emitting fuel sources.[9]

14.1.2 The recent Transpower Energy Futures White Paper identifies the future investment demand pressures that the New Zealand economy will face as greater electrification occurs:

> *"Electrifying the NZ economy also represents a concentration of risk. With more and more of the national economy dependent on electricity, as opposed to a wider range of energy sources (coal, gas, oil), the resilience and reliability of the electricity system becomes all the more critical to the country. Policy and regulatory settings must explicitly acknowledge the investment demand pressures that New Zealand's energy future represents and encourage direct investment across all sectors of the industry."*[10]

14.1.3 The current structure of the wholesale market including the spot market pricing mechanism and contract market (comprising ASX futures and bilateral arrangements) provide sound signals for generation investment and as the Panel notes have served New Zealand electricity customers well.

14.1.4 However, our broader regulatory frameworks have not served us as well.

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[8] For further details of our views around the adoption of a 100% renewable generation target are outlined in our submission to the Ministry for Environment on the Zero Carbon Bill (July 2018).

[9] The Transpower White Paper modelling estimates that, in the base case, daily peak electricity demand will increase by ~66%, from ~6 GW in 2020 to ~7 GW in 2035, and ~10 GW in 2050. This will require further very substantial investment in renewable generation that is able to meet the anticipated shortfalls in capacity during peak periods, or acceptance that gas fired generation should remain at a greater proportion than implied by the current aspirational target.

[10] Transpower, *Te Mauri Hiko- Energy Futures – White Paper* (2018, p 9).

14.1.5 As noted in our **Fit for purpose regulatory frameworks** paper:

a) there needs to be more alignment in thinking across energy regulation, climate change and resource management; and

b) the breadth of the Electricity Authority's powers and the way it has chosen to exercise those powers in network access issues does not give investors' confidence that the current framework will provide the sufficient stability for the required '*significant and frequent*' investment in new generation.

14.1.6 We think there is room for improvement in relation to joining up the regulatory approach to electricity and carbon emissions. In particular we have concerns with the National Policy Statement: Renewable Electricity Generation (**NPS:REG**).

a) The NPS:REG sets out an objective and policies to enable sustainable management of renewable electricity generation under the Resource Management Act. It carries a very important role in shaping the policy framework for renewable electricity generation, and should be retained (with improvements).

b) However in our view, there is increasing inability to rely on the current NPS:REG to provide certainty, consistency, or to address competing values. The NPS:REG has now been surpassed by other National Policy Statements with stronger language, leaving a lack of relationship clarity, and confusion with respect to hydro generation (as water for generation purposes is not subject to the NPS:REG).

c) Over time we are seeing the NPS:REG failing in its bid to increase consistency in addressing competing values and providing provide greater certainty to decision-makers, applicants, and the wider community. More support for consents for existing renewable generation (including in relation to the duration of consents) and consented renewable development options is required.

14.1.7 The Panel's attention is also drawn to our response to Question 35 where we discuss the need for more alignment in the governance of electricity and gas.

## Retailing

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

15.1.1 Our assessment of the current state of the retail market and the steps needed to ensure ongoing progress towards the Panel's new energy trilemma objectives of fairness, affordability and ongoing competiveness are set out in our **Meeting customers' energy needs** paper.

15.1.2 That paper explains our views that:

a) there are strong incentives on retailers to understand and respond to customers' and society's needs as demonstrated by our own activities;

b) decisions around fairness are best made by politicians, not regulators – however the current voluntary rules around minimum terms and vulnerable and medically dependent customers could be made mandatory to improve fairness outcomes;

c) a multi-faceted solution to affordability is required including measures which will benefit all customers as well as supplementary measures for that subset of customers experiencing significant energy poverty. A partnership between Government, regulators and industry is needed;

d) the current levels of innovation, price dispersion, win back behaviour and switching activity all provide strong evidence that competition is working well; and

e) competitive forces and a light regulatory touch will deliver the best long term outcomes for customers.

15.1.3 The Panel's attention is also drawn to the assessment in our **Delivering fairness in a competitive market** paper

15.1.4 Note that we have not had sufficient time to take that Data Report into account in this submission but are happy to discuss its results separately with the Panel.

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

16.1.1 We consider that there are low barriers to entry for the retail market as evidenced by the large numbers of retailers that have entered the market in recent years.

### Vertical integration

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

17.1.1 All generators and retailers have a choice in relation to the management of wholesale price risk. Their options include vertical integration, a variety of bilateral contract options and participation in the ASX futures market.

a) **vertical integration**: There is no limit to the scalability of vertical integration. As noted in the First Report: "*Some smaller retailers, such as Nova Energy, are also vertically integrated*."

b) **contract options**: There are approximately 26 active smaller retailers reported by the Authority[11]. Independent generators represented by the Independent Electricity Generators Association total more than 40.[12]

i. This suggests that generators and retailers can match up with each other at small scale, with many combinations and partnerships being possible.

ii. Some of these have already occurred, such as Eastland Generation's shareholding in Flick Electric and Pioneer Generation's investment in Pulse Energy.

c) **ASX participation**: The development of the ASX market is, in our view, one of the most successful initiatives in the market in the last decade, allowing benchmark pricing up to 4 years forward and available to all participants.

17.1.2 As a net short retailer we have used a combination of these options to manage our risks successfully for a long time[13].

17.1.3 It is acknowledged that managing risk through purchasing hedging products comes at a price.

a) The ASX requires an initial margin to be paid to insure against counterparty risk, and bilateral trades may have counterparty credit risk built into the agreed strike price.

b) However the alternative option of vertical integration is also not free or easy either – requiring time, effort and cost to build up a strong portfolio, not to mention the significant

[11] Refer to the Electricity Authority's MI Market share snapshot <available from: https://www.emi.ea.govt.nz/Retail/Reports/R_MSS_C?MarketSegment=All&Percent=Y&RetailEntity=RPC&DateTo=20171231&_si=p|0,v|3 >
[12] Refer to http://www.iega.org.nz/
[13] Today, with almost 13% retail market share by connection, and generating about 5% of New Zealand's electricity, we are New Zealand's largest net electricity retailer.

risk of building a stranded asset should the asset no longer be competitive. All these strategies, or a combination, are available to large and small retailers alike.

17.1.4 We disagree with statement in the First Report that "*Vertically Integrated companies have no inherent need for contract markets, whereas independent generators and retailers rely on them heavily*".

a) This may be true for a perfectly balanced vertically integrated generator-retailer, but in reality there is no such thing.

b) Any generator-retailer will have portfolio imbalances over time and across locations as load is seasonal and variable, and renewable generation is variable, and the two generally do not match up at all.

c) As a result they will either rely on contract markets[14] such as the ASX, bilateral over-the-counter and FTRs (locational hedging), or, alternatively, will simply choose to be exposed to the risks.

d) There is no size threshold above which these needs magically disappear and how each participant chooses to manage their risks is entirely their decision.

17.1.5 Further details of our views around the performance of the contract market are outlined in our **Understanding retailer costs and risks** paper.

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

18.1.1 We agree with the Panel's assessment that generator-retailer profits are not excessive when compared to underlying costs.

18.1.2 We do not agree with the various views, expressed to the Panel, that:

a) Generators should be paid based on historical costs.

i. Changing the underlying basis of the wholesale market would severely limit New Zealand's ability to attract the necessary capital required to fund new renewable generation needed to meet our future energy needs (refer to our response to Question 14).

ii. It is extremely difficult to determine what "historic costs" for a generator would be, i.e. build costs + enhancements (which may in fact have been made at costs above the current spot price) or transaction costs (from purchasing an existing generator).

iii. The buyers of the state owned generators paid for those shared based on market values of the assets, not historic costs.

iv. We are not aware of any of competitive market which pays generators based on historic costs.

b) Increasing the portion of transmission charges paid by generators will lower the portion of charges ultimately paid by consumers.

i. The issue of the correct counterparty for transmission charges was explored extensively in the Electricity Authority's October 2012 paper.

[14] There are contracts between the big four generator-retailers linked directly to specific generation plant. For example Meridian has a contract with Genesis for electricity generated by the Huntly coal units to provide security of supply during dry years.

ii. On this issue we submitted that levying additional charges on generators could distort market prices and/or market dispatch and encourage generators to retail only in areas close to their generation assets resulting in reduced competition in retail market.[15]

iii. We also note Transpower's expert advisor Axiom Economics (2016) advice around this matter:[16]

> *"Levying additional transmission charges on generators would increase their costs and result in higher wholesale prices".*

## Transmission

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

19.1.1 Trustpower's views on the process, timing and fairness aspects of the transmission pricing methodology (**TPM**) are set out in our **Improving transmission access** paper.

19.1.2 The Panel's attention is also drawn to the comments we have made on this topic in our **Fit-for-purpose regulatory frameworks** paper.

#### *TPM process*

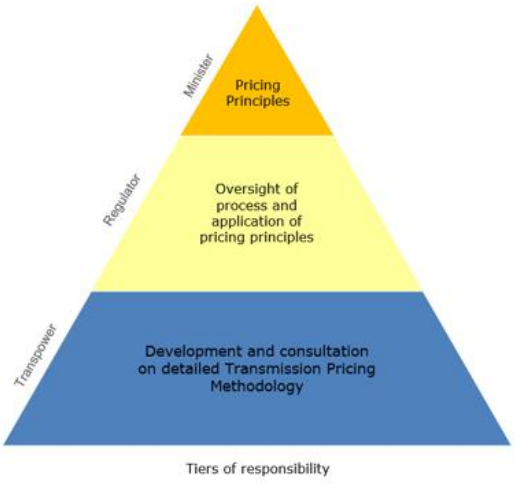
19.1.3 In relation to the TPM process, our view is that the 2010 reforms have had a profound, and adverse effect, on the tiers of responsibility which previously existed in relation to the development and approval of a TPM.

19.1.4 Previously,

a) Transpower was given considerable discretion to develop the TPM within pricing principles and the TPM Guidelines developed by the regulator; and

b) Ministerial approval was required for the pricing principles, the TPM Guidelines and the TPM itself.

19.1.5 This is depicted in the diagram.




19.1.6 The 2010 reforms have not only removed the protection afforded by Ministerial approval but have also diminished Transpower's role in relation to the pricing structure that applies to its assets and its customers.

19.1.7 This is because the Electricity Authority sees itself as the sole arbiter of the interpretation of the statutory objectives in section 15 of the Act as they are applied to the TPM.

19.1.8 The current TPM process is:

a) contrary to international norms and Trustpower's expert advice as to the proper allocation of responsibility, as noted in our **Fit-for-purpose regulatory frameworks** paper; and

[15] Baringa Partners (February 2013), Evaluation of New Zealand transmission pricing review against international experience, page 41.
[16] Axiom Economics (July 2016), *Economic Review of Second Transmission Pricing Methodology Issues Paper – A Report for Transpower*, page 27.

b) likely to result in Transpower being tasked with the implementation of a TPM it does not support, as noted in our **Improving transmission access** paper.

19.1.9 These problems with the legislated process for the TPM have been exacerbated by the Electricity Authority's choice of engagement process.

19.1.10 This has been a secretive process based on a "propose-respond" format rather than the use of a more open and collaborative style such as occurs when:

a) advisory groups are engaged;

b) the Electricity Authority shares its internal and external advice prior to formal consultation processes; and

c) the Electricity Authority provides ongoing feedback to submitters as to how their submissions have fared in the development of its thinking.

19.1.11 As noted in our **Fit-for-purpose regulatory frameworks** paper:

a) Advisory groups can help stakeholders better understand the regulator's objectives, narrow differences of views, assist stakeholders manage change and provide early warning of unforeseen implementation risks.

b) In the TPM process to date, stakeholders did not consider that their submissions and expert reports were properly considered by the Electricity Authority. This led to stakeholders writing and publishing their own analyses of submissions, and also commissioning an expert report on the expert reports.

19.1.12 The cumulative effect of this has been a loss of trust by the affected stakeholders.

19.1.13 There is no sign that the Electricity Authority will change its engagement process in response to stakeholder concerns.

19.1.14 We note that:

a) at the same time as withdrawing its TPM cost benefit analysis in 2017, the Electricity Authority expressed confidence that its next cost benefit analysis will establish there are material benefits from its proposed TPM reform (before this work had even begun);[17]

b) in the considerable time that has lapsed since that cost benefit analysis was withdrawn, the Electricity Authority has not, despite the many prior requests for it to so, taken the time to explain to its stakeholders why its views differ so markedly from those in the expert reports submitted to it;

c) the Electricity Authority continues to follow a secretive process. For example after stating in successive regulatory managers' workshops that further information would be given on TPM reform before 30 June 2018, the only information which was given by that date was that a further announcement would be made by 31 December 2018; and

d) the material the Electricity Authority shared with the Panel as part of this Review does not suggest it is changing its course very much.

19.1.15 For all these reasons, we think that structural change is required.

19.1.16 Our specific proposals for this structural change are set out in our **Improving transmission access** paper and our response to Question 25.

[17] Radio New Zealand interview on 27 April 2017 the Authority's Chief Executive expressed confidence in the Authority's proposals and in the accuracy of the allocation of the financial benefits and said that there will be no delay to the delivery of those financial benefits to the affected stakeholders (primarily Meridian, Contact and the Tiwai point smelter).

### *TPM timing*

19.1.17 For the reasons advanced in our various submissions and expert reports, Trustpower considers the Electricity Authority has:

a) overstated the problems with the current TPM;

b) been too quick to dismiss the status quo;

c) overstated the benefits that will be provided to consumers; and

d) understated the risks of significant unintended consequences of its proposals.

19.1.18 In addition we note that:

a) although the process has being going on since 2011, it not yet resulted in a finalised set of TPM Guidelines supported by a robust cost benefit analysis;

b) the alleged benefits of the proposed reform are relatively small in the context of overall transmission revenues; and

c) the unsatisfactory process has affected stakeholder trust and created risk to investor confidence (which as noted in our **Fit-for-purpose regulatory frameworks** paper is problematic in the context of the investment needs associated with the expected electrification of the New Zealand economy).

19.1.19 These factors suggest that:

a) the current TPM reform should be abandoned or replaced by more modest reform such as a further operational review by Transpower.

b) as part of the structural reform to the legislated process:

i. the process which needs to be followed in reviewing the TPM or its associated guidelines needs to be amended to reallocate roles and responsibilities; and

ii. a new change threshold should be included to provide appropriate regulatory stability for long life investments.

### *TPM fairness*

19.1.20 There are a number of types of fairness, which could be "in play" in relation to the allocation of the costs of the transmission system. These include:

a) "geographical fairness" the risk that one region (the south) pays for more than another region (the north);

b) "generational fairness" the risk that the current generation is required to pay for transmission upgrades whose benefits do not accrue until the next generation;

c) "fairness regarding assumptions" the risk that changes to market circumstances mean that the assumptions on which original cost allocations are made turn out to be incorrect (such as the assumption that an upgrade to the transmission system to the West Coast was required to support Pike River coal mine);

d) "fairness between customer groups" some customers can argue that they should pay less as they do not need to use all of the assets (e.g. if they did not trigger the need for the upgrade; do not consume at peak, live close to generation sources, or have alternative supply);

e) "fairness in response expectations" some customers could be allocated costs to encourage a response which in practice they cannot provide (for example because they have already

made their investment or because the price signal is not sufficiently clear or certain) or could have already made substantial investment to respond to the current TPM and then find that investment is worthless when the regime changes; and

f) "bright line" issues where similar customers get treated differently as a result of the need in any methodology to draw "bright lines" to distinguish between different groups.

19.1.21 These are all matters, which Transpower has had to consider in the many years it has been involved in transmission pricing reform. The current TPM is its "best solution" to these issues.

19.1.22 As noted in our **Improving transmission access** paper experts have commented that the Electricity Authority appears to have prioritised geographical fairness, but this has had an adverse impact on other fairness categories.

19.1.23 Of particular concern, to stakeholders is the Electricity Authority's ongoing proposals to reallocate the costs of assets after they have been built. Trustpower's external experts have advised that there is no efficiency benefit in such reallocation. This was also an area of difference between the Electricity Authority and the organisation it selected to undertake its most recent cost benefit analysis.

19.1.24 Trustpower also notes that a core feature of the Electricity Authority's asset-based beneficiaries-pay proposals is that the "deemed beneficiaries" of individual transmission assets will face "rate shock" when those assets are renewed. This may affect some regional communities more than others.

19.1.25 Given the potential widespread social-political impact of this type of decision-making we think that these trade-offs should be made by government rather than an economic or market regulator. The best vehicle to do this (as discussed in our response to Question 29) is a mandatory Government Policy Statement (**GPS**).

## Distribution

### 20 What are your views on the assessment of distributor' profits?

20.1.1 It is not possible to conclude from the Panel's analysis that distribution prices are efficient, fair and reasonable for customers located in different distribution regions.

a) Page 53 to 54 of the First Report sets out the Panel's assessment of whether individual distributors made excess profits in the five years from 2013 to 2017.

b) The methodology selected for this assessment was a comparison of the extent to which each of the 29 distributors' profits were greater than the regulated weighted average cost of capital (**WACC**).

c) Timeframes (and the terms of reference) did not permit an assessment of whether the underlying regulated asset base (RAB) valuations were fair and reasonable as between the different distribution companies.

d) As noted in our **Improving the efficiency of distributors and access to distribution networks** paper, these current RABs originated from the valuations completed by distributors for information disclosure purposes in 2004.

e) The disclosed valuations were all completed pursuant to the same ODV handbook but we are not sure that provides sufficient certainty that ODV was applied consistently by all 29 distributors.

20.1.2 However, our **Improving the efficiency of distributors and access to distribution networks paper,** includes some measures which the Panel could consider to constrain rising distribution costs.

20.1.3 In our view, there are:

a) opportunities to simplify the current price quality paths and extend these simplified paths to all distributors; and

b) a few areas where the current price paths could be 'tweaked' in the interests of improving affordability, such as changing the "*x*" factor so it incentivises rather than anticipates efficiencies and the introduction of *totex* to ensure there no incentive for capital expenditure bias by distributors.

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

### *Price structures*

21.1.1 Our views on this issue are set out in our **Improving the efficiency of distributors and access to distribution networks** paper and our response to Question 9.

21.1.2 Trustpower agrees with the Panel that consumption based pricing is not likely to be sustainable in the long term. This suggests that all distributors will need to adopt more cost reflective pricing.

21.1.3 Questions then arise as to

a) the level of complexity, degree of standardisation and granularity of the cost-reflectiveness employed;

b) how these changes should be introduced and reviewed; and

c) the extent to which these changes should be voluntary or include prescribed elements.

21.1.4 Trustpower supports distributors being responsible for the pricing methodologies which apply to their networks but is concerned that the Electricity Authority's current market facilitation approach may result in a patchwork of arrangements for distribution pricing and a patchwork of transition arrangements.

21.1.5 There is also the risk of ongoing regulatory intervention if the Electricity Authority does not think the final outcomes proposed by individual distributors align with its interpretation of its statutory objective.

21.1.6 As noted in the **Improving the efficiency of distributors and access to distribution networks** paper such intervention can undermine the efficiency of any price signals.

21.1.7 This suggests structural reform is required. This could be done in in a similar manner to the tiers of responsibility approach we propose for TPM.

### *Efficiency pressures*

21.1.8 Trustpower was one of a number of industry participants, which commissioned an August 2018 report from TDB Advisory entitled *"Estimated Efficiency gains from Amalgamation of Electricity Distribution Businesses"* (**TDB Report**) which we understand has already been submitted to the Panel.

21.1.9 The TDB Report's analysis has revealed that there is considerable difference in the asset operating costs and overheads between distributors which could not readily be explained by

density or size. In other words there are some outliers who appear to have higher than average supply costs.

21.1.10 The fact that some customers could be paying distribution costs which are materially higher than best practice is of concern. A more detailed, firm by firm, analysis is required to understand the sources of the cost variation of these outliers.

21.1.11 We note section 53P of the Commerce Act restricts the Commerce Commission's use of comparative benchmarking on efficiency in order to set starting prices, rates of change, quality standards or incentives to improve the quality of supply.

21.1.12 Our understanding is that this restriction is based on the view that distributors each have unique circumstances, characteristics and histories that render comparison meaningless.

a) However, we are aware that, Consumer Trusts benchmark the performance of their distributor against other distributors when undertaking the periodic reviews of the appropriateness of their distributor ownership arrangements.

b) This suggests that distributors may not be as unique as the benchmarking restriction implies.

c) Further, we note benchmarking is widely used overseas.

21.1.13 Therefore, although we are aware that benchmarking has its limitations, on balance we think it would be a useful element in the Commerce Commission's regulatory toolbox.

### *Business size*

21.1.14 New Zealand's 29 distributors include a relatively large number of small distribution businesses:

a) 21 distributors have less than 50,000 ICPs.

b) Only 5 distributors have more than 100,000 ICPs.

21.1.15 The TDB Report finds that the level of efficiency gains in relation to amalgamating EDBs is relatively modest although some savings in overheads could be achievable.

21.1.16 However, as noted in the **Improving the efficiency of distributors and access to distribution networks** paper, the advantages of having fewer, but larger, distributors are likely to include:

a) greater standardisation of technologies, policies and procedures - this could be particularly useful during the implementation of smart grid technologies and the transition towards distributed energy resources and decentralised network management;

b) improved asset management and planning processes through the application of advanced systems and process across significantly larger businesses;

c) economies of scale and efficiencies in procurement;

d) better risk management processes;

e) the ability to attract superior talent at governance, management and other levels in the organisation;

f) improved ownership/governance arrangements;

g) opportunities from simplification of the regulatory system; and

h) lower transaction costs for other industry participants.

### *Metering*

21.1.17 Page 58-9 of the First Report discuss distributors' concerns that they are not able to access metering data to assist them to manage their networks including during outages.

21.1.18 Trustpower does not believe there are any barriers to distributors acquiring access to meter data:

a) smart meter data is held by metering equipment providers not retailers;

b) retailers contract for a portion of this data, namely consumption data, to assist them with their billing processes and so they can advise customers on their usage;

c) consumption data is not particularly suitable for assisting in an outage situation as it is only received once in a 24 hour period (as this is all that is required for billing purposes); and

d) further this data is subject to privacy obligations, meaning it cannot be transferred to another party without consent.

21.1.19 This does not preclude distributors setting up their own bilateral data access arrangements as some distributors already have.

21.1.20 Therefore we are not sure whether the benefits of an administered open access regime would exceed costs.

### *Governance, asset management and planning*

21.1.21 Trustpower notes that in successive reports the Office of Auditor General has raised concerns about whether the governance of distributors is as effective as it could be.

21.1.22 A range of issues raised have been raised, including in relation to:

a) investments outside of core operations (Scanpower has 33% of Kiwi Sock company: Marlborough Lines has 80% of Yealands winery);

b) the ability of distributors to keep up with the increasing complexity of regulations;

c) the apparent lack of focus by distributors on assets "whole of life";

d) the need to improve risk management practices;

e) the quality of the systems that forecast maintenance costs on assets as they age;

f) the challenges distributors may face in getting data technicians and business analysts to complement traditional engineering and electrician roles; and

g) the adaptability of networks if demand changes more quickly than anticipated.

21.1.23 These are matters which should be further examined as the delivery of secure, reliable efficient, and affordable electricity requires all parts of the sector to be as effective as they can be.

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

22.1.1 The First Report raises the question whether residential prices have increased too much, relative to business prices, such that the current sharing of costs is 'unfair'.

22.1.2 Trustpower notes that at the beginning of the chosen assessment period residential prices were extensively cross-subsidized by business prices and efficiency considerations dictated that these subsidies be unwound.

22.1.3 In relation to the business sector we observe that:

a) many business consumers, especially industrial consumers, do not use much of the distribution network, particularly at peaks, and therefore do not pay for it;

b) many larger business consumers own key parts of the electrical system (e.g. transformers); and

c) there are economies of scale in supplying larger consumers (for example there is only a small cost increase to provide a larger capacity line).

22.1.4 The analysis in the Panel's technical paper shows that there may be scope to shift prices for each consumer category, for example towards the middle of the subsidy-free band or even to push residential prices to the bottom of the band and business prices to the top.

22.1.5 This is likely to require an amendment to the current pricing principles and a requirement that these be made mandatory.

22.1.6 However as noted in a number of our papers, the solution is likely to require complex trade-offs between efficiency and fairness and between different types of fairness and as such are best addressed by politicians.

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

23.1.1 Trustpower agrees that technological developments in the areas of energy efficiency, control, communications and distributed energy resources will increasingly enable customers to exercise control over their energy needs and use.

23.1.2 This will create the need for more active management of distribution networks operating in response to more complex power flows.

23.1.3 This will also create a need for markets to provide platforms on which these products and services can operate.

23.1.4 Trustpower considers that distributors are well placed to act as neutral facilitators of networks infrastructure for others.

23.1.5 However, we agree with the Productivity Commission and the International Energy Agency that distributors' governance and decision-making capabilities, and size will need to be examined in relation to such roles.

23.1.6 It also follows that distributors should be precluded from engaging in contestable activity as this will interfere with their neutrality. This matter is discussed further in our **Improving the efficiency of distributors and access to distribution networks** paper and response to Question 31.

## Summary of feedback on Part Four

## 24 Please summarise your key points on Part Four.

### *Generation*

24.1.1 The current market design and regulatory frameworks have provided:

a) sound signals for the generation investment which has been required to meet demand; and

b) sufficient tools to address any short-term market power in the wholesale *electricity* market.

24.1.2 Some improvements can however be made to ensure that regulatory frameworks will provide the necessary stability for the required '*significant and frequent'* investment in new generation

24.1.3 There may be issues in the wholesale *gas* markets which require investigation because of their impact on the electricity market (as noted in our response to Question 35).

### *Retailing*

24.1.4 There are strong incentives on retailers to understand and respond to individual customer needs and low barriers to entry.

24.1.5 There are a few areas of the current market design which could be tweaked to improve fairness outcomes but this will involve trade-offs between different kinds of equity and/or between equity and efficiency. Decisions around fairness are best made by politicians, not regulators.

24.1.6 Improving affordability (including energy poverty) requires a multi-faceted approach and will require a partnership between Government, regulators and industry.

24.1.7 Current levels of innovation, win back behaviour, price dispersion and switching confirm that the retail market is working well.

24.1.8 Competitive forces and a light regulatory touch will deliver the best long term outcomes for customers **(Recommendation 11)**.

### *Vertical Integration*

24.1.9 Any generator-retailer will have portfolio imbalances over time and across locations as load is seasonal and variable, and renewable generation is variable, and the two generally do not match up at all.

24.1.10 There are a range of tools available to market participants (including independent retailers, merchant generators and generator-retailers) to manage wholesale price risk. The options include vertical integration, contract options and ASX participation.

24.1.11 As a net short retailer we use a combination of these options to manage our risks, as do our competitors. Our procurement need is much larger than the small retailers and we have not experienced any issues with meeting our portfolio requirements.

24.1.12 We agree with the Panel's assessment that generator-retailer profits are not excessive when compared to underlying costs.

### *Transmission*

24.1.13 The design of most parts of the regulation of the transmission system works well, with the exception of TPM.

24.1.14 In relation to the TPM we think that there have been issues with both the legislated process and the Electricity Authority's chosen engagement approach.

24.1.15 We suggest a structural change to the process by which decisions are made and the entities who make them, including a return to the previous tiers of responsibility. This involves Ministerial determination of binding pricing principles (first tier), regulatory oversight of the process and criteria for developing the TPM to meet these principles (second tier), and Transpower having primary responsibility for establishing the TPM itself (third tier) **(Recommendation 12)**.

### *Distribution*

24.1.16 There are opportunities to simplify the current price quality paths and extend these simplified paths to all distributors. There are also a few areas where the current design of price path methodologies could be 'tweaked' in the interests of improving affordability. We also suggest that it is given powers to cross-compare the performance of distributors through benchmarking analysis **(Recommendation 13 and 14)**.

24.1.17 The price structures of distributors also need reform as there are inefficiency risks in having 29 different pricing and transition solutions. When fairness considerations are added to the mix, the case for continuing the current approach diminishes. Therefore, we recommend structural reform and the adoption of a "tiers of responsibility" approach for both transmission and distribution pricing reform **(Recommendation 12)**.

24.1.18 There appears to be a case for examining the business size and governance of distributors in the context of the transformational change that is expected for this sector **(Recommendation 12)**.

24.1.19 We are not confident a business case for a data access regime will be positive and think this issue needs to be further explored to separate the myths from the reality.

24.1.20 In relation to the regulation of retailer access we are comfortable with the Electricity Authority's recent decision to adopt a default agreement but less comfortable with the prospect of ongoing retroactive reform of the regulation of the access of distributed generation to distribution networks. Our proposed solution to these issues is set out in response to Question 31.

## Solution to issues and concerns raised in Part Four

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

Trustpower suggests that the Electricity Price Review recommends to Government that it:

**Recommendation 11**: Continues to rely on competition as the best method for delivering efficient outcomes in the generation and retail sectors.

**Recommendation 12**: Addresses the current issues in relation to transmission and distribution pricing by:

- developing a mandatory GPS that sets out the pricing principles which should apply for access to the transmission and distribution systems;
- requiring the regulator to develop rules which set out the process and criteria which should apply to the development and review of transmission and distribution pricing methodologies; and
- providing that Transpower and the distributors are to develop their tariff structures in accordance with the pricing methodologies, processes and criteria, respectively developed by the Minister and the regulator.

**Recommendation 13**: Simplifying the current price quality paths and extend these simplified paths to all distributors.

**Recommendation 14**: Consider if affordability will be enhanced if:

- the Commerce Act is changed to allow the Commerce Commission to undertake benchmarking analysis, and set the x-factor to incentivise rather than anticipate efficiencies;
- if guidance should be given to the Commerce Commission to consider the Totex methodology to incentivise the contestable procurement of non-wire alternatives; and
- there was consolidation of distributors (or their activities).

## Part five of the First Report: Technology and regulation

### Technology

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

26.1.1 We agree with the Panel's assessment of the potential for technological advances to change both individual markets for products and services, and the structure of the market itself. We discussed some of these changes in our **Fit- for-purpose regulatory frameworks** paper.

26.1.2 What is at this stage less clear, is the pace of this change as it will in part depend on the economics of new technology, the rates at which new business models (including potentially data-based disruptors such as Amazon) arise and how customer preferences change.

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

27.1.1 We agree with the Panel's analysis of the potential pricing impacts of new technology.

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

28.1.1 Emerging technology will change how security of supply, resilience and prices are considered going forward.

28.1.2 Transpower recently highlighted some of the challenges that will need to be overcome:

> *"Technology, data, communication and privacy innovation will be needed to ensure system operators can successfully integrate distributed generation and storage into the electricity supply system. Much of this change will be enabled by effective operation of existing competitive markets."*[18]

28.1.3 We agree that the adoption of emerging technology may require further distribution network investment and that the network topology is likely to change over time, becoming more dynamic and bi-directional.

28.1.4 However it is unclear what types of investments to support a changing network topography will be required and over what timescale, and by whom.

### Regulation

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

29.1.1 Trustpower does not support the re-inclusion of the environmental sustainability, fairness and energy efficiency into the objectives of the industry regulators as such re-inclusion could result in risks of duplication and with the activities of other agencies and give rise to significant interpretational issues.

[18] Page 54.

29.1.2 Instead we think:

a) environmental objectives are best dealt with under the bespoke auspices of the Resource Management Act, and other specific Acts such as Energy Efficiency and Conservation Act and Climate Change Response Act;

b) as noted in our response to Question 14 there needs to be a process to ensure more alignment in thinking across energy regulation, climate change and resource management; and

c) social-political objectives, such as fairness, are best determined by politicians.

29.1.3 As noted in response to our response to Question 19, the best vehicle to convey to industry regulators the Government's preferences around the trade-offs associated with the new trilemma (fairness, affordability and competitiveness) is a GPS.

29.1.4 Currently, section 26 of the Commerce Act provides that:

> *In the exercise of its powers under this Act, the Commission **shall have regard to** the economic policies of the Government as transmitted in writing from time to time to the Commission by the Minister.*

and section 17 of the Electricity Industry Act provides that:

> *In performing its functions, the Authority **must have regard to** any statements of government policy concerning the electricity industry that are issued by the Minister.*

29.1.5 There is settled case law as to the meaning of "*have regard to*". Thus in *Kiwifruit*, the Commerce Commission expressed the view:[19]

> *"…s 26 may be used to advise the Commission of Government policy or policies or to be more specific in relation thereto**. It is not to influence or determine the decisions which the Commission must make**. Thus, fully preserving the discretions given to the Commission in the Act, the Commission is required only to have regard to such statements in reaching its decisions. **The Oxford Dictionary defines the word 'regard' as meaning 'attention, heed and care'**."* (**emphasis added**)

and the High Court in *NZ Co-op Dairy Ltd* considered that the Commission took the correct approach in *Kiwifruit*:[20]

> *"As with any other evidence it is for the tribunal to assess the weight to be given to each item of evidence and in the case of a statement of this kind, which in our view is simply an evidentiary statement of Government policy — **it is certainly not a direction — it remains for the tribunal to assess the weight to be given to it as an expression of official perception of, in this case, public benefit.** We do not think there is any magic in the words 'have regard to'. They mean no more than they say. **The tribunal may not ignore the statement. It must be given genuine attention and thought, and such weight as the tribunal considers appropriate**. But having done that the tribunal is entitled to conclude it is not of sufficient significance either alone or together with other matters to outweigh other contrary considerations which it must take into account in accordance with its statutory function."* (**emphasis added**)

29.1.6 In the light of this case law and the industry regulators current statutory objectives, we think it should be mandatory for the relevant regulator to "*give effect to*" any GPS on the pricing principles that apply to transmission and distribution networks.

29.1.7 We acknowledge this will require a change to the relevant Acts.

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[19] p 104, p 494

[20] pp 612, 613

29.1.8 We also draw your attention to our comments on the Electricity Authority's statutory objective in our **Fit-for-purpose regulatory frameworks** paper where we recommended that section 15 of the Act is amended to clarify that:

a) when exercising its rule-making functions , the Electricity Authority needs to take into account the risk faced by those making long-life investments (because it has power to change industry rules at any time); and

b) the Electricity Authority's primary task is to promote competition and (not to assess the overall efficiency of investment).

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

30.1.1 As set out in our **Delivering fairness in a competitive market** paper, we consider that the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 (**LFC Regulations**) are mis-targeted as a social policy. As a result we support the repeal of the LFC Regulations.

30.1.2 In our view, it makes sense to align the date of repeal of the LFC Regulations with the implementation of new default price-quality paths on 1 April 2020.

30.1.3 However we suggest there is a transition period over a number of years to avoid the impact of having parallel changes arising from:

a) new default price-quality paths (which might change the size of the pie); and

b) new cost-reflective tariffs (which will potentially recut the pie) which will be in various stages of implementation.

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

### *Oversight of access regulation*

31.1.1 For the reasons set out in our **Fit for Purpose regulatory frameworks** paper, we have concerns about the split allocation of responsibility for access regulation between the Electricity Authority and the Commerce Commission.

31.1.2 We agree that there are boundaries issues in relation to access regulation as evidenced by:

a) both the Electricity Authority having jurisdiction to determine different elements of the access service; and

b) Vector's appeal of the High Court decision which determined that the Electricity Authority did have power to mandate access terms.

31.1.3 Our solution as set out in our **Improving transmission access** paper and **Improving the efficiency of distributors and access to distribution networks** paper is that responsibility for all access regulation is transferred to the Commerce Commission.

31.1.4 In relation to transmission this would include grid reliability standards, which assets form part of the core grid, and the terms of the default transmission agreements.

31.1.5 In relation to distribution this would include the default distribution agreement and rules which apply to the connection of distributed generation.

31.1.6 We note that consequential changes to the Commerce Commission's statutory objective will be required to reflect the fact that access is provided for the benefit of those who operate in competitive markets.

### *Boundary between contestable and non-contestable activities*

31.1.7 There is also a separate issue about whether the boundary between the distributors and the competitive sector has been set in the appropriate place and is being appropriately monitored.

31.1.8 In our **Improving the efficiency of distributors and access to distribution networks paper,** we have recommended that the Government;

a) tighten the ring-fencing arrangements in Part 3 of the Electricity Industry Act to prevent distributors from participating in competitive businesses;

b) make a variety of changes to the Commerce Act to address the boundary issues that have arisen in relation to the Commerce Commission's regulation of distributors and investment in emerging technologies by the competitive sector; and

c) transfers responsibility for oversight of the Part 3 rules to the Commerce Commission.

## 32 What are your views on the assessment of whether the regulatory framework and regulator's work plans enable new technologies and business models to emerge?

32.1.1 There are no restrictions on the Electricity Authority changing the legislation to accommodate new technologies, although as noted in our response to question 31 there are some constraints on the Commerce Commissions regulation of distributors that need to be addressed.

32.1.2 Both industry regulators are aware of disruption from emerging technologies and both regulators have work underway to address the impacts of this disruption. However we note their approach to regulation is very different.

32.1.3 The Commerce Commission has recently told the Panel that:

> "*it is difficult for us to properly judge the adequacy of the current regulatory environment in regards to changes to the market before they occur*."

32.1.4 In contrast the Electricity Authority is more comfortable interpreting its role as "*leading the market*".

32.1.5 A recent example of this was its consultation on its *Multiple Trading Relationships – How can consumers choose multiple electricity service providers* paper (**MTR paper**) where the Authority explored options to allow multiple electricity services from different providers at the same time and in the same location.

32.1.6 This looks like a good idea in theory until you examine the degree of change that would be required to the current market rules, systems and processes which have been developed around a single consumer-retailer relationship. At this point the proposal just becomes scary.

32.1.7 In our submission on the Electricity Authority's MTR paper we said:

> *"The motivation for this paper seems to be a desire to change the rule book so no innovation is lost as a result of the rules, rather than a balanced assessment of where consumer interests might lie*
>
> *We think of this as the regulator "leading" the market, rather than responding to market failures as they arise.*
>
> *The risk is that the resulting regulatory uncertainty stifles innovation from those who already have expertise and experience with the current rules and have developed or are in the process of developing innovative products to supply customer preferences under the existing regulatory framework.*
>
> *A cautious and balanced approach is required."*

32.1.8 This can best be achieved by an approach based on evidence rather than conjecture.

32.1.9 Leading the market involves forecast risk and picking a winner.

32.1.10 We prefer the Commerce Commission's evidence based approach but in the interests of utter candour we note that we are likely to disagree with both regulators from time to time about when they have sufficient evidence to act.

32.1.11 For example on the issues around distributor investment in new energy technologies foreclosing emerging markets we are probably closer to the Electricity Authority than the Commerce Commission as we think there is sufficient evidence that this risk is already upon us.

32.1.12 As suggested in our **Fit-for-purpose regulatory framework** paper, a policy development charter could be a useful vehicle for establishing the pre-requisites for changes to industry rules.

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

### *Consumer voice*

33.1.1 Trustpower raised the question of how utility customers engage with policy and regulatory decision-makers in its **Fit-for-purpose regulatory frameworks** paper.

33.1.2 We noted:

a) that in the new customer-centric model customers will make their own decisions and that those decisions will not necessarily be the same;

b) customers face considerable challenges in participating in regulatory consultation processes; and

c) that better outcomes would be obtained if resource was available to assist consumers engage with decision-makers across multiple sectors.

33.1.3 This led us to recommend that the Panel accept the International Energy Agency's suggestion to establish a consumer agency to provide advice on both the substantive issues and effective consumer engagement processes **(Recommendation 1)**.

### *Pace of change*

33.1.4 Trustpower does not consider that the TPM process is representative of any systemic issues with the pace of change.

33.1.5 As noted in the **Fit-for-purpose regulatory frameworks** paper the Electricity Authority has wide powers to change the Code and it can exercise these powers at any time (including if circumstances warrant it under urgency).

33.1.6 The breadth of these powers raise issues as to the accountability framework under which they are exercised. This matter is discussed in our **Fit-for-purpose regulatory frameworks** paper and paragraph 33.1.9-33.1.11 below.

### *Authority's functions*

33.1.7 Trustpower agrees that it is generally not good practice to co-locate the functions of rule-maker and rule-enforcer.

33.1.8 We note that the risks around this practice are exacerbated by:

a) the design of the electricity compliance regime which gives the Rulings Panel a very limited role in relation to the investigation and settlement of disputes; and

b) the extent to which the Electricity Authority undertakes rule-enforcement and dispute mediation in house.

33.1.9 We think that the model adopted by the Gas Industry Co where the investigation function is outsourced and the Rulings Panel has a greater role in settling disputes would alleviate stakeholder concerns without the cost of establishing a separate institution.

### *Authority's decisions*

33.1.10 As noted in our **Fit-for-purpose regulatory frameworks** paper we do not think the Electricity Authority faces sufficient accountability for the width of its powers. Therefore, we would support the introduction of appeal rights.

33.1.11 However, we see recourse to the courts as very much a last resort. Our preferred accountability measures are *ex ante* not *ex post*.

33.1.12 This is why we suggested in our **Fit-for-purpose regulatory frameworks** paper that the Electricity Industry Act be amended to require the Electricity Authority to develop a policy development charter for approval by the Minister (following consultation).

33.1.13 The purpose of this charter is to address the issues that stakeholders have had in relation to the Electricity Authority's rule-making processes, including in relation to TPM and DGPP reform.

### *Price-quality regulation*

33.1.14 As set out in our response to Question 20 and our **Improving the efficiency of distributors and access to distribution networks** paper we propose a simplified form of price-quality regulation which could apply to all distributors **(Recommendation 13)**.

### *Regulatory costs*

33.1.15 Our solution to the rising costs of regulation is to amalgamate some of the functions currently undertaken by energy regulators and establish one regulator as a 'centre of excellence' for access regulation.

33.1.16 In our **Fit-for-purpose regulatory frameworks** paper, we suggest that the Panel "consider transferring the market monitoring and some or all of the rule-making functions of the Electricity Authority and the Gas Industry Co to the Commerce Commission".

33.1.17 Having reflected further on this issue and considered the Panel's comments in the First Report, we suggest the following reallocation of roles:

a) the transfer of all access regulation to the Commerce Commission; and

b) the transfer of the remaining functions of the Gas Industry Co to the Electricity Authority.

33.1.18 Over the longer term consideration could be given to amalgamating the various consumer dispute resolution schemes (for example telecommunications).

## Summary of feedback on Part five

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

34.1.1 We generally agree with the Panel's assessment of the range of impacts emerging technology will have on the supply chain and electricity customers including in relation to price and security of supply.

34.1.2 Both industry regulators are aware of the disruption from emerging technology but the approach they are following is very different. The Electricity Authority seeks to "lead the market" which gives risks associated with forecasting and picking the wrong solution.

34.1.3 The re-inclusion of environmental and social/political objectives into the statutory objectives of the industry regulators is likely to result in duplication with the activities of other agencies and give rise to significant interpretational issues.

34.1.4 Fairness objectives are best addressed in a mandatory GPS. We acknowledge this will require changes to the relevant Acts **(Recommendation 15)**.

34.1.5 Changes to the industry regulators' statutory objectives are required to:

a) ensure the Electricity Authority takes into account the risks of those making long life investments;

b) clarify that the Electricity Authority's primary task is to promote competition; and

c) enable the Commerce Commission to take into account the interests of end-users of lines and energy services and not just lines services **(Recommendations 16 and 20)**.

34.1.6 The Electricity Authority has wide powers to change the code but the breadth of these powers rises accountability issues. We have suggested a policy development charter to enhance *ex ante* accountability and new appeal rights to address export issues **(Recommendation 21)**.

34.1.7 The LFC Regulations are mis-targeted and should be repealed over a number of years **(Recommendation 17)**.

34.1.8 A single regulator should be established as a 'centre of excellence' for access regulation, rather than the current split of roles. This is a natural fit with the Commerce Commission **(Recommendation 18)**.

34.1.9 Regulatory costs could be lowered by a reallocation of roles amongst the industry regulators **(Recommendation 19)**.

34.1.10 There are design changes which can be made to the Electricity Authority's compliance regime which would reduce the risks around the co-location of rule-making and rule-enforcement functions **(Recommendation 22)**.

34.1.11 A consumer advocacy body is required **(Recommendation 1)**.

34.1.12 Changes need to be made to the regulatory frameworks which govern the border between contestable and non-contestable markets. This should include tightened ring-fencing arrangements under Part 3 of the Electricity Industry Act, as well as a variety of refinements to the Commerce Act **(Recommendation 23)**.

## 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.

Trustpower suggests that the Electricity Price Review recommends to Government that it:

**Recommendation 15**: Amends the Commerce Act and Electricity Industry Act to require the relevant regulators to give effect to any GPS issued in relation to the pricing of transmission and distribution.

**Recommendation 16**: Amends the statutory objective in the Electricity Industry Act to clarify that:

- when exercising its rule-making functions, the Electricity Authority needs to take into account the risks faced by those making long life investments; and

- the Electricity Authority's primary task is to promote competition (and not to assess the overall efficiency of investment).

**Recommendation 17**: Repeals the LFC Regulations over a period of years to minimise the impact of parallel price changes on customers.

**Recommendation 18**: Transfers the rule-making functions of the Electricity Authority in relation to network access to the Commerce Commission including responsibility for determining:

- grid reliability standards, which assets form part of the core grid, and the terms of the default transmission agreements; and
- default distribution agreement and the rules which apply to the connection of distributed generation.

**Recommendation 19**: Transfers the responsibility for developing:

- regulations that set the terms and conditions for access to gas transmission and distribution pipelines from the Gas Industry Co. to the Commerce Commission; and
- the remaining functions of the Gas Industry Co. to the Electricity Authority.

**Recommendation 20**: Amends the statutory objective in the Commerce Act to reflect its new roles.

**Recommendation 21**: Amends the Electricity Industry Act to:

- require the Electricity Authority to develop a policy development charter for approval by the Minister (following consultation) to address the issues stakeholders have had with its current rule-making processes and provide further accountability; and
- to provide rights of appeal in relation to the Electricity Authority's decisions.

**Recommendation 22**: Establishes a process to undertake a holistic review of the compliance regimes of both the Electricity Authority and Gas Industry Co with a view to reduce the risks associated with the co-location of the functions of rule-maker and rule-enforcer.

**Recommendation 23**: Ensures there is a clear separation between the monopoly and competitive parts of the sector by:

- reviewing the rules relating to the separation of distribution from generating and retailing in Part 3 of the Electricity Industry Act to prevent distributors from participating in competitive businesses;
- amending the Commerce Act to address the boundary issues that have arisen in relation to the Commerce Commissions regulation of distributors and the investment in emerging technologies by the competitive sector; and
- transferring responsibility for oversight of the Part 3 rules to the Commerce Commission.

## Additional information

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

#### *Recent gas market event*

36.1.1 Recent events in the gas market, where fuel constraints (gas and hydro) are resulting in widening spreads on the ASX futures market, have raised questions about information transparency and short term market power in the gas market. This suggests an investigation may be required.

36.1.2 However, it is not clear which agency (Gas Industry Co, Commerce Commission or MBIE) will take the lead in providing those answers and whether they have the powers and in some cases incentives to do so.

36.1.3 This provides further support for a recommendation we made in our **Fit for purpose regulatory frameworks** paper that the Government consider transferring the market monitoring functions and some or all of the rule-making functions of the Electricity Authority and the Gas Industry Co to the Commerce Commission.

36.1.4 In Part 5 we suggest transferring access regulation to the Commerce Commission. We suggest that market monitoring is also transferred to this organisation once it has its new market study powers **(Recommendation 24)**.

### *Security and Reliability Council*

36.1.5 We note that in the 2010 reforms Transpower assumed responsibility for certain functions previously undertaken by the industry regulator.

a) These included roles in relation to information and forecasting, and emergency conservation.

b) In addition, the reforms proposed the establishment of a Security and Reliability Council, comprising senior level people from the electricity sector including electricity users, to meet periodically to help monitor and provide advice on the performance of the electricity system and the system operator and on security of supply issues generally.

36.1.6 Section 20 of the Electricity Industry Act implements this recommendation and a Security and Reliability Council has been established pursuant to this section.

36.1.7 Trustpower's Chief Executive is a current member of the Security and Reliability Council.

36.1.8 The advent of emerging technologies suggests a review of the role of this group is required.

36.1.9 We think that in addition to Transpower's actions as system operator, the activities of other players including new distribution service operators and, it has to be said, the actions of the regulators could also have an adverse impact on the performance of the electricity system and reliability of supply issues.

36.1.10 Gas is also very important to security of supply as recent events have shown.

36.1.11 Therefore, we recommend the role of this organisation be widened to cover these matters and strengthened by the provision of separate funding and resources **(Recommendation 25)**.

Trustpower suggests that the Electricity Price Review recommends to Government that it:

**Recommendation 24**: Transfers responsibility to undertake market studies into the electricity and gas sectors to the Commerce Commission.

**Recommendation 25**: Widens the role of the security and reliability council to include any event which could have an adverse effect on the energy system and reliability of supply, and that separate funding and resources are provided to facilitate this oversight.

# Meeting customers' energy needs…

**Electricity Price Review**

Trustpower's views on how to ensure a high ranking against the new trilemma of affordability, fairness and competitiveness and ensure that customers' energy needs can be addressed

October 2018

# Introduction

## Terms of reference

The overarching objective of the Electricity Price Review is to:

> "*…ensure that the New Zealand electricity market delivers efficient, fair and equitable prices as technology evolves and we transition to a lower emissions future, taking into consideration the requirements of environmental sustainability and the need to maintain security and reliability of supply¯the energy trilemma*".

The terms of reference also requires specific consideration of the price outcomes of different customer groups:

*"The review will report on:*

- ***Variations in price across different customer groups**.*
- *The **proportion of household income spent on electricity bills** and how this varies between different customer groups."*

*"The review will examine whether the prices paid by end-consumers for electricity are efficient, fair and equitable. Relevant perspectives on fairness and equity include:*

- *Whether **all consumers have access to affordable electricity services**…*
- *Whether the **costs of providing electricity services are or should be socialised or spread evenly across different classes of consumers** (e.g. households and businesses), or across regions, or urban and rural communities."*

*"The review will consider:*

- *The **existence of, or potential for, informational asymmetries, and the impact on electricity customers with differing behavioural patterns** (and therefore different consumption profiles).*
- *The existence of, or potential for, regulatory failure including the impact of the low fixed charge regulations, and **the impact on differing customer segments.**"*

*"The review will consider:*

- *The impact of market conduct and regulation **on a range of customer segments.** This should include, but not be limited by, regional distributions, household income levels and broad consumer group (i.e. residential, industrial, and commercial).*
- ***The nature of cost allocations and level of any cross subsidisation between consumer groups** (including businesses and households, and urban and rural communities), including the impact of the low fixed charge regulations."*

*"The review will consider:*

- *The potential impacts of emerging technology on services and prices**, and how this may affect different customer groups."***

## First Report

The First Report comments on a number of issues which the Panel has identified with the industry delivering the desired outcomes for different customer groups.

It then sets out the Panel's challenge for New Zealand to replicate its most recent World Energy Council ranking of eighth out of 125 countries in 2018:

- for the energy trilemma of **security of supply, equity and environmental sustainability**); and
- for a new trilemma of **fairness, affordability and competitiveness**.

This is a worthy, and audacious goal. It will require a fine balancing act between the various objectives, not just in relation to relative priorities, but also in relation to the likely effects of any policy changes on customer outcomes in the short, medium and long term.

## Outline of paper contents

This paper draws on and expands the views in our **Delivering fairness in a competitive market** paper.

It provides further information on Trustpower's:

- experience as an electricity retailer in meeting customers' energy needs;
- views on the current state of fairness, affordability and competitiveness; and
- suggestions on how fairness, affordability and competitiveness experienced by certain customer groups can be enhanced,

before presenting an updated set of recommendations for the retail market.

The material in this paper is relevant to our answers to the following questions in the First Report:

- Questions 1-3 (consumer's priorities, voice and trust);
- Questions 4-6 (assessment of retail electricity prices);
- Questions 7-9 (assessment of size, causes and outlook for affordability);
- Questions 15 (assessment of retail sector performance);
- Question 33 (assessment of other matters affecting the regulatory framework); and
- Questions 11, 25 and 35 (solutions to identified issues).

The Panel's attention is also drawn to our **Fit-for-purpose regulatory frameworks** paper forwarded to the Panel at the same time as our **Delivering fairness in a competitive market** paper and our companion papers to this paper:

- **Understanding retailer costs and risks** paper;
- **Improving transmission access** paper; and
- **Improving the efficiency of distributors and access to distribution networks** paper.

# Trustpower's journey so far

## A unique path forged to become a multi-utility retailer

Since the Tauranga Electric Power Board was corporatised in 1994, Trustpower has forged a unique path to become New Zealand's pre-eminent multi-utility retailer.

After electing to sell our electricity distribution business in 1998, we have taken a divergent path from other local electricity companies and focussed on building our retail business. This has not been easy and we have had to work hard to achieve the success we have. A history of Trustpower since 1994 is presented in Diagram 1 below.

Our success has hinged off:

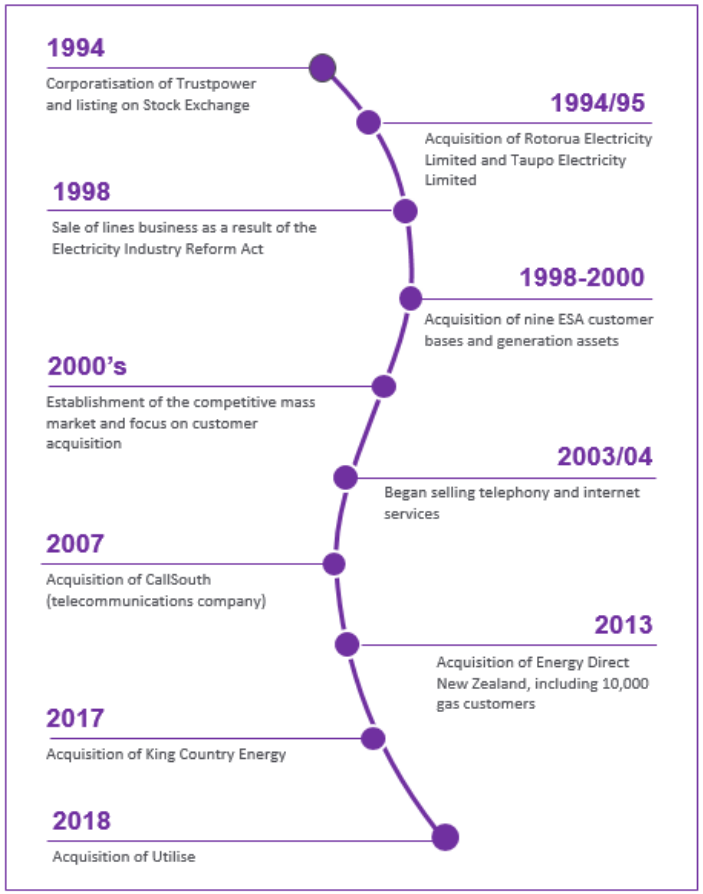
- A history of acquisition of the customer bases of a number of smaller retailers, including the purchase of Call South in 2007 and Energy Direct New Zealand in 2013. These two purchases supported Trustpower's retail entry in both the telecommunications and gas markets, respectively.
- The provision of a unique and highly competitive retail offering which allows customers to bundle electricity, gas and telecommunications services, including ultra-fast broadband.
- A continued focus on providing great customer service to win and retain customers.

We currently serve almost 230,000 electricity customers, more than 90,000 broadband customers, and almost 40,000 gas customers, with more than 100,000 of those customers purchasing two or more utilities.

Trustpower also operates a generation portfolio consisting predominantly of smaller hydroelectric stations scattered throughout New Zealand. The generation from these assets is equivalent to meeting less than 2/3rds of our retail electricity customer's demand.

Today, with almost 13% retail market share by connection, and generating about 4% of New Zealand's electricity, we are New Zealand's largest net retailer of electricity by some margin. We are also New Zealand's fourth-largest internet service provider.

**Diagram 1: A History of Trustpower since 1994**



## Retailing in a highly competitive market

The current energy market structure and regulatory frameworks were originally put in place around twenty years ago, and since that time have continuously evolved to meet the changing energy needs of New Zealanders.

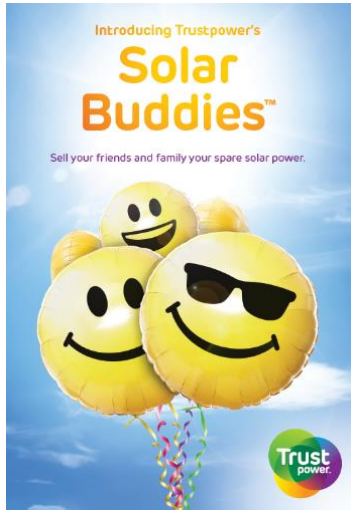
In electricity a vibrant, dynamic and highly competitive retail market has emerged where retailers compete for customers in a variety of ways, including on price and services levels, and with incentive and loyalty programmes.

While barriers to entry into the retail electricity market are low, the competitive dynamics of the retail market mean that as a retailer we need to have a deep understanding of our customers and continue to invest in new technologies and explore partnerships that provide more value to our customers.

Trustpower is committed to delivering customers what they want. This means we are routinely undertaking market research and constantly evolving our market offers to reflect changes in customer preferences.

Our market insights suggest that, at the most basic level retail, customers want:

- offers and pricing that is straightforward and easy to understand;
- to feel valued as a customer;
- good prices;
- a retailer that is easy to interact with; and
- great, efficient and personalised service on those occasions when they need to be in touch with their retailer.




Some of our recent initiatives include:

- the launch of Solar Buddies which allows our customers with solar panels to sell extra power to their buddies every month at a price they agree amongst themselves (which could be zero), rather than selling directly back to Trustpower;
- electricity, gas and telco bundles, with the option of a free Samsung appliance, or Neon/Fan Pass package depending on the terms of the contract; and
- the launch of Hopsta, our new retail brand, which offers unlimited power and broadband data plans to customers living in apartments.

## A continued customer and community focus

Given the vibrancy and dynamism of the retail market, Trustpower is continuously focussed on meeting the evolving customer service needs of our new and existing customers.

This is reflected in:

- the strong focus we put on ensuring our customers have top quality service whenever they interact with us– as recognised by the awards we have won in this space;
- recent customer service initiatives to make it easier for our customers to engage with us, such as development of chat-bots and our smart phone app; and
- our continual support of the community through initiatives such as the Trustpower Community awards, donation of community vehicles, sponsorship of Ronald McDonald House and sponsor of the Trustpower/TECT rescue helicopter.

Trustpower understands that access to affordable energy is essential for customers, particularly vulnerable customers.

We have put in place a number of initiatives to assist customers in need and taken a leading role within the industry in driving better outcomes for medically dependent and vulnerable customers.

Vulnerable Customers (**VC**) make up approximately 3% of our customers base. Medically Dependent Customers (**MDC**) make up approximately 0.8% of our customer base. Our general approach is to be flexible and proactively work with all customers when they get into debt (not just VCs and MDCs). This will at times require working with agencies such as Work & Income, Citizens Advice Bureau, Budget Advisors and the District Health Boards (**DHB**s) to find ways to ensure customers are able to pay both their monthly bills and their outstanding debt. As discussed on the following page, we have worked hard with other retailer and our agency partners to improve outcomes for our most vulnerable customers

Similar to a number of other retailers we offer Smooth Pay, which can allow for debt to be paid back over a twelve month period. We have also more recently undertaken an internal initiative to empower our Customer Service Agents to make more decisions around how to support vulnerable customers through hardship.

An important aspect of our focus for these customers is to improve energy literacy and to equip them will the tools required to not get into debt again, through forging partnerships with relevant social agencies. We continue to actively work with ERANZ in this important area.

We are aware that for a small number of our customers, gas is also an important fuel source. Although gas is not available throughout New Zealand, for those who already live in homes with gas infrastructure, gas should not be considered a luxury fuel. The whole energy equation needs to be considered – not just electricity.

## Case Study: Cross-industry voluntary management of Vulnerable and Medically-Dependent Customers

In 2014 the Minister of Energy expressed concern for the increasing levels of electricity customer disconnections and the implications this may have on vulnerable consumers. Led by Trustpower, retailers formed a working group (("**RWG**)") with stakeholders to address these concerns.

The RWG's original scope and objectives were to:

- promote consistent application of the existing Vulnerable Consumer Guidelines (VC guidelines) industry-wide, to ensure the best outcomes for all consumers and retailers;
- improve relationships and processes between retailers and social and support agencies;
- improve internal and external processes to ensure disconnection is a last resort; and to
- Improve reporting and communication thereof.

Throughout the process, retailers engaged with a wide range of social and support agencies, and other stakeholders, shown below.

| | |
|---|---|
| Family budgeting services | Ministry of Social Development |
| Consumers Institute | Ministry of Health |
| Community Support organisations | Ministry of Business, Innovation, Employment |
| Salvation Army | Electricity Networks Association |
| St Vincent de Paul | Electricity Authority |
| | Electricity and Gas Complaints Commission |

A major achievement of the RWG was the progress made in improving processes to proactively and jointly assist vulnerable customers with Work & Income. Through a collaborative approach, retailers and Work & Income defined and agreed escalation protocols, and shared contact lists at the different points of escalation. The RWG has since worked with the New Zealand Federation of Family Budgeting Services (NZFFBS) to implement an equivalent protocol nationwide.

The group is now governed by the Electricity Retail Association of New Zealand (ERANZ), and has subsequently increased the scope of its activities to ensure consistent application of the existing MDC guidelines. It has been working with network companies and health officials to achieve this.

It is Trustpower's belief that the energy sector, along with government and support agencies, can collaborate, drive and bring about significant improvements for those experiencing energy poverty.

# Applying the new trilemma

## A balancing act

The new trilemma suggested in the First Report represents a formidable challenge that will need to be considered in the context of also continuing to perform well against the existing energy trilemma – security of supply, equity and environmental sustainability.

This is a significant change and will require:

- clear guidance from the Government to ensure that the plethora of objectives does not cause confusion, particularly when trade-offs are required in the short, medium and long term; and
- a number of careful and very considered decisions how to achieve the right balance between the objectives– either, via competitive forces or regulation, or a combination of both.

### *Competitive forces vs regulation*

Trustpower's strong preference is to continue to adopt a market-orientated approach to the industry's design, supplemented with targeted evidence based regulatory interventions when needed.

Markets operate better when retailers are able to innovate and customers can make decisions for themselves. Retailers in New Zealand have become exceptionally good at identifying the ever changing needs of customers and adjusting their offers to reflect these. We do not consider that a regulator would perform better in this space.

In our view:

- allowing competitive forces to drive market outcomes results in better outcomes for consumers; and
- as demonstrated in our **Delivering Fairness in a competitive market** paper there are risks of unintended consequences and cost in requiring regulators to make decisions around what all customers want – which is ultimately what is required under a regulated solution.

For instance, end-user tariff structures are currently designed by retailers based on customers' desires. The retail market can be relied on to pass through signals that customers determine are ultimately in their best interests.

- For example, we are observing that a segment of mass-market customers have a desire to be exposed to wholesale spot prices, and are voting with their feet. If this segment grows, the retailer(s) offering this product will grow their market share; those not will lose their customers, unless they respond with an equivalent (or better) product.
- We also observe that some retailers are providing explicit breakdowns of the charge on customer's bills, while other retailer do not. Again, if customers have a genuine interest in seeing this breakdown, more retailers will begin to provide this information or their customers will switch to retailers that do.
- Therefore, if it makes more economic sense for a retailer to pass price signals through directly to its customers, rather than shield their customers from their effects, then those retailers that do not initially pass the signals through will quickly need to change their behaviour.

### *Light touch is required*

This suggests a combination of market driven incentives/nudges and light handed regulatory solutions will best assist New Zealand to achieve further progress against its new trilemma ranking.

However, before making any decision around how to elicit the right balance between the objectives of the new trilemma and the method by which to go about this, it is important to clearly identify those areas where changes to the market design are required.

The First Report highlights a range of different matters that have been identified during the initial fact finding phase of the review, with the intent of stimulating discussion around any problems in the sector and eliciting solutions. Many of the matters identified will have direct implications on the industry's ability to rank highly against both trilemma.

In order to effectively focus the conversation at this stage in the review, we consider that it is important to clearly delineate those points which have been raised that actually reflect the outcomes expected of a workably competitive retail market and those which relate to areas where improvements could be made to the current market arrangements.

We strongly caution that without providing sufficient context around the matters raised in the First Paper it can be easy to draw wrong conclusions on the performance of the retail market to date and on the reforms that will be needed to achieve a high ranking against both stated trilemma.

### *The Lantau Group's advice*

To assist us in considering the matters raised in the First Report, we engaged expert advisors The Lantau Group (**TLG**). While The Lantau Group's advice has been predominantly on the role of competition in retail electricity markets, it does extend to matters relating to the other two limbs of the trilemma - affordability and fairness.

A copy of The Lantau Group's report is provided as an attachment to this submission.

The following sections of this paper are intended to provide greater context around the fairness, affordability and competitiveness, of the current retail market arrangements and identify those areas where further change may be warranted, along with how to best achieve that change, i.e. either, via competitive forces or light handed and focussed regulatory interventions, or a combination.

# Fairness

## Introduction

As noted in our **Delivering fairness in a competitive market** paper the review applies the lens of fairness to the current market arrangements for the first time.

This will involve making decisions around distributional concerns and require a clear understanding of what is fundamentally being sought by the objective of fairness so that this can be accounted for when considering "*what is fair*" on a case by case basis:[1]

> *"A "fair" system that leads to inefficient usage and investment will ultimately compromise the original objective of fairness if it reduces economic growth, raises overall costs through inefficiency, or otherwise leads to those whose prices rise taking greater actions to mitigate their exposure to electricity costs, thereby silently shifting the burden of cost recovery to others."*

## Core issues

Three core fairness issues stand out:

1. The need to ensure comprehensive coverage of minimum retail terms;
2. The effect of prompt payment discounts; and
3. The impact of network pricing on different customer groups.

### *Minimum retail terms*

In our **Delivering fairness in a competitive market** paper, we also noted that one of the impacts of low entry barriers in the retail market is that there is likely to be a continued entry and exit of retailers at different times. This in turn creates a risk that individual customers might not get the benefit of some of the voluntary arrangements, which currently guide the industry.

This is why we suggested in our **Delivering fairness in a competitive market** paper that the Panel recommends to the Government that it makes:

- the voluntary good practice contracting minimum terms and conditions for domestic retail contracts mandatory; and
- the voluntary guidelines on arrangements to assist vulnerable customers and MDCs mandatory.[2]

Having reflected on this further we also note a similar issue may arises in relation to the customers of embedded networks and access to independent complaints resolution services.

Regulation could address these issues as well and ensure that trust in the electricity sector continues to be high,

### *Prompt payment discounts*

The issue of PPDs has been in the news recently with one of our competitors voluntarily offering to remove them. Trustpower has been considering a similar response.

[1] The Lantau Group. *Retail Competition Effectiveness* (2018, p. 10).

[2] We note that the minimum terms and conditions and voluntary guidelines constitute the domestic contracting arrangements which are a package of market facilitation measures relating to retailers, distributors and customers. For further details refer to the RAG (2015), Domestic Contracting Arrangements- Options Paper.<available from: https://www.ea.govt.nz/development/work-programme/operational-efficiencies/domestic-contracting-arrangements/consultations/>

One of the reasons we have not done so at this stage is because PPDs are highly valued by a large number of our customers and play an important role in the overall process for collecting payment from customers by:

- incentivising on time payment, which acts as a deterrent to from getting into the debt cycle and helps to keep collection costs for retailers lower; and
- acting as a reminder to pay, which provides a safety net before disconnection procedures might start to be enacted by a retailer.

Before making a decision around whether to continue to offer PPDs we suggest further consideration will be required, to ensure that unintentional consequences do not arise which detrimentally impact our customers.

We acknowledge that there is a broad range in the level of PPDs currently in the market and that some levels seem excessive relative to the costs of late payment.

Given concerns around the range in the level of PPDs, we suggest that this could be complemented by a regulated cap on PPDs by requiring the level of a PPD to be objectively justified.

### *Network Pricing*

We address the issues of network tariff structure in our **Improving transmission access** paper and our **Improving the efficiency of distributors and access to distribution networks.**

Any decision around adjustment of network tariff structures to rebalance outcomes for different customer groups is ultimately a decision for politicians.

## Key findings- fairness

This section discusses the areas where the Panel thinks New Zealand's fairness ranking might be able to be improved.

We acknowledge that network cost allocation is an area where changes to price outcomes of different customer groups can be achieved. This is best done by politicians as addressing equity in one arena can create inequity in another.

We think it would be fairer to customers if they were protected by regulated:

- requirements for PPDs to be objectively reasonable.
- minimum terms and conditions for retail contracts; and
- codes for vulnerable customers and medically dependent customers which would apply irrespective of their choice of retailer and/or basis of supply.

# Affordability

## Introduction

The First Report expresses the Panel's view that we could do better as an industry in addressing energy affordability. We note that there is a distinction between affordability (all customers can access energy at the lowest possible prices for their circumstances) and energy poverty (significant hardship which precludes access to energy supply). Different solutions are required for each.

## Energy Affordability

The Panel seeks feedback on whether a two-tier market is emerging, similar to that identified in both the Australian and UK markets.

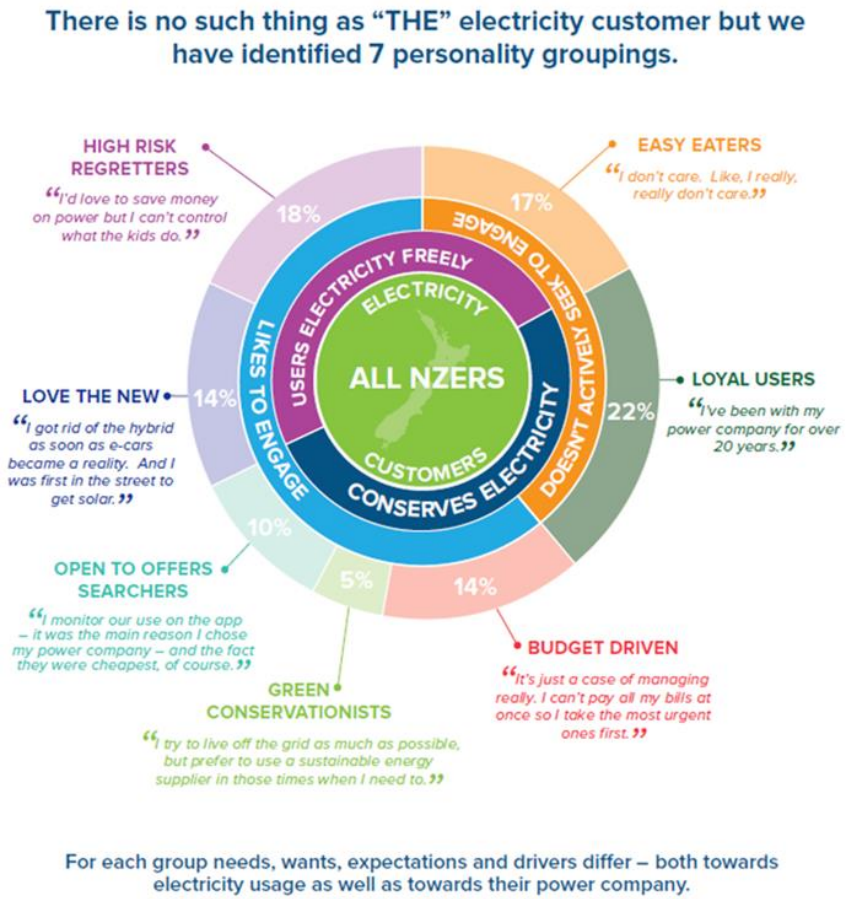
We acknowledge that the market structure comprises both engaged and disengaged customers but also note that

- overall New Zealand has higher engagement levels than reported overseas, including amongst the most vulnerable; and
- within these categories there are many different types of customer.

### *ERANZ customer types*

ERANZ have sought to illustrate this by suggesting that customers can be considered as falling within one of seven different personality types as shown in Figure 1.

**Figure 1 – ERANZ – Electricity Customer Personality Types**



### *Customer behaviour*

As noted in our **Delivering fairness in a competitive market** paper, within the group of customers who are disengaged there are a number of different factors at play, including customers who:

- choose not to engage (Group 1);
- do not know how to get the lowest possible power prices for their circumstances (Group 2); and
- simply do not have sufficient income to pay for their energy needs and so need access to the lowest possible electricity prices (Group 3).

### ***Group 1 customers who choose not to engage***

Those customers who choose not to engage with the market (Group 1) do not necessarily represent an issue as there may be a variety of reasons why they choose to stay with a particular providers, including good service or brand affinity.

- Customers in Group 1 are likely to align with the "easy eaters" and "loyal user" ERANZ personality groups. They represent a large share of the customers, approximately 39%.
- Any reforms to "increase competition" are not going to achieve much for Group 1 as they are largely insensitive to the number of competitive retailers.
    - For example, there are 40 different retail brands in the New Zealand market, all of whom would presumably financially benefit if they could win a customer in Group 1, and yet despite vigorous competition these customers still choose to not engage.
    - The only logical conclusion is that it is not the number of retailers competing in the market that resonates most strongly with these customers.
- Unless the Panel has more fundamental concerns that retailers are not competing for tangible customer segments (which in our experience is not the case) then there is no real issue to be solved for customers in Group 1.
- Interventions are paternalistic as they involve regulators determining their preferences and as a consequence risk alienating this segment.

### ***Group 2 customers with access issues***

There is unlikely to be a lot of difference between Group 1 and Group 2 customers.

- The main difference may well be the size of their load or their level of wealth.
    - Group 1 customers may simply not be concerned with the cost of energy as it is a small component of their overall costs or alternatively they may be a large load which would likely be aggressively competed for within the retail market and yet they choose not to engage in the market.
    - Group 2 may however include very small use customers who do not represent a segment of the market that is actively competed for (or at least not to the same extent as other segments of the market).
- The First Report identifies challenges relating to language barriers, education and internet access making it difficult for customers to

understand various plans and choices[3] - we consider that these issues are likely related to both Group 2 and 3 customers.

- It is however less clear what the personality types are for those customers within Group's 2 and 3, it is possible they could fall within all 7 of the identified personality groupings as their engagement levels are driven by limitations in energy literacy and low incomes.
- Trust is key for this segment which is why we consider that a single, well-funded and respected comparator site will deliver the best outcomes for customers rather than allowing "competition" between sites (favoured by the Electricity Authority).
- For customers within Group 2, we consider they could obtain value from increased access to trusted information (around alternative offers and energy efficiency) and nudges to consider that information. This information may also be of interest to customers in Group 1.

***Group 3 customers with serious affordability issues***

Customers within Group 3 are low income households who suffer from affordability challenges. These represent a small subset of customers. Energy poverty is not an issue that is unique to New Zealand.

In the case of New Zealand, there are no significant failures with the market design that are driving outcomes leading to energy poverty at this time, although noting that cost shifting may become more of an issue in the future – that is not to say however there are no improvements that can be made. This important matter is considered further in the following section.

## Energy Poverty

### *Causes*

As outlined in our submission on the Terms of Reference,[4] energy poverty among customers is driven by energy prices, energy requirements and income levels. This captures the fact that a range of factors such housing quality, efficiency of heating appliances, household income, household debt levels and the demographic of the household (energy requirements can be higher for the elderly, disabled and young children) can all be at play when determining whether a household can afford to maintain a healthy home.

Energy poverty has multiple facets and can signal a range of different social problems.

### *Measuring poverty*

Part of the challenge of addressing energy poverty is measurement. We note that the First Report adopts the measure of households that use more than 10% of their income on energy.

We consider that this is a useful starting point, although incorporating other known risk factors into the assessment may enable those "most vulnerable" households to be identified: for example accounting for income levels, housing stock and demographic.[5] We acknowledge there will be limitations in this approach.

Nonetheless being able to clearly target any solutions the smaller subset of most vulnerable households should be the favoured approach. This will avoid any

[3] The First Report notes that the Consumer NZ survey of residential customers found only 38 percent of respondents believed retailers made it easy to compare prices and contracts

[4] Ministry of Innovation, Business and Employment (**MBIE**). *Electricity Price Review Terms of Reference* (2018) <available from https://www.mbie.govt.nz/info-services/sectors-industries/energy/electricity-price-review/document-library/terms-of-reference-electricity-price-review.pdf>

[5] We note the work by PwC that has been undertaken by ERANZ explores this issue. A copy is available as an attachment to ERANZ's submission on the First Report.

unintended distortions to the competitiveness of the market that would arise from a less targeted approach, as seen overseas.

We note the advice of The Lantau Group (2018) that:[6]

> *"… certain problems are not solved by focussing on the level or nature of competition in electricity retail markets. There won't be material solutions to energy poverty arising from electricity retail market or specific or constraining pricing reforms unless those reforms are targeted to address the level of financial disadvantage that exists within the electricity consumer base."*

### *Retailer of last resort*

The First Report also suggests there could be a role for a retailer of last resort (**ROLR**) noting that some customers with a poor credit history or previous disconnections find it challenging to find a retailer.

While we acknowledge the case study "solo mum left without power" presented by the Panel, in our experience this is not a widespread problem. Careful consideration of the root cause of this issue is needed so a targeted solution can be put in place (if required).

Implementation of a ROLR arrangement creates a number of challenges for retailers, including how to eventually move households off the arrangements and ensure the health and safety of retailer's staff, for example where a household has made threats to meter readers. It also will create additional costs which, unless funded by the Government, would be passed through to all customers via higher retailing costs.

If the Panel considers a ROLR arrangement is required, we recommend that that it would be most appropriate for the Government to act as a procurement agent for customers with a poor credit history or previous disconnections.

One option would be for Work & Income to tender for white-label electricity supply services or alternatively Work & Income could become a tier 2 retailer at little cost. Enabling Work & Income to bulk buy would likely lead to lower prices for this sub-set of customers.

## A pragmatic mix of targeted interventions is required.

To address the complex issue of energy affordability a partnership between government, regulators and industry will be needed to develop and implement the various solutions.

Important components of the overall package to address energy affordability are mechanisms which will benefit all customer groups, including the group often described as the 'working poor'. This includes measures to:

- improve energy literacy and encourage greater engagement with the market through initiatives such as: enhancing the Powerswitch price comparison website, assisting customers to obtain the lowest possible prices for their circumstances (for example, advertising campaigns), annual prompts on invoices, and funding to budget agencies, helplines[7] and energy advisors;
- provide additional separate funding for EECA to enhance existing measures to assist residential customers to reduce their energy usage:
    - Additional funding for the Warmer Kiwi Homes programme to fully cover:

[6] The Lantau Group. *Retail Competition Effectiveness* (2018, p. 14).

[7] For example the home heat helpline in the UK where customers can ring and speak to an energy advisor around how to reduce their bills and any other assistance that might be available to them. This could potentially be followed up by a site visit to identified customers to provide an energy audit

- The cost of ceiling and underfloor insulation without the need for households to seek additional contributions from community organisations; and
- The cost of heating appliances, noting that the grants that will be available from 1 July 2019 will currently be capped; and

  - Investigating other initiatives that could be supported by EECA to assist in modernising homes, such as subsidising double glazing or replacement of inefficient existing appliances such as ovens and hot water cylinders; and

- restrict the extent to which suppliers can discriminate amongst their customers by charging more than is objectively reasonable for prompt or early payment (as explored earlier in the section on fairness ).

We note that continuing with the current package of Government led reform to improve the housing stock will also assist in the long term with lowering energy consumption for all customers. This package includes:

- the proposed healthy homes standards for rental houses to improve the quality of rental properties and the health and social outcomes for tenants[8]; and
- the KiwiBuild initiative[9] which will improve the quality of New Zealand's housing stock.

### *Addressing energy poverty*

Energy poverty is part of a broader poverty issue. For the subset of customers who have serious issues with energy poverty- a pragmatic mix of targeted initiatives will be required.

Government will need to take a lead role in the solution to energy poverty, with the predominant measure for resolving this issue the introduction of a targeted social support for households.

One way to achieve this could be via reshaping the Winter Energy Payment into a more targeted mechanism so as to replace the LFC Regulations, possibly supplemented with the introduction of extra levies, or a reallocation of existing levies. We note that evolving the existing levy system would enable the funding required for the package of reforms via a mixed-funding model.

We note that other countries have implemented arrangements to provide support to households at risk of energy poverty that may provide a useful reference. For example France has recently introduced an energy cheque to replace social tariffs on electricity and gas, where recipients are determined based on household composition and a threshold level of income[10].

Other associated measures could include:

- standardisation of retailer behaviour on issues that affect the most vulnerable (as explored earlier in the section on fairness);
- introduction of a procurement agent (potentially via Government Departments acting in this role) for groups of customers that energy

[8] Ministry of Housing and Urban Development Consultation. *Healthy Homes Standards - Proposed healthy homes standards for heating, insulation, ventilation, moisture ingress, drainage and draught stopping. Discussion Document.* (2018). <available from https://www.hud.govt.nz/assets/Healthy-Homes/Discussion-document-Healthy-Homes-Standards.pdf>

[9] Ministry of Housing and Urban Development (2018). *Kiwibuild: KiwiBuild is working to deliver 100,000 homes for first home buyers over the next decade*. <available from https://www.hud.govt.nz/residential-housing/housing-affordability/kiwibuild/ >

[10] Government of France (2018). *Climate change solidarity package: four concrete measures for low-income households*. <available from https://www.gouvernement.fr/en/climate-change-solidarity-package-four-concrete-measures-for-low-income-households>

affordability are a real issue for such as Housing New Zealand tenants or certain beneficiaries; and

- the provision of a guarantee by Government (or another financial arrangement) to address any access constraints for customers with poor credit or previous disconnections.

We suggest these matters should be considered through an industry and stakeholder process.

## Key finding – Affordability

While much has been achieved by industry to assist vulnerable customers and medically dependent customers, it has become obvious that a partnership between industry, government and regulators is required to develop and implement a package of targeted solutions to address affordability.

Affordability is best addressed by nudges to promote competition and long-term fixes like improvements to the housing stock.

Energy poverty is part of a broader issue with poverty in New Zealand. Government will need to take a key role in addressing energy poverty.

# Competitiveness

## Introduction

The retail market ranks highly against the objective of competitiveness as a result of the ongoing focus of industry regulators on refining the market design described in our **Delivering fairness in a competitive market** paper.

In this section, we examine the indicators of competition and what they tell us about the state of competition.

## Nature of our retail market

There are approximately 40 different retail brands operating in the New Zealand electricity market, providing significant benefits to customers who subsequently have:

- **Increased variety of suppliers**. For example, there are a variety of different retail brands available, including a number of small boutique brands such as Hopster, Electric Kiwi and Flick.
- **Increased innovation and product choice**. For example, customers may want to respond to market price signals, bundle bills across a range of utilities, have an "all you can eat" plan, interact with their retailer purely online or may want to control their usage through GLOBUG's pre-paid traffic light-type device.
- **Electricity prices that are naturally moderated** and stay in line with the costs of providing electricity[11].

The competitiveness of retail electricity market has significantly increased since 2004 as market concentration has reduced[12] as acknowledged by the First Report which notes that competition among retailers has strengthened in recent years.

The International Energy Agency's (**IEA**) Review of New Zealand (2017) identified that:

> *"Since the reforms of 2010, the market size of the smaller retailers has increased more than threefold albeit from a very low base, indicating that the retail market is very dynamic, and concentration is becoming lower."*[13]

The IEA's review reinforced that the underlying structure of the New Zealand electricity market is sound and that it is performing well – describing the market as:

> *"... a leading example of a well-functioning electricity market design among IEA member countries, and continues to work effectively, thanks to appropriately targeted government intervention."*[14]

Barriers to entry into the market are low. Since the beginning of 2010, 32 retail parent companies have entered the market and four retail parent companies have exited the market, albeit three of those were purchased by other retailers.[15]

[11] New Zealand has the 11th lowest residential prices (out of 32) in the OECD.

[12] Refer to Figure 25, page 33 of the Electricity Authority's recent post-implementation review of the saves protection scheme which shows that the HHI value for the residential market has decreased from a high of 6,200 in 2004 to 2,700 at the end of February 2017. The Authority notes that "*this reduction in concentration is an indication of the increased competitiveness of the retail market*". Electricity Authority (**EA**). *Post implementation review of saves and winbacks. Final report.* (2018, p.33) <available from https://www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2017/post-implementation-review-of-the-save-protection-scheme/ >

[13] International Energy Agency (IEA). *Review of New Zealand* (2017, p. 67) <available from https://www.iea.org/publications/freepublications/publication/EnergyPoliciesofIEACountriesNewZealand2017.pdf>

[14] Ibid. p. 101

[15] Wanganui Gas (purchased in July 2013 by Trustpower), Electra (purchased in June 2017 by Pulse) and Property Power (purchased in June 2017 by Pulse).

Small and medium sized retailers served more than 246,000 (or more than 11%) of customer connections as of the end of August 2018.[16]

## Comment on competition indicators

In undertaking our assessment of the competitiveness of the retail market we have been guided by the advice of The Lantau Group, who provide an important reminder that in a competitive market reality may not always match idealistic expectations:[17]

> *"Productive debate starts by conceding that reality is going to be something less than a nirvana of lowest prices, best service, largest number of retailers, greatest amount of innovation and future orientation and preparedness, and highest levels of satisfaction. This means that one has to at least consider what the counterfactual might be – and in what way, in economic value terms – it represents a sustainable improvement. "*

The Lantau Group goes further to note even if market outcomes could met those idealistic expectations it may not be sustainable:[18]

> *"Such consideration is important because there are elements of the first Price Review report – particularly those in relation to estimates of the potential savings if all customers could enjoy the lowest available offers – that seem to suggest nirvana is considered a realistic objective. There is risk of setting unachievable and misleading expectations as a result."*

This is sensible advice to keep in mind when considering how the retail market already ranks against the objective of competitiveness, and to ensure that whatever challenge the industry may set for itself to further improve in this area is in fact plausible and will deliver the best outcomes for customers.

### *Number of competitors*

Competition is about more than just the number of competitors in the retail market. The Lantau Group notes that:[19]

> *"The focus of competition analysis moved away some time ago from simple measures of concentration or numbers of competitors. Scale efficiencies, innovation potential, broader competitive dynamics, and the relationship between input costs and profitability have all ascended in importance and relevance. The latter has been a focus in New Zealand."*

At times the discussion in New Zealand can become overly focussed on the idea that more and more retailers is a great outcome for overall competition. Small retailers have an important role in contributing to the overall rich tapestry of the retail market through providing customers with additional choice, more innovative offers etc. However focussing purely on the number of retailers does little to reveal the true amount of competition in the retail market as evidenced by:

- the large number of really small retailers in New Zealand; and
- the recent restrictions in the competitive offers that are offered by some of the (larger) small retailers at times of market tightness.[20]

In Trustpower's view the majority of sustainable competition in the market has been driven by the larger participants.

### *Price dispersion*

The First Report highlights that in New Zealand the range between the cheapest and most expensive retail price has grown significantly, so the cost of not shopping around can be big. The implication is that price dispersion may be resulting in inefficient outcomes.

[16] Sourced from the Electricity Authority's Electricity Market Information website on 1 October 2018 (http://emi.ea.govt.nz)
[17] The Lantau Group. *Retail Competition Effectiveness* (2018, p. 4).
[18] The Lantau Group. *Retail Competition Effectiveness* (2018, p. 4).
[19] The Lantau Group. *Retail Competition Effectiveness* (2018, p. 7).
[20] We note that at times of market tightness when customers move away from retailers that offer spot pass through products (for example Flick) there can be restrictions in the ability of other smaller retailers to take these customers. Refer to: https://www.stuff.co.nz/business/industries/107899242/power-retailer-flick-electric-face-fallout-from-spot-price-surge

Our view is that it is actually the highly competitive nature of the New Zealand retail market that has resulted in price dispersion arising.

- The most expensive offers in the market may be because a retailer has only a small legacy customer base.
- Likewise the cheapest offers in the market might be due to discounting by new retailers to attract new customers, and not necessarily reflective of underlying costs (or sustainable long term).

This view aligns with the economic literature.

Simshauser and Whish-Wilson (2015) note that:[21]

> *"In any retail market with common fixed costs, differential pricing represents the usual state of affairs, not a market oddity."*

and that

> *"... banning the practice will usually dampen competition, facilitate collusive behaviour, harm price-sensitive consumers, leave customers overall no better-off, and can leave all customers worse-off*".

This is further reinforced by Littlechild (2014) who states in the case of the Great Britain:[22]

> *"...contrary to Ofgem's assumption, differential pricing is not a sign that the retail energy market is not effectively competitive – on the contrary, it is consistent with that market being very competitive indeed."*

A recent report by CEG (2017) goes further to note that regulatory intervention to ban price discrimination will:[23]

> *"actually result in those customers paying around double the pre-intervention mark-up and other 'slippery' customers paying the same price (instead of an approximately zero mark-up on marginal cost)."*

Although economic theory confirms that enabling competition to continue to place downward pressure on prices is the best approach for ensuring good outcomes arise for all customers, Trustpower acknowledges that price dispersion may have particular impact on a subset of customers for whom energy affordability is a serious issue.

Concerns about these matters led to the Great Britain's regulators implementing restrictions on regional pricing differentiation and introducing the "four tariff rule" to simplify tariffs and improvement customer engagement. These measures did not work as intended.

Newgrange (2018) notes that:[24]

> *"Attempts to reduce price dispersion by regulatory intervention in Great Britain has not been especially successful and Australia's recent moves in this direction are unlikely to work any better."*

The best approach to addressing any distributional concerns is through direct and targeted assistance and policies.

[21] Simshauser, P, & Whish-Wilson, P. *Reforming reform: Differential pricing and price dispersion in retail electricity markets* (2015, p. 2). Brisbane: AGL Applied Economic and Policy Research.

[22] Littlechild, S. *Promoting or restricting competition? Regulation of the UK retail residential energy market since 2008* (2014, p. 9). University of Cambridge Energy Policy Research Group

[23] Competition Economist Group. *Competition in electricity retail markets.* (2017, p. 8). <available from https://www.accc.gov.au/system/files/Origin%20Energy%20%28Attachment%29.pdf >

[24] Donoghue, K. *International Review of electricity retail markets for ERANZ* (2018, p. 33.). Newgrange Consulting. A copy of this report is provided as an attachment to ERANZ's submission on the First Report.

### *Switching*

The Electricity Authority has done a huge amount of work to date to support switching which is reflected in the fact that switching rates in New Zealand are amongst the highest in the world.

The Electricity Authority's 2017 retail market snapshot identifies that:[25]

- 21% of customers switched power supplier, an increase of 4.8% on 2016;
- 439,711 switches occurred, the highest rate of switching on record; and
- 54.3% of customers switched one or more times in the last five years, an increase of 2.4% on 2016.

Switching statistics are commonly considered a useful source of insight around the level of competitiveness of a market.

While switching statistics are not the most robust measure they provide useful information around the ability of customers to exercise free choice.

This then is reflected in healthy trends in market share over time, noting that at any one time a retailer could be losing and gaining customers and not have this reflected in their overall share of the retail market.

Newgrange (2018) notes that:[26]

> "*...switching rates in New Zealand indicate that there is genuine competitive tension and that retailers have to actively attract and retain customers to be successful*."

Trustpower notes that switching rates are indicative of customers switching retailers only.

- Customers who do not actively switch may still be engaging in the market.
  - For example we have existing customers who are highly engaged in the market and change plans internally or who investigate their options frequently and decide they are already on a good offer and so don't move.
  - In making decisions to switch or not, customers will be undertaking an assessment of whether the gains from switching outweigh the perceived costs (time, loss in brand value etc).

Retail market interventions such as price caps or limits on price discrimination may reduce switching levels by reducing the perceived benefits of changing retailers.

### *Win-backs*

There is a view expressed in the First Report that the prevalence of win-back discounts is a big barrier to expansion for smaller retailers. We disagree with this view and note that win-back offers are another natural outcome of a competitive market where retailers are constantly developing new offers and approaches.

- The saves and win-backs process typically unearths new offers and innovation that are in the long-term interests of customers.
- There is nothing preventing gaining retailers from developing strategies to make it harder for losing retailers to win-back customers if they have a well-designed and innovative proposition.
- It follows that an extensive period where a retailer is unable to contact a former customer with a new offer would not be in customers interests.

The 2017 post-implementation review of the Electricity Authority's saves protection scheme (first implemented in 2014) found no evidence that the scheme had either improved or harmed competition.

[25] Electricity Authority, *Retail Market Snapshot*. Retrieved October 17, 2018, from https://www.ea.govt.nz/monitoring/retail-market-snapshot/

[26] Donoghue, K. *International Review of electricity retail markets for ERANZ* (2018, p. 37). Newgrange Consulting.

Retailers had adapted to the limitations on saves by increasing win-backs and completing switches more quickly so they could affect win-backs more quickly.

We note that those participants who are reporting high levels of sale leakage under the current regime are not suggesting a ban on win-backs but rather a "stand down period" could be adopted.

We do not share their concerns with sales leakage under the current regime and as noted above consider that care needs to be exercised when considering whether a ban on win-backs would be appropriate given the unintended implications for competition.

The Electricity Authority's Market Development Advisory Group is currently reviewing the saves protection scheme. We agree with the First Report that this important matter should be left to the existing process, rather than considered as part of the review.

### *Innovation*

As noted in our **Delivering fairness in a competitive market** paper more and more innovation is continuing to be seen within the retail market as competition continues to intensify. New services and pricing plans continue to be developed which deliver greater value to customers.

Retailers are increasingly adjusting their way of interacting with customers, including using apps, chat-bots and targeted marketing campaigns.

The Electricity Authority's recent briefing to the incoming Minister noted[27]:

> "*We are seeing more innovation as retailers are increasingly using a variety of media and marketing techniques to target specific audiences. Likewise, business models are changing to offer more value to groups of consumers*."

[27] Electricity Authority (2017). *Briefing to the Incoming Minister* (p. 21, Issue brief). <available from https://www.ea.govt.nz/dmsdocument/22914-briefing-to-the-incoming-minister-october-2017>

## Key findings on competitiveness

This section explored the current state of retail market competition and identified that competition is working effectively in the New Zealand retail market: competition is vigorous: innovation is occurring and new entry is prolific.

New Zealand's early leap into introducing full retail contestability and light regulatory touch has served its electricity consumers well and is expected to continue to do so in the future.

This finding is supported by the expert advice of The Lantau Group (2018) which notes that:[28]

> *"The review report to date does not advance a clear definition of a problem that can be easily and directly attached to the effectiveness of retail competition. Electricity prices appear reasonable. Trends are generally favourable. Many actions have already been taken to promote and support customer engagement and switching. Industry concentration is reducing, and the market appears overall to have entered a reasonably stable period with no obvious imbalances on the horizon. "*

[28] The Lantau Group. *Retail Competition Effectiveness* (2018, p. 16).

# Conclusions and updated recommendations

## Conclusions

This paper puts forward Trustpower's views around how New Zealand's retail market can improve its ranking against the new trilemma, while maintaining its ranking against the traditional energy trilemma.

We have noted that:

- **Improving fairness of outcomes** to customers will involve complex and subjective decisions around allocative matters to be made. Ultimately the concept of fairness is a matter best left to politicians, not regulators.
- **Improving affordability** requires a targeted response that addresses the underlying causes as there can be many contributors.
    - Energy affordability will be best addressed by nudges to promote competition, measures to reduce energy consumption and long-term fixes like improvements to the housing stock.
    - Addressing energy poverty will require Government to take the lead role as energy poverty is part of a broader issue with poverty in New Zealand.
    - The existing levy system may need to evolve to support a mixed-funding model for the package of reforms.
- The New Zealand market is **vibrant and highly competitive and delivers well for the majority of customers.**

## Recommendations

Our recommendations to improve New Zealand's ranking against the new trilemma are as follows:

Trustpower suggests that the Electricity Price Review recommends to Government that it:

- enacts regulations which mandate:
    - the voluntary good practice minimum terms and conditions for domestic retail contracts; and
    - the voluntary guidelines on arrangements to assist vulnerable customers and medically dependent customers;
- requires retailers to limit the amount of discounts that they offer for early or prompt payment to what is no more than objectively reasonable in relation to the costs of collection for late payments;
- provides a secure long-term source of funding for the continuation and development of the Powerswitch website to assist customers accessing lowest possible electricity prices for their circumstances;
- supports and funds the development of a multi-channel advertising campaign to further promote the benefits of switching retailers and build on the Electricity Authority's "*Whats my number campaign*" initiative;
- recommend regulations that require retailers to include on their invoices an annual prompt regarding their alternative offers and the ability to access the Powerswitch website to obtain information about competitor offers;
- provides additional funding for existing community agencies such as Citizens Advice Bureau and Christians against Poverty and other institutions such as schools, helplines and energy advisors to increase energy literacy and understanding of energy supply options;

- provides separate funding for EECA to introduce new measures and enhance existing measures that assist residential customers to reduce their overall energy usage including with respect to insulation and efficient heating;
- establishes an industry and stakeholder process to explore mechanisms by which the Winter Energy Payment could be reshaped into a more targeted mechanism to replace the LFC Regulations, possibly supplemented by extra levies (or a reallocation of existing levies) to be applied in circumstances of energy hardship;
- explores mechanisms by which Government agencies;
    - could act as procurement agent for groups of customers for whom electricity affordability is a real issue such as Housing New Zealand tenants or certain beneficiaries;
    - provide a guarantee or other financial arrangement to address any access constraints for customers with a history of poor credit or previous disconnections; and
- continues to rely on competition as the best method for delivering efficient outcomes in the generation and retail sectors.

Final Report

Prepared For:

Trustpower

# Retail Competition Effectiveness

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Date: 23 October 2018

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# OVERVIEW

In this brief paper, I consider the role and nature of competition in retail electricity markets. This is just one of many issues relevant to the pricing review, but it is a foundation stone issue in the sense of what types of recommended actions and responses might be proposed should the market be found insufficiently competitive and in need of interventions.

The Electricity Pricing Review (EPR) has been "asked to evaluate the efficiency of the sector and the fairness of prices, taking into account the need for a reliable supply of electricity, technological innovations, and environmental sustainability." This purpose sets up an expectation of clear definitions, methodologies, and context that this first paper omits or fails to establish, particularly around the basis for evaluating competition and forming views of the specific problems that merit attention. Hopefully, these will be developed and applied as the Review proceeds.

The remit for my commentary is narrow given the broad mix of other papers and analysis expected, but the applicability is broad. I seek to highlight the many challenges in evaluating competition, the reasonable limits regarding what competition can achieve in this context, the importance of nuance and accuracy given the risk of unintended consequence, the value of appreciating what already exists and works well, and desirability of a clear definition of the problem to be solved.

## WHAT IS EFFECTIVE COMPETITION

I find it useful to frame this discussion in reference to a common observation across various reviews of competition and industry structure in New Zealand, which goes more or less as follows:

> *New Zealand faces unique challenges as a small economy, which impacts on the performance of firms and markets. The tension between the objectives of scale-driven efficiency and competition-driven efficiency is particularly acute for a small nation such as New Zealand.*[1]

1 https://www.mbie.govt.nz/publications-research/publications/economic-development/2017-occasional-papers/what-we-know-and-dont-know-about-competition-in-new-zealand.pdf

It seems reasonable to expect that the *fact* of New Zealand's small market size compared to many other markets globally is well known. But what does it really mean?

Firstly, we suggest that there is a limit to what can be achieved via competition, just as there are limits to what can be achieved via regulation or fiat. You can have any system you want, but it is unlikely to be perfect. Often, we can make a system better in some or many ways, but rarely can we do so without incurring costs or risking unintended consequences or complex value transfers (winners and losers). The question "what are the benefits of potential improvements" must eventually meet the question "what are the costs and risks of making those improvements."

Recognising that even good decisions can have unexpectedly bad outcomes, there will be times when any system – no matter how well designed or how theoretically desirable – produces an unhappy result. What to do then? Ideally, this question should be answered with reference to whether available changes are reasonably expected to be sustainable, without material unintended consequences, and cost effective.

A part of this framework that becomes particularly challenging in a small market, such as New Zealand, is that smaller scale means that competition is unlikely to be as deep, and scale and scope economies are unlikely to be as great, as either (or both) might be in larger markets. Accordingly, competition in New Zealand is not likely to follow some textbook concept of atomised competitors and market-wide uniform prices, but rather must be seen as a dynamic process involving a greater focus on entry dynamics and evidence of rivalry even if the sector winds up being somewhat more concentrated than in larger Australia, UK, Europe, or the USA.

The reality is indeed that the New Zealand retail electricity sector is somewhat more concentrated than other countries, but the typical size of even a large retailer is smaller in New Zealand than many that we see in other markets. The trade-off between the efficiency and innovation aspects of scale and the rivalry of more competitors is important and relevant. Forcing greater competition in some way, would likely reduce the average number of customers per major retailer, which in turn would likely increase the cost per kWh of retailed electricity required to cover, among other things the cost of securing and managing risk capital, supporting operational and management systems, as well as certain kinds of customer acquisition and retention and service-related costs.

As frustrating as it may be that retail margins in some instances appear high – particularly for non-engaged customers – there is, logically, a limited ability to achieve material improvement simply by forcing a greater number of competitors. At minimum one would have to suspend belief in any associated scale and scope economies and ignore the complex relationship between scale and innovation.

None of this is meant to detract from the obvious concern expressed about the impact of electricity pricing on affordability but the solutions to affordability are not evidently related to the extent of competition per se in New Zealand. Markets with less concentrated

industry structures face similar challenges in related to unengaged and financially disadvantaged customers. Decades of experience and varying strategies and degrees of retail "competition" have not resolved these particular challenges. In short, a focus on competition effectiveness should not be undertaken independently of considering of the potential inefficiency of constraining competitor size or distorting market dynamics such that operational and investment costs increase and innovation incentives reduce.[2]

Two key threshold questions are (1) whether increasing competition can reasonably be expected to improve or resolve specific concerns that exist and (2) whether it is cost-effective to make the associated changes that might impact the level of competition. These questions form fairly demanding framework. It is not a case of referring principally to simple metrics, such as number of competitors or concentration metrics, and forming a view that an increase in "competition" is justified and that it will solve a particular challenge.

We suggest the following framework for evaluating what constitutes effective competition.[3]

- Is there evidence of supplier rivalry?
- Do consumers have choices?

2 The incentive to innovate depends in part on the size of the market for which the innovation ultimately has access. A commitment to atomistic competition (not allowing or discouraging larger firms with greater market share) risks undermining innovation by making it more difficult to recover the investments and therefore less likely that an investor would take the risks associated with innovation (and not the least be in a position to share any of such benefits with customers). It is as much why a merger within the supermarkets sector from three larger companies down to two, which would be both unthinkable and impossible in a large market such as the USA, has been successfully argued in New Zealand. All else equal increased concentration might seem undesirable, but all else is never equal. Arguments for larger sizes of firms around the world are often focussed on opportunities for greater operational and investment efficiencies and prospects of supporting greater innovation.

3 See Amanda B Delp and John W Mayo, "The Evolution of 'Competition'". It may be found at: https://cbpp.georgetown.edu/sites/default/files/Delp-Mayo-Effective-Competition.pdf.

- Is there evidence of favourable trends or metrics – essentially market evolution in a value-enhancing direction?

- If a possible "improvement" is considered, in what way and to what extent (and with what analysis or evidence) is it likely to create more value than it would cost?

Productive debate starts by conceding that reality is going to be something less than a nirvana of lowest prices, best service, largest number of retailers, greatest amount of innovation and future orientation and preparedness, and highest levels of satisfaction. This means that one has to at least consider what the counterfactual might be – and in what way, in economic value terms – it represents (or does not represent) a truly sustainable improvement.

Such consideration is important because there are elements of the first Price Review report – particularly those in relation to estimates of the potential savings if all customers could enjoy the lowest available offers – that seem to suggest nirvana is considered a realistic objective. There is risk of setting unachievable and misleading expectations as a result.

The review understandably focusses on residential customers to a disproportionate extent. However, benefits to New Zealand also flow from lower electricity prices to commercial and industrial customers, and these benefits take the very real form of tax and dividend related contributions, employment, and economic growth.[4] So, while the focus on residential customers is clearly important, it is not complete for the purpose of drawing policy guidance or insight.

New Zealand is hardly alone in facing these challenges.[5] The number of vulnerable customers and the cost of assisting them appears to be growing in many markets.

4 For example we are currently advising a major ASEAN country where this issue is very much alive. New cost-of-service based tariffs would materially rebalance "who pays", shifting greater benefit to commercial and industrial customers whose tariffs have been above cost-to-serve levels for some time. The government has been evaluating ways to combine domestic tariff increases with corresponding target assistance programs. Currently 90 percent or more of all residential customers enjoy electricity below the cost of producing and delivering it. Economic development (growth) is the main reason for these discussions.

5 As noted by the Australian Energy Regulator (AER) in 2017, "[t]his year we will complete our review of retailer hardship policies to ensure all retailers are identifying, engaging with, and providing appropriate assistance to their customers. We will also continue to consult on, and promote the benefits of, the Sustainable Payment Plans Framework and monitor its effectiveness in improving outcomes for customers experiencing financial difficulties."

Indeed, while on a recent study tour of the Californian electricity sector focussed on cost-of-service tariff design, setting efficient signals for behind-the-meter generation, and the challenges of achieving ever increasing targets for renewable energy penetration, it was explained that twenty percent (and closer to fifty percent in some areas) of California's electricity customers were eligible for energy-related assistance payments.[6] The comparative regionalisation and concentration of vulnerability makes the problem both more visible and more daunting, and is perhaps equally a source of growing concern in New Zealand.

When economists think about equity, we think that more options become available if the pie is made as large as possible. New Zealand faces some challenges in relation to income disparity as well as degrees of engagement in the retail sector. Unfortunately, these problems cannot be resolved satisfactorily working solely within the electricity sector or via retail sector reforms or constraints.

## COMPETITION AS A PROCESS

Monopoly is characterised by the realisation that consumers *must* pay prices higher than the competitive level. If customers have choices but ignore them, that is not quite the same thing. The availability of choices, whether taken up or not, changes everything. Unfortunately, the colloquial and idealised competitive market has consumers benefitting passively, such that consumers do nothing to enjoy the benefits of competitive rivalry. But such an idealised market characterisation is static and ignores the joint-ness of customer engagement and supplier rivalry – and it ignores the costs of search and management by consumers of the choices they make (and how those choices compete for time and resources against all the other choices that must also be made). To the extent that such an idealised notion of competition prevails, it is not particularly useful as a filter for practical industry review or policy setting in New Zealand, especially, given the smallness and relative low density of the New Zealand market.

6 Author's recollection of discussions in 2016 and 2017 with the California Public Utilities Commission and other stakeholders. To the extent that this recollection is a bit murky, the actual number (problem) is more likely to be higher (worse) than lower, in fact.

More broadly, rather than judge a market based on whether everyone pays the same – which is not the standard we exact or observe from other retail businesses – focus on the scope to enter the market and on the rewards to search and management and engagement by customers. But do not stop there. Increasingly economics focusses on the prerequisites and incentives for innovation and the implications of scale and efficiency rather than merely the number of competitors or simply the competitive structure of the industry. The attractiveness of competition for customers is directly related to the expectation of benefit to a supplier of actually attracting a customer. Take away or reduce the potential benefit, and something else is going to change. In that regard, there is no *ceteris paribus* when evaluating policies or options to constrain simplify, mandate, restructure, or prohibit certain actions or options in the retailing of electricity.

Also, it is not advisable to pre-judge what competitive processes will yield. If one can readily know what competition is supposed to produce in terms of specific outcomes, then that undermines the argument that competition is needed at all. Competition is a *process* that has value precisely because we consistently fail to agree (much less actually know) what will happen in the future.

## CUSTOMER ENGAGEMENT VS CUSTOMER SATISFACTION

The Review focusses significantly on customer engagement and customer satisfaction. These matters have been focal points in retail reviews in other countries, as well. Fortunately, in New Zealand awareness of switching possibilities appears very high and overall customer satisfaction metrics align with other sectors. From the perspective of economic efficiency, these positive points merit more emphasis. Evidence of general satisfaction and high levels of awareness of choices are not consistent with taking material steps to change things within the market design or industry structure per se. On the other hand, targeted outside-the-market interventions – especially directed more towards low income support appear to be needed and would accord with best practice elsewhere as well.

The Review focuses on the fact that despite awareness many customers do not engage. As suggested above, this focus risks being incomplete and is misleading. What gets less attention is the answer to the question of *how* industry dynamics and economics would change if the things the Review might want were actually to occur. For example, the estimates of potential savings from assuming every customer moves to the lowest offer are simply not logically sustainable.

Part of the attraction of extending a favourable initial offer to customers is that this embeds the cost of acquiring the customer, which is in turn *a function of the value that the retailer places on building a book of customers*. If customers were suddenly to become frictionless, the entire approach to retailing would need to change accordingly. Maybe there is a future in which more and more customers become frictionless switchers, but there is no such future without significant investment in information, new channels, new technologies, and exposure to new risks. These are opportunities for innovation. Prejudging or out-guessing them is always possible, but there is typically a cost involved. Without considering such costs (including the reduction in potential for innovation to come from within the industry (or laterally from adjacent service providers), risks being incomplete and expensive. In any event, focussing on misleading and incomplete "benefits" of presumptively increased levels of switching without considering what that would mean for the industry overall (or for costs to achieve it) is unlikely to move the debate to a useful place.

Finally, the Review rightly raises questions about disadvantaged consumers, but also highlights that much of the problem lies in being financially disadvantaged. The central question is therefore what the industry can achieve (and how) – perhaps by taking note of what is already done and what has been learned from these initiatives – as well as what must be done through broader policy initiatives.

## ADDITIONAL COMPETITION INSIGHTS

The focus of competition analysis moved away some time ago from simple measures of concentration or numbers of competitors. Scale efficiencies, innovation potential, broader competitive dynamics, and the relationship between input costs and profitability have all ascended in importance and relevance. The latter has been a focus in New Zealand.

Consider the following:

> *As of the early 1990s, the empirical research on the effects of bank concentration and competition most often tested whether the traditional structure-conduct-performance (SCP) hypothesis applied to the banking industry using data from the United States. The SCP hypothesis argues that bank concentration and other impediments to competition create an environment that affects bank conduct and performance in unfavorable ways from a social viewpoint. Authors typically tested the SCP hypothesis using a simple measure of concentration – such as the Herfindahl-Hirschman Index (HHI) or n-firm concentration ratio (CRn) – as an exogenous indicator of market power or an inverse indicator of the intensity of competition.*

> *The literature has now advanced well past this simple approach. The research has generalized beyond the SCP hypothesis, and tested a number of different models of competition. Authors have also recognized problems with HHI and CRn and specified alternative measures of competitiveness, including indicators of market structure that allow for the possibility that different sizes and types of commercial banks may affect competitive conditions differently. The measures of conduct and performance that are analyzed have expanded to include indicators of the efficiency, service quality, and risk of the banks, as well as consequences for the economy as a whole.*[7]

A similar perspective is voiced in the literature related to innovation. The jury is out, but the questions posed merit consideration:

> *'Yet, even if New Zealand markets had healthy levels of competition, competition may not always be unambiguously good for growth. For instance, high levels of competition could curtail innovation by competing away the value of innovation to the innovator (e.g. Romer, 1990; Grossman & Helpman, 1991; Aghion & Howitt, 1992). As a result, the relationship between competition and outcomes such as innovation and productivity growth may be non-linear. In markets with already high levels of competition and a wide range of productivity levels across firms, increasing competition may reduce innovation (e.g. Aghion et al., 2005; Polder & Veldhuizen, 2012). P.2*

It is reasonable to apply a more sophisticated assessment to the electricity retailing sector given the underlying input cost risks that must be managed (through contracting and spot market exposure and retail contract specifications and customer education). Retailers manage exposure to quite variable hydrological risk, which can be exacerbated by unrelated disruptions as now is occurring due to reduced gas availability. To a degree, periodic higher apparent margins are not inconsistent the natural result of recognising greater wholesale risk and uncertain levels of customer stickiness and inertia, especially given greater customer awareness of switching potential.

7 See: https://siteresources.worldbank.org/DEC/Resources/84797-1114437274304/jmcb_intro_final.pdf

When the industry shows signs of being responsive to changing market conditions over decades and exhibits no material signs of excess returns, it is more difficult to get excited about deep dive interventions, especially when the consequences can be unintended. In its review of the UK retail electricity market, the UK's Competition and Markets Authority (CMA) concluded that some of the remedies originally proposed by the UK energy regulator were overly simplistic and failed to have the desired effect and reduced market efficiency.

What can clearly be said at this point is that the Review in New Zealand has not yet touched on any of these points to any degree of persuasive or rigorous detail. Instead, what analysis has been presented, points to a conclusion of reasonable overall sector performance overall albeit with understandable focus areas of significant concern.

Accordingly, careful and prudent targeting – rather than more costly or intrusive industry restructuring or mandatory hedging policies – seem the most appropriate pathway.

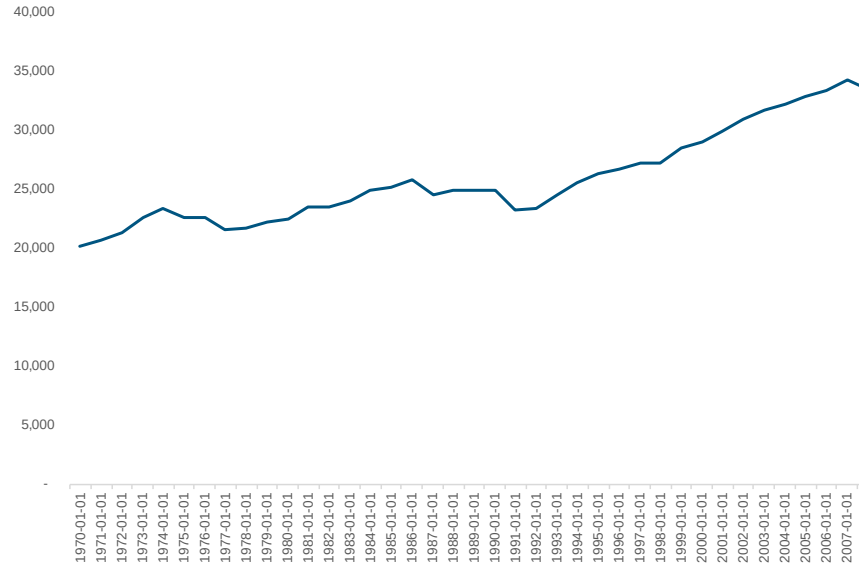
## BENCHMARKS

The current Electricity Price Review understandably expresses concern that electricity prices have increased and that "nearly a third of households struggle to pay their bills or pay a large proportion of their income on power".[8] According to the review, residential prices have increased 79 percent since 1990, after adjustment for inflation, faster than OECD countries. It is hard to understand the significance of 1990, especially given the massive changes that have occurred over that time frame – ranging from the depletion of Maui field to the shift to more cost-reflective pricing of network costs.

It is additionally useful to place this change in context in reference to New Zealand's increased GDP per capita. Over the period from 1990 to 2016, New Zealand's GDP per capita in constant terms increased over 51 percent (and 61 percent since recovering from a material dip that started in 1990) as shown in Figure 1 for an annual growth rate of. One can also see the period from extended period pre-1990 of relatively flattish growth in GDP per capita (1.0 percent per year), compared to the period from 1990 to 2016 of about 1.6 percent per year. For aggregate of commercial and industrial customers, electricity prices have changed much less, and electricity has become a much more competitive input into overall economic activity in New Zealand.

8 Minister's message, p. 1.

**Figure 1: New Zealand GDP per Capita (Constant USD)[9]**




Accordingly, comparisons going back to 1990 may seem interesting, but absent much more context, it is difficult to draw prescriptive and meaningful policy recommendations from them. The greater risk is that headline percent changes dramatize a message rather than promote rigorous and innovative solutions to real problems. The Review rightly recognises the existence of very significant cross-subsidies that favoured domestic consumers over New Zealand businesses. While posing the question of whether this has produced the intended or desired outcome, the Review largely ignores consideration of what it would take to actually answer that question. This is unfortunate, because economic growth and development as well as income distribution and equity deserve more considered and holistic treatment.

9 FRED data set from the Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/NYGDPPCAPKDNZL

But if we are to use benchmarks, then let's use them to establish a threshold for whether there is likely to be a material sector-wide problem that merits a more material sector specific intervention or change. We do our own benchmarking each year and have pulled data collected from 2017 (our 2018 work is not yet completed). The analysis we do controls for customer size and usage. We research published tariffs and pose as ghost shoppers to get insights on sustainable offers. We ignore special promotional discounts and obvious enticements that are not obviously sustainable. We do assume prompt payment. We can recast for any currency and recalculate for differing typical customer characteristics (which may alter the tariff "step" or the mix of fixed and variable charges that apply). For residential customers, we use the New Zealand average annual usage level of 7,100 kWh.

Our estimates show that, from the perspective of international competitiveness and international reasonableness, New Zealand's electricity prices are only "high" when viewed from the perspective of mainly Asian countries with very strong cross-subsidies that favour residential customers compared to larger commercial and industrial customers. You can see this by looking closely at the industrial tariff comparison where you will find China, Thailand, the Philippines, and Japan far to the right of New Zealand and most of the other Asian countries, only a little lower. Singapore, in 2017, enjoyed very low prices due to high dependency on natural gas, whose international price increased materially in 2018. Singapore's prices are quite volatile. USA electricity prices tend to be amongst the lowest for industrial customers due to US primary fuel cost advantages (shale gas) as represented by Houston.[10]

10 Anecdotally, if we were to extend the US database in our sample to include other industrial centres, the results would be on the left-hand side of the industrial tariff charts, closer to Houston than to New York City (which has higher network, taxes, fuel, and other costs).

**Figure 2: Industrial Customer Tariffs (2017)[11]**

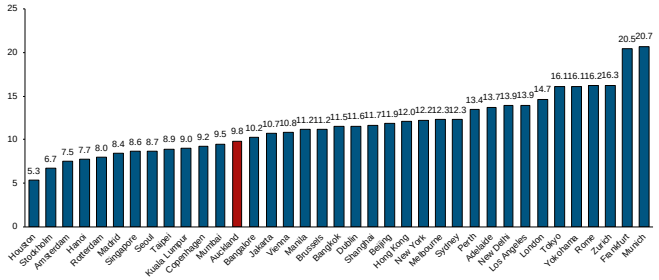



**Figure 3: Commercial Customer Tariff (2017)[12]**

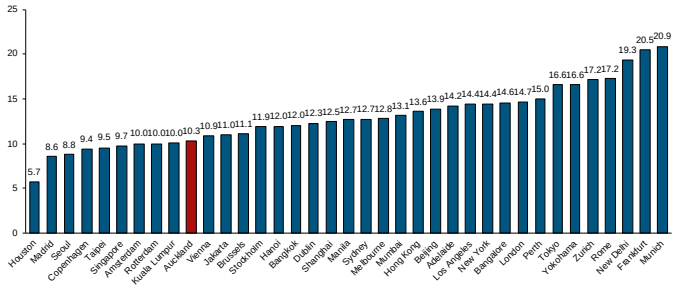
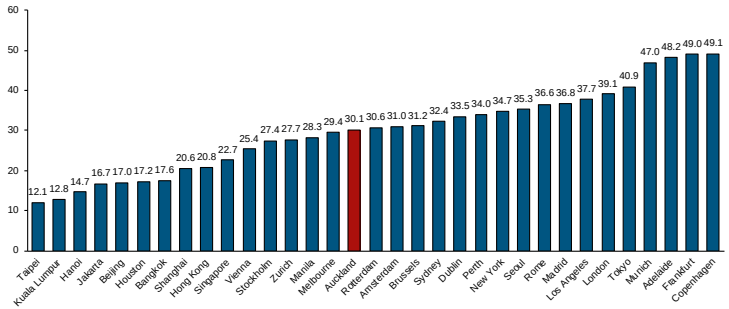



**Figure 4: Residential Customer Tariffs (2017)[13]**




Such comparisons do not necessarily mean that everything is just fine just because a country has comparatively low or average tariffs, nor do they mean that there is a problem if a country has unusually high or low tariffs – situational and contextual factors also obviously matter. However, such benchmarks are useful when evaluating what risks to take when considering changes that involve costs and, especially, if the diagnosis of the problem is not especially clear. It's important to have a robust definition of the problem because many of the possible "solutions" have a high degree of risk of unintended consequence and cost.

11 Assumed typical industrial customer consumes 2,000,000kWh per month, with contract demand of 3,000kW.

12 Assumed typical commercial customer consumes 480,000kWh per month, with contract demand of 850kW

13 Assumed typical residential customer consumes 7,100kWh per year, with contract demand of 7kva.

Unfortunately, the Review has been largely silent on the benefits to New Zealand from lower commercial and industrial electricity prices. We recognise the sometimes deep and divided debates on different models of economic development, but even so it is hard to circumvent the core logic that efficient prices serve a useful purpose in incentivising cost-effective usage and investment decisions. If problems arise as a result of income distribution, then long-term sustainable solutions seem much more likely to be found tackling that issue directly, as they go beyond what can be achieved through retail market reforms alone.

Such concerns lead into the next issue worth commenting on, which is the role of "fairness".

## WHAT IS FAIRNESS?

Fairness appears in the review frequently. The review can be read in places to suggest that some new sense of "fairness" might be appropriate to justify a rebalancing of cost allocations, but we would strongly caution against rushing to such conclusion. Unfortunately, there are few alternative rigorous principles to guide cost allocations once one departs from an effort to match costs to customers who require those costs to be incurred. Broadly speaking – having regard to the international benchmarks shown earlier and the basic logic of cost of service allocations – New Zealand does not appear to have the strong cross subsidies (in an economic sense) that many Asian countries have been taking steps to unwind (partly to protect their industry competitiveness and partly to reduce losses on government investments in the sector).

It is likely to be better to focus on the difference between value creation and value transfer as a guiding principle.

For example, if the preponderant impact of a change is with stakeholders who cannot do anything differently, then the change is largely redistributive (moving value around). If the impact largely falls on those who can change their behaviour efficiently then the impact is more likely to be enhancing (creating new value through greater efficiency). Economics tends to focus on value enhancement. It is never quite so simple or pure, but if the preponderant *initial* impact of a change is to *rearrange* value, then forms of grandfathering, special exemption, or longer-term phasing in tend to have merit. Where things get messy is when value transfer is claimed as value creation, or when the potential to response and adapt and evolve are muted such that the longer-term benefits are not (able to be) realised and costs continue to be inefficiently incurred.

Usually the concerns that arise when cost allocations that follow a beneficiary pays approach are related to financial capacity of the customers to bear the costs attributed to them. What should one do? Institute hidden or even overt cross-subsidies or tackle energy poverty more directly through targeted assistance?

The Review rather jumps to the concept of fairness associated *ability* to pay – not what *should* be the price or what *should* be the charge or what *should* be the costs that are allocated against usage. This is despite a general finding that agrees with our benchmarking point (reasonable in comparison to international counterparties) and finds that the sector is broadly without material evidence of entrenched inefficiency or monopoly style profits.

So, what should New Zealand or the electricity industry do if someone cannot afford to pay for the electricity they would like to use? Historically, this question has been treated as *outside* the definition or design brief for markets for various goods and services. And indeed outside-the-sector is essentially where this question is largely being answered in other markets, even as the question of energy poverty is becoming more challenging, particularly as countries without the benefits of New Zealand's renewable energy opportunities have begun to push towards increased renewables, often incurring material additional costs at the same time.

This challenge will continue to increase globally, particularly if pricing stimulates accelerated bypass of the grid through behind-the-meter developments that shift more costs to remaining customers.

In short, a discussion of fairness has merit, but we believe it better to place it in context relative to the concepts of value transfer versus value creation and relative to what can best be undertaken or achieved within an industry or sector and what is better addressed through broader macroeconomic policies or targeted towards the customers themselves. A "fair" system that leads to inefficient usage and investment will ultimately compromise the original objective of fairness if it reduces economic growth, raises overall costs through inefficiency, or otherwise leads to those whose prices rise taking greater actions to mitigate their exposure to electricity costs, thereby silently shifting the burden of cost recovery to others.

The question of fairness can also be put in a different context – one focussed on ensuring that vulnerable customers have more resources available with which to reduce their vulnerability. Solutions entirely compatible with a market designed to operate efficiently begin with enhanced identification and targeting, which may require combining industry provided information about tariffs and options with government information about incomes. Various forms of assistance funded from various mechanisms and sources might also be used, including surcharges that effect a modest transfer to support vulnerable customers and to supplement other resources that may be needed or that are already available. The reality is that electricity in New Zealand appears to be very reasonably priced, overall, and this is an important message to communicate.

## When Simplification Isn't So Simple

Some voices in various market reviews around the world have called for simpler tariff structures, limited choices, and perhaps even set a common price for all. The thinking may be that everyone could then benefit from whatever was seen to be the favourable benchmark that only some previously were enjoying. Setting aside the complexity of subsequent effects and interactions that of would offset such a simplistic intention, it is also the case that consumers place different values on risk, reputation, services, and other factors.

As Ahmad Faruqui, of The Brattle Group, has noted, some types of simplified electricity pricing policies could – for the sake of a thought experiment – be applied to parking meters, movies, airplane seats, and even seasonal vs non-seasonal food.[14] A common price for all times of day to park your car would lead to too few spots available during the day time if the peak period charge was lowered to the average of the day time peak and off peak charge. Or it would raise the price of offpeak usage, discouraging efficient use of widely available spaces during off peak periods. Simplicity is not the objective of economic systems. Efficiency is. And efficiency almost invariably requires or compels discrimination around various attributes and metrics – including the effort and level of engagement of customers.

None of these concerns about pricing variations and models have anything to do with energy poverty. To take the parking space example, if a poorer person cannot afford a parking space during a peak period (or a peak period transit fare), is the natural solution to lower the price of parking spaces to all (worsening the congestion problem and reducing efficiency, as well as the signal for building more parking spaces) or is it to provide assistance to the poorer person in the form of special parking privileges or a reduced fare transit pass?

All of this is to highlight that certain problems are not solved by focussing on the level or nature of competition in electricity retail markets. There won't be material solutions to energy poverty arising from electricity retail market or specific or constraining pricing reforms unless those reforms are targeted to address the level of financial disadvantage that exists within the electricity consumer base.

14 Ahmad Faruqui, Residential Dynamic Pricing and "Energy Stamps" *Regulation*, Winter 2010-2011, p. 4. The discussion in this section benefits from his insightful examples.

## SUMMARY

The review report to date does not advance a clear definition of a problem that can be easily and directly attached to the effectiveness of retail competition. Electricity prices appear reasonable. Trends are generally favourable. Many actions have already been taken to promote and support customer engagement and switching. Industry concentration is reducing, and the market appears overall to have entered a reasonably stable period with no obvious imbalances on the horizon.

Instead, the primary and indeed overwhelming focus tends to be on two aspects of retail electricity markets:

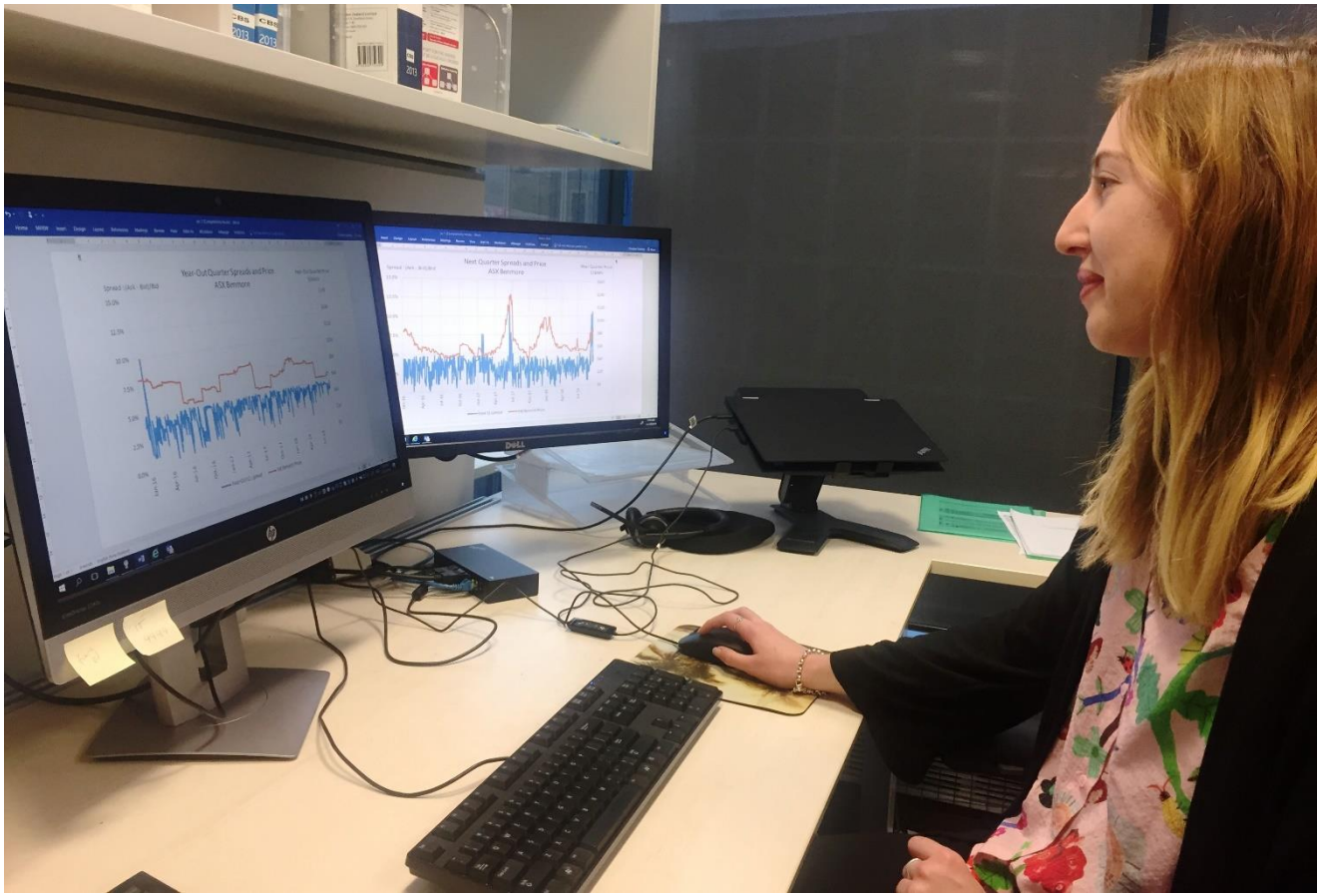
- The inertia evident in a material segment of customers who appear not to take advantage of all that electricity retail competition affords them in terms of apparent choices;
- The challenge of energy poverty and how sensitive it is that an essential service, sold in a market environment, may result in vulnerable customers paying higher prices if they do not know about available lower prices, cannot avail themselves of those prices for some reason, or cannot otherwise afford to pay for electricity in any event.

Whilst the issue of unaffordability is very real, taking the view that this retailers' margins are excessive for certain customers runs the risk of overlooking or oversimplifying the reality that customers form a portfolio. Indeed, many other industries (e.g. broadband, mobile telecoms) employ differentiated pricing strategies that serve other ends such as customer acquisition and retention. A change in one dimension of the portfolio is not independent of impact on the rest of the portfolio – which must then be rebalanced.

Similarly, if the worst that could be said of a market is that able payers choose not to engage in ways that would appear to save them a modest amount of money each month, one might conclude that this reflects customer sovereignty in action. It seems more likely that it is the *lens of vulnerability* that is crucial here, and it is through that lens most responses should focus.

The New Zealand electricity market will always be comparatively small by international standards, which leaves it prone to concentration, but the main alternatives to an as competitive-as-practicable market design is to fall back towards more centralise planning, investment, and contracting decisions. Introducing more elements of centralisation and intervention can be tempting from time to time, but often these impute a lot of faith in the administrators of the centralised activities. History has not always been so kind. Most market reforms, including those in New Zealand, germinated from the inefficiencies or rigidities found in previously more centralised system

# Understanding retailer costs and risks…



**Electricity Price Review**

New Zealand needs the lowest possible barriers to enter the retail market to ensure it continues to deliver efficient, fair and equitable prices as technology evolves and we transition to a lower emissions future.

This paper presents Trustpower's assessment of retailer costs and risks and how these factors effect entry barriers.

October 2018

# Introduction

## Terms of reference

The terms of reference for the Electricity Price Review require the Panel to report on:

- *whether the prices paid by end-consumers for electricity are efficient, fair and equitable*
- *whether the suppliers of electricity services have the ability to extract excessive profits over time*
- *the key components of retail electricity prices, how they have changed over time and how they compare internationally*
- *the financial performance of suppliers across the supply chain*
- *the existence of, or potential for, factors that may form barriers to entry or limit competition across the supply chain. This should include, but not be limited to, the impact of vertical integration in parts of the supply chain*

## First Report

The First Report explores the prices paid by different customers. The analysis presented in the First Report identifies that:[1]

> *"…the prices by the three customer types have diverged markedly...*
>
> - *Residential consumer prices rose at an average rate of 2.1 per cent a year, and by 2018 were 79 per cent higher than in 1990. Since 2015 they have been relatively flat.*
> - *Commercial prices dropped at an average rate of 1 per cent a year, and by 2018 were 24 per cent lower than in 1990.*
> - *Industrial prices rose at an average rate of 0.9 per cent, and by 2018 were 18 per cent higher than in 1990."*

The First Report goes on to explore why there has been a significant rise for residential consumers, breaking the analysis down into transmission charges, distribution charges, and generation and retailing changes and noting:[2]

> *"… concluded that retailing charges were the biggest component of residential price rises between 2004 and 2018 (3.5c/kWh, or 30 per cent)."*

The First Report also raises concerns that some aspects of the contract market's performance have faltered recently. Other related issues raised in the report include:

> *"…another key factor affecting the ability of independent retailers to compete is their ability to access risk management contracts on competitive terms."* [3]
>
> *"…an effective contract market is critical to mitigating the potential adverse effects of vertical integration and short-term generator market power."*[4]

## Outline of paper contents

This paper provides further information on:

- the composition and trends in New Zealand retail prices;
- how the cost of the retail service compares internationally; and
- the ability of independent retailers to obtain appropriate hedge cover for their risks.

The material in this paper is relevant to our answers to the following questions in the First Report:

- Question 4 (make-up of recent price changes);

[1] Ministry of Innovation, Business and Employment (**MBIE**). *Electricity Price Review. Hikohiko Te Uira - First Report for Discussion* (2018, p.19).
[2] Ibid.p 22.
[3] Ibid.p.42.
[4] Ibid.p 45.

- Question 5: (international price comparisons);
- Question 6 (outlook for electricity prices);
- Question 15 (retail sector performance);
- Question 16 (barriers to competition); and
- Question 17-18 (vertical integration).

# Retailing costs

## Introduction

A number of the questions in the First Report relate to the performance of the different parts of the supply chain.

In this section, we present our analysis of the composition and trends in residential prices (as a whole) and in relation to the retail component of residential electricity prices (in particular).

## Trustpower analysis of retail price trends

Our analysis explores the make-up of recent price trends to explore further the suggestion that there has been a significant rise in prices for residential customers. We have recreated the analysis presented in Figure 6 of the First Report and have included additional years into the analysis to help better understand the changes which have occurred. The results are presented in Figure 1.

Please note:

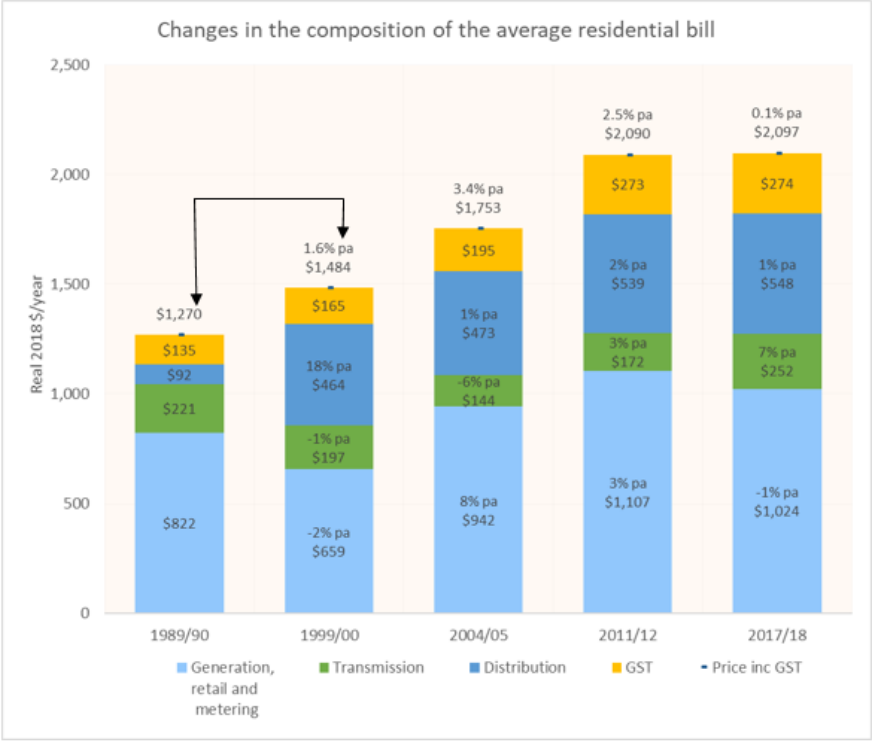
a) We have used the Quarterly Sales Based Survey (**QRSS**) from MBIE, rather than the Quarterly Survey of Domestic Electricity Prices (**QSDEP**) as it incorporates all prompt payment and other discount and accounts for trends in customers' demands.

b) The QRSS series has a lower average prices in 2018 (29c/kWh rather than 29.7c/kWh) and also has a higher lines costs (presumably reflecting the lower 7.2MWh/customer compared with the 8MWk/customer assumed in the QSDEP).

Figure 1 shows:

- The significant change in the distribution component of residential bills resulting from the unwinding of previous subsidies between 1989/90 and 1999/00 (as indicated).
- The flattening of costs reflected in the average residential customer's bill between 2011/12 and 2017/18, 0.1% per annum. In our view this reflects the success of the market reforms in 2010 which have resulted in a highly competitive and dynamic retail market.

**Figure 1: Changes in the composition of average residential bill ($ per year).**



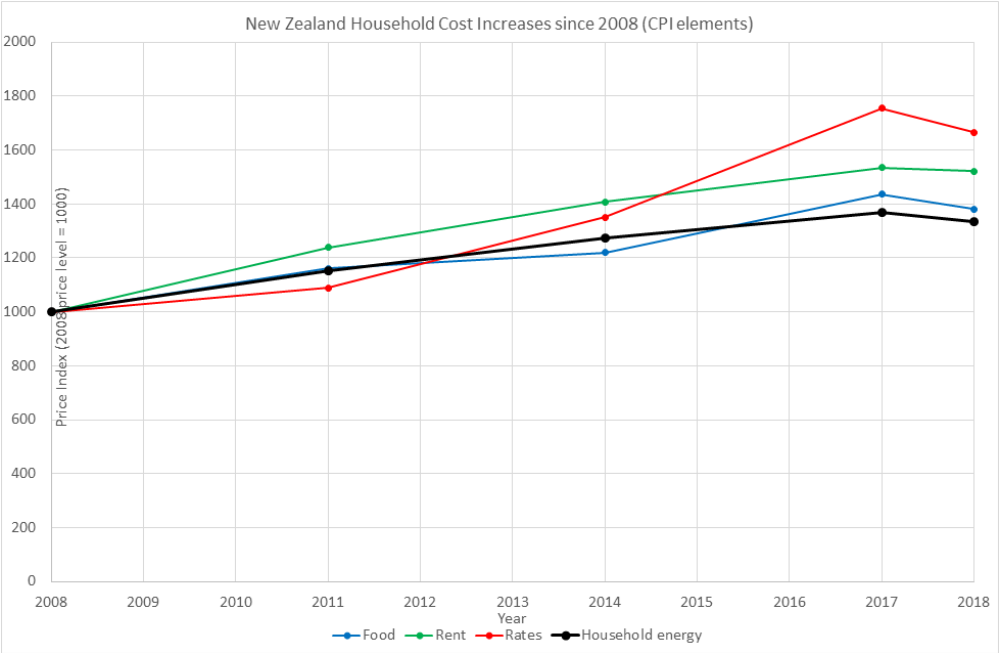

Sources: MBIE QRSS, QSDEP, Energy Hedge, ASX, and TPW assumptions

## Comparison with other expenditure categories

Trustpower has compared the costs of household energy against increases in other household expenditure categories in Statistics New Zealand Consumer Price Index.

Our analysis (in Figure 2) shows that, rates, food and rents have all increased at a higher rate than household energy costs since 2008.

**Figure 2: Increases in Household Expense Categories from the CPI.**




## Retailer operating costs

Trustpower has also undertaken a more detailed analysis of the retail component of electricity prices than that presented in the First Report.

This involved breaking down the generation/retail/metering component of the electricity prices for residential customers and taking a deeper dive into industry wide retail operating costs consisting of:

- The **cost to serve** – before metering and churn costs (estimated to be $135/customer/year).
- The **cost of churn** (replacing customers that are lost in order to maintain a sustainable business, sometimes called the cost to compete) – which is reflective of average customers acquisition costs (estimated to be $350/customer/year) and gross churn rate.
- **Meter reading/processing and rental costs** which were estimated as follow:
    - Old meters = $90/customer/year ($20 read cost and $70 lease cost).
    - Smart meters = $105/customer/year.

In relation to our analysis please note:

- Generation costs are estimated on the basis of energy contract prices assuming a prudent rolling 8 quarter hedging strategy.[5]
- Our estimated breakdown of the generation/retail/metering component of electricity prices for residential customers is approximate only, and is based on a number of assumptions which are difficult to verify completely.

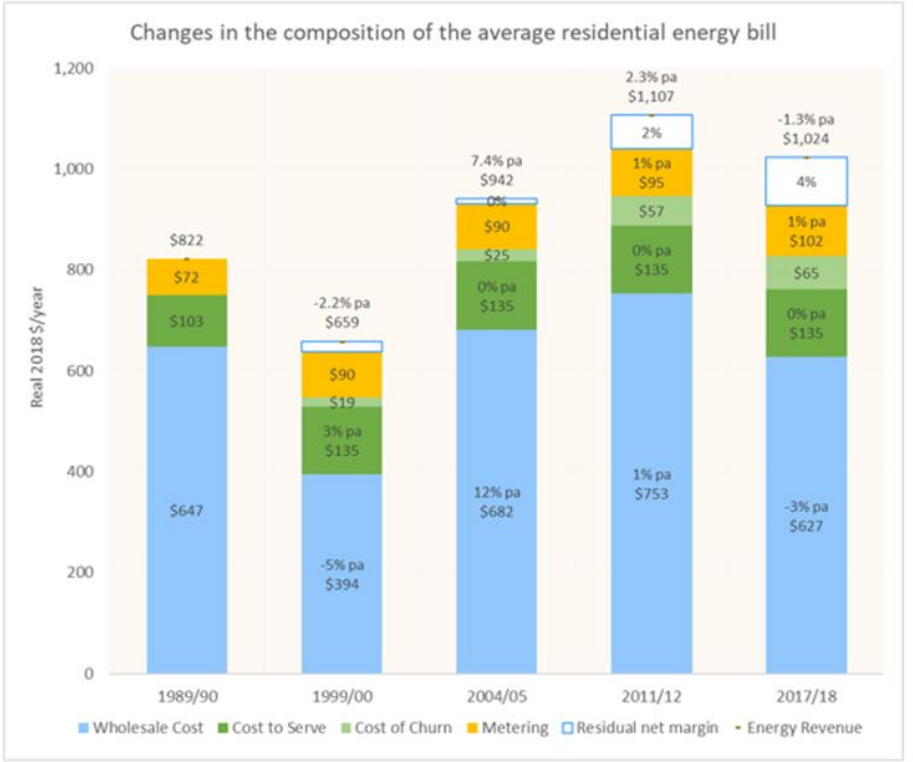
[5] The contract prices are based on an average of OTA and BEN prices from the ASX since 2009, and prior to this from Energy Hedge and New Zealand tariff and fuels index. These baseload contract prices have been increased by factors to reflect the cost of a residential profile and risk (+10%) and transmission and distribution losses (+6%)

- The industry-wide costs for retailing and metering are more difficult to determine, however Trustpower has used its knowledge of its own costs and reported costs from other retailers to make a set of plausible assumptions.
- The cost of smart meters was estimated from Meridian's published annual accounts.

This gives a total operating cost of $301/customer/year in 2018 – which is generally aligned with those presented in Figure 17 of the First Report.

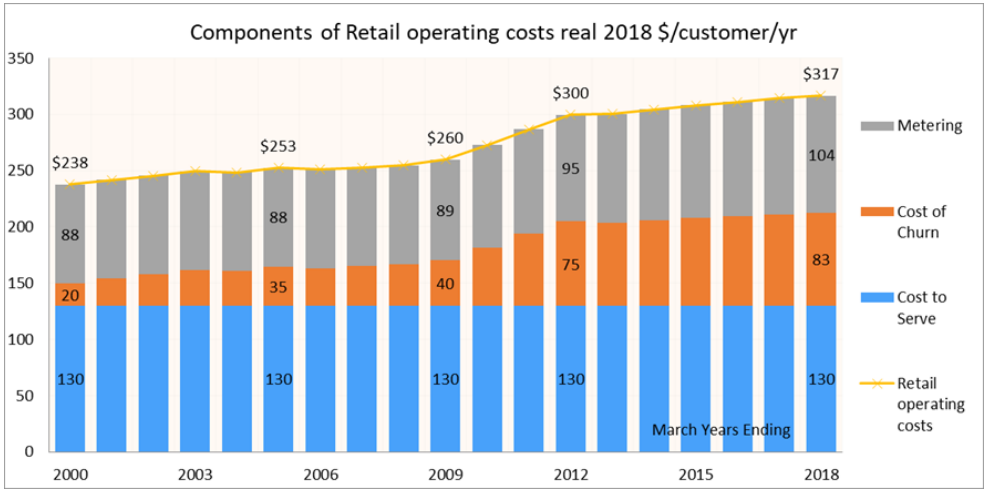
The results of our analysis are presented in Figure 3. Figure 4 presents the changes in the components of retail operating costs since 2000.

**Figure 3: Changes in the composition of the average residential generation/retail/ metering component ($/customer/year)**




Sources: MBIE QRSS, QSDEP, Energy Hedge, ASX, Company Annual reports and TPW assumptions

**Figure 4: Changes in the components of retail operating costs ($/customer/yr)**



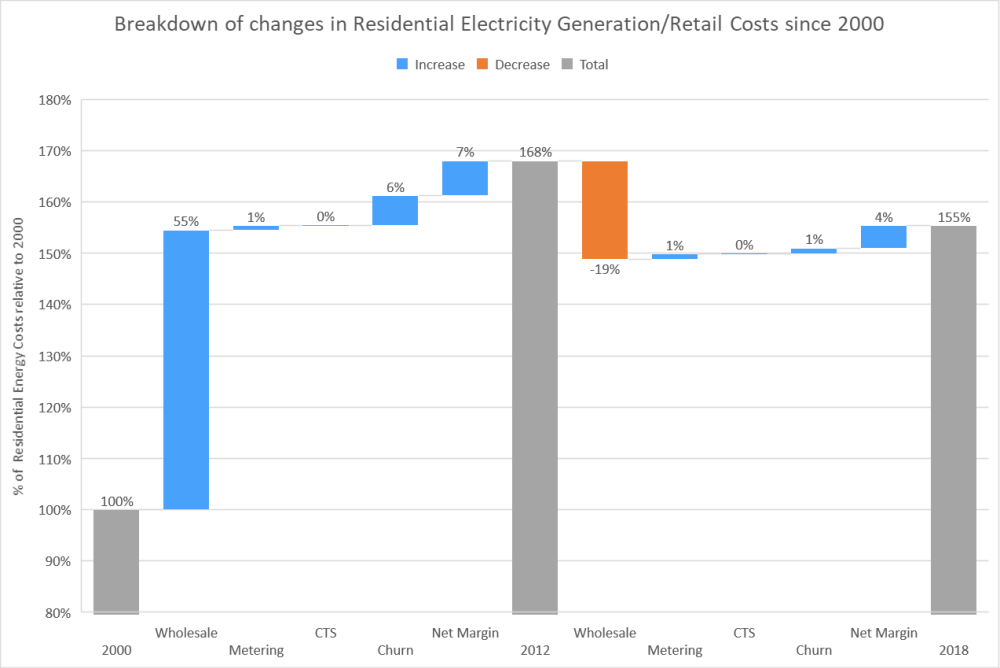

The key points to note are:

- The cost to serve has been very stable since 1990/00.
- The cost of churn has risen as the market became more competitive and greater switching rates have arisen.
- The cost of metering has not risen significantly as technology has improved.

## Cost trends over time

To further explore the question of what has been driving retail costs in New Zealand, we broke down the estimated changes in the components of residential energy costs since 2000 using a waterfall diagram (Figure 5).

**Figure 5: Breakdown of changes in Residential Electricity Energy Costs since 2000**




The key points of note are:

- There was a significant increase in wholesale costs between 2000 and 2012 due to the end of the era of cheap gas in New Zealand.
- Low demand growth, combined with reductions in gas prices and the cost of new renewable generation, resulted in the wholesale component reducing between 2012 and 2018, leading to an overall decrease in energy costs for residential customers, relative to 2000.
- The rapid rollout of smart meters between 2010 and 2018 has not had a significant impact on total metering costs since the increase in meter rental costs has been offset by reductions in meter reading costs.

- In the period prior to 2005 the residual retailing net margin was negative, but it is now moving towards a level necessary for a sustainable retailing business.

## Comment on overseas comparisons

Our views is that:

- Retail operating costs are within the range experienced in other competitive markets and are more than offset by the overall benefits of competition to all customers;
- Drawing comparisons with other countries, such as Australia, needs to be approached cautiously as New Zealand is a much smaller market:
    - For **cost to serve** the difference is mostly because retailers have a much smaller customer base over which to spread costs For example, our estimate is NZ$135/customer/year for cost to serve (excluding meters and churn) - compared with A$90/customer/year ($NZ100/customer) in Australia.
    - For **cost of churn**, the difference relates to higher acquisition costs in the smaller NZ market. For example the cost of churn is estimated to be NZ$64[6]- compared with A$50-60 (NZ$55-65) in Australia.[7]
    - For **smart metering charges**, these are much lower than the A$100-200/year charges that were recovered by distributors during the roll out of smart meters in Victoria between 2010 and 2016, and are still lower than charges in 2017.[8]
- The residual retailing net margin for retailers is in line with the regulated margins in Australia.[9]

[6] Based on a gross churn rate of 18% * $350.

[7] ACCC. *Restoring electricity affordability & Australia's competitive advantage. Retail Electricity Pricing Inquiry—Final Report* (2018, pp. 223 - 230).

[8] Jacobs Australia. *Retail price review. A report for the Department of Environment, Land, Water and Planning. Final Review* (2017, p.35).

[9] We note that during 2016 a retail margin of 5-6% was typically used by Australian regulators. For example, Jacobs (Ibid, p. 99) outlines that the regulated retail margin in Australia were 5.7% in NSW, Queensland and ACT in 2015/16.

# Retailer risks

## Introduction

Retailers offer customers fixed price contracts into the future, but face fluctuating costs for obtaining the electricity sold under those contracts.

In this section, we consider whether the availability of risk management contracts on competitive terms is limiting the ability of retailers, including independent retailers who do not generate their own electricity, to compete in the retail market.

## Available risk management options

### *Net retail position*

Trustpower is both a retailer and a generator. Our generation portfolio consists mainly of 29 small hydroelectric generation stations located throughout New Zealand. With almost 13% retail market share by connection, and generating about 5% of New Zealand's electricity, we are New Zealand's largest net electricity retailer.

As a retailer who does not have sufficient generation to physically hedge our retail book, we utilise the hedge market to manage our exposure to changes in market conditions (i.e. to avoid price shocks from a change in the wholesale market outcomes). This includes accessing physical supply directly from generators and/or financial products which have been developed by the Electricity Authority.

In Trustpower's experience, there are a variety of competitive options available for risk management – including both financial and physical hedges.

### *Role of ASX market*

Trustpower notes that in order to effectively manage wholesale price risk the ASX futures market was developed, providing a means for retailers to hedge their load four years into the future.

The ASX futures market is facilitated by the "Big 4" market makers,[10] each of whom are generally committed to a maximum 5% spread between buy and sell prices across dozens of hedging products in both the North and South Island.

Over the last decade, the ASX has developed to ensure that the product mix will enable new entrant retailers to manage their load.

For example, it was identified that the 1MW minimum trade size (approximately 1000 customers), was too large for smaller retailers, and so the size was reduced to 0.1MW to ensure that retailers can manage their exposure as their customer base grows incrementally. A similar issue has recently been identified in Australia.[11]

The ASX has also introduced peak load products, and option products, including half hourly caps, to enable different options for a retailer to manage their risk.

### *Role of FTR market*

The FTR market was also developed by the Electricity Authority to provide a means for participants to manage price risk around the country.

The FTR market has proven to be an effective tool by which market participants can manage against location price shocks.

[10] We note that the composition of our portfolio is unique and so it not possible to control the production from the vast majority of our generators. As a result, we are unable to act as a market marker without increasing our operating costs compared to generators with a largely controllable load (or retailers with hedges) without severely compromising our ability to compete in the retail market.

[11] ACCC. *Restoring electricity affordability & Australia's competitive advantage. Retail Electricity Pricing Inquiry—Final Report* (2018, p. 112).

The FTR market has recently been expanded to cover eight different locations throughout the country. These locations were chosen based off the level of risk retailers face, and locations where electricity can be purchased.

Coupling the ASX with the FTR market affords a means to effectively manage both price risk, and location risk, leaving any retailer with low wholesale market exposure.

## Typical ASX market performance

The First Report suggests that ASX market maker performance faltered during the winter of 2017.[12]

It expresses the Electricity Authority's concern that:

> *"there may be long-term adverse impacts associated with not being able to rely on… hedge prices when the physical market becomes tight."*

On the face of it, Figure 19 of the First Report paints a quite dramatic picture. However, we note that the data used applies to the nearest 3-monthly futures contract for Benmore on the ASX.

The chart, and the underlying story captured by the First Report, is not based on the situation faced by a prudent hedge manager. Seeking hedge cover with less than 3 months before delivery (spot outcome) in a market dominated by short term[13] hydro storage is not prudent practice.

It would be reasonable to expect a prudent participant seeking cover to hedge their book would do so at least 6-12 months prior to delivery, typically longer. This will ensure that their portfolio can incrementally adjust to portfolio load changes, and will also reduce the risk of short term price shocks on the ASX futures market.

Relying entirely on short term hedging is akin to trying to buy insurance when one's house is on fire.

The recent ACCC review noted the following with respect to expected hedging practice of retailers in Australia:[14]

> *"Most retailers start hedging for a particular period about two years in advance of that period commencing. However, prudently managing forward exposure to prices is a balancing act, with benefits and costs to hedging too far in advance or not far enough. For example, a retailer would not want to enter into hedges to cover their entire (forecast) load two years in advance of a particular period because:*
>
> - *their load might change in the intervening two years*
> - *in two years' time, contract and spot prices might be lower (and competing retailers may set lower retail prices based on those lower spot/contract prices).*
>
> *In this sense, contracting too much load too far out might increase the retailer's exposure to risk.*
>
> *Similarly, a retailer would prefer not to hedge their entire load just before a particular period commences because such a strategy would mean they are completely exposed to the prevailing spot and contract prices. Their retail prices for the period will be largely locked in already, so any wholesale price increases will negatively impact the retailer's margins.*
>
> *By building up a portfolio of contracts over time, a retailer is best able to balance these different risks."* (underline added for emphasis)

We have attempted to reproduce the chart in the First Report below (Figure 6), along with an alternative chart showing buy/sell spreads for the year-out product (Figure 7).

We have not been able to fully replicate the report's chart, possibly due to data quality differences, but nevertheless the differences between our two charts are significant.

[12] MBIE. *Electricity Price Review. Hikohiko Te Uira - First Report for Discussion* (2018, p.44, Fig. 19).

[13] As opposed to some countries with multi seasonal storage, New Zealand has 2-3 months storage, and is therefore highly susceptible to short term "dry" spells.

[14] ACCC. *Restoring electricity affordability & Australia's competitive advantage. Retail Electricity Pricing Inquiry—Final Report* (2018, p. 109).

**Figure 6: Near term ASX spreads at Benmore**

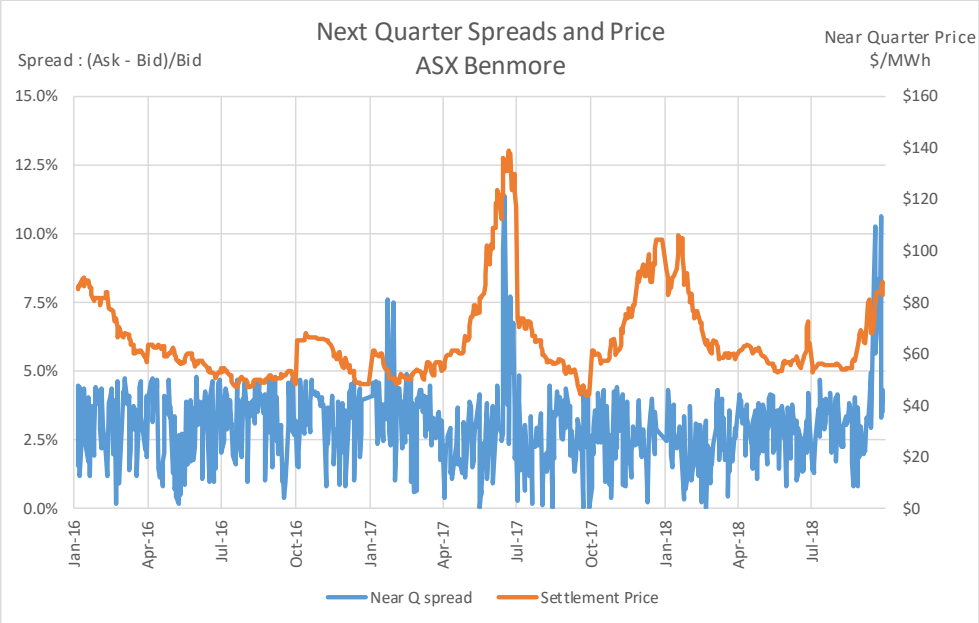



**Figure 7: Medium term ASX spreads**

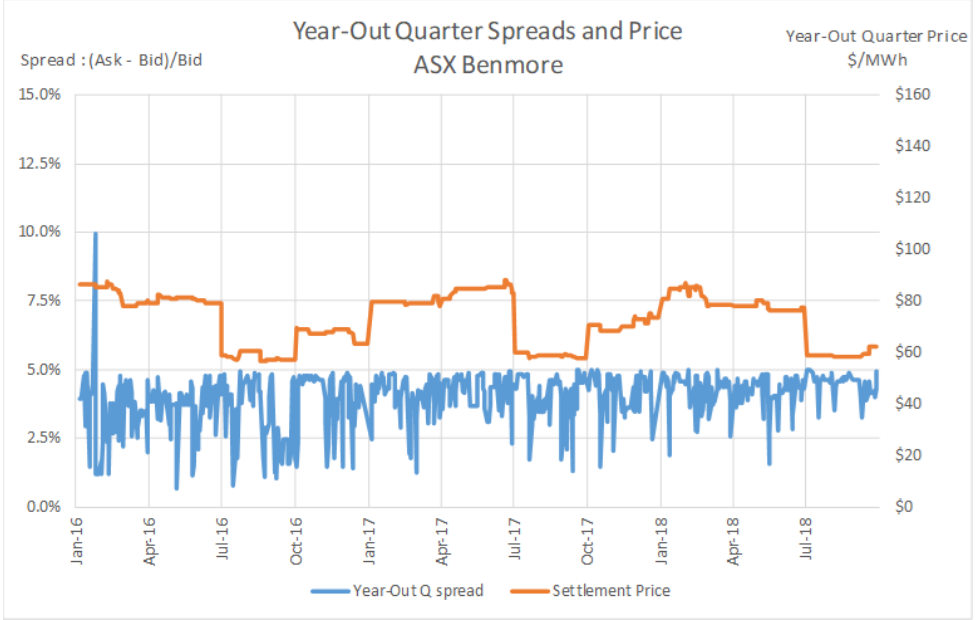



Figure 6 shows a result similar to that presented in the First Report.

We have also plotted the price of the relevant product, showing high spreads are sometimes, but not always, associated with high prices, reflecting greater general risk.

By contrast, year-out quarter ASX spreads at Benmore, as presented in Figure 7 below, are not as volatile, and are almost fully limited to under 5%. It is evident that there are ample opportunities for any participant to hedge their risks one year out at stable spreads averaging around 3-4%.

If hedging on the ASX is carried out by a prudent hedge manager on the many days when the spread is low, and is done well in advance, it appears that the "adverse impacts" that some parties have raised with the Panel to date can easily be avoided.

The Sapere report, which has been provided as part of the Business Energy Council's submission on the First Report, notes that:[15]

> *"The settings of the New Zealand electricity market are such that contracts and spot market prices are expected to combine in a way that will give conservative investors enough confidence to invest in security of supply. It is fair to say that the way the*

[15] Sapere Research Group.*Electricity Sector Review 2018.* (2018, p. 25).

*electricity market is intended to work to achieve this competitive long-run equilibrium is complex. Even the way in which financial instruments work to achieve reliable supply requires experienced and sophisticated understanding of the market. Many smaller retailers, and most customers, do not have this expertise."*

# Current ASX market conditions

At the time of submitting this response we note that the wholesale electricity market has been adversely affected a significant unplanned gas production facility outage.

The stress in the gas market has manifested itself in the electricity spot and ASX futures market resulting in high spot prices[16] and wider spreads on the ASX.

The widened spreads reflect the current heightened risk to all market participants, including the market makers, and unwillingness to sell due to scarcity of gas occurring at the same time as we experience unfavourable hydrological events.

Therefore in our view the ASX arrangements are working as intended.

However the high levels of prices suggests that there may be value in an investigation to assess if there are any market power issues in the gas industry.

It is not clear which agency Gas Industry Co, Commerce Commission, or MBIE should take the lead in addressing this issue and whether they have the powers or in some cases incentives to do so. This suggests a review of their various responsibilities may be in order.

In addition, we note that information on the gas production facility outage and subsequent fuel restrictions for gas thermal generation has not been readily available to the broader market. This has also had an impact on market outcomes.

Trustpower has previously requested the Gas Industry Co and MBIE to consider implementing regulation to ensure information transparency of the broader gas market.[17] This issue is now urgent.

[16] Reflective of the opportunity cost of gas for Methanex (who faces the international price of energy through methanol exports) and the scarcity of water as typical inflows have not yet arrived in the storage catchments

[17]. Refer to Trustpower. *Revised Draft Gas Transmission Access Code*(2017) <available at https://www.gasindustry.co.nz/work-programmes/transmission-pipeline-access/developing/gtac-phase-1-development/revised-draft-gtac-11-september-2017 >

# Conclusions

Trustpower's analysis has shown that:

1. The retail market is highly competitive as evidenced by the flattened costs in the average residential customer's bill between 2011/12 and 2017/18.
2. Household energy costs have increased, on a percentage basis, at a lower rate than other categories of expenditure.
3. Retail operating costs are within the range experienced in other competitive markets.
4. The First Report overstates wholesale market risks for independent retailers as it uses three monthly future contracts whereas a prudent retailer would expect to cover their hedge book at least 6-12 months before delivery.
5. The current market situation has demonstrated:
    a) That the ASX market is working as intended as it is accurately reflecting heightened risk.
    b) There is a need for a review of the competitiveness of the gas markets and the obligation to disclose information about gas events.
    c) Over the longer term change to the regulatory framework is required to ensure a more cohesive approach to energy policy going forward.

# Improving transmission access …

**Electricity Price Review**

Trustpower's views on how the regulatory frameworks which currently govern access to the transmission sector could be improved to facilitate the delivery of fair and efficient prices as technology evolves and New Zealand transitions to a lower emissions future.

October 2018

# Introduction

## Terms of reference

The terms of reference identify a number of issues affecting the transmission sector which are to be considered as part of the Panel's work.

These include:

- *"whether prices are efficient fair and equitable"*
- *"whether the costs of providing electricity services are or should be socialized or spread evenly across different classes of consumers (e.g. households and businesses) or across regions, or urban and rural communities"*
- *"whether the regulatory framework governing the monopoly aspects [i.e. transmission] are delivering efficiency and fairness"*
- *"factors that may form barriers to entry or limit competition across the supply chain"*
- *"the respective roles and functions of the separate regulatory agencies over the sector"*
- *"the nature of cost allocations between customer groups"*
- *"the regional aspects of transmission pricing"*

## First Report

The Panel has found no issues with the outcomes of Transpower's regulated price path but is keen to ensure that transmission access arrangements (including in relation to investment and pricing) are appropriate for the transition to a low emissions economy.

## Background to this paper

In its "**Fit for Purpose regulatory frameworks"** paper, Trustpower has already provided the Panel with its preliminary conclusions on how the regulatory frameworks could be improved to:

- address the issues it experienced on the policy debate on transmission pricing and the associated reform of default terms that apply to the connection of distributed generation to distribution networks; and
- ensure that similar issues are treated in a similar manner in the various utility markets in which Trustpower trades.

In this paper, we supplement those preliminary views with comments on the specific issues which the Panel has raised in its First Report in relation to the transmission system and provide further background information on the rationale for our answers to:

- Questions 19 (transmission); and
- Questions 25 (our solutions to the identified issues).

## Outline of paper contents

More specifically, we discuss:

- the current state of access regulation for transmission networks;
- process, timing and fairness of the Electricity Authority's transmission pricing methodology (**TPM**) reform; and
- our updated set of proposals to address the identified issues.

# Current state of regulation for access to the transmission system

## Introduction

In order to understand the current state of regulation of access to the transmission system it is necessary to understand how it has evolved.

### *Light handed regulation of access and pricing*

In 1994, the Electricity Corporation of New Zealand Limited (**ECNZ**) became a generation company and Transpower was separated out to own and operate the national grid. This led to the unbundling of wholesale charges into separate energy and transmission components. At this time ECNZ and Transpower operated under a light handed regulatory regime comprising voluntary contracts, section 36 of the Commerce Act, information disclosure and the ability to introduce price control if needed.

Transpower was free to select the TPM that it considered would recover its required revenues and best work for its transmission customers. It adopted a tariff structure, which charged separately for connection to the grid, interconnection for the use of the HVAC assets, and the use of HVDC assets. As Transpower was not constrained in its choice of tariff structure, this pricing methodology can be seen as representative of what a transmission company operating under workably competitive market might have adopted.

During this period, the reliance on industry participants to voluntarily enter contracts for the supply, upgrade, and payment of transmission services proved problematic. It resulted in deferred investment, contractual uncertainty, disputed invoices and litigation.[1] After an unsuccessful attempt to replace the bilateral contract process with an overarching multilateral contract, the Government stepped in and regulated transmission pricing.

### *Transitional regulation of pricing*

The Electricity Amendment Act 2001 gave statutory effect to Transpower's pricing methodology, for a transitional period of up to two years. This was later extended by six months and then replaced by transitional regulations, which ultimately survived until 2008.

The Electricity Amendment Act 2001 also provided for the establishment of the Electricity Commission and the recasting of the industry's proposed self-regulatory agreement into Electricity Governance Regulations (**EGRs**) made by the Minister under part 14 of the Electricity Act.

### *Regulated access and pricing terms under the Electricity Commission*

Some of the regulated transmission access terms differed from the proposed industry multilateral agreement.

The industry had proposed a set of transmission rules which gave primacy to contractual negotiations between Transpower and its customers. This included contractual negotiation around new transmission investments. In contrast, Section II of Part F of the EGRs provided a process for the regulator to determine the form

[1] *Vector Ltd v Transpower NZ Ltd - 3 NZLR 646* (Court of Appeal Wellington, August, 1999), *Transpower New Zealand Ltd v Meridian Energy Ltd - 3 NZLR 700* (High Court Wellington, June, 2001).

of transmission agreements and obligations on transmission customers to have a transmission contract.

Similarly, Section III of Part F of the EGRs sets out the process for the regulator to establish grid reliability standards, develop and apply a grid investment test for grid upgrades, and provide for the costs of approved grid investments to be recovered by designated transmission customers.

However, the part of EGRs which dealt with the processes and principles to be applied by the Electricity Commission in establishing a TPM was reasonably similar to that proposed by the industry. The steps required include consultation on an issues paper and preparation of guidelines for Transpower to follow. The Electricity Commission characterised the TPM process in Part F of the EGRs as follows:[2]

> *"The purpose of the transmission pricing methodology (TPM) is to ensure that Transpower recovers its full economic costs from transmission customers in accordance with a set of pricing principles set out in section IV of the Electricity Governance Rules 2003 (Rules) and subject to Part 4A of the Commerce Act 1986 (Part 4A). The pricing principles generally seek to ensure the TPM results in economically efficient prices to transmission customers.*
>
> *The process set out in the Rules requires that Transpower prepare a Proposed TPM and, if it adequately conforms to the pricing principles, guidelines, and any determination made under Part 4A (i.e. pursuant to rule 7.2.1), that the Commission publish it for industry consultation. Following consultation and any actions that result from that consultation, the Commission then makes a recommendation to the Minister of Energy to include the TPM as a schedule to the Rules.*
>
> *To assist Transpower in developing the Proposed TPM, the Commission developed and published (after consultation) a set of guidelines and a process for Transpower to use in developing its Proposed TPM in February 2005. The purpose of the guidelines is consistent with the overall purpose of the TPM."*

In relation to transmission access, the EGRs required the Electricity Commission to:

- design a new regime determining who the customers of the transmission service are;
- determine the contents of the default benchmark agreement;
- establish the grid investment test for the approval of new transmission upgrades;
- approve a series of once in a lifetime transmission upgrades using those new tests; and
- develop transmission pricing guidelines to ensure Transpower received its required revenues.

These tasks were all completed by the Electricity Commission and have by and large proved to be very durable.

A possible exception to this assessment is the Electricity Commission's choice of the appropriate contract counterparty for the HVDC assets in the TPM guidelines.

This was a problem for the Electricity Commission from the outset:

- it first proposed a phased re-allocation of all the HVDC charges from South Island generators to off take customers (distributors and directly connected load);

[2] Electricity Authority. *Transmission Pricing Consultation Paper* (November 2006, p.5 at 1.1.2 – 1.1.4).

- this was then modified to a proposal to reallocate only **new** HVDC investment costs to South Island generators; and

- then, following a successful legal challenge from Contact and Meridian on the adequacy of its consultation process, its proposals were revised again to return to the original approach of Transpower that these costs should be borne by South Island generators (because of the practical difficulty of separating new and old HVDC asset costs)..

The Electricity Commission's decision making at this time was adversely impacted by its statutory timeframes. This is acknowledged by the High Court.[3]

### *Regulated access and pricing terms under the Electricity Authority*

In 2010, the regulatory framework which governed the electricity sector was amended. The key changes were:

- a narrower statutory objective, focusing on efficiency, competition and reliability rather than equity and environmental factors and other specific outcomes;
- greater independence and autonomy for the industry regulator, which now had the right to make industry rules without Ministerial approval;
- the removal of the requirement for the industry regulator to "*give effect to*" government policy statements (these can still be issued, but the Electricity Authority only has to have "*regard to*" them); and
- transfer of the grid investment approval process to the Commerce Commission.

The Cabinet paper recommending this reform identified several areas the Government thought were not being progressed fast enough to improve competitive outcomes. Transmission pricing was not one of these.

As detailed in our **Fit for Purpose regulatory frameworks** paper, these reforms resulted in the split allocation of regulatory responsibility for the regulation of the transmission system between the Electricity Authority and the Commerce Commission.

The Commerce Commission assumed responsibility for the approval of Transpower's capital expenditure. It now utilises the grid investment test developed by this Electricity Commission in its processes.

The Electricity Authority assumed responsibility for the TPM. Very early in the process it considered that the TPM Guidelines developed by the Electricity Commission were inconsistent with *its* interpretation of its statutory objective and needed to be entirely replaced with a methodology, which allocated the cost of individual transmission assets to the assessed beneficiaries of those assets.

The Electricity Authority TPM process has included:

| | |
|---|---|
| **2011** | Removal of Pricing Principles. |
| **2012** | Finalisation of a decision-making and economic framework used to make decisions in relation to the TPM instead of the pricing principles (**DME Framework)**<br><br>Release of Transmission Pricing Methodology: Issues and Proposal Paper (**First Issues Paper**) which reviewed the TPM against the DME Framework and proposed new TPM replacement Guidelines. |

[3] *Contact Energy and Meridian Energy* vs *Electricity Commission*. CIV-2005-485-624 at paragraph 33

| | |
|---|---|
| **2013-2015** | Consultation on the following TPM working papers:<br>• Cost benefit analysis (**CBA**) Working Paper;<br>• Sunk costs working paper;<br>• Avoided cost of transmission) payments for distributed; generation working paper<br>• Use of loss and constraint excess to offset transmission charges working paper<br>• Beneficiaries-pay working paper<br>• Connection charges working paper ;<br>• Long Run Marginal Cost Charges working paper<br>• Problem definition relating to interconnection and HVDC assets working paper<br>• Options working paper. |
| **2016** | Electricity Authority consulted on its second Transmission Pricing Methodology: Issues and Proposal Paper (**Second Issues Paper**) which reviewed the TPM against the updated problem definition and proposed an alternative set of TPM replacement Guidelines.<br><br>Electricity Authority also began consultation on its Second Issues Paper; Supplementary consultation (**Supplementary Paper**) which proposed a third set of TPM replacement guidelines. |
| **2017** | Electricity Authority announced it would need to prepare a new CBA to support its proposed TPM Guidelines. |
| **2018** | Electricity Authority announced it was preparing a further (fourth) set of TPM Guidelines. This will continue to be based on a beneficiaries pay approach for new and existing assets. |

As noted in the First Report, the Electricity Authority's process "*has proved contentious, costly and is not yet complete*".

The Panel have invited submissions on the TPM process, timing and fairness. These matters are addressed in the next sections.

However, our view is that the other elements of transmission access are largely settled other than the risk relating to role overlap outlined in our **Fit for Purpose regulatory frameworks** paper.

# TPM Process

## Legislated process for establishing the TPM

The process that is intended to govern a review of the TPM is set out in Part 12 of the Electricity Industry Participation Code 2010 (**Code**)**.** However, it is now apparent, the 2010 reforms have had a significant impact on the intended process.

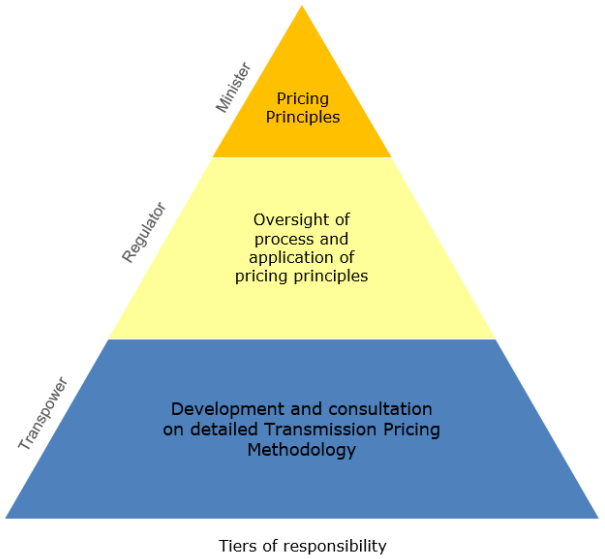
The removal of the requirement for Ministerial approval for Code changes has created ambiguity about the extent to which the Electricity Authority is bound by the process and threshold requirements in the Code (because the Electricity Authority can change the Code at any time).

Secondly, the original design of the regulations governing the TPM provided for tiers of responsibility in the development of the TPM:

- the primary responsibility for the developing the TPM was entrusted to Transpower;
- high level guidance for the TPM was provided to Transpower in the form of:
    - pricing principles (first set out in a Government Policy Statement and then the industry rules); and
    - the TPM Guidelines which were to be developed by the industry regulator in the prescribed manner;
- the pricing principles and the TPM Guidelines required the approval of the Minister;
- the TPM developed by Transpower had to be checked by the industry regulator against the pricing principles and the TPM Guidelines and also approved by the Minister;
- once developed:
    - Transpower could review the TPM (against the current TPM Guidelines) at any time (unless it had recently completed such a review); and
    - the industry regulator could also review the TPM against the current TPM Guidelines but only if was a material change of circumstances.

These tiers of responsibility provided a high level of certainty and stability for transmission customers who invest in long life assets (generators, distributors and large consumers).

### *Tiers of responsibility*




The removal of the requirement for Ministerial approval for Code changes when the Electricity Authority was established removed one of the tiers of responsibility.

The 2010 reforms have also, potentially inadvertently, diminished the role Transpower has in relation to the formulation of the TPM as the Electricity Authority regards itself as the entity with final responsibility for the Code and the TPM is part of the Code.

Thus, although the Code provides that both Transpower and the Electricity Authority have to assess the TPM against section 15 of the Act, there is no legislated process to resolve differences of interpretation on the high level objectives contained in section 15.

The Electricity Authority's solution to this is to be very prescriptive around the about the application of section 15. Examples of this prescriptive approach are the:

- terms of the DME Framework;
- inclusion of specific requirements on how section 15 is to be applied by Transpower in developing the TPM in each of the three sets of replacement TPM Guidelines it has developed;[4] and
- degree of prescription and level of detail in each of its proposed replacement Guidelines.

In the TPM process a number of stakeholders expressed concern that the Electricity Authority's approach usurped Transpower's intended role in relation to the TPM.

### *Impact of regulated process on Transpower's TPM role*

This is problematic as Transpower has a number of serious reservations about both the need for substantial reform to the TPM and the solution proposed by the Electricity Authority.

For example, Transpower's submission on the Second Issues paper lists Transpower's concerns about the:

- scale of the pricing impacts relative to the efficiency gains expected;
- uncertainty about how robustly the benefits can be calculated;
- wide range of potential pricing outcomes that are possible because the results are highly sensitive to assumptions and modelling inputs (noting the problems are likely to be worse for sunk assets than new assets);
- potential for increased disputes from the application of the proposed area-of-benefit charge to each new eligible investment;
- fact that the Electricity Authority's proposal discriminates between Transpower customers solely on the basis of the age of the assets which supply them;
- impact of the removal of the existing dynamic pricing signals, which Transpower considers is too significant to rely on 'judgment' that the area-of-benefit charge would act as a proxy for long run marginal cost;
- impact on the wholesale electricity market and the nature of the locational signal the area-of-benefit charge would send to prospective new generation;
- number of price adjustment mechanisms required; and

[4] See para 4.4.1-2 of Trustpower's submission on the Supplementary Issues Paper <available from: https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/consultations/#c16277 >

- complexity and intricacy of the Electricity Authority's proposals which reduce transparency and practicality.

As a result of these concerns, Transpower proposed an alternative set of proposed replacement TPM Guidelines. Transpower's replacement guidelines sought to find the middle ground between the Electricity Authority's views and the views of the majority of its transmission customers.

However, the Electricity Authority chose to completely ignore this option in developing replacement TPM Guidelines for the Supplementary Paper.

### *Expert views on legislated TPM process*

Trustpower's expert advice is that the current legislated TPM process is inconsistent with international norms.

Professor Yarrow has stated that the primary focus of the regulation of monopolies is usually on the overall level of prices and revenues, not on how those revenues and prices are cascaded down to individual transmission customers.

He explains that it is very common for regulated networks to have considerable discretion over their price structures. This is because they have better information about their costs and customers. However, this discretion is not unfettered. It often has to be exercised within "guidelines" which provide

> *"bounds on that discretion necessary to ensure that the resulting price structures do not significantly impede achievement of the relevant, high-level, public policy objectives".* [5]

He notes that, in addition to assisting with the attainment of high level public policy objectives, guidelines also provide a level of regulatory certainty to transmission customers:[6]

> *…the production of guidelines serves the beneficial function of providing greater certainty for customers of the utility concerning the ways in which their future charges will be determined, i.e. reducing arbitrariness that might otherwise occur in consequence of the use of market power, whether by the utility or by a regulator.*

As a result, our view is that these issues will require structural solution. Our proposed solution is set out on page 15 of this paper.

## Electricity Authority's engagement process

The structural issues associated with the legislated TPM process have been exacerbated by the Electricity Authority's chosen engagement process.

The First Report comments that there has been extensive consultation by the Electricity Authority on its TPM proposals. Trustpower acknowledges the volume of consultation material produced.

However, our experience as a submitter is that the Electricity Authority's consultation process has been seriously hampered by:

- the contemporaneous consultation on problems and solutions;
- the width of unresolved issues and lack of detailed reasons for the matters which the Electricity Authority considers resolved;
- the ad hoc release of information during consultation periods;

[5] Yarrow, G. *Some awkward problems raised by the Electricity Authority's Review of the Transmission Pricing Methodology* (2017, p.2) <available online at https://www.ea.govt.nz/dmsdocument/21897 >

[6] Yarrow, G. *Some awkward problems raised by the Electricity Authority's Review of the Transmission Pricing Methodology*. (2017, p.2) (available online at https://www.ea.govt.nz/dmsdocument/21897 )

- the fact that in relation to the core elements of the Electricity Authority's TPM processes, consultation has been inexplicably time constrained;
- the choice of a "propose-respond" engagement process rather than the use of a more open and collaborative style such as occurs when advisory groups are engaged and the Electricity Authority shares its internal and external advice prior to formal consultation processes;
- the Electricity Authority's failure to provide ongoing feedback to submitters as to how their submissions have fared in the development of its thinking which has meant stakeholders have had to guess which of their submissions the Electricity Authority thinks might have merit by working back from its updated proposals;
- the Electricity Authority's reluctance to support its views on the problems with the current TPM and preferred solution with those of independent experts;
- the restricted use of cross-submissions; and
- the Electricity Authority's reluctance to hold a hearing in relation to its proposals (as permitted by the Code) so stakeholders have the opportunity to engage first hand with the decision-makers.

Trustpower considers this is an incredibly inefficient way to conduct an important consultation process. It is also unfair as submitters have simply no idea what is "in play" or already "resolved" and, most importantly, "why".

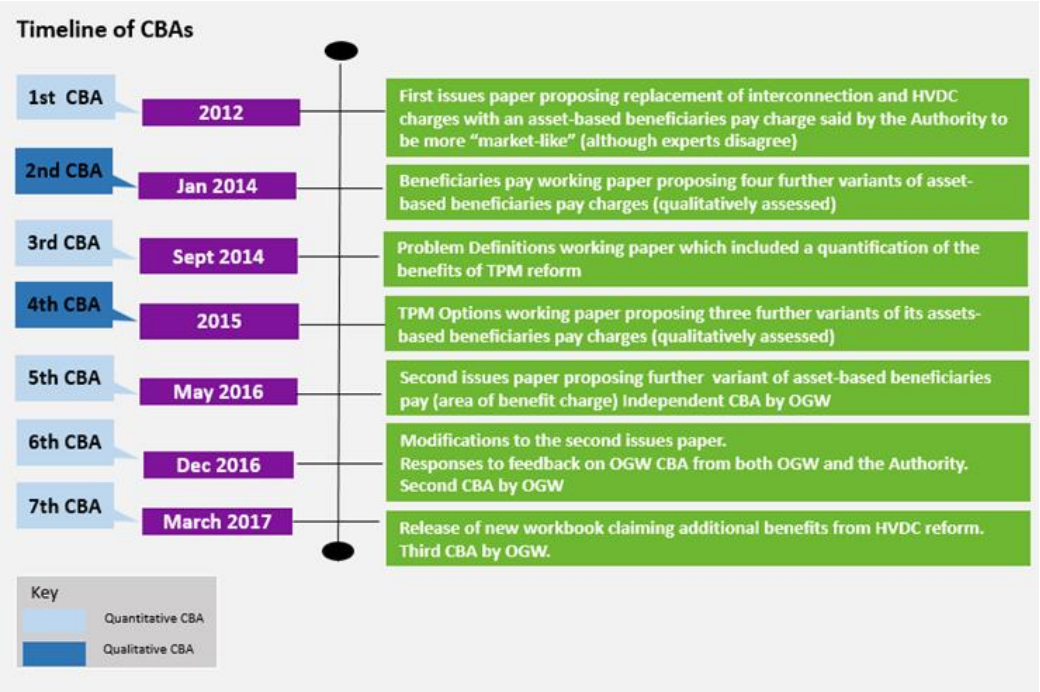
### *Use of cost benefit analysis*

The process has also been hampered by the way the Electricity Authority has undertaken the required CBA. A robust CBA will assist both the Electricity Authority and stakeholders to more precisely understand the:

- objective of the reform;
- lowest cost, and most effective options to achieve that objective; and
- nature and magnitude of any risks of non-achievement – including potential unintended consequences.

The Authority has now presented a number of quantitative and qualitative, full and partial CBAs in support of its proposals to replace the current TPM Guidelines.

A timeline of these various CBAs is set out in the diagram below which also notes the number of variants of asset based beneficiaries pay charging options the Electricity Authority has now considered.



The Electricity Authority's:

- dismissal of the status quo at the very beginning of its reform process;
- focus on a single option for TPM reform; and
- reluctance to fully engage with stakeholders' feedback on the various CBAs,

creates the perception that the CBAs are not being used as a tool to guide analysis but instead as a justification of a prior view.

### *Length of process*

In addition, the process have now been going on for more than six years and as noted in the First Report has several more years to run. This creates of a real risk of confirmation bias.

Problematically the usual ways to counter the risk of confirmation bias in lengthy regulatory processes, namely:

- convening advisory groups;
- engaging external experts;
- cross-submissions; and
- holding hearings,

have all been resisted by the Electricity Authority.

These matters have been raised in our various submissions on the Electricity Authority's consultation papers where we explained our view that the Electricity Authority's engagement process:

- was not consistent with the efficient operation of the industry;
- will not mean that the Electricity Authority gets the benefits envisaged by Government when it required the Electricity Authority to consult on changes to the regulatory framework; and
- is likely to result in some parties:[7]

> "*withdraw from engagement in this and other related regulatory processes, refrain from seeking the advice of independent experts as part of their submission development process, and instead focus on engagement in political processes*".

The Electricity Authority's failure to respond to these process concerns has undermined its mandate for TPM reform. This reinforces our view that structural change is required.

[7] See paragraph 2.3.8 of Trustpower's submission on the Supplementary Issues Paper <available from: https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/consultations/#c16277 >

# TPM Timing

## TPM reform is misguided

For the reasons set out in our extensive submissions, Trustpower considers the Electricity Authority has:

- overstated the problems with the current TPM;
- been too quick to dismiss the status quo;
- overstated the benefits that will be provided to consumers; and
- understated the risks of significant unintended consequences.

Numerous experts concur with this view. For example, the report commissioned by the TPM Group from Covec Consulting:

- illustrates that a very high proportion of experts do not support the key economic and legal propositions underlying the Electricity Authority's analysis and proposed solutions; and
- observes that the Electricity Authority's TPM review process got off onto a wrong footing when it defined the problem in terms of the absence of the Electricity Authority's preferred solution.

Further, reports from international experts commissioned by Trustpower show the Electricity Authority's flagship area of benefit charge is flawed because:

- it assumes without any proof whatsoever that in a workably competitive market a network owner of an intermeshed transmission grid would adopt a charging structure based on forecast lifetime benefits of individual transmission assets;
- it is unlikely to produce the results desired by the Electricity Authority as in practice very few market participants are likely to be able to anticipate, understand and interpret the "shadow price" signals provided by the charge and respond to those shadow prices with appropriate actions; and
- the nature of the modelling requirements involved in undertaking defensible long-term (i.e. 30 year) modelling of market outcomes over a transmission asset's lifetime and the corresponding calculations of private benefits down to grid user level means that the Electricity Authority's proposals are unlikely to ever be able to be put successfully into practice.

These factors in combination with:

- the fact that the process has being going on since 2011 and we has not yet resulted in a finalised set of TPM Guidelines supported by a robust CBA;
- the relatively small benefits of the proposed reform for end-users; and
- the risks to investor certainty that have arisen as a result of such an unsatisfactory process,

suggests TPM reform should be abandoned or replaced by more modest reform such as a further operational review by Transpower.

In order to safeguard against a process like this occurring again we propose:

- the reintroduction of tiers of responsibility for the TPM;
- a change to the responsible regulator; and
- the inclusion of a new intervention threshold to restrict future interventions to the situation where material benefits are realised for consumers.

Our specific proposals are set out in as set out on page 15 of this paper.

# TPM Fairness

## Views of Electricity Authority

The Electricity Authority has advised the Panel that it would have developed the same TPM Guidelines as it has proposed in its existing proposals if fairness was part of its statutory objective.

Trustpower notes that the Electricity Authority's view that a new TPM would be more durable if it was based on a beneficiaries pay approach is heavily dependent on the assumption that benefits can be robustly and enduringly calculated.

However, in response to the Electricity Authority's proposals, Transpower has stated that:[8]

> *"There is considerable uncertainty about whether a robust benefit-measurement method can be developed that is fit for transmission pricing purposes"*

and that

> *"The results are highly sensitive to the assumptions and modelling inputs used- such that the range of outcomes could potentially have an individual customer being determined as a minor or a principal beneficiary.*
>
> *These problems are likely to be worse for sunk assets than for new assets. The estimate of benefits from sunk assets depends on assumptions about what would have happened in the past absent the investment, and not just about the future. The counterfactual becomes more hypothetical the older the asset."*[9]

This creates the risk that rather than improve durability and fairness, the Electricity Authority's proposals could make it worse.

They could also have an adverse effect on efficiency as well as Transpower has also expressed concern that:

> *"There is a risk that stakeholder attention will be diverted away from the market benefit assessment as to whether the projects should go ahead to the question of who benefits and by how much".*

## Trustpower's views

Our experience of the TPM reform process to date, is that the Electricity Authority appears to have a particular focus on geographical fairness, namely the risk that one region (the South) pays more than another region (the North).

Trustpower notes that a core feature of the Electricity Authority's asset based beneficiaries pay proposals is that the "deemed beneficiaries" of individual transmission assets will face "rate shock" when those assets are renewed. This may affect some regional communities more than others.

However, there are a number of other types of fairness, which could be in play in relation to the allocation of the costs of the transmission system. These include:

- "generational fairness" the risk that the current generation is required to pay for transmission upgrades whose benefits do not accrue until the next generation;
- "fairness regarding assumptions" the risk that changes to market circumstances mean that the assumptions on which original cost allocations are made turn out to be incorrect (such as the assumption that an upgrade to the transmission system to the West Coast was required to support Pike River coal mine);
- "fairness between customer groups" some customers can argue that they should pay less as they do not need to use all of the assets (e.g. if they did

[8] Transpower, *Transpower Submission: Transmission Pricing Methodology 2nd Issues and Proposals Paper* (2016, p.23 Table 7).

[9] Ibid. p. 23 Table 7.

not trigger the need for the upgrade; do not consume at peak, live close to generation sources, or have alternative supply);

- "fairness in response expectations" some customers could be allocated costs to encourage a response which in practice they cannot provide (for example because they have already made their investment or because the price signal is not sufficiently clear or certain) or could have already made substantial investment to respond to the current TPM and then find that investment is worthless when the regime changes; and
- "bright line" issues where similar customers get treated differently as a result of the need in any methodology to draw "bright lines" to distinguish between different groups.

## Expert views

Dave Smith has commented on the difficulty of considering equity in the context of transmission pricing in an expert report he prepared for Trustpower.[10]

> *"In many areas of public policy- for example taxation policy- efficiency and equity objectives are traded off, to the extent that they are in conflict*
>
> *The problem with equity – and possibly one reason why it is not established as a policy objective- is that it is a very slippery concept. Like beauty, equity is often in the eye of the beholder. For example, some may consider that a pricing method, which everybody pays the same price, irrespective of location, is the fairest one. Others may consider that it is unfair that, under that approach, they appear to be paying for transmission assets that they don't use.*
>
> *Equity involves considerations of the relative prices paid by different classes of user. Location is an obvious classification and one that the Authority tends to focus on. But generational classes (e.g. current users vs future users) and customer size (i.e. proportionality) are also relevant to equity considerations. Focussing on one category (e.g. getting end users in Auckland to pay for the NIGU) could create inequity on another category (e.g. current Auckland end users paying for the costs of oversizing the NIGU which was done with future users in mind)."*

Of particular concern, to stakeholders have been the Electricity Authority's ongoing proposals to reallocate the costs of assets after they have been built. Trustpower's experts have advised that there is no efficiency benefit in such reallocation:[11]

> *"In this proceeding, the vast majority of the efficiency benefits claimed by the proposed reforms are speculative and dependent upon strong assumption. A key feature is the reallocation of the costs of a subset of existing transmission assets between market participants. The only truly robust empirical finding from this process is that the proposed changes will result in a substantial shift in charges from some of those parties to others. Such shifts may be viewed as correcting historically unfair arrangements, but they are largely transfer from one set of participants to another that do little, if anything, to improve the economic efficiency of the New Zealand electricity supply industry."*

Our experts have also advised perceptions of fairness can change over time:[12]

> *"However, we remain skeptical of the practical utility of the concept of beneficiaries pay as a guiding principle for transmission cost recovery, and note that one of the elements of the current regime that has drawn strong criticism, the charges for the HVDC interconnectors between the South and North Islands, represents New Zealand's only previous experience with the beneficiaries-pay approach. The HVDC charges, unlike those for other projects, have been applied to a specific subset of participants, apparently due to the belief that this group (South Island generators) would be the prime beneficiaries of the project. This created concerns over distortions in the operating and investment behavior of these presumed beneficiaries. While these distortions have been at least partially addressed through recent changes in the mechanism used to allocate these charges between the beneficiaries, this experience demonstrates the difficulty of attempting to allocate transmission costs to presumed beneficiaries."*

[10] Creative Energy Consulting Pty Ltd. Review of the Electricity Authority's TPM Option Working Paper (August 2015) <available at www.ea.govt.nz/dmsdocument/19784 >.

[11] Bushnell, J & Wolak, F. *Beneficiaries-pay pricing and "market-like" transmission outcomes* (February 2017, p 1-2)

[12] Bushnell, J & Wolak, F. *Beneficiaries-pay pricing and "market-like" transmission outcomes* (February 2017, p 1-2).

## Current methodology

These are all matters, which Transpower has had to consider in the many years it has been involved in transmission pricing reform. The current TPM is its "best solution" to these issues.

In particular, the postage stamp approach to the allocation of the costs of interconnection assets is based around the notion that it is impossible, or highly impracticable, to calculate the beneficiaries of power flows for the core grid as:

- power flows in different directions at different times; and because
- users of particular grid assets frequently change over the long lifetimes of the relevant asset.

The methodology also reflects the fact that grid investments are often made ahead of demand in "blocks" which are cost-effective over the lifetime of the assets. This might mean that there are only a small number of persons getting a positive benefit from the assets in the initial years after the assets are commissioned, but that group of persons will grow over time as demand increases.

The case for change to this approach has not yet been made.

# Solutions to identified transmission access issues

There are many aspects of the current arrangements, which are working well:

- the decision to regulate transmission access agreements and the contract counterparties has resolved previous disputes;
- the grid investment test originally developed by the Electricity Commission has been adopted and successfully refined by the Commerce Commission; and
- the individual price quality path for Transpower which sets the overall levels of transmission revenues.

It is only the TPM which has gone "off the rails."

We recommend a return to a process based on different tiers of responsibility with:

- the Minister setting out the high level policy guidelines;
- the regulator developing a TPM input methodology which sets out the regulatory processes which Transpower is to follow in developing or reviewing its TPM in response to those high level policy guidelines; and
- Transpower having the primary responsibility for developing (and reviewing) the TPM in accordance with the government policy statement and the TPM input methodology.

## Recommendations

The following table provides a summary of our updated recommendations in relation to improving transmission access regulation:

Trustpower suggests that the Electricity Price Review recommends to Government that it address the current issues in relation to transmission pricing by:

- developing a mandatory GPS that sets out the pricing principles which should apply for access to the transmission system;
- requiring the regulator to develop rules which set out the process and criteria which should apply to the development and review of the transmission pricing methodology; and
- providing that Transpower are to develop their tariff structures in accordance with the pricing methodology, processes and criteria, respectively developed by the Minister and the regulator.

# Improving the efficiency of distributors and access to distribution networks …

**Electricity Price Review**

Trustpower's views on how the regulatory frameworks which currently govern the distribution sector could be improved to facilitate the delivery of fair and efficient prices as technology evolves and New Zealand transitions to a lower emissions future.

October 2018

# Introduction

## Terms of reference

The terms of reference identify a number of issues affecting the distribution sector which are to be considered as part of the Panel's work.

These include:

- *"whether prices are efficient fair and equitable"*
- *"whether the regulatory framework governing the monopoly aspects [i.e. distribution] are delivering efficiency and fairness"*
- *"factors that may form barriers to entry or limit competition across the supply chain"*
- *"the ability of suppliers of [distribution] services to extract excessive profits over time"*
- *"the nature of cost allocations between customer groups"*
- *"whether the costs of providing electricity services are or should be socialized or spread evenly across different classes of consumers (e.g. households and businesses) or across regions, or urban and rural communities"*
- *"the respective roles and functions of the separate regulatory agencies over the sector"*
- *"the role and effectiveness of the current regulatory framework in promoting competition, including at the boundaries between contestable and non-contestable services"*

## First Report

The Panel have no significant issues in relation to the price-paths that apply to non-exempt distributors but have queried whether all distributors should be bound by the current regulatory arrangement. They have also asked if there are any barriers to greater efficiency of distribution services and for stakeholder views on distribution pricing.

## Trustpower's experience and prespective

Trustpower is a national retailer, which means it has to acquire distribution services from each of the 29 distributors. It is also New Zealand's largest owner of distributed generation as its hydro-power schemes are connected to ten different distribution networks.

## Outline of paper contents

This paper provides further information on:

- distributor efficiency and how we think the current regulatory framework could be amended to improve the outlook for future electricity prices;
- distribution pricing including the desirability of introducing more cost reflective pricing for access to distribution networks;
- the extent to which the current allocation of distribution costs to different customer groups is efficient and fair;
- access to distribution networks including:
    - the slow pace of reform in regulating access terms;
    - the patchwork of arrangements which now apply to distributed generation; and
- the boundary between contestable and non-contestable activities of distributors.

The material in this paper is relevant to our answers to the following questions in the First Report:

- Question 6 (outlook for future prices);
- Questions 13 and 15 (barriers to competition in generation and retailing);
- Questions 22 (allocation of distribution costs);

- Question 27 (impact of technology on pricing mechanisms and the fairness of prices);
- Questions 31 to 33 (suitability of regulatory frameworks in the context of emerging energy technologies); and
- Questions 11, 25 and 35 (our solutions to the identified issues).

# Distributor efficiency

## Introduction

Over the last seven years, electricity prices have increased from 27 to 29c/kWh (real terms) as a result of a substantial increase in the cost of the lines services as the cost of energy has remained level.

This raises questions surrounding the efficiency of the distribution sector and whether there are any measures the Panel could recommend to constrain rising lines costs. Such measures will of necessity require amendment to the regulatory frameworks as lines services are regulated activities.

In this section of the paper, we consider whether distribution efficiency can be improved by:

1. Simplifying the form of price-quality control and extending it to all distributors; and/or
2. Inviting the Commerce Commission to extract further efficiencies from the current regime using its existing review processes.

## Scope of economic regulation

The regulatory arrangements under Part 4 of the Commerce Act provide that all lines businesses (including Transpower) are subject to regulation.

Information disclosure requirements apply to all lines businesses.

Price-quality control applies to some but not all distributors. Some distributors (generally the smaller ones)[1] are exempt. The exemption is based on size, ownership/governance arrangements and the nexus between consumer and beneficial owner groups. The purpose of the exemption is to reduce the number of network businesses needing direct regulation.

- Default price-quality path (**DPP**) - applies to non-exempt distribution businesses.
- Customized price-quality path (**CPP**) - applies on application (in the event a distributor considers the DPP does not reflect its particular circumstances).
- Individual price-quality path (**IPP**) - applies only to Transpower – it is akin to a CPP but without the opt in option.

This price path structure is set out in the Commerce Act.

## Potential for regime simplification

The DPP is intended to be low-cost form of regulation, relying on generic assumptions and recognizing that CPP is available where the DPP outcomes are unsuited to a specific distributor's circumstances. However:

- application of the CPP to Orion, following the Canterbury earthquakes, showed the CPP process was expensive and intrusive; and
- distributors have sought increasing levels of customization of DPP to reflect network/regional differences.

Since price regulation began, the Commerce Commission has been flexible, within the scope of its powers, in modifying the regime in response to what it has seen as valid concerns of interested parties (primarily, but not only regulated entities).

This has resulted in:

- DPPs becoming increasingly tailored to each distributor's circumstances – (e.g. in relation to specific/regional growth rate assumptions); and

[1] The largest exempt distributor is WEL Networks with about 88,000 ICPs.

- amendments to the regime to address the impacts of changing environmental and technological influences (e.g. wash-ups, incentives, modifications to cost allocation approaches and the treatment of related party transactions, etc.).

However, the increasing customization of the DPP has resulted in a progressively more complex process, to the extent that the distinction between the DPP and the CPP has significantly diminished.

This creates an opportunity to simplify the regulatory regime by reducing the number of regulatory instruments available to the Commerce Commission from three (DPP, CPP and IPP) to one (i.e. the IPP). This could operate similar fashion to the Australian regime where the regulator provides a spreadsheet model and some key assumptions.[2] Each network business would populate the model,[3] the results of which would be reviewed and modified as the regulator saw fit. This process could easily apply to the distributors that are currently exempt as it is a relatively low cost approach.

Further, if desired an option to fast track price paths could be included where the proposal meets designated conditions - such as compliance with certain parameters or benchmarks. For example, these conditions could include:

- proposed operating expenditure forecast showing greater efficiencies than CPI-x, relative to the benchmark period disclosures;
- quality target improvements;
- evidence of meaningful engagement with consumers; and
- particular outcome-focused performance incentive measures being committed to:
    - e.g. by the end of the regulatory period *x%* of consumers of class *"a"* can manage their demand in response to electricity price signals, or
    - *y%* of network support services have been procured through open market tenders.

## Opportunites to seek further efficiencies in current regime

Another way to improve the future outlook for electricity prices would be for the Panel to invite the Commerce Commission to reconsider certain elements of its current price-quality paths.

This could be done as part of the existing review arrangements so as to ensure the appropriate processes are followed, particularly in relation to any changes that might have cross-sectoral application.

In the following sections we make a few suggestions on where those efficiencies might lie, after first outlining the nature of the current price path regulation.

### *Building blocks approach*

Price or revenue regulation is based on setting a revenue path covering each year of the regulatory period. The revenue path is expressed as a starting price and a rate of change (i.e. CPI-x).

The revenue setting process entails establishing forecast costs for each year (the building blocks) and stacking these up to establish the revenue required each year to cover the total costs. The present value of these revenues is established (using the regulatory WACC).

[2] e.g. regulatory weighted average cost of capital (**WACC)** - in accordance with the relevant input methodology, CPI, the efficiency 'x' factor.

[3] For example with its operating and capital expenditure forecasts, Regulated Asset Base (**RAB**) roll forward, other regulated revenue.

The starting price is determined by establishing the path that increases at the rate of CPI-X and delivers the same present value as the revenues that cover the building block costs.

There are a number of elements that feed into (or underpin) the revenue path.

### *RAB*

Current RAB values for Part 4 are based on the disclosed RABs in the 2009 information disclosures. These 2009 values originate from ODVs completed by all distributors in 2004.

The input methodology for setting the RABs for Part 4 permitted a number of adjustments to be made for lost/found assets, identified/verified valuation errors, updated application of value multipliers, etc.

The disclosed valuations were all completed pursuant to the same ODV handbook but we are not sure that provides sufficient certainty that ODV was applied consistently by all 29 distributors.

We understand the Panel is not keen to revisit the overall level of the RABs given the process the Commerce Commission, industry and other stakeholders have gone through to establish these values.

### *"X" for efficiency*

The "x" in the CPI-x expression for the rate of change prices is intended as an efficiency factor. The "x" is currently based on long-run demonstrable efficiency patterns, for which revenues are then adjusted, rather than being a mechanism to incentivize efficiencies[4].

To date, the Commerce Commission has established that the "x" is zero, i.e. the distribution sector is not expected to achieve efficiency improvements. This differs from the experience of applying incentive regulation to lines networks in the UK. Ofgem has said:[5]

> *"The 'RPI-X' method has served consumers well by delivering lower network prices (a 50 per cent reduction in network costs since 1990), £35 billion of increased investment and significant improvements in network reliability since the companies were privatized twenty years ago."*

The definition of the "x", in section 53P of the Commerce Act, could be recast as a mechanism to incentivize greater efficiency. Efficiency targets could be based on benchmarking.

### *Totex vs Opex and Capex*

Some jurisdictions use *totex* (a single value for opex plus capex) when setting revenues rather than specific opex and capex forecasts. This is to avoid the potential for a bias on the part of distributors in favour of enhancing the balance sheet by investing in capex at the expense of more efficient opex.

*Totex* has been used in the UK since 2008 and is currently being considered in Australia, where Frontier Economics also note that where there are changes in the technological environment:

> *"more flexible regulatory frameworks – such as Totex – are likely to better promote optimal outcomes for consumers."*[6]

Under the *totex* approach, a preset proportion (the capitalization rate) of the *totex* value is treated as capex (known as slow money) and added to the RAB, while the remainder is treated as opex each year (known as fast money) and recovered directly through the allowed revenue. These proportions are applied regardless of

[4] The Commerce Commission may also set alternative rates of change for a particular supplier. The Commerce Commission has used the "x" as an alternative rate of change for some distributors as a means of transitioning the revenue from a low start point (i.e. where distributors have discounted their prices to a 'sub-market' level to deliver a benefit to consumers without the need for a rebate or 'dividend' payment) to more 'market' level prices. In this context the "x" factor merely impacts on the slope of the allowable revenue line.

[5] Ofgem. (2010). *RIIO - a new way to regulate energy networks* (Factsheet 93) (available from https://www.ofgem.gov.uk/ofgem-publications/64031/re-wiringbritainfspdf )

[6] Frontier Economics. *Why Totex? Discussion Paper* (2018, p.2) (available from https://www.energynetworks.com.au/sites/default/files/072418_why_totex_discussion_paper_web.pdf )

how much is actually spent on the respective activities. Because the utility knows how much will be added to RAB each year it is indifferent to whether its actual expenditure is on assets or on services.

The Panel could recommend that the Commerce Commission consider adopting *totex.* This could encourage the adoption of more efficient, market-based alternatives (e.g. for network support functions) that could be an important catalyst to the development of these market-based approaches.

## Summary of efficiency opportunites

In summary we consider that the current price paths could be 'tweaked' in the interests of improving affordability, such as changing the "*x*" factor so it incentivises rather than anticipates efficiencies and the introduction of *totex* to ensure there no incentive for capital expenditure bias by distributors.

# Distribution pricing

## Introduction

On average, distribution accounts for approximately 28 percent of total electricity supply cost, but the proportion of distribution costs in customers' bills varies significantly across regions (ranging from 18 percent to up to 45 percent).

In this section, we discuss the desirability of introducing more cost reflective pricing for access to distribution networks. In the next section, we examine the allocation of costs between different customer groups.

## Distribution tariff structures

Consumption based pricing has been in use in New Zealand for many decades. Indeed, the majority of the pricing systems used by the 29 distributors are heavily weighted towards consumption with average consumption charges making up 78 percent of distributor revenue.

The Panel, the Electricity Authority and a number of industry experts and commentators have all noted that consumption based pricing is not likely to be sustainable in the long term.

- Consumption based pricing creates incentives for consumers who can afford to invest in distributed energy resources to do so.
- This does not reduce distribution costs, but merely shifts costs on to those customers who are not able to make the same investment.
- This suggests that all distributors will need to adopt more cost reflective pricing such as pricing which sends a clear signal about the costs of meeting peak demand.

Trustpower agrees with these views.

Questions then arise as to the level of complexity, degree of standardisation and granularity of the cost-reflectiveness employed (for example the size and nature of pricing zones within networks).

Trustpower's view is that any new pricing structures must be structured and delivered in a manner that allows our customers to respond to them and receive the benefits and costs as a result.

- It is pointless and counter-productive to charge high prices for consumption in a period that a consumer did not know about or was unable to respond to (or both).
- New pricing structures will require advanced metering infrastructure and/or involve easily understood tariffs such as simple TOU pricing.

It is equally important to recognise that not all customers will be interested in responding to real time price signals as many prefer price certainty. Retailers should still be able to offer this group of customers plans that suit them, including plans that insulate them from price volatility. We discussed this matter in our **Meeting customers' energy needs** paper.

## Implementation and review issues

Trustpower notes that large customers in particular are likely to have made investments on the basis of the pricing methodology which applied when they connected. This suggests that change management mechanisms, including appropriate transitions will be critical. Not transitioning appropriately could erode investors' confidence, potentially delaying investment in solutions that could enable customers to respond to the new methodologies.

Further, changes to pricing methodologies add cost to retailers and can confuse and create mistrust among customers, along with driving investment decisions by customers and retailers that later prove to be flawed.

To avoid any chance of the efficacy of future signalling being reduced, it is important that appropriate tariff structures and signalling methodologies are

considered deeply before implementation and then only enhanced infrequently to a small degree.

If future methodologies are constantly tweaked by the distributors or regulators, customers could make poor investments and eventually lose interest in responding to the signals completely.

## Choice of change mechanism

Questions also arise as to how these changes should be introduced.

The Electricity Authority's approach has been to encourage rather than mandate the adoption on new pricing approaches. It had a concern that each distributor had a unique set of circumstances (resourcing, smart meter penetration, topography, ownership structures) which would affect the speed at which they could respond to the need for pricing reform.

As a consequence it:

- first worked with the Electricity Networks Association (**ENA**) on this issue with ENA producing a paper in November 2016 that describes various new distribution pricing mechanisms its members might like to adopt; and
- subsequently requested that each distributor publish a roadmap setting out how it proposes to transition towards cost reflective pricing. Twenty three of the twenty nine distributors responded by the requested timeframe of April 2017.

The Electricity Authority has recently expressed concern about the slow pace of reform and the need for more co-operation between distributors and retailers.

To facilitate this process it plans to consult on the current voluntary distribution pricing principles and associated information disclosure guidelines.

## Need for structural reform

Trustpower agrees that distributors should have a significant role in developing the tariff structures that apply to their networks but is concerned that the Electricity Authority's current market facilitation approach may result in a patchwork of arrangements for distribution pricing and a patchwork of transition arrangements.

There is also the risks of ongoing regulatory intervention if the Electricity Authority does not think the final outcomes proposed by individual distributors align with its interpretation of its statutory objective.

This suggests structural reform is required. This could be done in in a similar manner to the tiers of responsibility approach we proposed for transmission pricing.

# Fairness of the current allocation arrangements

## Introduction

The First Report notes that residential prices have increased at a faster rate over the 1990 - 2018 period than business (commercial and industrial) prices and that distribution pricing is the primary driver of the divergent rates of change between residential and business prices.

In this section, we discuss the extent to which the current allocation of distribution costs to business customer's vs residential customers is efficient and fair.

## Efficiency of current cost allocations

The relative rates of increase are, of course, dependent on the starting points. Trustpower notes that at the beginning of the assessment period residential prices were extensively cross-subsidized by business prices and efficiency considerations dictated that these subsidies be unwound.

In relation to the business sector we note that:

- many business customers, especially industrial customers, do not use much of the distribution network and therefore do not pay for it;
- many larger business customers own key parts of the electrical system (e.g. transformers); and
- there are economies of scale in supplying larger customers (for example there is only a small cost increase to provide a larger capacity line).

The Panel's technical paper indicates that most distributors set prices for their residential customers above the median of their incremental/stand alone range and set prices for their business customers below the median of their incremental/stand alone range.

There are a number of reasons why this is the case:

- some business customers have viable alternatives to network connection (e.g. use of alternative fuels, recycling process heat, connecting directly to the national grid). These options may place an economic cap on distribution charges;
- as noted above, many business customers, especially industrial customers, do not use much of the distribution network and therefore are allocated fewer costs as a result; and
- economically efficient recovery of fixed costs is achieved through Ramsey pricing (by allocating more costs to customer groups that are least likely act - for example, to abandon the network).

## Fairness of current cost allocations

However, the approach of the different distributors does raise the question whether residential prices have increased too much, relative to business prices, such that the sharing of costs is 'unfair'.

As we noted in our **Improving transmission access** paper**,** there are many dimension of fairness which arise in the context of network pricing and focusing on one category of fairness is likely to create inequity in another category. This is why we think these social/political dimensions of network pricing need to be decided by politicians, not industry regulators or the distributors themselves. The best mechanism to achieve this is a mandatory government policy statement.

We note that the analysis in the Panel's technical paper shows there is scope to shift prices for each customer category, for example towards the middle of the subsidy-free band or even to push residential prices to the bottom of the band and business prices to the top in response to a government policy statement.

# Other terms of access

## Introduction

In this section, we consider how the non-price access terms are currently regulated and the slow progress which has been made towards increased standardisation of access terms.

## Background

In the late 1990s following the Bradford "reforms", distributors had to develop new use of system agreements (**UoSAs**) to address their new relationships with arms length retailers. As noted in our **Improving transmission access** paper, at this time there was a reliance on voluntary contracts, section 36 of the Commerce Act and the threat of regulation to manage monopoly behaviours.

This environment was not conducive to encouraging standardisation of UoSAs to:

- improve retail competition by reducing the barriers to entry in the retail market;
- address imbalances in negotiating power between retailers and distributors; and
- reduce retailers transaction costs.

As part of the 2010 reforms, section 42 of the Electricity Industry Act 2010 required the Electricity Authority to achieve more standardisation of UoSAs by 1 November 2011 or to provide the Minister with a report explaining why the Electricity Authority did not amend the Code.

This direction from government was clearly driven by a perception that insufficient progress had been made towards achieving these the benefits of standardisation by the Electricity Commission from 2004-10, and before that by industry working groups such as the MARIA arrangements in 2002.

## Electricity Authority's approach

Notwithstanding this lack of progress, the Electricity Authority originally decided not to amend the Code to provide for across-the-board standardisation of all aspects of UoSAs.

Instead it decided on a governance approach comprising:

- Regulation of some elements of UoSA arrangements. These were:
    - the requirement to indemnify retailers against part of their Consumer Guarantee Act liability;
    - the level of prudential security sought by distributors; and
    - the use of standard data formats.
- Completion of a model UoSA to serve as a best practice benchmark for negotiations between distributors and retailers. The model UoSA contained a new approach to load management, new obligations for distributors in the way they interface with consumers and more specification about the nature of the service being supplied to retailers.
- Regulation of the process which needs to be followed by industry participants in negotiating UoSAs or changing tariff structures.
- A process to monitor the uptake of the UoSA with view to further intervention if the uptake progress is not satisfactory.

However, in 2016 the Electricity Authority revised its approach as it determined that:

- widespread voluntary adoption of the model UoSA had not and would not occur;
- there were in fact weak incentives to move from legacy agreements; and
- problematically one distributor (Vector) was offering retailers a UoSA that materially differed from the model UoSA.

It decided a default distribution agreement (**DDA**) was required. The proposed DDA reflects distributor diversity by including:

- standard or core terms which must be included in the DDA; and
- drafting requirements for operational matters.

The Electricity Authority's view was that a DDA would:

- reduce transaction costs for retailers and distributors; and
- improve the conditions that would lead to enhanced retail competition across more network areas in New Zealand.

One of the distributors, Vector, challenged the Electricity Authority's power to introduce a DDA. In July 2017 the High Court found the Electricity Authority had the power to introduce a DDA. This decision is now being appealed.

Trustpower agrees with the First Report that this situation is unsatisfactory.

We note the issue will "go away" if responsibility for access regulation (including the DDA developed by the Electricity Authority) is transferred to the Commerce Commission.

# Access for DER (including DG)

## Introduction

It is common ground that distributed energy resources (**DER**) will become an increasingly important part of New Zealand's energy mix as it plans the transition to a low emissions future, just as distributed generation (**DG)** was an important part of the supply solution when New Zealand was concerned about supply shortfalls in the mid 2000s.

DER includes traditional forms of DG such as wind and small hydro, small standalone diesel generation and domestic or commercial photovoltaic solar generation connected into local distribution networks as well as new technologies such as batteries and new forms of energy management and demand response.

It is therefore important that the regulatory frameworks which govern DER, including those that provide access to distribution networks have the stability and predictability required for investment in long life assets.

Our experience of recent DG reform has raised issues about whether this is currently the case.

## History of DG regulation

A brief history of DG regulation is set out in the following table:

| | |
|---|---|
| **Pre 1998** | Energy supply businesses were provided incentives to invest in generation close to load in the form of lower charges for wholesale energy. |
| **1998** | Lines energy split meant that new access contracts were entered into between:<br>• distributors and retailers<br>• distributors and DG |
| | In some cases part of the sale consideration for the retail businesses involved a transfer of the right to receive the benefit of lower transmission charges. |
| **2000** | Caygill Inquiry raised the prospect that the incentives on distributors to enter fair and reasonable access contracts was weak. |
| **2008** | Following an unsuccessful attempt at developing an industry approach to improving the terms for DG access, the Government stepped in and directly regulated access terms. The approach adopted was a legislated default contract which applied if contractual terms were not agreed. |
| **2012-15** | The Electricity Authority identified a concern with the legislated default terms following its receipt of submissions on its 2012 TPM proposal and consulted on the impact of that matter in a TPM working paper. |
| **2016** | The Electricity Authority proposed the removal of the default price terms (known as Distributed Generation Pricing Principles (**DGPPs**)) from the Code.<br>This was followed by a decision to defer change to some elements of the DGPPs and amend others. The amendment to the DGPPs comes into effect on a staggered basis for the four transmission pricing regions from 1 April 2018 to 1 October 2019. There was no consultation on the Code amendments, which implemented this decision. |
| **2017-20** | The reform process has resulted in a patchwork of access terms depending on the extent to which the default or bespoke terms govern existing access arrangements and whether the distributor is price regulated or not.<br>Further, expert advice has demonstrated that the Electricity Authority's original assessment as to the contribution existing DG was making to the power system understated its benefits, significantly reducing confidence in its assessment that urgent reform was needed to existing DG arrangements to protect consumer interests. |
| **Unknown** | The Electricity Authority has indicated that it plans to further review the access terms that apply for DG no later than five years after the new arrangements have commenced in each transmission pricing region**.** |

## Implications for future investment

The application of the new arrangements to existing plant despite negligible customer benefit is likely to have had an adverse impact on investor confidence.

Infratil, which has the majority shareholding in Trustpower, made the following submission on the Electricity Authority's consultation paper:[7]

> *"As a major shareholder in Trustpower, Infratil has supported Trustpower's investment in distributed generation (DG) for over 20 years, particularly for enhancements of existing schemes and new windfarms. The business cases underpinning this investment (covering generation development, acquisition, upgrades and reconfiguration) included long-term expectations of receiving revenue from payments for avoiding the cost of transmission (ACOT) to distributors.*
>
> *We understand that the levels of returns that these investments will earn could change, due to the actions of other market participants. That is a risk we accept. But we do not believe it good regulatory practice to radically change regulatory settings unless the benefits are clear, demonstrable and material (which we do not believe is true here). In essence, the Authority is penalising incumbent investors for having sunk their costs. The fact there is little that affected investors can do in response to the changes (e.g. reduce output) is not a good reason to make the change. In the long run, effecting wealth transfers through regulatory changes hurts consumers.*
>
> *The confidence with which we have invested in DG has been based on the longevity of peak pricing signals in New Zealand and the long-standing regime for payment of ACOT benefit. The practice of network companies paying distributed generators ACOT benefit preceded the introduction of the DGPPs by many years, and was formalised as Government policy in 2007 after a multi-year review."*

These views are only likely to have been exacerbated by the lack of consultation on the final reform and the clear evidence during implementation process that some of the Electricity Authority's core assumptions in its original policy analysis were misguided.

A transfer of access regulation from the Electricity Authority to the Commerce Commission is an important step in restoring investor confidence.

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[7] Infratil. July 2016 Letter to the Electricity Authority <available from https://www.ea.govt.nz/dmsdocument/21003 >

# Boundary issues

## Introduction

The regulation of contestable and non-contestable activities is likely to become more important as technologies emerge that are increasingly:

- located beyond the point of supply;
- able to provide multiple benefits; and
- capable of being provided by multiple providers in a contestable market.

## Impact of market changes on distributors

The technological changes that are taking place (and are expected to become increasingly important in the future) have a specific impact on distribution networks.

We note:

- consumption changes over the past decade, which have seen a plateauing and even decline in per household electricity consumption have ramifications for distributor's investment planning and business growth;
- the development of DERs affects distributors because, *in extremis* at least, it further diminishes the function of electricity conveyance;
- the advent of electric vehicles also blurs the picture as electric vehicles may result in much peakier network demand; and
- there is likely to be a significant role change for distributors that brings with it uncertain risks and rewards.

As rational businesses, distributors will want to manage the risks and exploit the opportunities as they perceive them.

Whether distributors consider DERs to be a threat or an opportunity, they are in a position of significant power, as they can:

- restrict DER activity on their network on technical grounds (e.g. potential two-way flows may create new technical requirements, operational requirements, health and safety requirements);
- undertake the provision of DER capability and/or related services as part of their regulated activity, incurring lower risk than competitors because some or all of the associated revenue is assured through the regulated revenue stream; and
- undertake the provision of DER capability and/or related services via favoured related party arrangements (e.g. under preferential terms or privileged access to information)

## Risks and consequences

It is therefore important that the risk of these behaviours is constrained and a level playing field created for all participants in competitive markets.

This will require:

- clear access rules;
- prohibitions or strong restraints on distributors investing in contestable activities and/or a process to establish the relative importance of different efficiency benefits as technologies are increasingly able to apply multiple benefits; and
- sound monitoring and enforcement measures.

The failure to ensure a level playing field means that consumers of regulated services will end up paying higher prices for emerging technologies without sharing the benefits they provide.

There will also be a lack of choice and competition in unregulated markets potentially resulting in the wrong investment choices being underwritten by electricity customers.

## Regulatory framework

In this section, we consider the following issues:

1. whether the corporate separation and arms length rules in Part 3 of the Electricity Industry Act need to be updated in the context of emerging technologies;
2. whether there are elements of the design of the economic regulation under Part 4 that are creating the risk of inefficient distributor investment; and
3. whether the current allocation of roles between the Electricity Authority and the Commerce Commission in relation to the regulation of distributors' investment in competitive activities is appropriate.

### *Electricity Industry Act*

The purpose of Part 3 of the Electricity Industry Act is to promote competition in the contestable sector (and reduce the opportunities for cross subsidisation of contestable and non-contestable activities) by prohibiting or restraining certain types of relationships between distributors on the one hand and generators or retailers on the other.

Part 3 gives effect to what is commonly called the lines/energy split. In 1998 a clear line was drawn between contestable activities (retail and generation) and non-contestable activities (the supply of lines services). However the history of Part 3 shows that other policy concerns (including the desire to promote renewable generation and/or address security of supply risks) have led to a blurring of this clear line.

A high level overview of these policy changes is provided in the table below:

| | |
|---|---|
| **1998** | Legislation provided for full ownership separation of distributors from retail and generation businesses (with transitional provisions) |
| **2001** | Relaxation of rules to:<br>1. add *de minimis* exceptions (5MW nameplate capacity),<br>2. provide a carve out for Ngawha geothermal station's particular circumstances; and<br>3. permit distributors to invest in renewable generation provided they followed certain corporate separation and arm's length rules |
| **2004** | Relaxation of ownership separation rules to allow distributors to also invest in up to 50 MW of non-renewable generation provided they followed the corporate separation and arm's length rules |
| **2008** | Relaxation of rules including<br>1. increase in *de minimis* thresholds from 5 MW to 10 MW and changes to rules about common management<br>2. removal of ownership separation for investment by a distributor outside its network region<br>3. widening of definition of renewable generation |
| **2010** | Ownership separation required for all grid connected investment over 250 MW.<br>Transfer of responsibility for administration of these rules (including any exemptions) to the Electricity Authority. |

As a consequence of these changes distributors can now invest in generation and retail businesses both within and outside their particular network region provided they either stay within the relevant thresholds or obtain an exemption from the Electricity Authority. The width of these exemptions is now undermining the original policy intent.

The expected future changes to how electricity will be generated and consumed will further exacerbate this issue.

Part 3 was designed at a time when the market was dominated by large scale generation situated close to fuel sources and transported long distances to end users through transmission and distribution networks. The trend now is towards smaller scale generation and local distributed energy resources with two way power flows requiring management by local distributors. In this environment, the current thresholds look exceptionally generous.

This suggests Part 3 needs to be reviewed so as to restore the original policy intent of promoting competition in the contestable sector (and reducing the opportunities for cross subsidisation of contestable and non-contestable activities).

### *Commerce Act issues*

As noted previously Part 4 sets out the manner in which distributors are regulated. This requires clarity on:

- the nature of the regulated activities;
- the type of costs which can be attributed to the regulated activities; and
- the trade-offs which might need to be made about efficiency in relation to regulated (monopoly) activity as compared to efficiency in unregulated (contestable activity).

Currently, in the Commerce Act:

- the regulated service is drafted in a confusing fashion but appears to include services provided by non-monopoly assets (contrary to the purpose of Part 4);
- the purpose statement in Part 4 focuses on the consumers of lines services not lines and energy services (which hampers the Commerce Commission's ability to take into account the impact of its price regulation on contestable markets); and
- there appear to be positive obligations on the Commerce Commission to allow regulated distributors to engage in activities which could be supplied by non-monopolies (without appropriate consideration of the impact of that engagement on unregulated contestable markets).

These matters are described further below.

**<u>Circulatory problem in definition of regulated service</u>**

There is a lack of clarity around what is and what is not a regulated activity. This arises because of the convoluted definition of the regulated service whereby the Commerce Act relies on out of date Electricity Industry Act definitions.

- The Commerce Commission considers that it regulates a '*service*' (i.e. the conveyance of electricity by line) not '*assets*'.
- However the Electricity Act's definition of '*line*', is assets focussed ('*works*', '*fittings*', '*electrical installations'*, '*points of supply'*) and it defines '*line*' as any and all of the assets used for the conveyance of electricity. [8]
- This leads to a circular definition, namely, that the regulated service is the conveyance of electricity by assets used for the conveyance of electricity.

The definition of '*conveyance of electricity by line'* also means that an asset can be included in the regulated activity (partly, if not in full) if it contributes in some way to the provision of the regulated service.

[8] Our understanding is that the definition of '*line*' was originally designed to carve out the section of the line that is on private property and that exclusively serves that property. This is intended to relieve distributors of ownership responsibilities where, due to access issues, fulfilment of those responsibilities could be difficult. However, this logic does not apply if there are other assets on private property (like a storage device) that distributors believe they can own and operate successfully.

- This could include ripple control relays, a storage device, a solar panel or an energy management system that are sited beyond the point of supply and which are exclusive to a particular property.
- However, these are not monopoly services.

Another example of the problems arising from the current definitions is an electric vehicle charging station.

- The Commerce Commission has indicated that some of the costs of an electric vehicle charging station can be included in a distributor's RAB if the station has functionality that enables the distributor to control the station to aid network performance (e.g. limit charging at peak).
- In the absence of this capability the full cost of the charging station would fall outside the regulated service.
- Currently, a competing provider of EV charging stations is not able secure a portion of its revenue through regulated distribution charges in the same way a distributor can.
- This gives the distributor an unfair advantage in investing in charging stations.

**Purpose of regulation of networks**

Section 52 of the Commerce Act states that Part 4:

> "*… provides for the regulation of the price and quality of goods or services in markets where there is little or no competition and little or no likelihood of a substantial increase in competition*."

Section 52A provides that this regulation is for the benefit of the consumers of lines services not the consumers of energy and lines services.

This raises a question as to the Commerce Commission's jurisdiction to consider the impact of its decision-making on the providers of services in contestable markets.

**Obligation to consider non-networks alternatives**

Section 54Q of the Commerce Act requires the Commerce Commission to:

> "*promote incentives, and avoid imposing disincentives for suppliers of electricity lines services to invest in energy efficiency and demand side management, and to reduce energy losses, when applying this Part in relation to electricity lines services.*"

This might be interpreted as implying that the Commerce Commission has a duty to allow distributors to invest in contestable activities.

**Requirement to recognise economies of scope**

Section 52T(2)(3) of the Commerce Act directs the Commerce Commission, when developing an input methodology for the allocation of common costs (between regulated and unregulated activities), to:

> "*not unduly deter investment by a regulated distribution business in the provision of other goods or services.*"

This was designed to recognise that there may be economies of scope for a distributor investing in unregulated businesses, but it may be having an unconsidered consequence in relation to a distributors' ability to invest in contestable markets as compared with other investors.

### *Allocation of regulatory responsibilities*

In our **Fit for purpose regulatory frameworks** paper we said we thought there needed to be transfer of some of the rule making function of the Electricity Authority to the Commerce Commission to ensure a more cohesive approach to policy as markets go through significant change. We think that this should include oversight of the ring fencing rules. The Commerce Commission is well placed to assess the appropriate trade-offs between efficiency benefits in the different parts of the supply chain and enforce that assessment through appropriate price paths and access regulation.

# Conclusions and summary of proposed reforms

## Conclusions

There are a number of issues affecting the distribution sector, which are part of the EPR. In this paper, we have looked at five topics:

1. Distributor efficiency.
2. Distributor pricing.
3. Cost allocation between customer groups.
4. Current state of access regulation.
5. Boundaries between contestable and non-contestable activities.

### *Distributor efficiency*

We have concluded that there are opportunities to simplify the current price quality paths and extend these simplified paths to all distributors. There are also a few areas where the current price paths could be 'tweaked' in the interests of improving affordability: namely changing the x factor so it incentivises rather than anticipate efficiencies and the introduction of *totex*.

### *Distributor pricing and cost allocation*

In relation to distribution pricing we have noted the Electricity Authority's current market facilitation approach may result in a patchwork of arrangements for distribution pricing and a patchwork of transition arrangements.

We have also noted there may be room to rebalance cost allocations between customer groups. In order to ensure a consistent approach to these issues and address social/political dimension we recommend the adoption of tiers of responsibility including a Government issued GPS.

### *Regulation of other access terms*

We are comfortable with the Electricity Authority's decision to adopt a DDA, but less comfortable with the prospect of ongoing retroactive reform of the regulation of the access of DG to distribution networks. Given the close interplay of this regulation with the operation of the price quality paths we recommend the transfer of the responsibility for these matters to the Commerce Commission.

### *Contestable/non-contestable boundaries*

We have concluded that

- ring-fencing arrangements need to be reviewed so as to restore the original policy intent of promoting competition in the contestable sector ;
- a variety of changes will need to be made to the Commerce Act to ensure that the regulated services only includes the monopoly part of distribution activities and a level playing field exists for competitive activities; and
- a more cohesive approach to policy will be attained if responsibility for the lines/energy split (which is a constraint on the activities of distributors) is transferred to the Commerce Commission.

## Recommendations

The following table presents our recommendations to improve the efficiency of distributors and access to distribution networks.

Trustpower suggests that the Electricity Price Review recommends to Government that it:

- simplifies the current price quality paths and extend these simplified paths to all distributors;
- considers if affordability will be enhanced if:
  - the Commerce Act is changed to set the x-factor to incentivise rather than anticipate efficiencies, and
  - guidance is given to the Commerce Commission to consider the *Totex* methodology to incentivise the contestable procurement of non-wire alternatives;
- introduces a tiers of responsibility approach to the governance of distribution pricing by:
  - developing a mandatory GPS that sets out the pricing principles which should apply for access to the distribution systems;
  - requiring the regulator to develop rules which set out the process and criteria which should apply to the development and review of distribution pricing methodologies;
  - providing that distributors are to develop their tariff structures in accordance with the pricing methodologies, processes and criteria, respectively developed by the Minister and the regulator;
- transfers the rule-making functions of the Electricity Authority in relation to distribution network access to the Commerce Commission including responsibility for determining:
  - default distribution agreement; and
  - the rules which apply to the connection of distributed generation; and
  - makes any necessary consequential changes to the statutory objective for the Commerce Commission;
- ensures there is a clear separation between the monopoly and competitive parts of the sector by:
  - reviewing the rules relating to the separation of distribution from generating and retailing in Part 3 of the Electricity Industry Act to prevent distributors from participating in competitive businesses;
  - amending the Commerce Act to address the boundary issues that have arisen in relation to the Commerce Commissions regulation of distributors and the investment in emerging technologies by the competitive sector;
  - transferring responsibility for oversight of the part 3 rules to the Commerce Commission.