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Jenny Walton
Electricity Commission
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By Email to info@electricitycommission.govt.nz

Dear Jenny

Market Design Issues Paper Consultation

1 Introduction

Thank you for the opportunity to provide comments on the Market Design Issues Paper ("Issues Paper"). TrustPower does not have any major concerns with the information presented in the paper. Most of the comments in this submission relate to how the data has been interpreted in specific areas. The first section of this submission provides a TrustPower view of the real differentiation that is occurring in the New Zealand electricity retail market, and subsequent sections provide specific comment on the paper.

2 Retailer Differentiation

2.1 Introduction

In considering TrustPower's submission the Electricity Commission ("the Commission") is asked to note and understand some of the differences between TrustPower and the other electricity retailers in New Zealand.

- (a) TrustPower is a net retailer with total electricity sold in the year to 31 March 2007 of 4,575 GWh compared to own generation production of just 1,941 GWh (42.4 %). The other four major retailer / generators are generally long on generation. This clearly illustrates a fundamental difference in operational drivers but also clearly signals to the wider market that in New Zealand a retailer can survive by being a net wholesale buyer.
- (b) TrustPower, since 2002, has deliberately targeted the 'higher socio-economic' segment of the New Zealand retail electricity market. We liken ourselves to being the Kirkcaldies of the electricity market as opposed to The Warehouse.
- (c) Many people incorrectly assume that the retail electricity market should be undifferentiated because the 'product' delivered to consumers is a generic commodity. Clearly the point of difference is not the electrons, but the service, support and innovation the customer experiences.

- (d) For TrustPower this differentiation comes in many forms, however, the key attributes are the market segmentation to those 'quality' customers who value a higher service standard and are prepared to pay extra for it.
- (e) In the competitive electricity market TrustPower's differentiation manifests itself in many ways. Some examples include:
 - (i) New customer acquisitions are specifically targeted to this high end market segment using Census customer profile mapping.
 - (ii) Customers may earn the opportunity to be a TrustPower FRIEND by meeting payment and other criteria entitling them to special discounts and privileges, not unlike Frequent Flyers etc.
 - (iii) Targeted FRIENDS (based on an individual consumer's 'value' to TrustPower) are offered additional discounts and privileges under the FRIENDS EXTRA programme to reward their value and loyalty to TrustPower, not unlike Air New Zealand's Gold Elite members.
 - (iv) TrustPower makes late or non-payment of power bills more expensive to the consumer than competitors. These consumers may wish to find a less expensive and possibly more forgiving retailer.

2.2 TrustPower's Market Segmentation Outcomes

TrustPower's differentiation has resulted in the following market segmentation outcomes.

- (a) TrustPower has consistently been the top service provider in the industry as determined by independent customer surveys.
- (b) TrustPower has consistently achieved the lowest level of customer complaints as measured by the Electricity and Gas Complaints Commission.
- (c) TrustPower has the highest 'headline' electricity tariffs across all of its regional markets.
- (d) TrustPower disconnects for non-payment, by far, the lowest percentage of customers relative to total customer numbers.
- (e) TrustPower writes off, by far, the lowest Bad Debts of any electricity retailer (as disclosed in Annual Reports).

TrustPower believes that the Commission should give serious consideration to differentiation and respective market positioning of participants. It is most unlikely that any new entrant will take on the retailer State Owned Enterprises ("SOEs") in the generic 'Warehouse' market, but identify niche markets where they can through innovation and service differentiation produce a reasonable return.

TrustPower sees a risk that this review will 'assume' all participants are the same and make decisions that may further reduce the opportunity for differentiation, particularly stifling new entrants.

The greater the degree of micro regulation and control the lesser the innovation and differentiation. The lesser the innovation and differentiation the lesser the competition. The lesser the competition the more inefficiency and complacency and ultimately the higher the overall cost (price and service) for the consumer.

3 Specific Comments on Issues Paper

TrustPower generally accepts the quality of research and information provided in the Issues Paper. The following submission selects only those areas that TrustPower sees are significant matters.

4 Chapter 2 – Retail Market issues

4.1 Paragraph 102

Footnote 21 to paragraph 102 notes that the data on estimated margins is based on tariffs applying in early 2007. As noted earlier in section 2.2 TrustPower does not actually charge most customers the 'headline' electricity tariffs. Approximately 70% of TrustPower's mass market customers are supplied on special "Friends" and "Friends Extra" pricing at discounts to published prices. TrustPower can provide accurate information regarding retail price confidentially to the Commission to correct the impression of higher margins in TrustPower incumbent areas.

4.2 Paragraph 104

The key reason for the lower retail margins in the larger networks, Auckland, Wellington and Christchurch is because these areas have an SOE retailer as incumbent and a lower margin is acceptable to them. This is why TrustPower exited these residential markets back in 2003 as shown in figure 34 of the Issues Paper.

4.3 Paragraph 105 – 107

The nodal price variations in regions off of the core grid are highly material in setting retail prices. Nodal prices vary significantly due to transmission constraint issues, energy flows and the extent and operation of regional generation. It is noted in the Issues Paper that the higher nodal prices results in higher retail prices, but it should also be noted that greater price volatility results in higher risk margins being applied to these areas. It is standard practice to include risk in the assessment of margins.

The key issue to increasing competition and reducing retail prices in these regions is to encourage more local generation. The previous Government Policy Statements on Electricity Governance ("GPSs") have put this principle into words. However the Commission has failed to deliver a priced based mechanism to support it. Rewards are currently available for transmission investment (Transpower gets paid) but alternatives, although evaluated as part of the Grid Investment Test, don't get rewarded.

The Commission urgently needs to deal with establishing a mechanism to reward transmission alternative investment as referred to in paragraph 90 of the 2006 GPS.

4.4 Paragraph 112

TrustPower has clearly demonstrated over the last five years that residential consumers are not only interested in price, so it is totally unsurprising that consumers don't all respond to the cheapest price. TrustPower targets markets which have the greatest possible retail margin relative to wholesale (nodal pricing) energy purchasing risk, as would any commercial business.

4.5 Paragraph 115 and Figs 33 & 34

Retail margin swings are reflective of a competitive market. In the absence of competition retailers would maintain margins regardless of wholesale price variations. Also of interest, again not surprisingly, as margins fall or go negative, retailers exist the market (or go broke). As retail margins increase new entrants will emerge which will initially hold margin creep and over time force margins down. In Australia (VIC, SA and NSW) that cycle change is now occurring after several years of steady wholesale prices and good margins for the low cost new entrant. The recent wholesale price increase in Australia has stopped new customer acquisitions dead and already one retailer has gone broke, with several others likely to follow. If wholesale prices continue at the new level, retail margins will need to be reset and the cycle starts over again.

5 Chapter 3 – Wholesale Market Issues

5.1 Capacity Constrained Wholesale Market

TrustPower believes that lower levels of surplus capacity will result in more volatile wholesale prices at peak times, becoming more reflective of the Australia National Electricity Market. This is a natural market development and it is important that the market retains the true marginal pricing signals. More volatile wholesale prices will result in more peaking plant¹ entering the market and will significantly change the risk profile for retailers. In addition, however, it will provide more incentive for customers to shed load during high priced times. TrustPower has been active in exposing commercial industrial customers to spot prices on the margin to enable them to benefit from market volatility.

5.2 Paragraphs 157 to 176

The debate about which new generation plant will or will not be built over the next five to ten years is a little academic. The Commission (and Government) need to focus on providing an investment and market framework that encourages new generation to be built well before it is critically needed. Should too much generation be built, consumers will enjoy softening prices until a tightening of demand versus supply again occurs.

The key issue is that while the Government and the Commerce and Electricity Commissions are deliberating on what investors see as the long term fundamentals of the market, investors will defer taking new projects to financial close. The wholesale market price will always rise as the demand versus supply balance tightens reinforcing a wait decision.

The Commission needs to complete this Review promptly as planned then signal and implement any proposed changes.

Likewise the Government needs to establish its National Energy Strategy and any changes to the GPS as a result and make legislative changes promptly. The key risk of electricity supply failure will be a lack of clarity around market design and price certainty and not from a lack of capital, projects or willingness of investors.

A particular area of focus should be ensuring that generation capacity (or even load response) can compete on an even basis with transmission capacity in those regions where significant additional capacity is required.

5.3 Effect of Additional Wind Energy on Real Time Security – Paragraphs 214 to 221

The information provided in the Issues Paper is only a subset of the extensive work being carried out as part of the Commission's Wind Generation Investigation Project ("WGIP"). Analysis carried out by TrustPower does not support many of the conclusions reached to date, but TrustPower is actively involved in the project and believes this is the best forum to analyse the issues and to draw robust objective conclusions. It is not appropriate for a broad review of the entire market to draw its own conclusions out of context of the wider study.

The Commission needs to continue with the WGIP to its conclusion before proposing any solutions.

5.4 Frequency Keeping - Paragraphs 281 to 286

It is TrustPower's view that a frequency keeping 'market' should be established and move away from the duopoly system that currently exists. Paragraph 282 suggests that it is unclear why frequency keeping costs increased significantly from 2005 and is now reducing. The probable explanation is that energy purchasers questioned the escalating costs and proposed alternatives such as Automatic Generation Control, which signalled to the duopoly that they may lose most or all of their current frequency keeping monopoly rents.

The Commission needs to urgently progress the establishment of a frequency keeping market, which in TrustPower's view will significantly reduce overall frequency keeping costs.

¹ Such as open cycle gas and diesel

TrustPower agrees that with greater wind energy coming into the market frequency keeping requirements may increase. TrustPower's hydro portfolio has a significant amount of frequency keeping capability but is currently precluded from the 'Transpower Frequency Keeping Club'. It would be bazaar if TrustPower's wind farms were in future required to pay for frequency keeping services, but our own generation is not able to be rewarded for providing it.

6 Chapter 4 – Demand Side Response

6.1 Introduction

TrustPower believes that an efficient electricity sector will only occur when all levels of the value chain are transparent and economically efficient. In order to achieve this:

- (a) New generation must have the lowest long run marginal price (reflecting fully priced Government Policy including environmental costs etc) and be sited closest to respective loads.
- (b) Transmission and sub-transmission must be robust to reliably meet the needs of end consumers while not hindering the efficient operation of an efficient energy retail market.
- (c) Consumers need to be able to respond to energy price and security of supply signals in a manner that will ensure they receive the optimum service level relative to the costs they face.

6.2 Demand Side Management Markets

Demand side management markets can be loosely segmented into three being:

- (a) The industrial / large usage commercial (competent) market where commercial imperatives will ensure that they optimise their supply security / price relationship. They must be permitted to obtain their desired outcomes as long as their behaviour is not technically adverse to other users.
- (b) The small to medium commercial market whose electricity usage is a relatively small proportion of their overall operating costs. This segment is ideally suited to automated control systems managing both demand during peak system periods and in response to short term energy prices. An immediate gain would come from appropriate (and nationally consistent) network pricing signals. The Commission is currently considering line pricing methodologies. This project should be completed and implemented. This segment generally doesn't respond that well to energy price signals because they need full use of energy during operating hours. Generally they respond quite well to a 'national energy crisis' and when they want to be seen to be doing their bit to assist.
- (c) The residential segment is roughly dividable into three core groups.
 - (i) The well educated, technically able concerned citizens. This group will respond to national good, environmentally friendly and technically whizzy opportunities to save energy. They will buy or subscribe to smart technologies that allow them to contribute to energy savings and efficiency (about 5 % of residences).
 - (ii) The general citizen who is law abiding, would like to do the 'right thing' but is much too involved with family, work, sport and life to think about electricity. They are the segment who would accept a new technology (smart meter / ripple control) as long as they don't need to actively do anything (about 65 %).
 - (iii) The last group is those who won't actively do anything useful. Electricity is a necessity, they complain when its not there and they struggle or object to paying the cost of it. This group is suitable only for a remote demand side response system where there is no consumer interaction, not response expected and no inconvenience caused. Ripple control is only partially suitable for this group especially if the household has only 1 to 3 members (about 30 %).

6.3 Smart Metering

TrustPower over the years has completed a very large amount of market research, conducted many focus groups and has implemented several 'smart metering' solutions. In the late 1990s, TrustPower offered all residential consumers in Tauranga and Rotorua a free home energy audit with discount packages on energy efficiency improvements. 65 % of homes were audited and of those about 10 % took some improvement action. The programme (costing several millions of dollars) was considered a relative failure because of the low level of improvement action taken. However, the programme did a great job in raising awareness and educating households, but the programme research concluded that most households audited were in Group (ii) above and never got around to taking positive action. If the improvements were free and someone organised and managed the improvements for them they would have been appreciative.² It was also interesting that about 35 % of households declined the offer, predominantly in the lower socio-economic areas. This was the segment most likely to benefit the most. The research showed that this group does not voluntarily allow any 'authority' into their home.

Group (i) above will be active adopters of smart metering that include a price or time of use driven incentive. They will accept the amount of their monthly electricity cost fluctuating and will readily recognise their contribution to energy efficiency. They will accept being in charge of their electricity consumption behaviour and accept the consequences of making consumption decisions at very high price times if required.

Group (ii) could progressively be introduced to demand response smart metering but the **real challenge is to provide a price incentive that is big enough to change behaviour but small enough not to vary the monthly household electricity bill.** It is interesting to note that the 'most hated' feature of power billing is the 'estimated' account. The reason is because of its perceived (and often real) inaccuracy and households believe that they are paying for electricity that they haven't used. It is a significant step for this group to move to a potentially highly variable power bill that may result from demand response price incentives. Remember, these people are not naturally inclined to regularly change their electricity consumption behaviour because they are busy getting on with life.

Group (iii) are the prepay market with demand side management being totally off the radar.

7 Conclusion

TrustPower believes, as the only retailer significantly reliant on the wholesale electricity and hedge markets for its survival, that the Commission should not propose any major structural changes to the market.

The Commission should, however, be more forthright in allowing the market in general to operate commercially and competitively.

The Commission does need to look at ways through the rules processes that encourages new generation (that meets National Energy Strategy and GPS directives) located near to local demand to reduce the long term cost of transmission. In this regard the Commission should commence a work plan to create a mechanism to reward transmission alternatives. The Commission should review its Transmission Pricing Methodology decision on HVDC charges. The industry, the Commission, the Energy Minister and senior officials are all aware that imposing current, and the future HVDC upgrade, charges onto new renewable generation that is embedded into the currently constrained Upper South transmission is nothing short of a nonsense.

The frequency keeping club is inefficient when a significant amount of additional frequency keeping plant could be made available, which not only will help meet future and likely increasing frequency keeping requirements but also will reduce frequency keeping costs. This should be a priority work plan for the Commission.

The retail market is competitive with low or no margins in many of the SOE incumbent areas. New entrants will only be attracted if they can make a reasonable return over time. The reason for a relatively low churn level in New Zealand and the reason why TrustPower has not actively pursued

² Like EECA are now doing with their low income home insulation programme

new residential customers until recently (and exited the Auckland, Wellington and Christchurch residential markets back in 2003) is because the retail margins are very low. The present low margins are a feature of retailer ownership not of commercial market behaviour.

Smart metering and other demand side management technologies will and should have an increasing role in improving the efficiency of the electricity sector. The Commission should be looking at ways to reward investment in demand side response, like by getting the line pricing methodology right. The Commission definitely should not embark on a process to mandate a particular technology but rather provide the framework for the market to deliver demand side response in a commercial manner.

Overall, TrustPower considers the Issues Paper exceptional well researched and written and will continue to support the Commission to achieve New Zealand energy needs objectives.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Peter Calderwood', written in a cursive style.

Peter Calderwood
STRATEGIC BUSINESS DEVELOPMENT MANAGER