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Electricity Commission
P O Box 10041
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Dear Sir

Submission on Proposed Model Approach to Distribution Pricing Methodology

This letter forms Buller Electricity Limited's submission on the Consultation Paper "Distribution Pricing Methodology, Consultation Paper on a Model approach, 5 June 2009"

Glossary

AMI	Advanced Meter Infrastructure
EDB	Electricity Distribution Business
EGR	Electricity Governance Rules
GPS	Government Policy Statement
GXP	Grid Exit Point
ICP	Individual Connection Point
PAWG	Pricing Approaches Working Group
RDM	Retail Delivery Model (ICP Pricing)
TOU	Time of Use
UFE	Unaccounted for Electricity
WDM	Wholesale Delivery Model (GXP Pricing)

Question 1

Do you agree with the content of these proposed guiding principles? Are there alternative or additional guiding principles that should be considered?

1. Buller Electricity Limited does not agree with the proposed principals.
2. The Reasons for the Model approach make assumptions not drawn from facts. The "inefficient" use of a distribution network is not caused by the lack of a competitive market. The need to maximize shareholder returns lowers operational costs and hence produces an "efficient" network. Model pricing is not required for this purpose.

3. Price controls by the Commerce Commission restrain EDBs from making excessive returns but regulation will not produce efficient pricing or pricing structures. Efficient pricing comes from efficient networks, driven by shareholder demands. In this regard, the Electricity and Commerce Commission needs to work together (not closely) and to date the Commerce Commission has totally ignored both the Electricity Commission and the Government Policy Statements. There is no evidence of close working relationships and until this is achieved, confusion and indecision remains.
4. We agree static efficiency would be supported by pricing signals that reflect cost but achieving this in practice will not come about by a Model Pricing methodology. Allocating costs to supply different types and location of loads in various time zones is efficient but when the energy retailer will not pass on these pricing signals, the consumer has no advantage.
5. Buller Electricity Limited provides a 57% discount to its controlled load but the final price to consumer's remains at this level, indicating the retailers do not support time zone pricing. Retailer's continual refusal to provide distribution pricing on consumer's invoices negates any gains brought about by Model pricing.
6. Buller Electricity Limited maintains the cost to supply remote rural areas (Karamea) is six times the cost of supplying urban areas (Westport). The consumers on our network have categorically stated regional pricing is not to be adopted. If consumers wish cross subsidies to remain for the good of the entire community, the local EDB should be at liberty to support this request. In practice, the shareholding Trust demands such a pricing policy.
7. We support the principle of enhancing retail competition by reducing transaction cost but the method of deriving prices is far removed from the format of presenting tariffs to retailers. All EDB tariffs could be supported by a single presentation format that would reduce transaction costs. The only variation would be the actual tariff amount which will always vary between EDBs.
8. The PAWG model clearly states pricing will be geographic yet the GPS states any changes to rural line charges are kept in line with changes to urban line charges. The categories of pricing suggested in PAWG are the basis upon which a common format can be developed for publishing tariffs to retailers, thereby standardizing EDB tariffs to reduce transaction costs.
9. Prices cannot be signaled to the mass market without smart meters so peak period and shoulder pricing is not an option available to EDBs.
10. Buller Electricity Limited uses the RDM pricing and as a result suffers high losses on its network (currently 10.75%). In 2008 we tried to introduce a GXP form of wash-up process but this was totally rejected by retailers. If the Commission is serious about reducing losses they must place the incentive where the problem lies; with the retailers. WDM provides such an incentive as retailers become the sole responsibility for non technical losses. The current RDM allows retailers to under report consumption to save costs (line charges) so there is no incentive to reduce losses.
11. Buller Electricity Limited does not agree with the Commission's proposed guiding principles for the proposed model approach as per the comments below.:

(a) *A distribution pricing methodology should:*

(i) *encourage the efficient and fair allocation of costs, avoiding cross-subsidisation and unfair discrimination;*

The removal of cross subsidisation from urban to rural consumers would be unfair discrimination in a community that clearly states it does not wish to have cross subsidisation removed for the overall good of the economy of the region.

(ii) *be stable and predictable in respect of revenue for the distributor and charges to consumers; and*

RDM pricing is unpredictable for revenue for EDBs when losses are not controlled. See Appendix I for details.

- (iii) *be practicable to implement, without placing significant transaction costs on consumers and distributors.*

A standard format for tariff publication reduces transaction costs with or without model pricing methodologies.

- (b) *Changes to a distribution pricing methodology (and the rationale for them) should be widely publicised and follow consultation with interested parties. The revised distribution pricing methodology should be transparent, with the results predictable and readily verifiable.*

We agree

- (c) *Distribution prices should:*

- (i) *encourage the efficient use of electricity distribution services;*

We agree but this cannot be achieved without transparent distribution pricing on the consumers invoice

- (ii) *encourage efficient investment in distribution, transmission, distributed generation (including renewable generation), and technology innovation (including AMI);*

We agree

- (iii) *not create barriers for retail competition and the provision of distribution or other services;*

We agree

- (iv) *provide appropriate signals to manage transmission and distribution losses and constraints;*

This is not possible without retailer support in pricing and transparency on invoices

- (v) *relate to the quality and reliability of service delivered, including the risks of delivery; and*

The risks of delivery relate to geographic location and pricing by location is not permitted by the GPS.

- (vi) *be easily understood.*

By whom?

Question 2

Do you agree that the RDM should be the preferred approach?

Buller Electricity Limited does not agree the RDM should be the preferred approach

12. The guiding principles above refer to lower costs, simplicity, standard tariffs and so on. This section on delivery models supports a totally opposite view to the guiding principles.

13. Buller Electricity Limited is most concerned about control of non technical losses. See Appendix I for details. We therefore comment in detail as per the consultation paper numbered below.

- 6.6.1 to 6.6.3 We agree

- 6.6.4 Distributors **cannot** influence the level of non technical losses. EDBs do **not** have a complete picture of all ICP data but can only report on aggregate amounts. Discrepancies cannot be reported to individual retailers unless the EDB has maintained an accurate record of ICP consumption from the date lines and energy business were split and maintaining such records is an extreme cost for small EDBs. Lost revenue for EDBs from high non technical losses **cannot** be compensated by adjusting Loss Factors as the price threshold regulation will not allow movement in losses to be taken into account when resetting prices. Under the RDM Loss Factors have no bearing what-so-ever on prices. Under the RDM Loss Factors are calculated by the EDBs and provided to the Reconciliation Manager: they serve no other purpose for the EDB. Buller Electricity Limited's Loss Ratios have had extreme variations over time (see Appendix I for details) and no amount of dialogue with retailers over that period has correct these issues.
- 6.6.5 Quantities of UFE are well defined in the wholesale market and are real physical quantities of electricity transported by EDBs. In theory (and now in practice I believe) UFE balances out to zero over time for each retailer unless there is some form of "unaccounted for" actions by a particular retailer. EDBs, therefore should be paid to transport UFE but cannot achieve payment under RDM. Payment for transportation of UFE by retailers places the incentive to reduce UFE and non technical losses in the correct area, retailers. Well behaved retailers would have close to zero payment over twelve months and non performing retailers would pay the penalty.
- 6.6.6 The use of WDM does not avoid short term risk as prices under the price threshold regime cannot be adjusted by re-calculated Loss Factors. The use of WDM avoids long term risk and protects EDB revenue. RDM pricing cannot be adjusted by recalculated Loss Factors to compensate for trends in non technical losses due to price controls.
- 6.6.7 Distributors such as Buller Electricity Limited have a very high incentive under RDM to manage and reduce non technical losses. Using WDM places the incentive to reduce non technical losses with retailers who are the only party that control non technical losses. As above, EDBs cannot control non technical losses, only report them.
 - (a) Vector reviewed ICPs that were permanently unread. Retailer "as billed" files provided to EDBs always contain unread ICPs each month (but different ICPs month by month) due to meter reading cycles. If meters are read on a 34 day cycle (as most retailers do) there are only 11 reads per financial year provided to EDBs but in the calculation of Loss Factors 12 months of GXP data is used. Such practices automatically introduce errors. This effect is only avoided by reading meters on the same date each month and retailers no longer read in this manner.
 - (b) Buller Electricity Limited undertook a detailed analysis of retailer billing data but to no effect. Twelve month rolling average Loss Ratios went to 12%, dropped to 7% and today have risen to 10.75%. Buller Electricity Limited has not been able to influence retailers in supply of accurate data to control non technical losses. This problem is echoed by Vector, WEL Energy and PowerCo.
- 6.6.8 Buller Electricity Limited produced a paper on "Losses in a Distribution Network" and presented it at two recent Electricity Commission seminars and received support from Vector, WEL Energy and PowerCo, all experiencing the same issues as presented by Buller Electricity Limited. EDBs using RDM cannot accommodate losses by building cost into prices as the price thresholds do not permit such actions. RDM places incentive on EDBs but they are unable to effect a reaction to control losses. WDM places incentive with retailers who are able to control losses.
- 6.7.1 The guiding principles require costs to be reduced. The costs identified here are not transferred to retailers as suggested.
 - (a) Administration costs are lower using WDM (see 6.9.3). Costs are not new to retailers as all retailers accommodate WDM at present.
 - (b) Consumer data bases are maintained by EDBS as required by the EGRs. This does not change under RDM or WDM.
 - (c) Retailers actively discourage EDBs from communication with consumers as the consumer contract is with the retailer in most cases. These costs do not change under either model.

- 6.9.2 The equitable and fair allocation of costs to the mass market (non TOU consumers), while ideal, cannot be achieved under the present GPS (urban and rural prices to remain consistent). Therefore to consider it here is not an option. WDM allocates costs equally to all mass market consumers and this is equitable and fair and is the wishes of consumers.
- 6.9.3 We note you recognise a key issue with RDM is the (lack of) accuracy of ICP information. If this is a key issue we request you correct the faults or continue to allow the use of WDM. If the issues are not addressed the process will fail (it is not working at present).
- 6.9.4 RDM may provide correct pricing signals from EDBs but if not transparent on consumer invoices the exercise is pointless. The mass market is not educated to react to pricing signals and effective pricing signals cannot be sent to non half hour meters. Pricing signals from EDBs is created by load control but when the signals from EDBs is negated by additional (meter) costs, voluntary take-up of controlled load is no longer an option for consumers.
- 6.9.5 The RDM places a stronger incentive on EDBs to minimise non technical losses but EDBs are ineffectual in correcting the errors so the consumer continues to wear the burden. WDM shifts the incentive (not the burden) to retailers who are the only party able to minimise non technical losses. Hard known facts such as all connection points have a retailer supplying them will always be a EDB function and examples such as this contribute very little to non technical losses. Errors in retailer processes required by the EGRs contribute to 90% of non technical losses.
- 6.9.6 Buller Electricity Limited has had no success in communicating with retailers to improve data quality and minimise non technical losses. Options available to us in future include the installation of AMI to 100% of consumers on our network and we are actively working on this project. If successful, Buller Electricity Limited will be confident of receiving accurate data.
- 6.9.7 The Electricity Commission would be better suited to accelerating the introduction of AMI rather than tinkering with model pricing.
- 6.10.1 The only negative effect of WDM identified here is the fair allocation of cost and the avoidance of cross-subsidisation, neither of which are permitted by the GPS. Without those two effects, your conclusion supports WDM.
- 6.10.2 Taking into account the GPS the Commission has drawn an incorrect conclusion that RDM aligns more closely with the guiding principals than WDM.
- 6.10.4 Pricing signals under the proposed pricing methodology applies only to the mass market as TOU consumers can have any manner of price signals. Retailers will only pass on EDB pricing signals if regulated to do so as rebundling best suits their business. If required to re-aggregate the cost will be a one-off cost. The argument in this section is a very weak attempt to justify RDM.

Question 3

Do you agree with the proposed approach to the allocation of costs (as set out in figure 4 and table 2)? Please provide specific comments on:

- **consumer specific costs**
- **load dependent costs**
- **load independent costs, including:**
 - **Geographic zones**
 - **Asset groups**

- **load group classifications**
 - **AMD and CPD to allocate the network asset group costs to load Groups**
 - **transmission costs**
- 14 We agree consumer specific costs are easily allocated under the proposed cost categorization but such costs apply to only to large commercial and industrial consumers who are covered by TOU meters. By definition, consumer specific costs do not apply to the mass domestic market. Buller Electricity Limited pricing methodology incorporates consumer specific charges to commercial consumers and this can be achieved under RDM or WDM models.
- 15 We agree load dependent costs are easily allocated under the proposed cost categorization but such costs apply to only to commercial and industrial consumers who are generally covered by TOU meters. Buller Electricity Limited pricing methodology incorporates load dependent charges to commercial consumers and this can be achieved under RDM or WDM models.
- 16 We do not agree with geographic zone charges because the GPS does not permit such actions and our consumers have stated they do not wish such charges to be introduced. If load independent costs are to be allocated across all consumers on an ICP basis the majority of ICPs on any network are domestic consumers. Without geographic pricing cross-subsidisation abounds, totally distorting the pricing methodology and overall adds costs to the EDB to manage with no benefit to domestic consumers.

Question 4

Do you agree with the proposed approach to allocating the net benefits of deferred network augmentation?

17 We agree

Question 5

Do you agree with the proposed approach to signaling critical peak periods and shoulder periods via distribution prices?

18 Large industrial consumers generating high demand loads are usually supplied by asset specific parts of an EDB's network and the load is more consistent rather than containing peaks and is measured using TOU meters. The traditional winter peak demand on a rural network at 6pm is created by domestic consumers arriving home to heat houses and cook meals. The current incentive of lower charges on a controlled tariff is not appropriate at this period as consumers will not go without power at 6pm. The Commission's proposal to signal constraints by higher prices at 6pm will generate more income for EDBs (to pay for more upgrades) but will have little effect on the domestic consumer who will continue to cook and heat at 6pm regardless of price. However, signaling high prices at 6pm can only be achieved with TOU meters and until AMI is rolled out across the country this methodology cannot be applied.

19 Buller Electricity Limited does not agree with the price signaling proposal:

- 10.4.1 *The Commission proposes the following approach to signaling distribution prices:*

(a) *distributors should signal network congestion via posted demand prices and, where it is cost-effective to do so, dynamic critical peak periods;*

This can be done for TOU consumers but not for the mass market that creates the peak demands on the general distribution network and therefore this methodology is ineffectual.

- (b) *distributors should offer controllable load contracts with dynamic signaling of critical peak periods and with prices based on the deferral value of the network investment; and*

This system works for industrial consumers to reduce demand on the transmission network. In most cases high industrial demand is supplied by asset specific network assets and therefore this methodology is ineffectual.

- (c) *distributors should offer retail delivery pricing as a standard offer, to provide price signals at all connection points on the distribution network.*

The high cost of non technical losses created by the RDM makes this option the most ineffectual method of EDB pricing.

Question 6

Do you agree with the approach to structuring distribution prices?

- 20 We agree with the approach to structuring distribution prices but have no means of conveying these signals to non TOU consumers. (Recall Buller Electricity Limited is investigating 100% AMI on its network).

Question 7

Do you agree with the model structure? Are there reasonably practicable alternatives?

- 21 Buller Electricity Limited does not agree with the model structure.

- 11.4.2 *The Commission's initial view is that the RDM has a number of benefits over the WDM including:*

- (a) *providing a greater incentive on distributors to minimise losses by sharing the risks of network losses and constraints across distributors and consumers, rather than placing all of the risks on consumers;*

Distributors can control technical losses but not non technical losses. Consumers pay for losses regardless of their origin and consumers will only benefit once retailers provide accurate information to EDBs for the calculation of non technical losses

- (b) *increasing cost-reflectivity and reducing cross-subsidisation between general connections;*

Cross subsidisation cannot be removed under the present GPS

- (c) *providing greater transparency of distribution prices;*

Transparency will occur only when retailers agree to include EDB pricing on consumer invoices

- (d) *providing appropriate signals at the point of connection (as opposed to the GXP) to manage transmission and distribution losses and constraints (e.g., via load control);*

Price signals do not manage non technical losses. Price signaling can not be provided to the mass market without AMI

- (e) *costs can be disaggregated to reflect service level differences across a distribution network; and*

In rural networks the general network can supply only one level of service.

- (f) *enabling general connection consumers to understand how their individual distribution charge is determined.*

The Commission has no evidence general connection consumers want this information. Our surveys show they want the lowest possible number in the bottom right hand corner of their account. Placing the blame on certain parties does not achieve their desire of lower power accounts.

- 11.4.3 Retailers accept the EDBs load groupings based on connection requirements but they are adamant the choice of tariff within each load group is a contractual matter between the consumer and the retailer and it is a consumer choice. General connection consumers usually fall within one load group, the domestic load group. Therefore any consumer choice to inconvenience their life style (high prices at 6pm) will not be a popular choice and only taken up by financially burdened consumers who provide little to the network demand. Therefore, to ensure an effective take up of the option, pricing would need to be far above the cost of delivery at 6pm. The other option is mandatory compliance and can only be enforced via retailer contracts and to date, retailers remain outside the regulatory boundaries. In other words the model structure cannot be implemented in practice. The solution is mandatory installation of AMI and the Commission would be better placed concentrating on achieving this result than persevering with a pricing model that cannot be implemented.
- 11.4.7 Load control is absolutely essential to maintain stability of all networks, transmission in particular. The national grid would have gone into meltdown several times over the last few winters had load control not been in place. However, retailers consider the installation of load control to a premise to be the consumer's choice and retailers currently overshadow EDB pricing making the controlled load no longer the cheaper option. As a result, consumer's uptake of controlled load is dropping dramatically and several EDBs are considering making controlled load mandatory for connection. Retailers are vigorously opposing such moves. The Commission needs to form an opinion on load control if it wishes to halt the current trend that places the security of the grid in grave danger.
- 11.5.1 *The Commission proposes to adopt the PAWG model approach to model price structures, with the following additional developments:*
 - (a) *Distributors should offer RDM pricing as a standard, to enable distribution price signals to be available at all connection points on a distribution network;*

Pricing signals cannot be offered to the general connection consumer without TOU meters. Therefore RDM does not benefit in this regard. WDM reduces costs and places the incentive to control losses in the most effective area, thereby providing benefit to consumers.

- (b) *all load groups should have a form of controlled load pricing option to encourage automated demand response;*

To achieve load control pricing options the installation of load control to each premise must be mandatory.

- (c) *there should be consistency of key distribution pricing terminology across all distributors.*

It is a simple matter to design a standard format for all distributors to publish prices to retailers, regardless of the methods used to derive prices.

Question 8

Do you agree that the proposed model approach meets the guiding principles appropriately?

22 By the Commission's own conclusion it admits the proposed model approach only meets the guiding principles when a distributor has a direct relationship with the consumer. These instances occur only for a small number of large consumers that have TOU metering. Therefore the proposed model approach does not meet the guiding principles for the vast majority of consumers.

23 Buller Electricity Limited Conclusions:

- (a) Building block costing and hence cost allocation to remove cross-subsidisation from urban to rural consumers is not permitted under the current Government Statement.
- (b) Pricing signals via RDM to the general connection consumer is not possible without TOU meters on all installations. WDM provides a lower cost approach and places incentive to reduce non technical losses with the party who is best able to reduce non technical losses.

24 Buller Electricity Limited Recommendations:

- (a) The model approach to distributor pricing is deferred until such time AMI is mandatory.
- (b) The Commission concentrate its efforts on mandatory AMI

M J McSherry
Chief Executive
Buller Electricity Limited

Appendix I

Losses on the Buller Electricity Distribution Network

The graph below represents the 12 month rolling average loss ratios calculated each month from April 2001 to May 2009. The range is from 6% to 12% and the only success Buller Electricity Limited has had with retailers correcting data was in 2005 when two major users were found to have incorrect metering. At that point loss ratios reduced and stayed within an acceptable range until late 2008. Since then loss ratios have climbed to 10.75% and despite much communication with retailers the loss ratios continue to climb.

Buller Electricity Limited's revenue drops \$100,000 for each 1% increase in losses giving a very strong incentive for Buller to take action to reduce non technical losses. Despite this incentive and using vast resources Buller has been unable to influence retailer behaviour.

It is clearly evident from this graph, electricity distributors can identify non technical losses but are powerless to affect improved accuracy of data from retailers using the Retail Delivery Model. When presenting this information to participants at two Electricity Commission forums, Vector, WEL Energy and PowerCo supported this evidence sighting similar results on their networks.

Retailer behaviour will only be affected when their costs increase and they have the incentive to reduce losses. The Wholesale Delivery Model provides retailers with this incentive.

GXP Pricing

