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23 October 2018

Miriam Dean CNZM QC (Chair)
Electricity Price Review
Secretariat, Ministry of Business, Innovation and Employment
15 Stout Street
PO Box 1473
Wellington 6140

By email to energymarkets@mbie.govt.nz

Dear Miriam

The Lines Company Limited Submission on the Electricity Price Review

The Lines Company Limited (TLC) welcomes this Electricity Industry Pricing Review process.

TLC is currently the only electricity distributor in New Zealand that directly bills its customers. That direct engagement provides TLC with a somewhat unique insight into the effect of electricity pricing on customers, and in particular their concerns and challenges.

TLC has also been the only distributor in New Zealand that charged residential customers based on their co-incident peak demand and has experienced first-hand how pricing mechanisms (although economically pure) can have a variety of impacts. As a direct consequence of customer feedback, TLC has been in the process of transitioning from a demand-based to a consumption-based Time of Use (TOU) pricing structure over the last 24 months, and this is now in effect.

These experiences have moved us to make three key points which we consider should be key areas of focus for review. These are outlined in greater detail through our submission.

1) *Electricity distributors must be supported in regulation to adapt with technology and societal change.*
   Technology is changing the way electricity is supplied, managed and used. As these changes occur, distributors must have the ability to adapt their operational, investment and planning programmes to ensure technology impacts provide equitable and beneficial outcomes for the communities they serve. Our view is that regulatory measures must encourage rather than restrict the limits of freedom for distributors to transition through this change.

2) *Low fixed charge (LFC) regulations need to be reviewed.*
   Increasingly, LFC regulations are benefiting consumers who can afford to invest in energy efficiency, with the result that lower-income consumers increasingly bear the weight of distribution costs. This issue is increasing as technologies reduce in cost. Consequently, TLC supports a wholesale review of the LFC regulations.

3) *Electricity distributors price signals can be rendered ineffective, to the detriment of the industry.*
   Our experience is that customers can and do react to distribution pricing signals, and that pricing signalling along with load control initiatives are powerful tools for cost management. However, these are only effective if conveyed to consumers through retail agreements. Our observation is that significant value is currently lost to the industry through ineffective conveyance price signalling.

We would welcome the opportunity to meet with the Electricity Review Panel to share our insights directly.

Please feel free to contact me if you have any queries on our submission.

Yours faithfully

Sean Horgan
Chief Executive Officer
The Lines Company Limited

ELECTRICITY PRICE REVIEW

SUBMISSION FORM

How to have your say

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

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

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

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

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

Electricity Price Review

Secretariat, Ministry of Business, Innovation and Employment

15 Stout Street

PO Box 1473

Wellington 6140

Contact details

Name	**Sean Horgan, Chief Executive**
Organisation	**The Lines Company Limited**
Email address or physical address	**seanh@thelines.co.nz** **King St East, Te Kuiti 3910**

Use of information

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

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

Release of information

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

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

Private information

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

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Summary of questions

Part three: Consumers and prices

Consumer interests

What are your views on the assessment of consumers' priorities?
We agree on the assessment of consumer priorities as "a reliable supply of electricity and fair and affordable prices".

What are your views on whether consumers have an effective voice in the electricity sector?
Within the distribution sector, our experience has been that consumers can and do have an effective voice if they have visibility and direct engagement with the supplying entity. We have observed that some customer segments are extremely engaged and responsive to price signals if they have adequate visibility and ability to respond. TLC's experience is unique in New Zealand because we are the only distributor that bills all consumers directly. TLC has a customer service team that supports customers to understand their charges and advises them on the management of costs. The billing process has proven to be an effective mechanism for consumers to see the impact of their consumption on the distribution portion of their delivered energy costs directly, and also provides a direct mechanism for voicing concerns. By its nature, electricity supply concepts are complex and can be difficult for consumers to understand. There is always a tension between achieving simplicity of messaging and effective engagement on consumer issues (including pricing to reflect costs), but our experience has been that direct engagement can facilitate consumer understanding and their influence on distribution management outcomes.

What are your views on whether consumers trust the electricity sector to look after their interests?
Our experience has been that trust is based on three key pillars: • Reliability: the reliability (and safety) of electricity supply; • Communication: the visibility, and understandability of pricing structures; • Price: the fairness of pricing. Specifically, trust can be eroded if: • Reliability is poor; • Costs are not transparent; • Pricing is difficult to understand; • Pricing appears to be unfair (which may be an outcome of poor communication); • Consumers feel they can't influence their costs. TLC is in the process of rebuilding trust with its consumers by implementing a Time of Use pricing methodology to help address these issues, which has included extensive community engagement.

Prices

What are your views on the assessment of the make-up of recent price changes?
No comment.

What are your views on the assessment of how electricity prices compare internationally?
No comment.

What are your views on the outlook for electricity prices?
As outlined in the paper, the most significant impact on the electricity sector is expected to be from emerging technologies, and particularly electric vehicles (EV's). From a distribution perspective, the major impact on cost change is the overall impact this has on demand during the peak periods, which drives the fundamental network infrastructure sizing. However, our experience has been that customers can and do react to price signals, as we have encouraged with our pricing. It is possible that the impact on peak demand from EV's can be mitigated through price signalling. TLC has taken this into account in the design of the TOU pricing system – specifically in providing lower off-peak prices that are significantly lower than the peak time prices (typically more than 50% lower than controlled peak prices). If EV charging occurs predominantly in off-peak periods as we encourage and expect it will, there is an opportunity for network utilisation efficiency to improve, and as a result for the average distribution price (per kWh) to decrease. Central to this outcome is ensuring that distribution costs are reflected to the consumer to encourage off-peak response. TLC is currently enabling this through TOU pricing and direct consumer billing. Conversely, if EV demand occurs during the peak periods, then the costs are unlikely to reduce and may need to increase to reflect additional infrastructure requirements.

Affordability

What are your views on the assessment of the size of the affordability problem?
Like many provincial distributors, TLC has a high proportion of low-income consumers with high deprival indices (as indicated in the 2013 census). It is difficult to compare the quantum's outlined in the paper with those on the TLC network, but we agree that this issue is complex and multi-faceted. Along with income, other contributing factors include quality of housing stock, heating methods, family size and education. We note that LFC charges can contribute to deprivation rather than provide relief, because they are linked to consumption volume alone, and restrict fair recovery of fixed infrastructure costs. On average LFC charges recover around 85% of the similar charge under standard prices, which has the effect of pushing costs onto homes with higher consumption. Consequently, high-income consumers who can afford a well-insulated home, solar panels or other energy efficiency techniques that reduce consumption below 8,000 kWh benefit from LFC pricing, and impose higher costs on low-income homes that consume more. As solar panels and batteries become more affordable, proportional distribution costs will likely increase (on a kWh basis), and this issue may be further exacerbated by the LFC regulations. We consider that LFC regulations should be reviewed to consider these key issues of equity, affordability and the impacts of the emerging energy landscape (solar, batteries, other emerging technologies), with particular emphasis on how highly deprived consumers can be protected from these external factors.

What are your views of the assessment of the causes of the affordability problem?
We agree, in general, with the findings of the paper; however, three additional factors are very influential and are not covered in the analysis. 1. Price visibility: Our experience has been that customers can and do manage energy costs if there are price signals to do so. 2. Consumer engagement, education and understanding: Even with price visibility, electricity supply and cost concepts are often complicated to understand. Our experience has been that the industry must invest to ensure consumers can understand how their consumption behaviour influences their costs, and provide them with support and tools to respond. 3. Distributor ownership: TLC is owned by a consumer trust. As such, TLC has flexibility in determining its ROI and has consistently priced below its regulated price path. Similarly, TLC returns profits to its consumer shareholders, which provides perhaps the most significant impact on the real cost of energy for its shareholder base. We note that affordability is also linked to the variability of energy costs throughout the year, such that consumers may find winter periods the most challenging times. TLC's demand pricing (which TLC is now transitioning away from) provided some relief, as consumers on the TLC network paid a constant bill over each month. The move to TOU charging will see variability reintroduced (i.e. typically higher charges in winter and lower in summer). TLC is offering a "SmoothPay" product option to enable customers to maintain a flat distribution charge through the year if they choose.

What are your views of the assessment of the outlook for the affordability problem?
We agree with the commentary in the report. Many of these issues are structural issues that require more than just electricity price adjustments and require societal changes. We consider that the key focal points for the electricity supply industry to facilitate affordability are: 1. ensuring visibility and reflectivity of industry costs through to consumers; 2. addressing regulatory structures that impose inequities (such as LFC regulations); 3. supporting consumers to access good information and advice. We note that the proposed changes to the TPM are moving away from demand management. Under the current proposal, the TPM will increase costs on the average TLC consumer bill by around 5% a year for little or no improvement in service levels. This highlights that all aspects of energy supply must be fairly reflected to improve ongoing affordability.

Summary of feedback on Part three

Please summarise your key points on Part three.
In summary, we consider that there are four key points from this section: • Consumers can and do manage energy costs, but they are reliant on prices being visible and well communicated; • LFC regulations are not fit for purpose and inequities driven by LFC regulations will increase in the future as new energy options become affordable for higher income homes; • Affordability is a societal issue and wider than the electricity industry. It is an important issue moving forward and can be impacted to some degree by the energy industry through price signalling and other initiatives. This must be applied consistently throughout the energy value chain; • As an industry, we need to manage peak demand to manage costs.

Solutions to issues and concerns raised in Part three

Please briefly describe any potential solutions to the issues and concerns raised in Part three.
Despite TLC transitioning away from a fixed monthly charging methodology, TLC is implementing a flat monthly charge option called 'SmoothPay' for consumers who prefer cost certainty. SmoothPay allows customers to pay a fixed amount every month throughout the year to balance out the summer and winter cost variation. TLC can implement this with its customers through its direct billing function, but we see no reason why a similar option could not be implemented in collaboration with retailers.

Part four: Industry

Generation

What are your views on the assessment of generation sector performance?
No comment.

What are your views of the assessment of barriers to competition in the generation sector?
No comment.

What are your views on whether current arrangements will ensure sufficient new generation to meet demand?
No comment.

Retailing

What are your views on the assessment of retail sector performance?
No comment.

What are your views on the assessment of barriers to competition in retailing?
No comment.

Vertical integration

What are your views on the assessment of vertical integration and the contract market?
Although not applicable to TLC, we consider a significant issue is that distribution costs are not always visible to consumers. Our observation of other networks is that some retailers tend to treat distribution costs akin to a cost of sales, i.e. a cost to be paid (and managed) rather than a cost to be displayed to the end consumer who can then take this into account in their purchasing decisions. In such a scenario distributor's cost reflective pricing (especially at peak demand times) or benefits from load control initiatives, may not be seen by consumers because retailers may bundle distribution charges into a single rate. The result is that distribution peaks increase over time and consequently so do the costs to support the additional network investment required. Not only does this lead to inefficient costs from distributors, but also inefficient investment decisions by consumers, who may be encouraged to purchase alternative technologies under misleading economic indicators.

4. *What are your views on the assessment of generators' and retailers' profits?*
No comment.

Transmission

5. *What are your views on the process, timing and fairness aspects of the transmission pricing methodology?*
We restate our concern that the proposed changes to the TPM will increase the average TLC consumer bill by around 5% a year for little or no improvement in service levels. We are concerned that the proposed TPM does not have price elements based on demand, and this could distort signals to consumers to make informed investments, and drive perverse behaviour. Like distributors, Transpower's costs are driven by the level of transmission infrastructure assets which are in turn driven by the level of peak demand. The current TPM provides incentive (RCPD) pricing to manage the level of demand. TLC has and does seek to manage load to mitigate the level of RCPD charges, and these actions result in lower RCPD charges which are passed back to our customers. As previously discussed, these pricing incentives will become more important in future to encourage off-peak charging of electric vehicles to reduce peak demand. Diluting demand signals will lead to inefficient use of the network resulting in higher costs overall. This becomes more important when overlaying affordability, given that wealthier consumers are more likely to purchase EV's and without adequate price signalling to encourage off-peak charging, may drive cost increases for the rest of the consumer base. The TPM methodology needs to have some level of demand pricing to reflect the additional cost of providing infrastructure, and/or to provide the opportunity to mitigate these costs if possible. As has been noted in the report there has been large amounts of time and effort spent on the TPM to date. While the current TPM is not perfect, it is workable, and distributors are currently incentivised to reduce overall demand, thereby reducing the peak strain on the grid.

Distribution

What are your views on the assessment of distributors' profits?
We consider that the current level of profitability, guided by the five-yearly price reset, provides an appropriate base of profitability. There needs to be care that any changes in the current price/revenue models are not used to force revenues lower than that is required to maintain and invest in an ongoing efficient distribution network, noting that developing a view of what an-going network infrastructure looks like is becoming increasingly challenging with new technology. Flexibility in the definition of what constitutes network assets - to enable investment in non-traditional means of supply (such as solar and battery technology) is therefore critical. This is particularly relevant where the investment in poles and wires carries high economic risk, e.g. for remote communities with long supply lines that require expensive upgrades, and could become stranded as technologies change the underlying demand profile. We do not consider that there are issues of distributors cross-subsidising other businesses. In contrast, we consider it essential that distributors have the flexibility to engage in developing businesses and technologies, as these facilitate the development of energy solutions and reduce costs for consumers.

What are your views on the assessment of barriers to greater efficiency for distributors?
In our view, ensuring distribution costs are conveyed to consumers is the most salient issue. Our experience is that price visibility does drive consumer behaviour. It has proven to be an effective tool to reduce peak demand, and this does flow through to the level of investment needed to support the distribution network. If this pricing is not visible to the end customer (e.g. if it is bundled with energy prices), then distribution costs will be pressured upwards. We do not agree that consolidation or scale is necessary to achieve efficiencies. Benefits can be achieved through a number of methods including collaboration, shared service structures and joint ventures, as examples. These incentives exist today and are not reliant on common ownership. Distributors in our region are increasingly working collaboratively to achieve them on the basis that they make business sense to do so. Further, our experience has been that there are significant benefits in maintaining a regional focus, particularly as the needs of regional communities vary significantly. Examples include responsiveness to regional storm events, local knowledge of network infrastructure leading to faster fault correction, and better community engagement both in fault management and in enabling a stronger community voice. A regional focus can also ensure the priorities of the community are realised, for example, to ensure service delivery is prioritised over financial performance. We agree that long-term asset management planning is important but that this must be tempered with the uncertainties inherent beyond a ten-year horizon. TLC is continuing to invest in asset management improvement with intent to achieve the best overall mix of service and cost, and this must be adaptable enough to incorporate the best mix of traditional assets and new technologies as they develop. Again, we consider the existing regulatory structures are adequate for this purpose. Distributors are already considering longer term asset management issues beyond the ten-year horizon, simply as good business practice.

What are your views on the assessment of the allocation of distribution costs?
Current regulations require distributors to both engage with the community and publish a pricing methodology. We think this is good process and the allocation outcome will reflect the will of the community over time. TLC does publish different rates for high and low-density supply and seeks to be cost reflective in its time of use (TOU) pricing. To that end, its TOU pricing (effective from 1 October 2018) varies to reflect the consumption patterns of individual customer groups. In doing so, we have endeavoured to ensure costs are reflected fairly across groups but note that this is also tempered with broader considerations to balance overall community outcomes. In developing our TOU pricing structure, we have noted that the make-up and influence of TLC's customer groups are substantially different from other distributors. Consequently, we consider that restricting flexibility in pricing (for example, by applying a common allocation framework) would reduce efficiency at a regional level. Overall, we consider the current requirements on distributors are sufficient and provide visibility to both consumers and the industry.

What are your views on the assessment of challenges facing electricity distribution?
We agree that emerging technologies will provide some of the greatest challenges for distribution companies. The new technologies will provide for both reduced volumes (e.g. PV), and increased volumes (e.g. EV's) and taking a view on this is a key to investing in the distribution networks. For distributors, the core challenge is to determine how best to manage peak demand and asset utilisation within this new environment. We envisage that distributors will (and must) invest in new technologies to learn how to best manage through this change. Our experience to date suggests that access to metering data and consumer visibility of pricing are key elements in achieving long-term efficiency in this new environment.

Summary of feedback on Part four

Please summarise your key points on Part four.
Within the next decade, distributors will likely face more technological change than has been evidenced in the last 80 years. The impacts of these technologies are currently unclear, other than they will be significant. It is vital that distributors are able to both engage with this technology and adapt to it. That implies regulatory and planning structures that support business change will be critical. That requirement is broad, meaning that distributors will need flexibility in planning, investment and pricing to ensure they can adapt. We do not consider that industry consolidation is necessary nor likely to improve industry outcomes, particularly about responding at a community voice level. TLC has made significant progress in moving toward a pricing structure in response to community feedback and provides network cost reflectivity in a way that is meaningful to consumers. We see this as an important enabler for the future.

Solutions to issues and concerns raised in Part four

Please briefly describe any potential solutions to the issues and concerns raised in Part four.
We consider that our Time of Use charging provides a workable, cost-reflective and consumer-friendly pricing mechanism. These provide a balance between simplicity, equity and transparency. TLC will continue to monitor and develop our pricing strategies as technology evolves and consumer participation in our industry grows.

Part five: Technology and regulation

Technology

What are your views on the assessment of the impact of technology on consumers and the electricity industry?
We concur with the overview provided in the report. We expect technology change to directly and materially impact the generation, supply, management and use of energy within the next decade, and this will comprehensively change the way distributors plan and manage infrastructure.

What are you views on the assessment of the impact of technology on pricing mechanisms and the fairness of prices?
We agree with the report's assessment of pricing issues. We agree current retail prices (that incorporate distribution charges) provide a high financial incentive to utilise alternative technologies – particularly PV. We agree that the capital cost of such technologies discourages people with lower economic resources from adopting these technologies and that without changes the current prices will inevitability lead to more costs being recovered from those least able to afford this. Ultimately distributors will also need to develop equitable pricing mechanisms that allow for temporary users (specifically tourists using EV chargers). These one-off consumers may contribute substantially to network peaks, and in doing so impose costs on the network residents. This is extremely relevant for the TLC network which has a very high transient seasonal tourism volume. Demand on the TLC network may be significantly influenced by these transient (and off-network) consumers charging EV's in peak times as a one-off use.

What are your views on how emerging technology will affect security of supply, resilience and prices?
We agree that emerging technologies will provide some of the greatest challenges for distribution companies. The new technologies will provide for both reduced volumes (e.g. PV), and increased volumes (e.g. EV's) and taking a view on this is a key to investing in the distribution networks. Managing the level of demand, and when demand occurs, will be a key influencer on the level of resilience able to be achieved. As previously noted, if peak demand can be managed then the outcome could be an overall increase in volume and improvement in asset utilisation, putting downward pressure on prices. However, the opposite is also true. Being a geographically large network with a relatively low rural population, and with a large seasonal tourism base, TLC is particularly vulnerable to peak demand constraints. Consequently, as new technologies are deployed and utilised by consumers, we believe that distributors will need to invest heavily in new technologies (such as battery storage). These will be needed, along with ongoing investment in load management and security of supply initiatives, to mitigate unpredictable peak usage, such as at public EV charging points.

Regulation

What are your views on the assessment of the place of environmental sustainability and fairness in the regulatory system?
We agree with the assessment of the current regulation. We note particularly the need for regulation where natural monopolies exist. The question of "fairness" is complex, and spans across societal issues such as hardship and deprivation. Implementing initiatives to address it are difficult to effect within the electricity industry without compromising key principles of competition, reliability and efficiency. Currently, when developing pricing models, distributors use a degree of judgement that includes elements of the assessment of the cost the serve, affordability, equity between different customer groups, and we consider this is appropriate, but it does not (and cannot) address the range of societal issues noted in the report. We consider that dealing with underlying societal issues appropriately falls within the role of local and central government, and that electricity is simply one cost among many that impact highly deprived consumers, and consequently can only be addressed through a comprehensive social support package.

What are your views on the assessment of low fixed charge tariff regulations?
We agree with the assessment of the Low fixed charge tariff regulations, and specifically they can and do lead to perverse outcomes (for example where deprived consumers often subsidise wealthy consumers who can reduce consumption through investment in energy efficiency). We confirm that, on the TLC tariffs, the average LFC user pays approximately 85% of the charges that a standard user (at the same level of consumption) would pay.

What are your views on the assessment of gaps or overlaps between the regulators?
No comment to add re regulator "gaps or overlaps". As previously discussed, we consider that distributors should not be restricted from investing in related businesses or selling technologies or services to consumers in the future. We think that this is necessary to enable distributors to adapt to the new technological environment, and more importantly to give consumers more choices, particularly where market choices may be limited in provincial towns or regions.

6. *What are your views on the assessment of whether the regulatory framework and regulators' workplans enable new technologies and business models to emerge?*
No comment.

7. *What are your views on the assessment of other matters for the regulatory framework?*
No comment.

Summary of feedback on Part five

	Please summarise your key points on Part five.
We agree that a review of LFC regulations is warranted, as they are currently not achieving their design outcomes, and will become further exacerbated as new technologies become more affordable for the middle-income sector. We agree that the electricity industry will see significant and broad technological changes and that the impact and solutions to these changes are not well understood at this time. We consider that distributors will need flexibility in pricing design, asset management planning and investment to successfully transition through the next decade.	

Solutions to issues and concerns raised in Part five

8.	*Please briefly describe any potential solutions to the issues and concerns raised in Part five.*
No comment.	

Additional information

9. *Please briefly provide any additional information or comment you would like to include in your submission.*
Tree regulations The report does not comment on the Electricity (Hazards from Trees) Regulations, 2003. Tree debris contributes significantly to power outages and distributor costs. However, the overly prescriptive nature of the regulations prohibits effective vegetation management (e.g. fixed distances between trees and lines which do not adequately reflect fall distances, requirements to identify tree owner as opposed to land owner or occupier). TLC agrees with other distributors who support more principled based approach to the regulations. An example would be to allow risk assessments to be used on trees near power lines giving rights to distributors to enforce action if the risk is high. We consider that there are significant opportunities to reduce the number of power outages caused by trees, improve the quality of service to customers and reduce reactive maintenance costs for distributors through implanting targeted improvements in the tree regulations.