2018

Pricing Methodology

Addendum
TOU Trial 1 April 2018

For the period
1 April 2018 to 30 September 2018

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1. Introduction

The Lines Company (TLC) has commenced a second invitation only, opt in trial of time-of-use (TOU) pricing ("the trial"). This document, dated 1 April 2018, serves as an addendum to our "Pricing Methodology 1 April 2018".

The ***active*** only trial commences on 1 April 2018 and will run through to 30 September 2018.

The purpose of this addendum is to complement our pricing methodology and describe, at a high level, how the prices for the trial have been determined. The purposes of the trial are described below, and the trial methodology is subject to change based on continued modelling and feedback from customers, independent reviewers and the TLC Board. The methodology will be updated accordingly.

The purpose of the trial is to help us understand the best ways to both manage, and communicate, what could be TLC's new pricing approach. It will help us answer these questions:

- How do we explain TOU to customers? What material is needed to help customers easily understand TOU pricing?
- What information is meaningful to customers? This includes information on the format of the bill, newsletters and information on our website.
- What is customer's experience with TLC? How well do our people and processes support customer's questions about TOU pricing?
- How well do our systems and processes support TOU pricing? This includes our billing system, as well as testing and proving our data collection processes, for example, the half hour data that may come from a customer's meter.
- How will people change their behaviour to manage their TLC bill? What information do we need to provide customers to manage their TLC charges under a TOU pricing structure?

Feedback from the trial will be collated along with information from our continued data modelling.

It is possible that under a TOU pricing structure, customer's charges will change from what they are currently paying. This may be higher or lower than their current charges.

1.1. Customer Consultation and Pricing Reviews

Two reviews were initiated and have recently been completed and reports published: one by the Electricity Authority and the second by the TLC Board.

Electricity Authority Review

The Electricity Authority announced in August 2016 that it would review the load control and pricing practices of The Lines Company (TLC), focusing on the interaction between those practices, the incentives they place on consumers and the outcomes they influence. The review by the Electricity

Authority, "Review of The Lines Company's (TLC) pricing and load control", is now complete and they have published a report on their website presenting the results of the review[1].

The Authority ran an initial questionnaire on their website to obtain feedback from TLC customers about their experiences with TLC's pricing and load control. Over 700 responses were received. The questionnaire was followed by a formal survey of 500 TLC consumers carried out in November 2016 by UMR Research. Load control data was obtained from TLC and a number of other distribution companies.

The Authority found that TLC's use of load control was consistent with the current incentives on TLC to reduce transmission charges by reducing peak network load. The Authority noted that majority of any harm associated with TLC's use of load control arises from TLC's pricing methodology rather than the actual amount of load controlling.

The Authority further said that there are number of features of TLC's current pricing that cause consumer stress and uncertainty. They believe that this is resulting in inefficient consumer behaviour and investments. The Authority observed that TLC's pricing approach does not appear to have negatively affected retail competition or system reliability in the TLC region.

The report also outlines a number of general lessons for distribution businesses considering their own pricing approach that the Authority drew during the course of the review.

TLC Board Review

In September 2016, The Lines Company Board of Directors issued the Terms of Reference for a 'Service based pricing review'. The review was undertaken by Roger Sutton and PricewaterhouseCoopers, led by national energy practice Director Lynne Taylor, as independent consultants. The completed reports were published in late March 2017[2]. The review recommended that TLC move away from the current approach which is based on a 'variable demand charge' to a 'variable time of use' charge. This is also referred to as 'Time-of-Use' (TOU), which simplistically means that pricing for lines are applied based on the time of day customers use energy.

The authors noted that in their view, under the current methodology:

- too much emphasis is placed on recovering revenue from a single demand charge, particularly revenue to meet peak load growth;
- customers find it hard to make sensible decisions about whether to consume or conserve electricity;
- what customers do over a year does not impact them until the following year;
- complex business rules are required to cope with customers moving in and out of properties and for customers with legacy metering.

While the current system is arguably a better way to recover the costs of network growth under service-based pricing, the review concludes that TOU would be more equitable, have greater simplicity, and be more transparent – and therefore a better fit based on the criteria set by the TLC Board.

[1] https://www.ea.govt.nz/monitoring/enquiries-reviews-and-investigations/2016/review-of-tlc-pricing-and-load-control/
[2] http://www.thelinescompany.co.nz/news/pricing-review

The Board are receptive to the TOU approach and note that it is also consistent with pricing systems being adopted by neighbouring distribution networks in New Zealand.

TLC engaged again with the community to talk through the findings of the review, and the consequences of changing to such a system and TLC has been evaluating the recommendations from a project and technical perspective.

Following that, the TLC Board have decided to change to TOU pricing from 1 October 2018.

The Board considered many important factors in making the change, including:

- The feedback we got from community leaders and customers;
- Ensuring we work within regulations around pricing resets;
- Making sure our IT systems and meters can accommodate a change in charging method, and in within the timeframe;
- That we have the staff resources available to manage a change process.

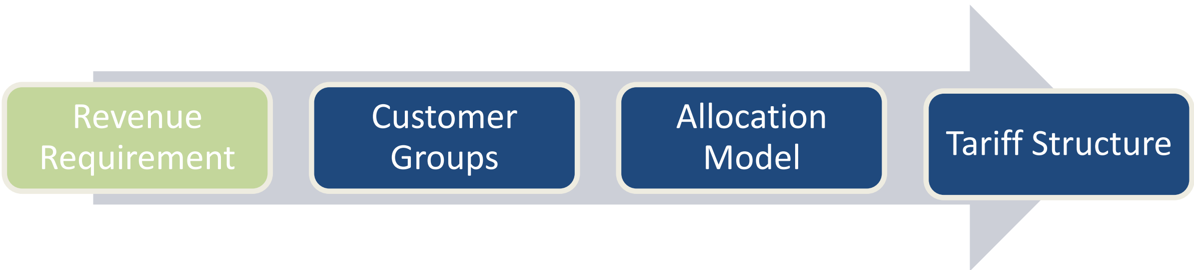
1.2. Changes to Pricing Methodology

This trial results in changes to customer groups and the measurement basis under which TLC recovers revenue from customers. There are 176 customers' ICPs invited to participate in this trial; all of participants are "active". This means that they will receive their invoices based on energy consumption either through TOU or Non-TOU pricing depending on their meter type.

The customer groups have been consolidated for the trial with the removal of regional, transformer and demand density charges.

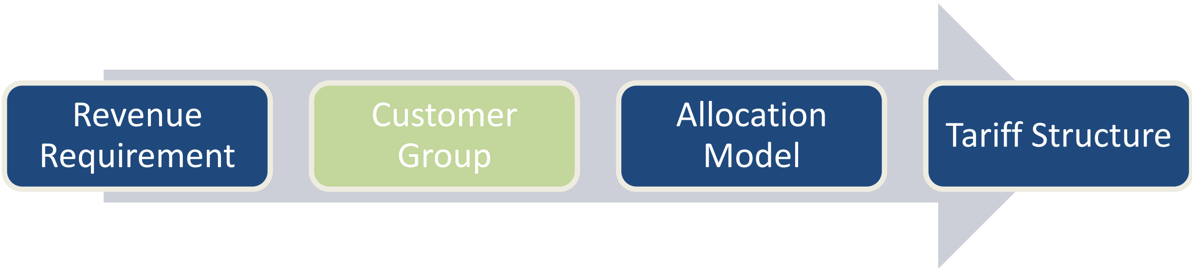
2. Standard Contract Pricing Methodology

2.1. Revenue Requirement



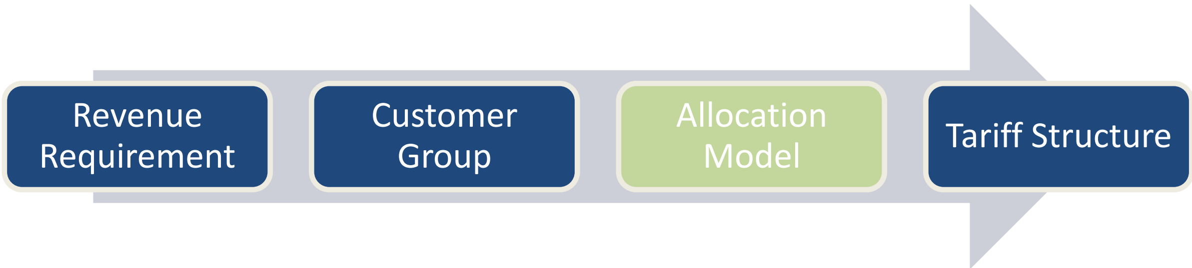
This addendum does not change TLC's revenue requirement or the pricing methodology relating to total revenue.

2.2. Customer Group



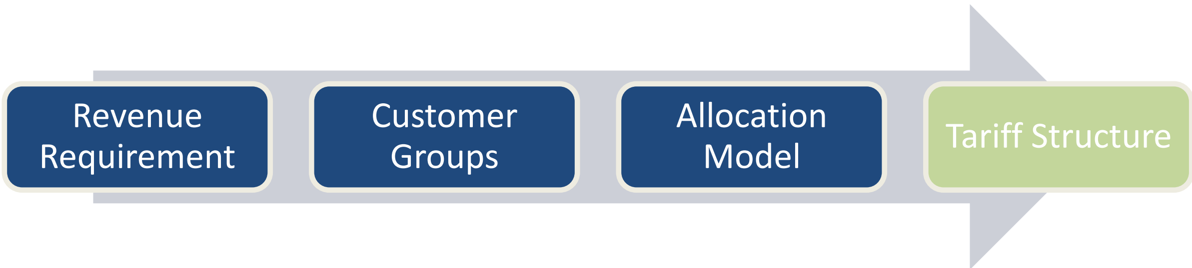
This addendum does make changes to customer groups. TLC has removed the regional and demand density differentiation for the trial. This means that we have removed pricing based on points of supply, demand density and transformer charges.

2.3. Allocation Model



Because the customer groups have changed for the trial, the distribution of costs between customer groups and individual customers change for the trial. Because the number of customers for the trial is small, we have not completed the exercise of reallocating costs. This exercise will be undertaken if and when the TLC Board decide to proceed with TOU pricing. The customer groups included in the trial are from Standard and Low Fixed Charge User Pricing Plans.

2.4. Tariff Structure



TLC will recover revenue from trial participants differently than how it does currently and for other customers. In addition to introducing new fixed and variable prices, TLC has changed the method for pricing dedicated assets reflecting our supplier pricing.

The three main pricing components used to recover distribution revenue from trial participants are:

- Fixed charge (Daily charge, $ per day);
- TOU variable charge (Volumetric charge, $ per kWh);
- Dedicated asset recovery (Control relay included in the metering charge, $ per meter per day).

2.4.1. Time-of-use (TOU) Pricing

This section explains, at a high level, how we set our prices for the trial. It explains what types of prices are used and how the levels of prices are determined.

Overview of price components

Our trial prices have a three part charge comprising a daily fixed price, a variable energy consumption price and a meter price that includes the price of the control relay for non-TOU meters. For TOU meters, the variable prices differentiate between peak, shoulder and off-peak energy consumption.

Fixed Charge

The majority of our costs are fixed and sunk, so we have tried to reflect this in an appropriate fixed charge. We have set the fixed price at $1.00 per day per connection for *Residential Standard* customers and $1.60 per day per connection for *General* connections.

Our residential prices must include an option which is consistent with the Low Fixed Charge (LFC) regulations. We comply with these regulations by offering LFC prices with a fixed price of $0.15 per day and volume prices that ensure customers who use 8,000 kWh per year or less are better off on the LFC pricing plan.

Variable Charge

Prices

After fixed costs are considered, variable energy consumption prices are set to recover the remaining revenue.

To develop these prices, we collated the energy consumption of a large set of customers across the network from October 2015 to September 2016. We used this period because it corresponds to our current pricing period under our current demand methodology. We used the revenue from this group of customers for calculations.

The network's energy consumption and revenue were compared to the sample's energy consumption and revenue to ensure consistency and allowed the data to be extrapolated. The revenue was then divided by the corresponding energy consumption to derive prices. The resulting prices were compared with neighbouring distributors as a reasonableness check for trial purposes.

TOU times

We are using three pricing periods for the trial as was recommended in the report to the TLC Board: Peak, Shoulder and Off Peak. The times for the trial are register content codes that have already been approved for use by the Electricity Authority. The peak period times reflect the periods of highest demand on the network; the off peak times reflect the periods of lowest demand.

2.4.2. Dedicated Asset Recovery

For trial participants, the dedicated transformer charge has been removed, and the control relay charge has been incorporated into the meter charge. This revenue will be recovered in the rebalancing of fixed and variable prices.

2.4.3. Transmission Charges

For trial customers, their contribution to recoverable and pass-through costs will be through the variable, volumetric charges.