Disclosure of Pricing Methodology as at 1st April 2018

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1. INTRODUCTION

This document sets out the methodology used to determine charges to connected consumers—via capacity based load groups—for access to, and use of, the Buller Electricity Limited (BEL) distribution network. Line charges recover costs associated with the use of Transpower's National Grid and the costs of operating and maintaining BEL's network together with a provision to provide a rate of return on the investment in the distribution network (i.e. the cost of ownership). For most electricity consumers, these lines charges are a part of their retail prices, and represent the cost of delivering electricity from the generating stations to the consumers' installations. In practice:

- BEL's line charges are paid by electricity retailers operating in the Buller network region, using, *inter alia*, the load group aggregate metering information supplied by these retailers for each consumer Installation Control Point (ICP); and
- In deriving their retail prices, retailers may repackage BEL's lines charges together with their own retail energy charges, or separately disclose line charges.

Pricing Methodologies are a requirement of the Electricity Distribution Information Disclosure Determination 2012[1] determined pursuant to Part 4 of the Commerce Act 1986. Additional regulatory guidance for BEL in preparing its pricing methodology comes from Distribution Pricing Principles and Information Disclosure Guidelines[2], and the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.

In the Determination (Clauses 2.4.1 to 2.4.5), BEL must disclose its pricing methodology, including:

- Target revenue information (where applicable)
- Discussion of the extent of consistency of the pricing methodology with the pricing principles
- Pricing strategies
- Approach to pricing for non-standard contracts and distributed generation
- Disclosure of consumer consultation on price and quality

The Commerce Commission notes that pricing disclosures help interested persons to understand how prices are set, and to compare prices for different consumer load

[1] Commerce Commission Decision No. NZCC 22

[2] Prepared by the Electricity Commission (now Electricity Authority) in February 2010

groups. Pricing and related disclosures help interested persons consider whether the prices set by distributors (such as BEL) promote efficiency, and whether they are sharing the benefits of efficiency gains with consumers. Given this, the information herein, describes BEL's:

- Pricing Methodology used to determine prices charged as at 1st April 2018 for the use of the distribution network for the delivery of electricity to consumers premises;
- Approach to the allocation of costs, revenues and assets from 1st April 2018; and
- Costs and revenues attributable to load groups and the methodology used to allocate indirect costs between load groups from 1st April 2018.

Appropriate details and any departure from the methodology published in the guidelines are set out below.

The information in this document was prepared by Buller Electricity Limited after making all reasonable enquiries, and to the best knowledge of the company it complies with the 2012 Determination.

All charges shown in the Delivery Price Schedule are exclusive of goods and services tax.

Eamon Ginley
Chief Executive Officer
Buller Electricity

1. OVERVIEW OF THE PRICING METHODOLGY

Buller Electricity Limited (BEL) has not made any significant changes to its Pricing Methodology for the 2018-19 financial year. The delivery prices set for the pricing year from 1 April 2018 to 31 March 2019 are cost reflective in terms of Load Group recoveries of BEL's Target Revenue Requirement.

A necessary preliminary step before the pricing process can be completed is developing knowledge of the Line Charge Revenue Requirement. This is obtained using a building blocks approach from the budgets and Asset Management Plan as shown in Figure 1. The budget takes into consideration costs associated with network maintenance and operation, asset base depreciation, transmission costs, and tax.

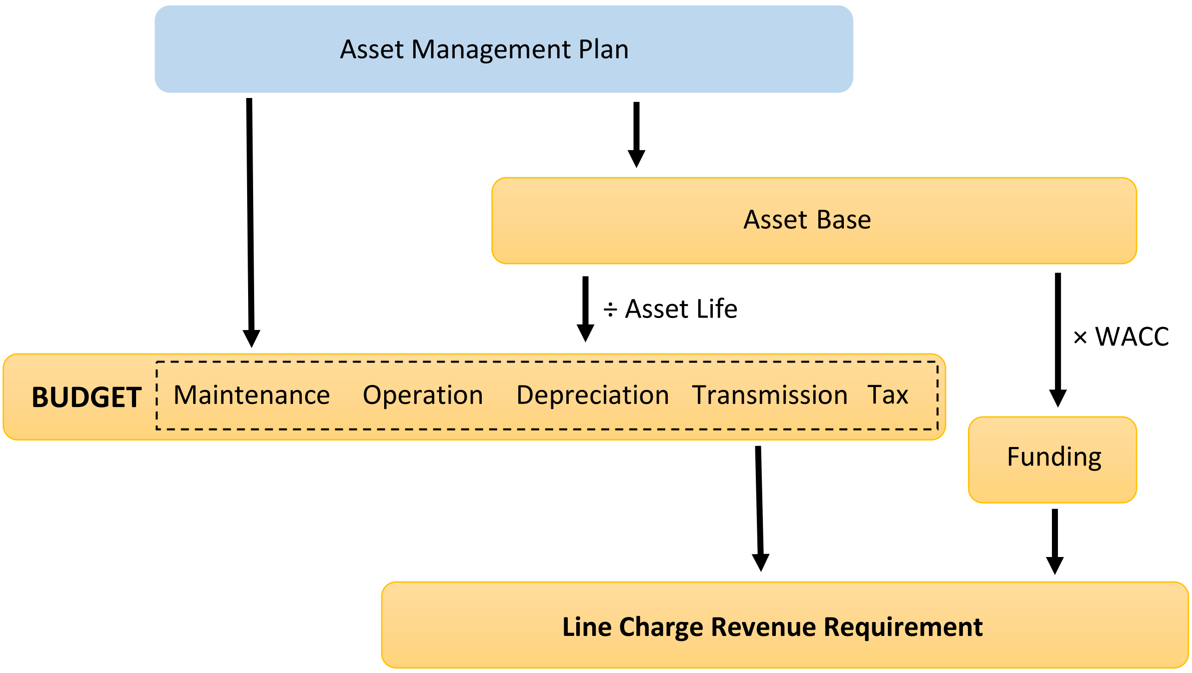

Figure 1 Process for determining the Line Charge Revenue Requirement

The Pricing Methodology used by Buller Electricity is shown in Figure 2 and the three main steps are described as follows:

Step 1 – Consumer Groupings

Consumers having similar demand and connection capacity characteristics are grouped together in order to simplify the pricing process. The groupings are called Load Groups. Load Group categories are reviewed periodically using information from the company's Consumer Database and historic ICP Consumption Data from retailer billing.

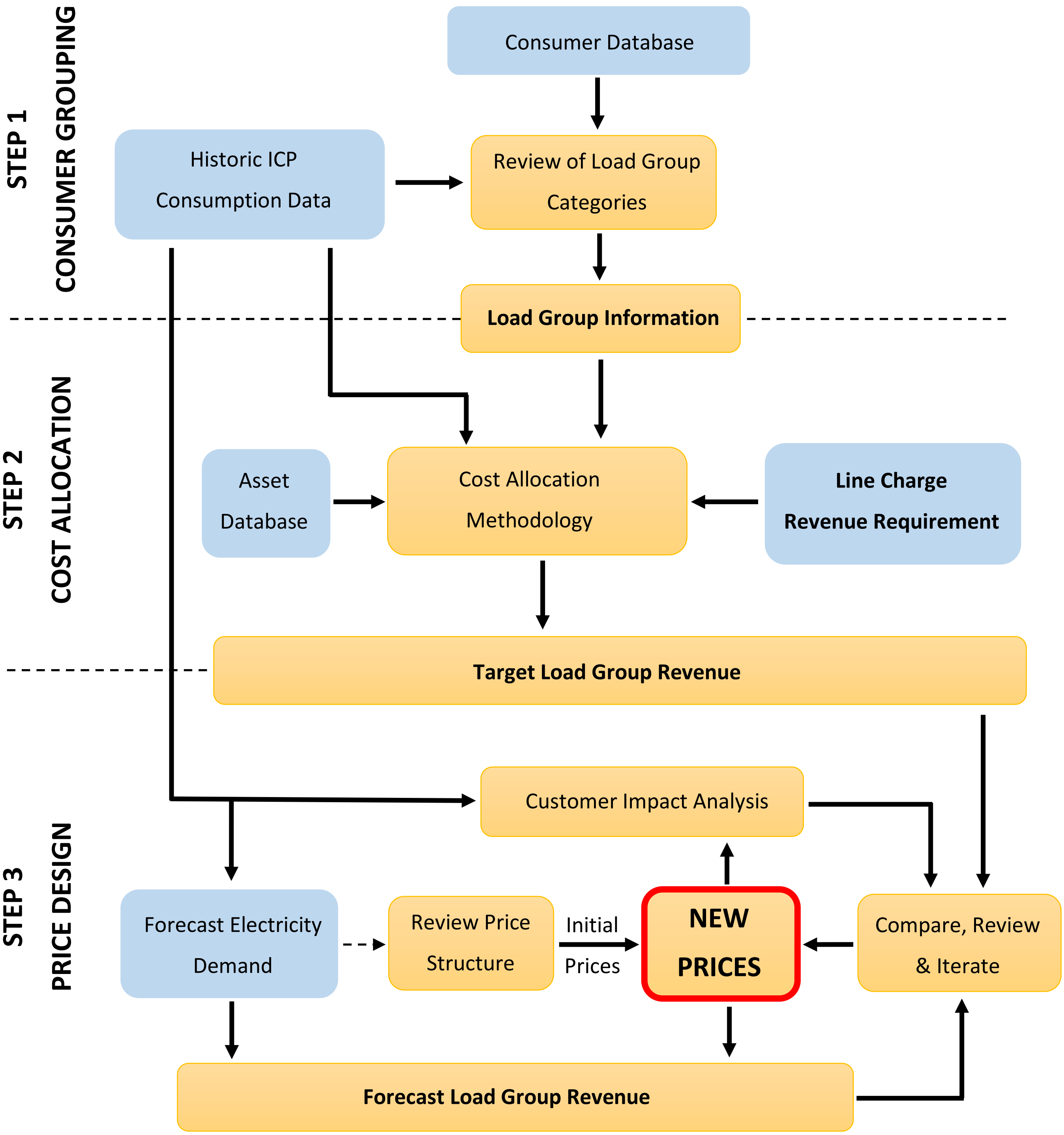

Figure 2 Pricing Methodology: Steps and Process

Step 2 – Cost Allocation

The Line Charge Revenue Requirement is allocated to the Load Groups using the Cost Allocation Methodology. This methodology identifies the costs associated with supplying electricity to each Load Group and makes use of information from the Asset Database and historic ICP Consumption Data. The end result of this step is the Target Load Group Revenue and the associated percentage allocations between the Load Groups.

Step 3 – Price Design

After a review of the price structure is completed an initial set of prices is determined. Combining this information with a forecast of the expected electricity consumption and consumer numbers allows the Forecast Load Group Revenue to be calculated. The initial set of prices will generally not meet all requirements for recovering costs, desired Load Group cost allocations, and/or regulations. An iterative process is then undertaken to determine the most appropriate manner in which to obtain the required line charge revenue from each Load Group.

2. CONSUMERS & LOAD GROUPS

BEL categorises consumers into Load Groups (Electricity Registry Price Category Codes) for the purpose of simplifying the process of:

- Implementing an effective and efficient Pricing Methodology
- Recovering revenue
- Facilitating network administration
- Meeting regulatory requirements

The three key cost drivers for the supply of electricity to a consumer are identified as being the capacity, usage characteristic, and location. For the time being BEL does not use consumer location to determine line charges, and as a result the costs associated with location variation is averaged across the BEL's distribution region. The 6 Load Groups that will apply through to the end of the 2018/19 pricing year are set out in Table 1.

Load Group	Description	ICP Numbers
LG1	Residential standard consumers up to 15kVA capacity	1,657
LG1L	Residential low-user consumers up to 15kVA capacity	2,342
LG2	Small commercial consumers up to 15kVA	525
LG3	Medium commercial consumers over 15kVA capacity	86
LG4	Large commercial consumers over 100kVA capacity	12
LG7	Commercial consumers over 1000kVA capacity	1
	Total Consumers	**4,623**

Table 1 Consumer Load Groups and ICP Numbers as at 1st November 2018

At this time, capacity is the primary characteristic BEL uses to allocate consumers into Load Groups. Capacity provides a pragmatic method for grouping ICP's which are expected to have similar network costs and for which a common Delivery Price structure is appropriate. It also allows costs for the use of different network assets to be appropriately allocated.

In general terms the capacity of an ICP is derived from one or a combination of the following:

- Fused kVA rating of the service

- Installed kVA capacity of the dedicated supply transformer (if one exists)
- Maximum demand (kW) on a metered half-hourly basis (typical for LG4 and LG7 consumers)

In addition to Capacity further distinction is made between ICP consumer groups as follows:

- Residential low-user (LG1L) is required for regulatory purposes
- Residential and commercial consumers are separated for the purposes of reporting and identifying the different usage characteristics and potential risk profiles

Commercial consumers are separated into Load Groups according to their Capacity. Commercial consumers with a Capacity greater than 100kVA typically have a dedicated 11kV/400V supply transformer.

The typical allocation of line charge revenue between the Load Groups is indicated in the Figure 3.

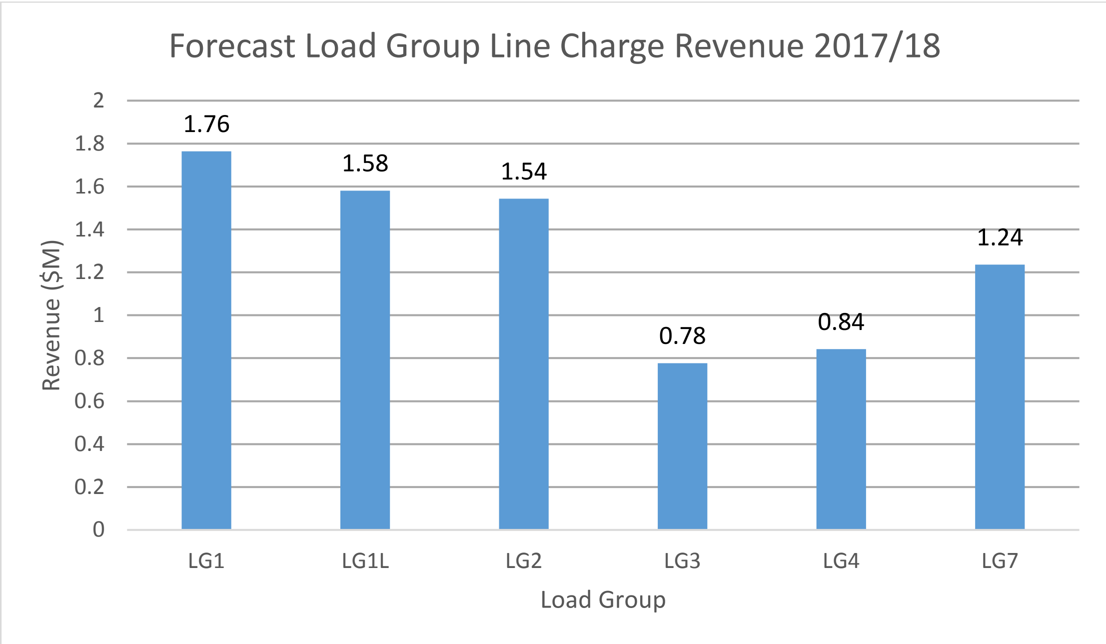

Figure 3 Typical Load Group line charge revenue (Total forecast for 2017-18 $7.74M)

2.1 Additional Notes – Load Groups

Residential standard and low-user prices are set so that a typical consumer using 8,000kWh annually would experience the same annual BEL line charges on either standard or low-user prices. This is a requirement as set out in the Low Fixed Charge (LFC) Regulations 2004. The only connections eligible for low-user Residential prices are the principal place of residence of a consumer. Consumers using more than 8,000kWh will generally be better off on standard Residential pricing, while those using less than 8,000kWh will generally be better off on low-user Residential pricing. The average Residential consumer on the BEL Network consumes 4,776kWh annually, and as a result it is expected that most Residential consumers would pay lower line charges on low-user Residential pricing. Most consumers are not actively engaged in the decision to be standard or low-user consumers and allow their Retailer to make this decision for them. It is expected that the effectiveness and appropriateness of the Low Fixed Charge Regulations will be reviewed by the Industry and Government in 2018.

BEL does not have a specific Load Group for temporary connections as these are treated in the same manner as permanent connections. While builder's temporary supplies for the construction of new homes are normally categorised as Residential connections, some Electricity Retailers choose to set these up as Commercial connections during the construction period when the power account is held under the name of a commercial enterprise (the builder or otherwise). So long as the builders supply is positioned appropriately, and enough extra length is left in the service cable, it can normally be easily converted to the permanent connection for the completed house.

BEL does not have a specific Load Group for irrigation load as this type of load does not represent a significant proportion of the load on the BEL Network.

BEL does not have a specific Load Group or pricing for unmetered load. The only unmetered loads are approximately 150 Council streetlights (recorded in the RAMM database) which are aggregated onto a single Distributed Unmetered Load (DUML) ICP on the Electricity Registry. Phone Booths and Cabinets are also unmetered and charged as small commercial connections on individual ICPs at standard rates of consumption for these loads.

While BEL currently does not apply a Power Factor Charge to any ICP's, provision for such a charge exists as part of the legacy Use of System Agreement (UoSA) which BEL has with most Electricity Retailers.

BEL has not adopted seasonal pricing e.g. different pricing during the summer and winter periods.

3. RECOVERY OF COSTS – COST REFLECTIVE PRICES

As a consumer-owned Electricity Distribution Business (EDB), BEL is exempt from the price/quality regime administered by the Commerce Commission. However, BEL has determined that it is in its interests, the interests of its consumer-owners, and the interests of consumers connected to the BEL network, to align its pricing methodology to that of its non-exempt peers.

It is therefore integral to BEL's pricing methodology that a 'building blocks' approach is used to determine the appropriate level of costs[3] to be recovered – this being the target Revenue Requirement for the year. Delivery prices are then determined to generate this revenue requirement based on:

- Strategic considerations (e.g. for maximising the efficient utilisation of the network, and managing revenue volatility risks) as to the mix of fixed and variable price components

- Estimates of the number of consumers and their consumption of electricity for the period

Whether actual revenue will be close to target revenue for the year is a function of prices, the actual number of consumers, actual demand, and actual volumes of electricity delivered over the distribution system.

3.1. Revenue Requirements

The revenue requirement for BEL's line business is based on the recovery of the following costs:

- Maintenance (including Operations costs)
- Transmission Costs
- Business Support (including Pass-through costs)
- Depreciation
- Cost of Capital (Return on Investment)
- Tax

[3] In order for prices to be cost reflective, these are costs that will necessarily be incurred in providing the distribution service.

3.2. COST ESTIMATION

The total Line Charge Revenue Requirement for the 2018-19 financial year was determined to be $7,585k and consists of the major cost elements shown in Figure 4. These cost estimates were made using BEL's November 2017 preliminary forecasts for the 2018-19 financial year.

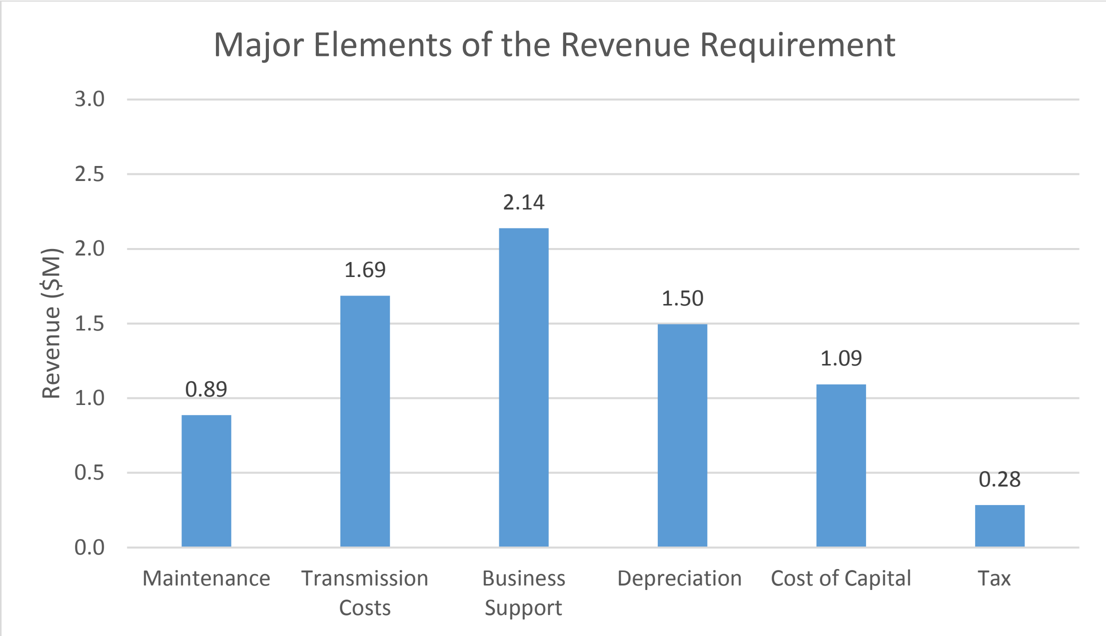

Figure 4 Major Elements of the Line Charge Revenue Requirement

The major elements of the Revenue Requirement are as follows:

- **Maintenance** – are the direct costs associated with maintaining the system assets, and includes the management of designing and running the line business and the management of the computerised load control system and geographical information system
- **Transmission Costs** – are those paid to Transpower to recover the costs of the High Voltage National Grid together with 'Avoided Transmission' costs paid to local generators. These are referred to as *Recoverable Costs* by the Commerce Commission
- **Business Support** – includes the other indirect costs (such as Administration and Overhead costs) necessarily incurred in providing the distribution service. Pass-through costs (another term used by the Commerce Commission) includes some industry Levies, and Local Authority rates and are included as Business Support costs.

- **Depreciation** – The cost of network assets is returned over time as depreciation, with the amount of depreciation being determined by the useful life of the assets
- **Tax** – is covered in the cost recoveries to ensure that the return on capital is in pre-tax terms

BEL has two subsidiaries – a wholly owned electrical contracting business and an investment holding company which holds c.47% of a limited partnership electricity retail business. BEL pricing approach for the network business is on a standalone basis, and is not influenced or diluted by any of the subsidiary businesses.

3.3. Cost Efficiency

BEL seeks to ensure that its consumers receive value-for-money from the services it provides given the price paid. In this respect, BEL has no intention of making its consumers pay for inefficient service delivery. BEL's current approach is to use published industry statistics, and the building blocks approach applicable to non-exempt EDBs, to guide BEL to more efficient outcomes. This is an on-going process. To keep some downwards pressure on costs, BEL has used a WACC of 3.65%. This is lower than the WACC allowed by BEL's non-exempt peers in their building blocks calculations.

3.3.1. Policies or Methodologies for determining Capital Contributions

In addition to the line charge revenue BEL receives from consumer groups, BEL also receives capital contributions from consumers that require new or upgraded power supply to their properties.

As the requirement for a capital contribution can only be determined once details of the specific connection are known, BEL does not have a schedule of charges. However, as there is a high degree of consistency in prices for similar categories of connection, the level of capital contribution is transparent to consumers.

Accordingly, BEL considers that the capital contribution methodology applied is consistent with the pricing principles.

3.3.2. Policies Related to Discretionary Discounts and Rebates

BEL does not have in place specific policies regarding discretionary discounts or rebates. Any decision to provide a discount or make a rebate will be determined by the BEL Board following input from management and the shareholder.

4. COSTING PRINCIPLES

BEL is committed to achieving an efficient cost structure for its electricity distribution services; recovering these costs from consumers using cost reflective prices; and providing a high degree of price stability so consumers can make investment and consumption decisions that are not impacted by incessant and unnecessary variation.

With regard to an efficient cost structure, BEL is conscious that, *inter alia*, its network locality and geography—together with the small number of consumers—result in its costs being higher than many of its peers on a ‘per consumer’ or ‘per km’ basis. BEL monitors these industry benchmarks and looks to reduce these costs where possible.

As intended in adopting the Building Blocks method, BEL’s load group prices are increasingly cost reflective. However, BEL is yet to consider cost reflectivity at the locational level. Any decision to significantly rebalance load group prices or introduce locational prices of any nature will first be discussed with BEL’s shareholders, as they are the consumers representatives.

4.1. PRICING STRATEGY

BEL is committed to establishing a formal and prescribed pricing methodology which aims to allocate costs to individual consumers in a manner which fairly reflects the cost of providing the associated network connection. Historically BEL line charge revenue has been heavily weighted towards variable (kWh based) revenue compared with fixed (daily charge) revenue. BEL is currently in the process of increasing the proportion of revenue collected as fixed line charges, with the aim of there being an even split between fixed and variable charges for all load groups (except LG1L) in the 2019/20 financial year. The increase in the proportion of fixed charges has been undertaken over a number of years to ensure consumers have price stability and the potential for price shocks is limited.

4.2. ELECTRICITY AUTHORITY PRINCIPLES

The core distribution pricing principles espoused by the Electricity Authority are:

- *Prices to signal the economic costs of service provision, by:*
    - *being subsidy free (equal to or greater than incremental costs, and less than or equal to standalone costs), except where subsidies arise from compliance with legislation and/or other regulation;*
    - *having regard, to the extent practicable, to the level of available service capacity; and*
    - *signalling, to the extent practicable, the impact of additional usage on future investment costs.*

- *Where prices based on 'efficient' incremental costs would under-recover allowed revenues, the shortfall should be made up by setting prices in a manner that has regard to consumers' demand responsiveness, to the extent practicable.*

- *Provided that prices satisfy the first point above, prices should be responsive to the requirements and circumstances of stakeholders in order to:*

  - *discourage uneconomic bypass;*

  - *allow for negotiation to better reflect the economic value of services and enable stakeholders to make price/quality trade-offs or non-standard arrangements for services; and*

  - *where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives (e.g. distributed generation or demand response) and technology innovation.*

- *Development of prices should be transparent, promote price stability and certainty for stakeholders, and changes to prices should have regard to the impact on stakeholders*

- *Development of prices should have regard to the impact of transaction costs on retailers, consumers and other stakeholders and should be economically equivalent across retailers*

4.3. Satisfying these Principles in BEL's Pricing

The Information Disclosure requirements (per Clause 2.4.1 of the 2012 ID Determination) require EDBs in their pricing methodologies to –

> *"Demonstrate the extent to which the pricing methodology is consistent with the pricing principles and explain the reasons for any inconsistency between the pricing methodology and the pricing principles."*

BEL acknowledges that that the Pricing Principles were introduced with a view to achieving voluntary compliance and therefore sets out below how BEL's Pricing Methodology achieves those objectives.

1. *Prices are to signal the economic costs of service provision, by:*

   a. *being subsidy free (equal to or greater than incremental costs, and less than or equal to standalone costs), except where subsidies arise from compliance with legislative and other regulations;*

   BEL believes that this methodology demonstrates that the revenue for each Load Group falls within the bounds of the standalone and avoidable costs and hence are subsidy-free. In particular:

- The incremental costs (for supplying another unit of electricity) are low (i.e. close to zero) in most cases.

- The standalone costs of either BEL's distribution service (evidenced by the sharing of meshed and common network costs set out in this Pricing Methodology), or the next best alternative[4], are higher than the revenue for each Load Group.

The term subsidy-free is used here in the context that costs are averaged over all consumers in a load group. The existing pricing strategy does not attempt to account for specific locational factors and the associated network costs for consumers in different areas, or the age of an individual consumers supply when determining network charges. In this regard there may be elements of price discrimination and/or mis-priced risks, the most significant perhaps being that between urban and rurally located consumers. However, a potential factor which mitigates this is the lower service levels (greater outage minutes) experienced by rural consumers.

BEL has commenced work on understanding the extent and magnitude that locational aspects impact on the cost and quality of its lines service. The purpose of this is to better understand the 'locational' implications and then develop options for managing the issues associated with them.

b. *having regard, to the extent practicable, to the level of available service capacity; and*

c. *signalling, to the extent practicable, the impact of additional usage on future investment costs.*

BEL's prices signal capacity constraints in the following manner.

Controlled Load – BEL offers controllable load and night time prices which incentivises movement of load away from periods of high usage (congested periods that might give rise to a need for future investment). These price signals provide consumers with the opportunity to receive a lower price for service by shifting their load away from periods of high network demand.

Capacity (kW) – The capacity charge for large commercial consumers (LG4 & LG7) provides a strong price signal by incentivising consumers to reduce

[4] The next best alternative would likely be Solar PV with storage for domestic customers and Diesel Generation for major consumers. At present, for the majority of consumers connected to BEL's network, these alternatives are likely to have a cost exceeding a typical Retailer's tariff (which is inclusive of energy and BEL's network tariff).

their maximum demand on the network. While consumers are not charged directly for their contribution to BEL Network Anytime Maximum Demand (AMD) or the Regional Coincident Peak Demand (RCPD) cost drivers, these factors are accounted for in the Pricing Methodology as they influence the Target Load Group Revenue on a lagged basis. Any growth in the demand results in higher charges to the consumer in the following year.

Power Factor Charge – BEL does not have significant issues with power factor on its network. However, in the event that price signals are required to assist in the management of power factor issues then a power factor charge will be actively applied to consumers whose loads do not meet the appropriate standards for power factor.

2. *Where prices based on 'efficient' incremental costs would under-recover allowed revenues, the shortfall should be made up by setting prices in a manner that has regard to consumers' demand responsiveness, to the extent practicable.*

   BEL's costs are largely fixed, and prices based on marginal cost will under-recover BEL's total costs of providing a distribution service. Whilst acknowledging the 'efficiency' of Ramsay-type pricing, BEL has a relatively small number of consumers in most of its Load Groups. Amongst the smaller Load Groups with 'lower' demand responsiveness are regional schools and the hospital. To avoid detrimental impacts to the community, BEL, at this point in time, addresses *the need for prices that have regard to the ability of consumers to respond* by maintaining variable consumption tariffs that are based on the consumers actual energy use.

3. *Provided that prices satisfy (1) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:*

   a. *discourage uneconomic bypass;*

   b. *allow for negotiation to better reflect the economic value of services and enable stakeholders to make price/quality trade-offs or nonstandard arrangements for services; and*

   c. *where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives (e.g. distributed generation or demand response) and technology innovation.*

   In all recent surveys of consumer preferences, the majority of responders have been happy with the status quo, and are not inclined to trade current reliability levels for higher or lower prices.

   When prices are above the standalone cost for particular consumers, a situation is created where the possibility of efficient bypass of the existing infrastructure is created. BEL's prices are below the standalone costs (for the vast majority of connected customers), thereby discouraging bypassing the network. In addition, while BEL uses standard tariffs, it may negotiate connection costs with consumers requiring non-standard connections or with non-standard loads. To date this has not been required. BEL believes that this approach will allow it to make price and service trade-offs with consumers to better match their circumstances.

BEL supports the connection of embedded generation on our network and negotiated a service contract with a new generator of significant size in the 2013/14 financial year. The uptake of small-scale distributed generation (primarily PV solar) in our region remains very limited.

As the relative cost of PV solar and other emerging technologies drops, incentives for bypass may increase. BEL is monitoring this. In the medium term, BEL intends to consider options for encouraging alternative supply when that is economic/efficient, and the possibility of locational pricing to provide the right signals for the uptake of new technologies.

4. *Development of prices should be transparent, promote price stability and certainty for stakeholders, and changes to prices should have regard to the impact on stakeholders.*

   All prices are developed in a systematic approach that broadly reflects the consumer profile and connection characteristics. All of these prices are published in public documents and thus the delivery of standard prices is transparent.

   Recent price changes have been applied on a reasonably uniform basis relative to changes in BEL's identified revenue requirement—which has been developed in a manner consistent with that applying to an EDB subject to a DPP Determination.

   To avoid price shocks, any rebalancing between load groups, or any reweighting between price codes within a Load Group are modelled, using actual customer demand, to assess the impact on customers—with an intention of demonstrating and ensuring that price adjustments are not unreasonably large from year to year.

5. *Development of prices should have regard to the impact of transaction costs on retailers, consumers and other stakeholders and should be economically equivalent across retailers.*

BEL attempts to minimise possible transaction costs arising from its network pricing strategy, by limiting the complexity of price structures and the number of charging parameters within each load group.

BEL applies the same pricing structure to all retailers and has not introduced any new prices or price structures in the 2018/19 disclosure year.

5. RECOVERY OF LINE CHARGES

The total line charge is allocated across 6 Load Groups based on the Load Group's use of the various network components and their capacity requirements. Line charge revenue is collected as a combination of fixed and variable line charges.

As per the Government Policy Statement, Buller Electricity Limited does not differentiate in pricing by geographic location for load groups even though the cost of supply for rural areas is higher than urban areas. This could mean there is an element of price discrimination in BEL's prices that rural consumers benefit from – however, the service quality must also be taken into account.

5.1. LINE LOSSES

The cost of distribution line losses between the Grid Exit Points (GXPs) and the Consumers premises are treated as an electricity supply business cost and are included in the variable energy charge of the energy trader.

Loss adjustment factors are set by BEL on the Electricity Registry for each ICP to account for the total losses incurred via the various components of the distribution network when electricity is conveyed across the network.

5.2. FIXED CHARGES

All consumers except those in Load Groups LG4 and LG7 attract a fixed daily charge ($ per day). For low-user residential consumers the fixed charge amount is controlled by regulation at $0.15 per day. Consumers in Load Groups LG4 and LG7 attract a capacity charge which is charged as a fixed rate ($ per kW per day). This is a lagged charge based on the maximum demand (chargeable capacity) in the previous November to October year (prior to the start of the financial year). Where half hour meter data is not available chargeable capacity is estimated and generally based on the capacity of the power supply.

5.3. VARIABLE CHARGES

All consumers attract variable charges which are dependent on the energy (kWh units) used. In each Load Group BEL offers Uncontrolled (24 hour), Day (8am-Midnight) and Night (Midnight-8am) variable prices. In addition, Controlled (water heating) variable prices are also offered for residential and small commercial (LG2) consumers. Tariffs are set in a manner to incentivise the use of electricity during off peak times (Night) and to encourage the control of hot water heating.

The proportions between the current variable tariff values in each Load Group are those which have been historically used. At this point in time it is uncertain how these prices could be adjusted in order to achieve more desirable and/or efficient outcomes for BEL and its consumers.

5.4. Metering And Load Control Equipment

Whilst BEL sold its metering and ripple control relays to TrustPower, it retained the operational services for load control and charges the network users for this service. The revenue from these services is included in the BEL line charges.

5.5. Calculation Of The Cost Allocators

The individual revenue requirement costs identified in Section 3.2 are allocated across the load groups using percentage weighting factors derived from the most appropriate and available cost allocation parameters (i.e. proximate cost drivers).

The cost allocation parameters used are given in Table 2 and described below:

Parameter	LG1	LG1L	LG2	LG3	LG4	LG7	Total
Connections	1,657	2,342	525	86	12	1	4,623
Energy (GWh)	9.6	9.5	9.3	5.2	5.8	10.8	50.2
RCPD (kW)	1,491	1,475	1,444	808	1,045	1,702	7,965
AMD (kW)	1,967	1,947	1,906	1,066	1,104	2,282	10,272
Asset Value ($M)	10.01	10.32	9.08	4.95	4.04	3.66	42.06

Table 2 Cost allocation parameters

Connections – The expected average ICP consumer connections for each Load Group for the 2018-19 financial year

Energy (GWh) – The expected energy consumption for each Load Group in the 2018-19 financial year

The remaining allocation parameters are only partially known for the Load Groups and determining values for each Load Group involves making certain assumptions and approximations.

RCPD (Regional Coincident Peak Demand) – This parameter is derived from the BEL network load which is coincident with the 100 highest peaks of the Upper South Island Transmission System for the Capacity Measurement Period ending 31st August 2017. RCPD at Grid Exit Points (GXPs) during this period is used by Transpower to determine its Interconnection Charges for the 2018-19 financial year, and is therefore an appropriate allocator for these charges. Load Group RCPD is calculated as the result of a three-step process:

Step 1 – Determine the total RCPD of the BEL network load from a knowledge of GXP RCPD, significant local distribution generation, and assuming network losses of 6.5%. These parameters are summarised in Table 3.

Step 2 – Determine the contribution of half hour metered LG4 and LG7 ICPs to the RCPD. Estimate the RCPD contribution of non-half hour metered LG4 and LG7 ICPs. Combining these known and estimated quantities allows the RCPD for Load Groups LG4 and LG7 to be determined.

Step 3 – The remaining portion of the 7,965kW RCPD is allocated across LG1-LG3 pro-rata using the Energy (GWh) parameter.

RCPD Parameter	Value
RCPD ORO GXP	7,379 kW
BEL RCPD	8,519 kW
BEL RCPD Load (assumes 6.5% loss)	**7,965 kW**

Table 3 Summary of RCPD Parameters

AMD (Anytime Maximum Demand) – This parameter provides a measure of the contribution of the Load Group to the peak loading on the BEL distribution network. A peak demand of 10,986kW occurred on the BEL network on 12/7/2017 in Trading Period 39. Assuming a 6.5% loss this corresponds to an AMD of 10,272kW at consumers' meters. AMD is apportioned across the Load Groups in a similar manner to RCPD. For Load Groups LG4 & LG7 half hour meter data is used where available, otherwise estimates are made to determine the contribution of individual ICP's to the AMD. The remainder of the AMD is allocated between LG1-LG3 pro-rata using the Energy (GWh) parameter.

Asset Value – The value of different network asset classes is obtained from BEL's asset database and are given in Table 4. The asset value for each asset class is allocated across the Load Groups using the indicated Allocation Method. AMD % is used as the allocation method for the majority of asset classes. In several cases the AMD % is modified if a Load Group does not utilise a particular asset class. For example LG4 and LG7 do not use the 400V network and as a result this asset class is only allocated across Load Groups LG1-LG3. In the case of Zone Substation and 33kV assets, LG7 is deemed to utilise 33% of these assets. Asset values for BEL's Pricing Methodology were updated for the 2018/19 pricing year.

The cost allocation parameters in Table 2 are expressed as a percentage of the total for each Load Group and are given in Table 5 (also shown graphically in Figure 5). It is noted that the RCPD % and AMD % allocators are very similar.

Asset Class	Allocation Method	Value ($k)
110kV + GXP Assets	AMD %	3,143
Zone Substation	Modified AMD % with LG7 set to 33%	2,971
33kV Network	Modified AMD % with LG7 set to 33%	6,017
11kV Network	Modified AMD % with LG7 excluded	20,710
400V Network	Modified AMD % with LG4-LG7 excluded	6,542
SCADA + Communications + Load Control	Connections %	1,779
Generators	Connections %	901
Total		42,063

Table 4 Asset classes, values, and allocation methods used

Parameter	LG1	LG1L	LG2	LG3	LG4	LG7
Connections %	35.8%	50.7%	11.4%	1.9%	0.3%	0.0%
Energy %	19.1%	18.9%	18.5%	10.4%	11.6%	21.5%
RCPD %	18.7%	18.5%	18.1%	10.1%	13.1%	21.4%
AMD %	19.2%	19.0%	18.6%	10.4%	10.7%	22.2%
Asset %	23.8%	24.5%	21.6%	11.8%	9.6%	8.7%

Table 5 Cost allocation parameters expressed as a percentage of the total for each Load Group

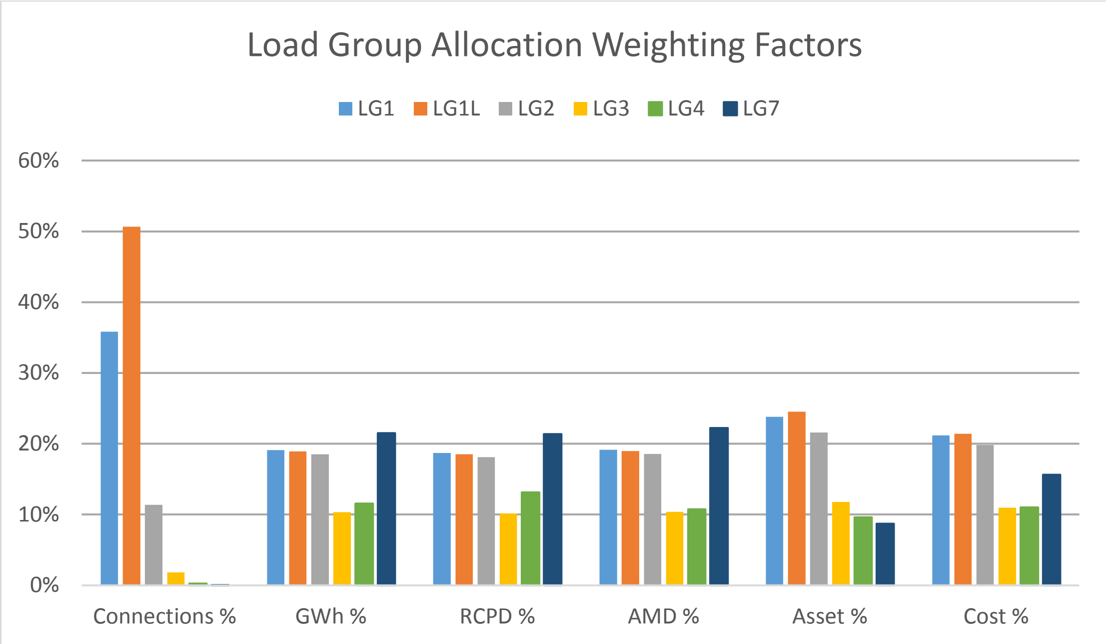

Figure 5 Cost allocation parameters expressed as percentages

5.6. Allocating The Revenue Requirement

The percentage cost allocation parameters are then applied to the components of the Revenue Requirement as indicated in Table 6. This allows the Revenue Requirement for each Load Group to be determined as well as the percentage allocation across the Load Groups.

Revenue Component	Allocation Parameter	LG1 ($k)	LG1L ($k)	LG2 ($k)	LG3 ($k)	LG4 ($k)	LG7 ($k)	Total ($k)
Maintenance	**Asset %**	211	218	191	104	85	77	887
Transmission Costs	**RCPD %**	316	312	306	171	221	360	1,687
Business Support	**Energy %**	409	405	396	221	247	460	2,318
Depreciation	**Asset %**	356	367	323	176	144	130	1,496
Cost of Capital	**Asset %**	260	268	236	129	105	95	1,093
Tax	**Energy %**	54	54	53	29	33	61	284
Total		**1,606**	**1,623**	**1,505**	**831**	**835**	**1,184**	**7,585**
Total %		**21.2%**	**21.4%**	**19.8%**	**11.0%**	**11.0%**	**15.6%**	**100%**

Table 6 Allocation of the Revenue Requirement to the Load Groups

The next step in the Pricing Methodology is to set fixed and variable delivery prices for each Load Group to recover the targeted Revenue Requirement for each Load Group (from Table 6). With reference to Step 3 in Figure 2, an initial set of prices are chosen once the consumer groupings have been reviewed. The Forecast Load Group Revenue can be calculated using a forecast of consumer numbers (fixed charges) and a forecast of the energy consumption for each price code (variable charges). In general terms the initial set of prices will not meet all requirements and will not provide for the final pricing solution.

An iterative process is then initiated, where the fixed and variable prices for each load group are adjusted in order to find the best solution for obtaining line charge revenue. At each iteration consideration is given to the following:

- The difference between the Target and Forecast Load Group Revenues
- The split between fixed and variable line charge revenue for each Load Group and for the overall revenue[5]
- Percentage and dollar value allocation of the forecast revenue across the load groups
- Minimising the potential for price shocks to consumers.
- Compliance of the Residential prices (Load Groups LG1 and LG1L) with the low-user pricing regulations

There are many competing factors which need to be taken into account and a good compromise must be found.

BEL's forecasts for 2018/19 take the view that there will be no increases in energy (GWh) consumption and no material changes in customer numbers.

The expected percentage revenue allocations between Load Groups for:

- the 2017/18 financial year (expected)
- the 2018/19 financial year as is now forecast
- the 2018/19 financial year as was initially desired (pricing model target), are given in Table 6 and shown graphically in Figure 6

[5] BEL has a policy in place to increase the proportion of revenue received from fixed charges to 50% by 2019/20.

Allocation	LG1	LG1L	LG2	LG3	LG4	LG7	Total
Expected 2017/18	22.8%	20.4%	19.9%	10.0%	10.9%	16.0%	100%
Forecast 2018/19	23.1%	20.5%	20.2%	9.7%	10.8%	15.8%	100%
Pricing Model Target 2018/19	21.2%	21.4%	19.8%	11.0%	11.0%	15.6%	100%

Table 7 Load Group Revenue Percentage Allocations

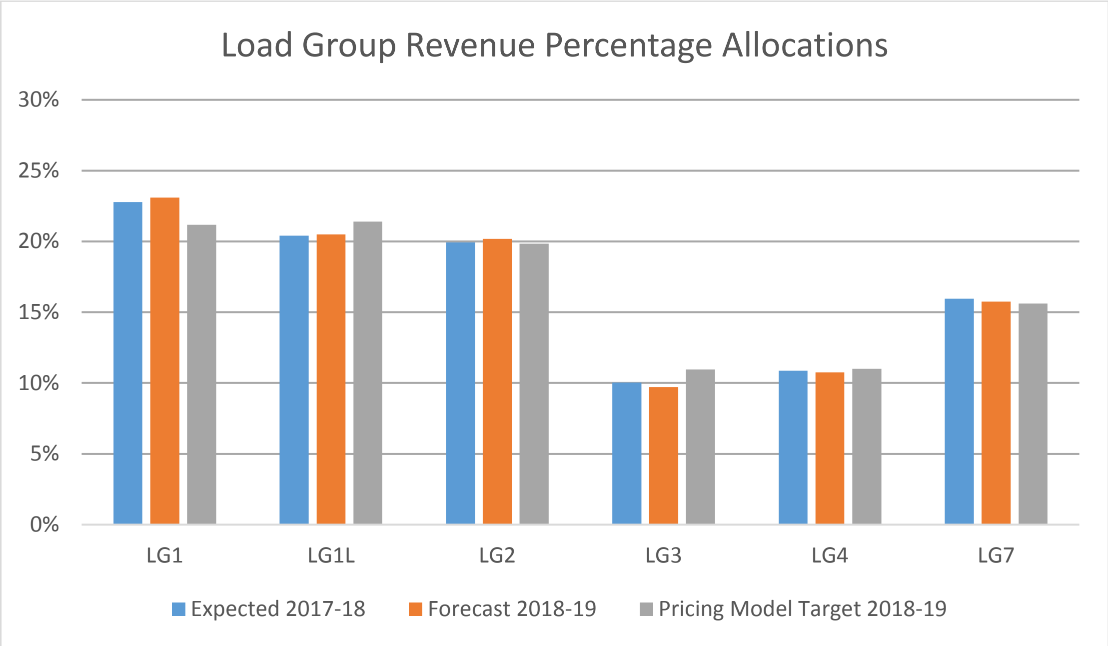

Figure 6 Load Group Revenue Percentage Allocations

A summary of network statistics used to forecast the expected revenue for the 2018/19 financial year is given in Table 8. The expected fixed and variable revenues for each Load Group are given as well as the fixed/variable revenue percentage split.

BEL has increased the proportion of Line Charge revenue which will be collected from Fixed Charges for Load Groups LG1, LG3 and LG4 in 2018/19 compared with 2017/18. This is achieved by increasing Fixed Prices and decreasing Variable Prices, with the overall impact on the expected 2018/19 total Load Group Line Charge Revenue being neutral.

Load Group	ICPs	Energy (GWh)	Capacity (kW)	Fixed Revenue (%)	Variable Revenue (%)	Fixed Revenue ($k)	Variable Revenue ($k)	Total Revenue ($k)
LG1	1,657	9.6		50.1%	49.9%	877	874	1,751
LG1L	2,342	9.5		8.2%	91.8%	128	1,427	1,555
LG2	525	9.3		33.3%	66.7%	510	1,021	1,531
LG3	86	5.2		46.0%	54.0%	339	398	737
LG4	12	5.8	1,791	43.9%	56.1%	358	457	816
LG7	1	10.8	2,398	49.9%	50.1%	596	599	1,195
Total	**4,623**	**50.2**		**37.0%**	**63.0%**	**2,808**	**4,777**	**7,585**

Table 8 Expect revenue statistics for the 2018-19 financial year

5.7. AVERAGE DELIVERY PRICE CHANGES

The overall change in Delivery Prices for the Load Groups is summarised in Table 7. This is determined by applying 2017/18 and 2018/19 Delivery Prices to the expected 2018/19 consumer numbers, chargeable capacity and energy consumption, and comparing the resulting year on year total Load Group Line Charge Revenue on a percentage change basis. The Delivery Price & Line Charge changes determined in this manner reflect the overall average change in the Delivery Prices & Line Charges to consumers in each consumer category.

Load Group	Description	Average Overall Change in Delivery Prices
LG1	Residential Standard User	0%
LG1L	Residential Low-User	-0.7%
LG2	Small Commercial	0%
LG3	Medium Commercial	0%
LG4	Large Commercial	0%
LG7	Commercial >1000kVA	0%
LG1 + LG1L	Overall Residential	-0.30%
LG2 + LG3 + LG4	Overall Small/Medium/Large Commercial	0%

Table 9 Average overall change in Load Group Delivery Prices

While the overall Delivery Prices & Line Charge Revenue for these Load Groups has had no change, the Line Charges for individual consumers will experience an increase, decrease, or no change depending on their electricity usage patterns and balance of fixed and variable Line Charges.

6. TRANSMISSION PRICING

Transmission costs including the Avoided Cost of Transmission are included as part of BEL's line charges. Transmission costs are allocated to Load Groups using the RCPD % allocator as shown in Table 6. Transmission costs in 2018/19 are expected to on average make up 22.2% of a consumers BEL line charges. This compares with a value of 22.3% in 2017/18.

7. NOTE TO CONSUMERS

All energy retailers using the Buller Electricity Limited network pay the same line charges. However pricing options may differ between energy retailers which may have an effect on the final charge the consumer pays.

8. DELIVERY PRICE SCHEDULE

Delivery Price Schedule for Buller Electricity Limited

Applicable from 1 April 2018

This schedule lists the wholesale prices used to charge electricity retailers for the delivery service provided in Buller Electricity's area. The delivery service includes the transmission and distribution of electricity, but does not include the cost of the electricity itself. Please refer to your electricity retailer for details of retail electricity prices.

Description	Delivery Price	Units
Residential Standard Users / Load Group LG1 / Number of consumers: 1,657		
Fixed Daily Charge	1.4500	$/Day
Volume Charge – Uncontrolled	0.1060	$/kWh
Volume Charge – Controlled	0.0477	$/kWh
Volume Charge – All Inclusive	0.0841	$/kWh
Volume Charge – Day	0.1275	$/kWh
Volume Charge – Night	0.0318	$/kWh
Residential Low Users / Load Group LG1L / Number of consumers: 2,342		
Fixed Daily Charge	0.1500	$/Day
Volume Charge – Uncontrolled	0.1653	$/kWh
Volume Charge – Controlled	0.1059	$/kWh
Volume Charge – All Inclusive	0.1429	$/kWh
Volume Charge – Day	0.1871	$/kWh
Volume Charge – Night	0.0899	$/kWh
Small Commercial up to 15kVA / Load Group LG2 / Number of consumers: 525		
Fixed Daily Charge	2.6600	$/Day
Volume Charge – Uncontrolled	0.1194	$/kWh
Volume Charge – Controlled	0.0538	$/kWh
Volume Charge – Day	0.1435	$/kWh
Volume Charge – Night	0.0357	$/kWh
Volume Charge – Lighting	0.0921	$/kWh

Medium Commercial over 15kVA / Load Group LG3 / Number of consumers: 86		
Fixed Daily Charge	10.7900	$/Day
Volume Charge – Uncontrolled	0.0791	$/kWh
Volume Charge – Day	0.1025	$/kWh
Volume Charge – Night	0.0305	$/kWh

Large Commercial over 100kVA / Load Group LG4 / Number of consumers: 12		
Capacity Daily Charge	0.5484	$/kW/Day
Volume Charge – Uncontrolled	0.0761	$/kWh
Volume Charge – Day	0.0987	$/kWh
Volume Charge – Night	0.0293	$/kWh

Notes: Day: 8:00am – Midnight Night: Midnight – 8:00am
All prices exclude GST. Capacity Charges are based on metered kW peak demand in the previous year or if unavailable otherwise estimated. Full details on how BEL establishes Delivery Prices is detailed in our Pricing Methodology (available from our website).

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IN ACCORDANCE WITH THE COMMERCE ACT

Electricity Distribution Information Disclosure Determination 2012

Certification for year beginning Disclosure 2018

We, **Francis Thomas Dooley** and **Graham Arthur Naylor**, being directors of Buller Electricity Limited certify that, having made all reasonable enquiry, to the best of our knowledge-

a) the following attached information of Buller Electricity Limited prepared for the purposes of clause 2.4.1 of the Electricity Distribution Information Disclosure Determination 2012 in all material respects complies with that determination.

b) the prospective financial or nonfinancial information included in the attached information has been measured on a basis consistent with regulatory requirements or recognised industry standards.

Director

Director

Dated: March 29 2018