



Pricing Methodology

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Date: 31 March 2020

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1. Introduction

Buller Electricity Limited (BEL) owns and operates the electricity distribution network on the northern West Coast of the South Island, New Zealand. Our distribution network extends from Meybille Bay in the south (5km north of Punakaiki) to Karamea in the north, and lies entirely within the boundaries of area administered by the Buller District Council. Much of the distribution area covered is rural incorporating significant dairy and other farming activities, with the main population being based in the Westport township. Coal mining at the Stockton opencast mine continues to be a major employer and electricity consumer in the region.

Established in 1947, BEL is owned by its consumers via the [Buller Electric Power Trust](#) (BEPT). While our core activity is electricity distribution, BEL also operates an electrical contracting business (Electro Services Limited), and is a significant owner of the electricity retailer Pulse Energy Limited.

BEL receives electricity from Transpower's national grid and local embedded (distributed) generation and we distribute this electricity using our network to approx. 4,600 homes and businesses (our consumers). The service we provide is the delivery of electricity only – we do not buy and sell electricity, we simply deliver it to the customers of electricity retailers that operate in our area. We charge electricity retailers on a wholesale basis for this delivery service, and they in turn include this cost in their retail electricity prices to their customers.

Our network is a natural monopoly – due to economies of scale a competitor could not profitably duplicate our network. As a result, we are not exposed to the competitive pressures that drive improved efficiencies and service levels in other markets. As a surrogate for these competitive pressures, the Government has developed regulations for electricity network owners under the Commerce Act 1986 (the Act). The Act is administered by the Commerce Commission and requires BEL to disclose certain information about our business, including our Pricing Methodology.

The purpose of information disclosure is to promote efficient operation of electricity distribution businesses by ensuring that electricity distributors make publicly available reliable and timely information about the operation and behaviour of their businesses. Information disclosures about such factors as profits, costs, asset values, price, quality, security, reliability and the methods used for price-setting enable interested persons to assess if the prices set by distributors promote efficiency and how whether the benefits of efficiency gains are being shared with consumers. It therefore supports assessment of whether the purpose of the Act is being met.

2. Pricing Principles, Strategy & Considerations

In simple terms BEL sets prices in a manner to provide sufficient revenue to recover the costs of operating our distribution network while seeking to comply with the regulations. The structure of our pricing aims to reflect the economic costs of providing our Delivery Service. With this approach, consumers can make efficient decisions about which form of energy to use and when to use it, which contributes to economic welfare. Recognising these high-level objectives, the following considerations influence our pricing decisions. In many situations it is necessary to achieve an appropriate trade-off or balance between the various competing considerations.

2.1 Delivery Services

The primary services BEL provides to consumers are as follows:

- **Demand/Capacity** – access to an agreed level of electricity supply
- **Reliability & Security** – in simple terms keeping the power on
- **Power Quality** – ensuring the quality of supply is within acceptable/regulatory limits
- **Load Control** – control of load e.g. electric hot water heating to minimise collective costs
- **Fault Repair** – repair and restoration of electricity supply on an on-call 24/7 basis

2.2 Delivery Prices, Line Charges & Retailer Charges

Delivery Prices are used to determine the Deliver Charges – also commonly referred to as Line Charges – which will be levied on a Retailer for their customers use of BEL's network. Distributors are paid by Retailers on a monthly basis as part of the Retailer Billing process, and the billing quantities (for example the number of connections and energy consumption) are normally explicitly itemised at the individual consumer level in the Retailer Billing data. As a result the Delivery Charges for every connection can be readily identified by the Retailer and Distributor.

In terms of the charges consumers see of their power account with their Retailer, the Retailer will either:

- Separately disclose the different components of their overall electricity bill in relation to electricity charges, delivery charges, administration charges, metering charges and/or Electricity Authority levy etc,
- Or alternatively repackage and include one or more of the charge components listed above into their own retail prices, in which case the charge components are not disclosed separately.

While the Distributor also has the option of billing consumers directly for their delivery service, this is not the common/standard practice, and is generally only considered for the billing of the largest consumers. BEL currently does not direct bill any consumers.

2.3 Economic Considerations

In terms of the structure of our pricing, we aim to ensure that our pricing is economically efficient, which means that:

- Customers choosing to use our network should face the appropriate cost of that decision and be incentivised to weigh up the value of the service and the cost of alternatives,
- And consequently, investments in our network over time will be at an appropriate level and in the interest of customers.

2.4 Even-Handedness & Practical Considerations

BEL takes into account the need for even-handedness and practicality in determining consumer groupings, cost allocations and the structure of our pricing. Specifically, we:

- Apply price averaging over large groups of connections, because it is generally not practical to single out individual connections for cost-specific delivery pricing,
- Recognise that all consumers should share in the benefits of greater utilisation of shared assets (and other enhanced economies of scale),
- Recognise that consumers change their demand behaviour only over relatively long periods of time and it is important that we provide compelling and consistent pricing incentives aimed at maximising the efficient utilisation of our assets (for example, low night time prices that support off-peak usage),
- Seek to make our price signals effective by balancing strong price signals with easily understood application and measurement,
- Treat connections with similar electrical attributes consistently,
- Set prices that are the same for all retailers, providing a 'level playing field' to promote retail competition.

2.5 Regulatory Considerations

EDB's are subject to the Electricity Distribution Information Disclosure Determination (IDD) 2012¹ determined pursuant to Part 4 of the Commerce Act 1986. In the Determination, Clauses 2.4.1 – 2.4.5 set out the requirements for BEL to disclose its Pricing Methodology, including:

- Target Revenue information

¹ https://comcom.govt.nz/_data/assets/pdf_file/0025/78703/Electricity-distribution-information-disclosure-determination-2012-consolidated-3-April-2018.pdf

- Discussion of the extent of consistency of the Pricing Methodology with the Pricing Principles² – administered by the Electricity Authority and last updated in July 2019
- Pricing Strategy
- 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 enable comparison between the different consumer groups
- How efficiency is promoted
- Whether they are sharing the benefits of efficiency gains with other consumers.

Additional regulatory guidance for BEL in preparing its pricing methodology comes from the Low Fixed Charge (LFC) Regulations 2004³.

As a consumer-owned EDB BEL is exempt from the Commerce Commission's Default Price-Quality Path (DPP) regime⁴ which is beginning its 3rd 5-year control period on 1 April 2020. While exempt EDB's are subject to a lower level of scrutiny in comparison with their non-exempt peers, BEL has determined that it is in our interests, the interests of its consumer-owners, and the interests of consumers connected to the BEL network, to align its Pricing Methodology and practices to those of our non-exempt peers. A key aspect of this is industry benchmarking, so far as practically possible, using information available from the Information Disclosure Determination (IDD).

2.6 Changes to the Pricing Methodology

While BEL's Price-Setting Methodology has not been changed for the 2020/21 financial year, this document (the Pricing Methodology) has been substantially rewritten in an effort to:

- Improve our understanding of the key issues which exist in relation to pricing,
- Improve our overall internal processes and decision-making framework,
- Demonstrate consistency with the updated Electricity Authority Pricing Principles,
- And improve the level of documentation and explanations we provide to interested parties.

2.7 Consumer Consultation

While has not undertaken formally consultations on pricing with our consumers for a number of years, price-quality trade-off related questions are routinely included in the consumer surveys we

² <https://www.ea.govt.nz/dmsdocument/25436-more-efficient-distribution-prices-principles-and-practice>

³ <http://www.legislation.govt.nz/regulation/public/2004/0272/latest/DLM283614.html>

⁴ <https://comcom.govt.nz/regulated-industries/electricity-lines/projects/2020-2025-default-price-quality-path>

undertake on a tri-annual basis. The most recent of these surveys was undertaken in mid-2019 and the majority of responders have been happy with the status quo and are not inclined to trade-off current reliability levels for higher or lower prices.

As our distribution pricing reform work progresses and the time comes for us to make more significant changes to our pricing structures, we will issue formal pricing consultations documents on our website. Furthermore, we intend to notify consumers directly of pricing changes in situations where the associated impacts are deemed to warrant this – subject to the approval of Retailers.

2.8 Pricing Strategy

BEL is committed to establishing a formal and prescribed Pricing Methodology, as well as overall Company processes and a decision-making framework, which results in desirable outcomes in relation to the economic, social and regulatory considerations associated with our network and detailed in this document.

Our high-level Delivery Pricing Strategy has been approved by the BEL Board and is as follows:

Our Delivery Pricing Strategy

We aim to set our delivery prices to provide sufficient revenue to recover our prudent and efficient costs, including our cost of capital, while seeking to comply with the regulations.

We aim to reflect the long-term economic costs of providing consumers with the quality of delivery service that they require. Cost recovery is fundamental to retaining our incentives to invest in our network in the long-term interests of consumers. In structuring and setting our prices we take a medium to long term view, and we consider economic efficiency, equity and practicality. We seek to ensure that our pricing is economically efficient, which means that customers who use our network face the appropriate cost of that use, and are incentivised to weigh up the value of our delivery service and the alternatives. Cost-reflective prices should help to ensure that our investments in our network over time will be at an appropriate level.

Recognising that consumer capital contributions are a component of the overall recovery of our costs – in simple terms the level of contributions determines how much is recovered up front as opposed to on an ongoing basis – we will incorporate our approach to contributions into our set of pricing documentation.

In determining customer groupings, cost allocation and the structure of our pricing we:

- apply price averaging over large numbers of connections, because it is generally not practicable to single out individual connections for cost-reflective delivery pricing. Where it is practicable to do so we allocate assets and costs to the specific connection categories that use them,
- recognise that all consumers should share in the benefits of greater utilisation of shared assets and economies of scale,
- recognise that consumers generally change their demand behaviour over relatively long periods of time, and it is important that we provide compelling and consistent pricing incentives aimed at maximising the efficient utilisation of our assets,

- seek to make our prices effective, by balancing strong price signals with simple application and measurement,
- set prices that are the same for all retailers, providing a ‘level playing field’ to promote retail competition.

Key considerations relating to our pricing over the next five years include:

- our developing thinking on sustainability and the way we manage the trade-offs between the environmental and affordability aspects of the energy trilemma in New Zealand’s transition to a low carbon economy,
- preserving incentives for managed water heating load,
- the impact of changing use of the network due to emerging technologies such as distributed generation, battery storage, off-grid systems, and electric vehicles,
- the recommendations of the government’s Electricity Price Review, in particular its recommendations regarding the low fixed charge regulations,
- the Electricity Authority’s:
 - continuing review of Transpower’s transmission pricing methodology (TPM),
 - recent review of the pricing principles and associated practice note and scorecards.

The way we implement our pricing strategy is updated and publicly disclosed in our Pricing Methodology document. We usually change our delivery prices on 1 April each year.

2.9 Pricing History – Fixed Revenue Proportion

Historically BEL Line Charge revenue was been heavily weighted towards variable (energy/ consumption based) revenue compared with fixed (daily charge based) revenue. Starting in the 2016/17 financial year BEL initiated a 4-year program to significantly increase the proportion of revenue received via fixed charges where this was appropriate and possible, with the aim of there being an even split between fixed and variable revenue for all Consumer Groups by the end of the 2019/20 financial year. This change to our Price-Structure was undertaken over several years to ensure consumers experienced price stability and to limit the potential for price shocks.

The overall results and success of this program are shown in Figure 1 which shows the portion of our revenue which has been collected via fixed charges. The blue bars show the results for all Consumer Groups while the red bars show the results for a Consumer Group Subset (excluding fixed charge constrained consumers). This consumer subset excludes consumers for which an even split between fixed and variable charges can currently not be attained for the following reasons:

- **Residential Low-User Connections**

The fixed price for these consumers is set at \$0.15/day by the LFC Regulations 2004, and as a result the portion of fixed charges for these consumer connections can essentially not be changed – the current value is approx. 8% for this connection category

- **Small Commercial Connections**

A long-standing issue currently exists in relation to our ability to increase the fixed Delivery Prices and associated proportion of fixed charges for this connection category. Given the wide range of consumers in this connection category – in terms of both maximum demand and energy consumption – it has been deemed inappropriate to further increase the overall percentage of fixed revenue, as it would result in unreasonably high fixed charges for those consumers with low energy consumption. BEL intends to address this issue in our 2021/22 pricing as detailed in our plan for the adoption for efficient distribution pricing⁵.

Excluding these fixed charge constrained connections from the results (red bars in Figure 1) provides an accurate portrayal of our efforts to increase the Fixed Revenue proportion.

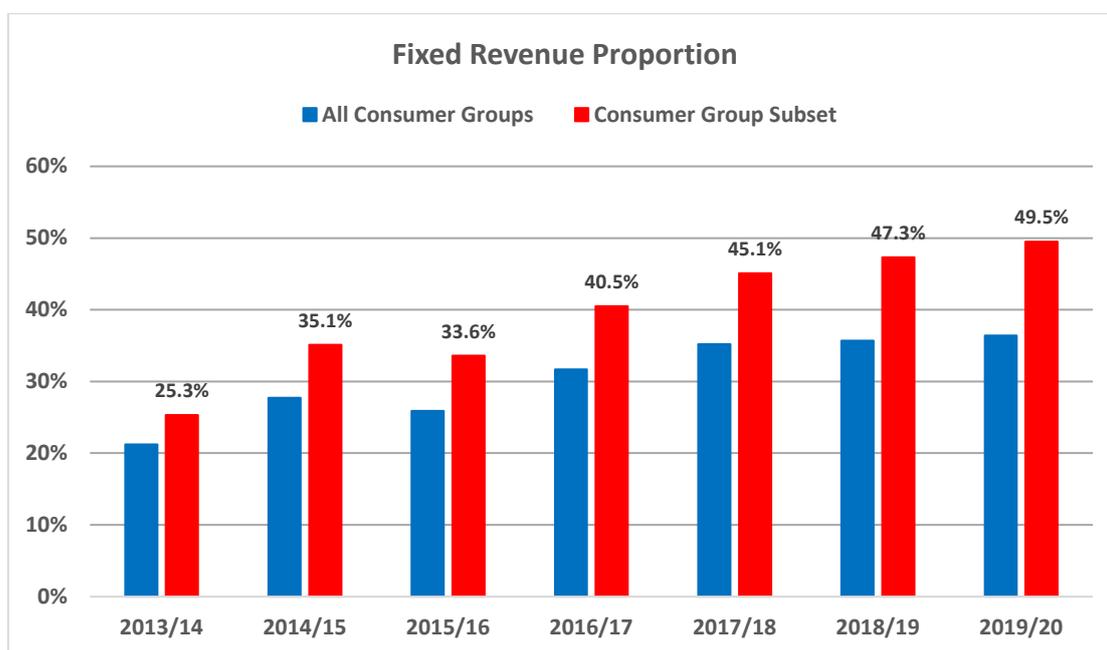


Figure 1 Fixed Revenue Proportion

⁵ <https://www.bullerelectricity.co.nz/adoption-of-efficient-pricing/>

2.10 Future Pricing Objectives

BEL is currently progressing a distribution pricing reform work program, and our current plans for the adoption of more efficient distribution pricing can be found on our website [here](#).

Options for distribution pricing reform which the BEL Management and Board have currently decided are not to be considered for implementation are:

- Increasing the overall level of fixed revenue in any Consumer Group to be greater than 50%
- Urban/rural locational pricing differentiation

BEL also recognises the economic impacts electricity price increases have had on members of our community and one of our pricing objectives is where possible to the minimise any increases to residential consumers.

3. Overview of the Price-Setting Methodology

This section provides an overview of the Price-Setting Methodology BEL uses to determine electricity Delivery Prices. The major tasks which comprise the Price-Setting Process are as follows:

- Determining the Target Revenue
- Review (and possible change) the Consumer Groups & Price-Structure
- Allocation of costs to the Consumer Groups and Price Calculation

The nature of these tasks is detailed below, and this is followed by a discussion the difference between Traditional and Cost-Reflective Price-Setting Methodologies, and how BEL’s current Pricing Methodology aligns.

3.1 Determining the Target Revenue

The Target Revenue is obtained using a building blocks approach from the budgets and [Asset Management Plan](#) as shown in Figure 2. The budget takes into consideration the costs associated with providing an electricity delivery service to consumers such as network maintenance, asset base depreciation, transmission costs, and business support (administration).

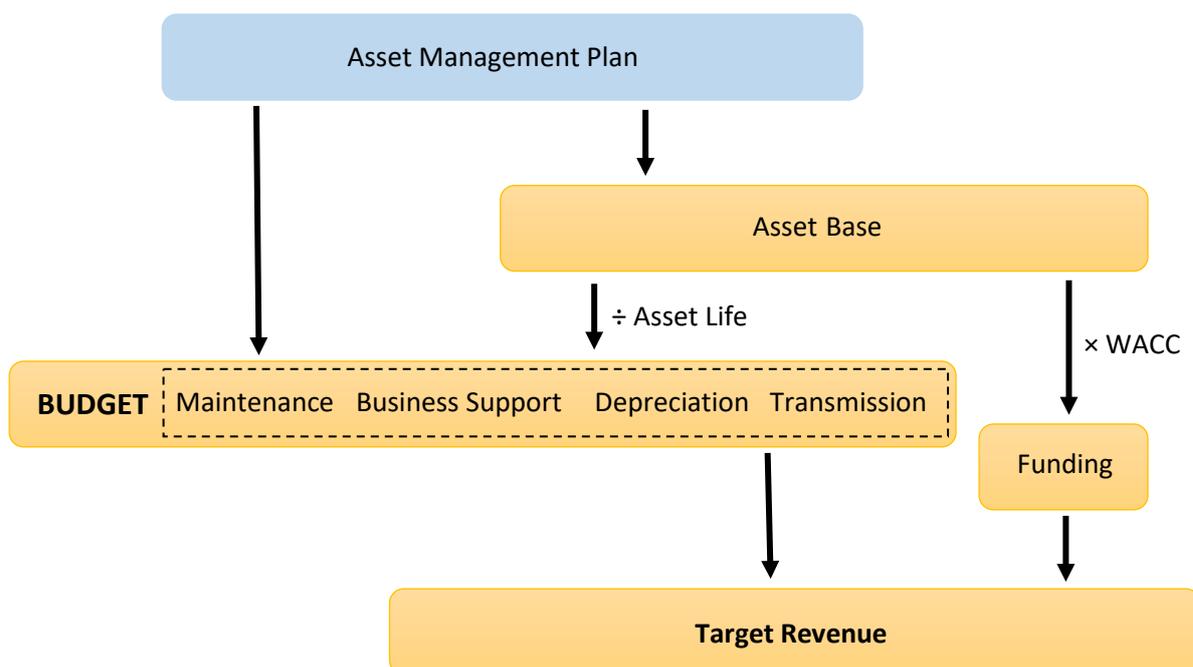


Figure 2 Process for Determining the Target Revenue

3.2 Consumer Group & Price-Structure Review

Consumer connections are categorised into Consumer Groups (Electricity Registry Price Categories) which have similar maximum demand, capacity, network usage characteristics, and other energy delivery cost drivers. These groups are reviewed annually using information from our consumer database, Pricing-Strategy and historic Retailer Billing & consumption data.

The Price-Structure is reviewed annually with reference to BEL's Pricing Policy & Strategy. It determines the way in which the Target Revenue will be collected from the Consumer Groups in relation to:

- The proportion of revenue/charges to be collected as fixed revenue/charges versus variable revenue/charges
- The fixed charge types e.g. fixed daily charge (\$/day) or fixed demand/capacity charge (\$/kW/day)
- The variable (consumption) charge types e.g. Uncontrolled/Controlled, All Inclusive, Day/Night or Time-of-Use (TOU)

The Consumer Groups and Price-Structure provides the platform/framework on which the later Cost Allocation & Price-Calculation tasks of the overall Price-Setting Methodology are undertaken. They are stable from year to year, and any significant changes would generally require consultation with Retailers and/or consumers well in advance of when BEL completes the annual Price-Setting in November/December each year.

The Consumer Groups and Price-Structure, in conjunction with the associated historic data, allow Retailer Billing quantity forecasts to be made, which are key inputs to the following Cost Allocation and Price Calculation tasks of the Price-Setting Methodology.

3.3 Cost Allocation & Price Calculation

The Cost Allocation & Price Calculation tasks of the Price-Setting Methodology are depicted in Figure 3 where the blue boxes represent inputs. The Target Revenue is allocated to the Consumer Groups using the Cost Allocation Algorithm. This algorithm identifies the costs associated with the electricity delivery service provided to each Consumer Group, with the end result being the Target Consumer Group Revenue.

Price Calculation involves determining the individual prices which will be applied to the Retailer Billing qualities e.g. number of consumers, capacity and energy consumption, to calculate the charges to consumers in each Consumer Group. The previous year's prices are normally used as the initial prices, and these prices are then modified in an iterative manner, with a goal of achieving the best pricing solution subject to a range of criteria such as:

- The desired proportion of fixed versus variable charges
- Overall Consumer Group revenue impacts, and possibly also the charge impacts at the individual consumer level if deemed necessary

- The difference between the Target Revenue and Forecast Revenue for each Consumer Group
- The difference between the overall Target Revenue and Forecast Revenue
- The percentage change in prices between years

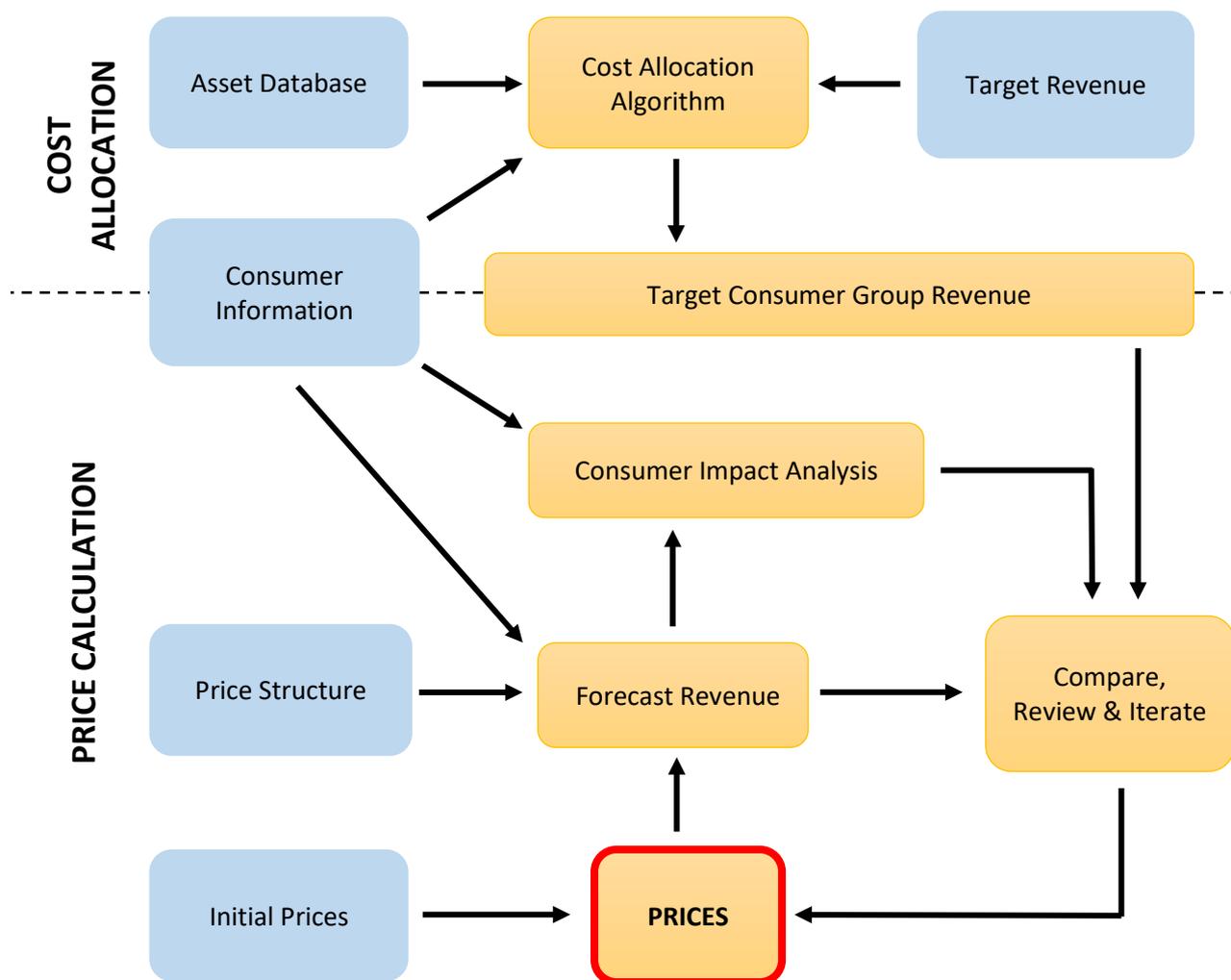


Figure 3 Cost Allocation & Price Calculation Tasks of the Price-Setting Methodology

3.4 Traditional & Cost-Reflective Price-Setting Methodologies

The Electricity Authority updated the Pricing Principles in its Distribution Pricing Decision Paper⁶ released in July 2019 and published a further Distribution Pricing Practice Note⁷ in August 2019. In Figure 1 of the Practice Note the Authority provided diagrams which highlight the differences which exist between Traditional & Cost-Reflective Price-Setting Methodologies – and these diagrams are reproduced in Figure 4 and Figure 5 for reference.

A Cost-Reflective Price-Setting Methodology is essentially a Traditional Price-Setting Methodology with an additional initial step where:

- The Economic Cost is allocated to the Consumer Groups and appropriate cost-signalling prices are calculated to recover these costs. The combined forecast revenue associated with these signalling-prices is referred to as the Forecast Signalling Revenue.
- The Residual Costs (Target Revenue less Forecast Signalling Revenue) are then allocated to the Consumer Groups using a (modified) Traditional Price-Setting Methodology – which results in the least distortion in network use – and appropriate prices are calculated to recover these costs.

With regard to the Authority's Price-Setting terminology, Price Design refers to combination of the separate BEL pricing tasks which we refer to as:

- Price-Structure Review
- Price Calculation

The Price-Structure Review and Price Calculation tasks differ in the sense that the Price-Structure provides the platform/framework on which the Price Calculation is undertaken. Price-Structure changes will often require Retailer/consumer consultation as they are generally more permanent and/or significant, for example the introduction of a new price component or significant change in the proportion of fixed revenue. Retailer/consumer consultation takes time and as the Price-Structure is generally not changed regularly, we use the term 'review' as more often than not it is a review rather than a change.

In contrast Price Calculation is undertaken annually and prices generally change from year to year. Price changes generally only require Retailer/consumer notification, rather than consultation, provided the price/charge changes are within reasonable bounds and do not constitute price shocks.

Historically BEL's Pricing-Setting Methodology has taken the form of a Traditional Price-Setting Methodology and this continues to be the case for 2020/21. It is however noted that in the situation where the Economic Costs are zero (or near zero), the Cost-Reflective Methodology reverts to the form of a Traditional Price-Setting Methodology e.g. no initial step to determine the signalling-prices and Signalling Revenue is required.

⁶ <https://www.ea.govt.nz/dmsdocument/25436-more-efficient-distribution-prices-principles-and-practice>

⁷ <https://www.ea.govt.nz/dmsdocument/25528-distribution-pricing-practice-note-august-2019>

BEL is of the view that the Economic Costs associated with our Consumer Groups is currently zero for the following reasons:

- Network demand has not experienced growth in recent years and this is forecast to continue in the foreseeable future
- Significant spare capacity exists on our network and there are no congestion issues
- No capex expenditure is forecast to manage network growth or relieve constraints

BEL’s Asset Management Plan 2020-30, available from our website [here](#), provides details on our Load Forecasts, Constraints & Proposed Capex Program in Sections 6.6 – 6.8 respectively. Section 6.8.2 states that, as BEL is forecasting zero growth for the 2020-30 planning period no allowance has been made for capex expenditure for system growth.

Given this information BEL is of the view that the Price-Setting Methodology we have been using for a number of years is, and continues to be, consistent with a Cost-Reflective Price-Setting Methodology.

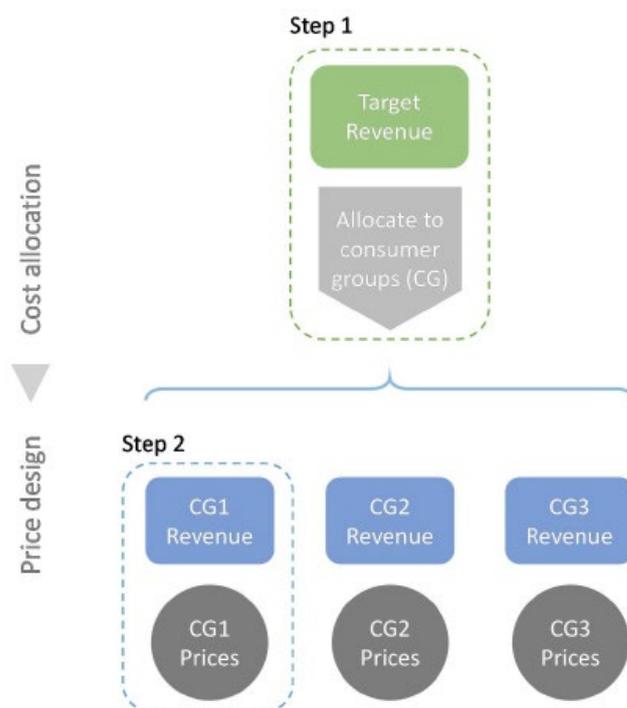


Figure 4 Price-Setting Methodology⁸

⁸ 'Price design' includes the separate BEL pricing tasks we referred to as 'Price-Structure Review' and 'Price Calculation'

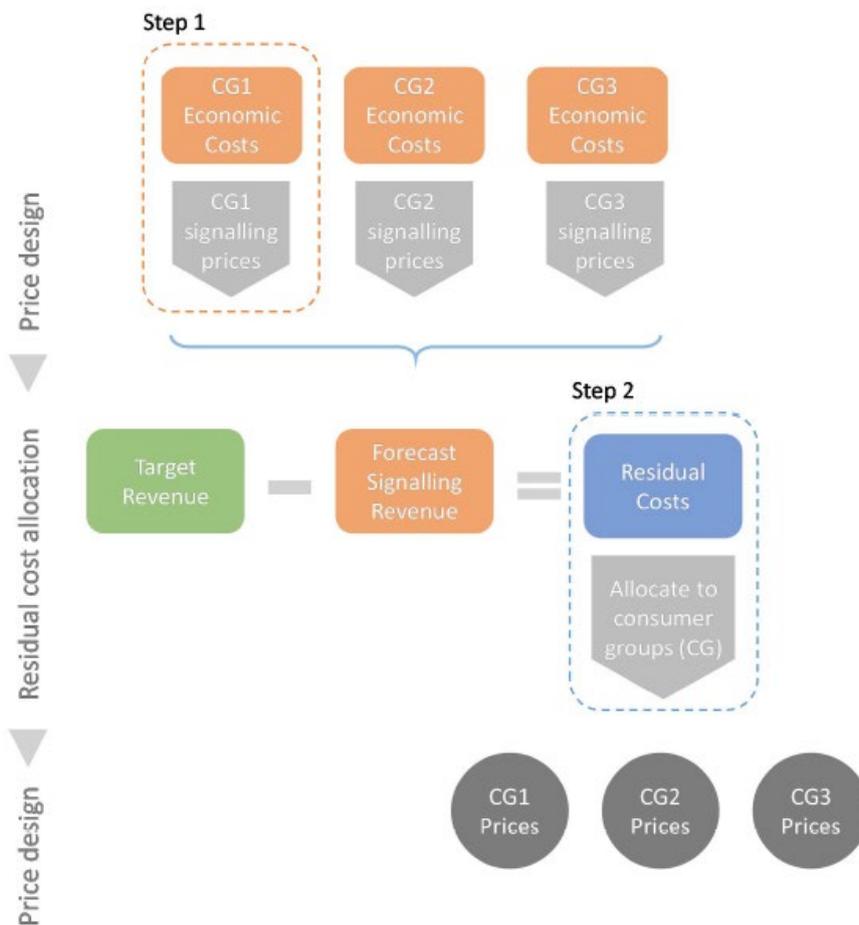


Figure 5 Price-Setting Methodology – Cost-Reflective

4. Target Revenue

As a consumer-owned Electricity Distribution Business (EDB), BEL is exempt from the Default Price Path (DPP) 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 to be recovered – this being the Target Revenue required for the year.

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's pricing approach for the network business is on a standalone basis and is not influenced or diluted by any of the subsidiary businesses.

4.1 Target Revenue Components

The Target Revenue has been determined to be \$7,599k for the 2020/21 financial year, and consists of the following major cost components (also see Figure 6):

- **Maintenance \$928k**

The direct costs associated with maintaining the system assets, and includes the management of designing and running the lines business and the management of the computerised load control system and geographical information system. Network operational costs are included in Maintenance.

- **Transmission Costs \$1,061k**

Costs paid to Transpower for our connection to the national transmission grid together with 'Avoided Transmission' costs paid to local generators. These are referred to as *Recoverable Costs* by the Commerce Commission.

- **Business Support \$1,899k**

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 these are included as Business Support costs.

- **Depreciation \$1,442k**

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

- **Return on Investment \$2,268k**

Comparable to a post-tax Weighted Average Cost of Capital (WACC)

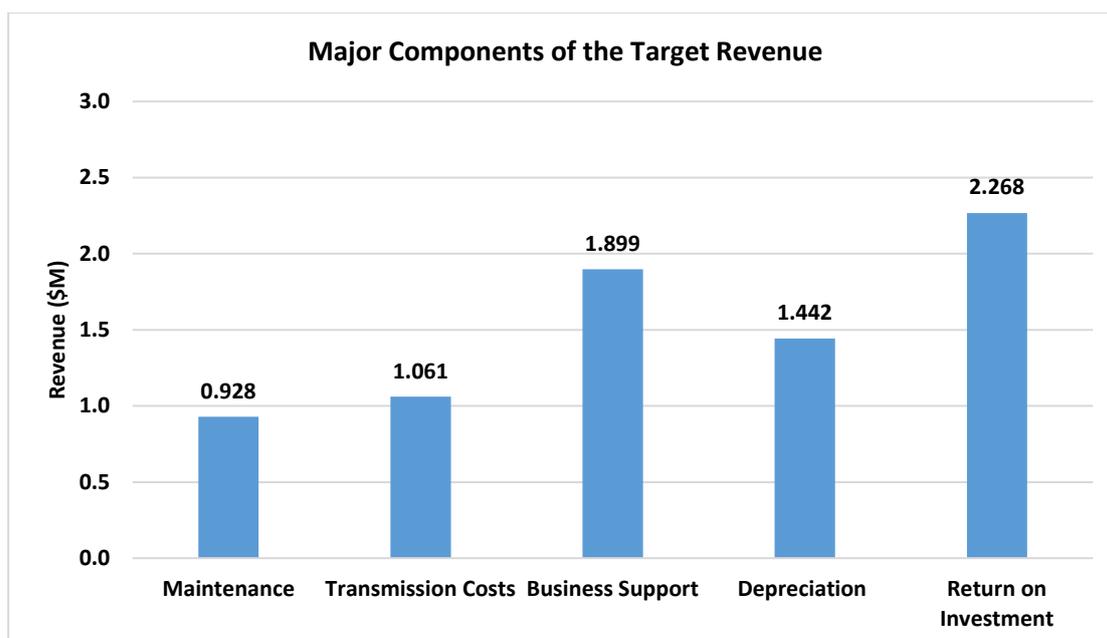


Figure 6 Major Components of the Target Revenue

4.2 Capital Contributions

In addition to 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.

Being a small rural based network with limited growth and limited or no building of network extensions, the level of capital contributions compared with our Target Revenue is very low, and as a result the value budgeted for this revenue is zero.

4.3 Discretionary Discounts and Rebates

BEL does not have specific policies in place 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 our trust owners.

4.4 Metering and Load Control Equipment

Whilst BEL sold its metering and ripple control relays to TrustPower in the late 1990's following the deregulation of the electricity industry, it retained the equipment and operational services for sending out load control signals (ripple signals) and BEL charges consumers for this service. The costs associated with providing this load control service is included in the Business Support component of the Target Revenue.

5. Consumer Groups

Consumer connections are categorised into Consumer Groups (Electricity Registry Price Categories) which have similar maximum demand, connection capacity, network usage characteristics, and other energy delivery cost drivers in order to simplify the processes of:

- Price-Setting
- Revenue recovery via Retailer Billing or direct consumer billing
- Administration
- Meeting Regulatory requirements e.g. Low Fixed Charge (LFC) Regulations 2004

The key cost drivers for the supply of electricity to a consumer are identified as being maximum demand, connection capacity, network usage characteristics and location. For the time being BEL does not use consumer location to determine Delivery Prices, and as a result the costs associated with location variation is averaged across the BEL's distribution region. The 6 Consumer Groups that will apply through to the end of the 2020/21 pricing year are set out in Table 1.

Price Category	Consumer Group Description	Capacity	No. of Connections
LG1	Residential Standard Connections	≤ 15kVA	1,360
LG1L	Residential Low-User Connections	≤ 15kVA	2,706
LG2	Small Commercial Connections	≤ 15kVA	517
LG3	Medium Commercial Connections	> 15kVA	85
LG4	Large Commercial Connections	> 100kVA	11
LG7	Commercial Connections	> 1,000kVA	1
Total			4,680

Table 1 Price Category, Consumer Group Description, Capacity & Number of Connections – Active Installation Control Points (ICPs) as recorded on the Electricity Registry on 1st November 2019

BEL currently uses capacity as the primary characteristic to categorise connections into Consumer Groups. In general terms the capacity of a connection is derived from one or a combination of the following:

- kVA fuse rating of the connection – for residential and small commercial connections connected to the general LV network
- Installed kVA capacity of the supply transformer – for small-large commercial connections where a dedicated supply transformer exists
- Half-hour metered maximum demand (kW) – for LG4 and LG7 consumers

In addition to capacity further distinction is made between Consumer Groups as follows:

- Residential low-user (LG1L) is required for regulatory purposes
- Residential and commercial consumers have historically been separated for the purposes of reporting and identifying the different network usage characteristics/profiles associated with these connections

5.1 Residential Connections

Residential standard and low-user Delivery Prices are set so that a typical consumer using 8,000kWh annually would experience the same annual Line Charges on either standard or low-user prices, as required by the Low Fixed Charge (LFC) Regulations 2004. Only connections which are the primary place of residence are eligible for low-user pricing. 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 connected to the BEL Network uses 4,771kWh annually, and as a result it is expected that most residential consumers would be better off 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. The LFC Regulations 2004 are currently under review by the Government and it is expected that they soon be either removed or replaced.

5.2 Commercial Connections

BEL currently uses four capacity-based Consumer Groups (LG2, LG3, LG4 & LG7) for the administration, pricing and billing of commercial connections.

5.3 Temporary Connections

BEL does not have a specific Consumer Group for temporary connections as these are treated in the same manner as permanent connections. Temporary supplies are always metered connections. Builders Temporary Supplies (BTS) for the construction of new homes are normally categorised as residential connections, although some 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.

5.4 Unmetered Connections

BEL does not have a specific Consumer Group or pricing for unmetered load. The most significant unmetered load consists of approx. 150 Buller District Council streetlights (recorded in the RAMM streetlight database), which are aggregated onto a single Distributed Unmetered Load (DUML) ICP on the Electricity Registry.

Phone Booths and Cabinets are also unmetered and are charged as small commercial connections on individual ICPs at the standard rates of consumption for these loads.

5.5 Streetlight Connections

BEL does not have a specific Consumer Group for streetlight connections, but we are considering creating a Streetlight Consumer Group for the 2021/22 financial year.

5.6 Irrigation Connections

BEL does not have a specific Consumer Group for irrigation load as this type of connection does not represent a significant proportion of the load on our network.

6. Allocating Costs to Consumer Groups

The Cost Allocation Algorithm is used to allocate the components of the Target Revenue detailed in Section 4 to the Consumer Groups using the Cost Allocators listed in Table 2. The Cost Allocators chosen are considered to be the most appropriate in term of providing Consumer Group allocations which will be cost-reflective and service-based. The methods employed to determine the Cost Allocators and the results of the Cost Allocation are detailed in the following Sections.

Target Revenue Component	Cost Allocator	Cost (\$k)
Maintenance	Asset %	928
Transmission Costs	RCPD %	1,061
Business Support	Energy %	1,899
Depreciation	Asset %	1,443
Return on Investment	Asset %	2,353
Total		7,684

Table 2 Allocators used to Allocate the Target Revenue Components to the Consumer Groups

6.1 Cost Allocation Parameters & Cost Allocators

The Cost Allocators are described as follows:

- **Asset %** – Consumer Group Value of Assets Used as a Proportion of the Total
- **RCPD %** – Consumer Group Regional Coincident Peak Demand (RCPD) as a Proportion of the Total
- **Energy %** – Consumer Group Energy Consumption as a Proportion of the Total

The following additional Cost Allocators are also required to determine the Asset % Cost Allocator:

- **Connection %** – Consumer Group Connections as a Proportion of the Total
- **CAMD %** – Consumer Group Coincident Any-Time Maximum Demand (CAMD) as a Proportion of the Total

The Cost Allocators are simply derived from the Cost Allocation Parameters given in Table 3 as the value for each Consumer Group as a proportion of the total (expressed as a percentage). The Cost Allocator are given in Table 4 and shown graphically in

Figure 7. It is noted that the RCPD % and CAMD % allocators are very similar. The methods used to determine the value of the different Allocation Parameters for each Consumer Group are described in the following Sections.

Parameter	LG1	LG1L	LG2	LG3	LG4	LG7	Total
Connection (#)	1,360	2,706	517	85	11	1	4,680
Energy (GWh)	8.2	11.2	9.0	4.8	5.3	10.8	49.3
RCPD (kW)	1,265	1,728	1,389	741	895	1,519	7,537
CAMD (kW)	1,722	2,352	1,890	1,008	857	2,275	10,104
Asset (Value \$M)	8.81	12.52	9.11	4.75	3.20	3.67	42.06

Table 3 Allocation Parameters

Parameter	LG1	LG1L	LG2	LG3	LG4	LG7
Connections %	29.1%	57.8%	11.0%	1.8%	0.2%	0.0%
Energy %	16.6%	22.7%	18.3%	9.7%	10.8%	21.9%
RCPD %	16.8%	22.9%	18.4%	9.8%	11.9%	20.2%
CAMD %	17.0%	23.3%	18.7%	10.0%	8.5%	22.5%
Asset %	20.9%	29.8%	21.7%	11.3%	7.6%	8.7%

Table 4 Cost Allocators

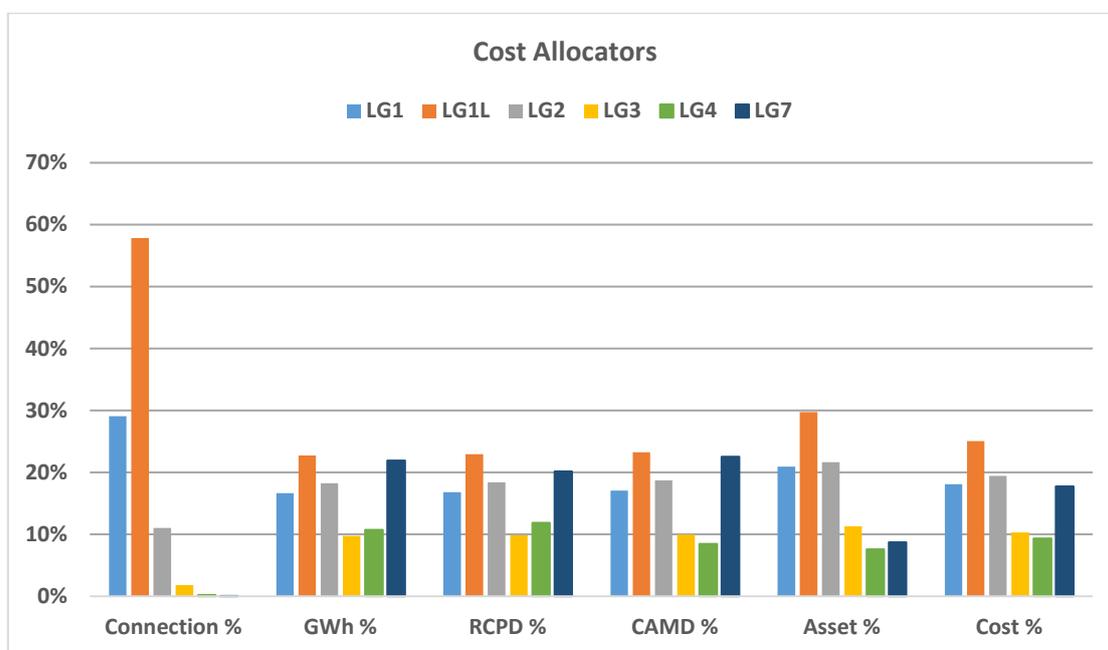


Figure 7 Cost Allocators

6.2 Cost Allocator – Connection %

Consumer Group Connections as a Proportion of the Total

The forecast average number of Active connections in each Consumer Group for the 2020/21 financial year. Due to the static and limited growth nature of our network these are taken to be the number of connections as at 1st November 2019.

6.3 Cost Allocator – Energy %

Consumer Group Energy Consumption as a Proportion of the Total

The forecast energy consumption (kWh) in each Consumer Group for the 2020/21 financial year. These quantities are estimated using historic Retailer Billing data in conjunction with the forecast number of connections.

6.4 Cost Allocator – RCPD %

Consumer Group Regional Coincident Peak Demand (RCPD) as a Proportion of the Total

This cost allocator is only partially known for the Consumer Groups and certain assumptions and approximations must be made in order to obtain a value for all Consumer Groups. This parameter is derived from the BEL network load which is coincident with the 100 highest peaks of the Upper South Island (USI) Transmission System for the Capacity Measurement Period (1-year) ending 31st August 2019.

The RCPD at Grid Exit Points (GXPs) during these periods is used by Transpower to determine its Interconnection Charges for the 2020/21 financial year and is therefore an appropriate allocator for these charges.

The Consumer Group RCPD is calculated using the following 3-step process:

1. Determine the total RCPD of the BEL network load (at consumers' meters) from a knowledge of GXP RCPD, significant local distribution generation, and assuming network losses of 7.0%. The BEL network RCPD is determined to be 7,537 kW.
2. Determine the contribution of half-hour metered LG4 and LG7 Consumer Group connections to the RCPD. Estimate the RCPD contribution of non-half-hour metered LG4 and LG7 connections. Combining these known and estimated RCPD quantities allows the RCPD for Consumer Groups LG4 and LG7 to be determined.
3. The remaining portion of the 7,537kW RCPD is allocated across the LG1 – LG3 Consumer Groups on a pro-rata using the Energy (GWh) allocation parameter.

6.5 Cost Allocator – CAMD %

Consumer Group Coincident Any-Time Maximum Demand (CAMD) as a Proportion of the Total

This allocator is only partially known for the Consumer Groups and certain assumptions and approximations must be made to obtain a value for all Consumer Groups. This parameter provides a measure of the contribution of the Consumer Group connections to the peak demand on the distribution network over the year ending 31st October 2019.

A peak demand of 10,864kW occurred on the BEL network on 20/8/2019 in Trading Period 35. Assuming a 7.0% loss this corresponds to an CAMD of 10,104kW at consumers' meters. CAMD is apportioned across the Consumer Groups in a similar manner to RCPD. For Consumer Groups LG4 & LG7 half-hour meter data is used where available, otherwise estimates are made to determine the contribution of an individual connection to the CAMD. The remaining CAMD is allocated between across the LG1 – LG3 Consumer Groups on a pro-rata basis using the Energy (GWh) allocation parameter.

6.6 Cost Allocator – Asset %

Consumer Group Value of Assets Used as a Proportion of the Total

The value of the different network asset classes (replacement cost) has been obtained from BEL's Asset Database (as detailed in Table 6) and allocated across the Consumer Groups using the indicated Cost Allocator. CAMD % is deemed to be the most appropriate Cost Allocator for asset usage and asset related costs for the majority of the asset classes.

This Cost Allocator however needs to be modified if an asset class is not utilised by a Consumer Group – in which case a modified CAMD % allocation Parameter needs to be used. For example, LG4 and LG7 Consumer Groups do not use the 400V network and as a result this asset class is only allocated across Consumer Groups LG1 – LG3. The modified CAMD % Cost Allocators are provided in Table 5. In the case of Zone Substation and 33kV Network Assets, LG7 is deemed to utilise 33% of these assets. The asset values listed in Table 5 were last updated for the 2018/19 pricing year.

The asset class values are multiplied by the Allocation Parameter to obtain Asset Value associated with each Consumer Group given in Table 3.

Allocation Parameter	LG1	LG1L	LG2	LG3	LG4	LG7
CAMD %	17.0%	23.3%	18.7%	10.0%	8.5%	22.5%
CAMD % with LG7 set to 33%	14.7%	20.1%	16.2%	8.6%	7.3%	33.0%
CAMD % with LG7 excluded	22.0%	30.0%	24.1%	12.9%	10.9%	–
CAMD % with LG4 – LG7 excluded	24.7%	33.7%	27.1%	14.5%	–	–

Table 5 Modified CAMD % Cost Allocators

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

Table 6 Asset classes, values, and allocation methods used

6.7 Target Consumer Group Revenue

The Cost Allocators are applied to the Target Revenue Components (see Table 2) to obtain Target Consumer Group Revenue as detailed in Table 7.

Revenue Component	LG1	LG1L	LG2	LG3	LG4	LG7	Total
Maintenance (\$k)	194	276	201	105	71	81	928
Transmission Costs (\$k)	178	243	195	104	126	214	1,061
Business Support (\$k)	316	431	347	185	204	416	1,899
Depreciation (\$k)	302	429	313	163	110	126	1,443
Return on Investment (\$k)	401	548	440	235	200	530	2,353
Total (\$k)	1,392	1,928	1,496	792	710	1,367	7,684
Total (%)	18.1%	25.1%	19.5%	10.3%	9.3%	17.8%	100%

Table 7 Allocation of the Target Revenue Components to the Consumer Groups

7. Pricing Structure & Price Calculation

This Section firstly documents the Price-Structure on which the Price Calculation task is performed

- Fixed Revenue Proportion
- Locational Price (Urban vs Rural) Differentiation
- Fixed & Variable Price Components

The results of the Price Calculation and the Forecast Consumer Group Revenue for the 2020/21 financial year are then presented. A full list of the Price Components which exist in the different Consumer Groups is provided in Appendix A.

7.1 Fixed Revenue Proportion

Given that the Economic Costs associated with the operation of our network are near zero the pricing guidelines issued by the Electricity Authority advocate that BEL should be receiving all of its revenue via fixed charges. BEL is however of the view that any move to increase the overall Fixed Revenue proportion in any Consumer Group to over 50% is inappropriate, given that it would result in unreasonably high fixed charges for those consumers with low energy consumption. We intend to further increase the Fixed Revenue proportion for the Consumer Groups which are currently fixed charge constrained further towards 50% once this is possible and consider appropriate.

7.2 Locational Price Differentiation

Lower density rural areas require a greater level of investment for each consumer connection, both in terms of establishing connections and maintaining the network. While this provides a basis for applying higher prices to our consumers in rural and remote rural areas BEL's current policy is not implement locational price differentiation. Our reasons for this are outlined as follows:

- Rural consumers make a greater (capital) contribution when first connecting to the network and this provides a clear locational signal
- We are conscious that rural customers receive a lower level of service with a greater number of faults and longer restoration times, and this somewhat offsets the higher on-going costs of supply to rural areas
- We recognise that consumers have made long-term investment and/or consumption decisions on the basis of expectations that have been shaped from past pricing arrangements. Significant increases in our prices to rural connections does not support these previous decisions and/or provide price stability.
- A significant proportion of the existing rural and remote network was funded via the Rural Electrical Reticulation Council (RERC) which operated from 1946 to 1993, rather than by our connected consumers (owners)

How BEL addresses pricing has the potential to create significant implications for the future use of our network in both urban and rural areas. With the continual decrease in the cost of new

technologies, such as off-grid and alternative energy storage systems, we are actively monitoring the relevant economic factors and the long-term benefits which exist to consumers, BEL, and the wider community. Given the higher costs associated with rural connections, off-grid supplies in these areas will in general become economic before those in urban areas.

7.3 Fixed Price Components – Daily (\$/day)

All connections except those in Consumer Groups LG4 and LG7 are subject to fixed daily price (\$/day) component. For low-user residential consumers (LG1L) the fixed price amount is set at \$0.15/day by the LFC regulations 2004.

7.4 Fixed Price Components – Fixed Capacity (\$/kW/day)

Consumers in Consumer Groups LG4 and LG7 are subject to a fixed capacity price (\$/kW/day) component. This is a lagged charge using the half-hour Anytime Maximum Demand (AMD) in the previous November to October period e.g. for 2020/21 pricing the relevant period is November 2018 – October 2019. This AMD value is also referred to as the Charge Capacity as this value is recorded in the Electricity Registry in the Chargeable Capacity of the Pricing section. The AMD is determined from the half-hour revenue meter data which is used in the Retailer Billing process for the majority of LG4 & LG7 connections. Where half-hour meter data is unavailable BEL load monitoring or estimates are used.

7.5 Variable Price Components – Energy Consumption (\$/kWh)

All consumers are subject to variable price components which are dependent on the energy (kWh) units consumed, as recorded by the revenue meter. In each Consumer Group BEL offers Uncontrolled (24 hour), Day (8am-Midnight) and Night (Midnight-8am), and All Inclusive variable price components. In addition, Controlled (water heating) variable price components are also offered to residential and small commercial connections. Our variable prices are set in a manner to incentivise the use of electricity during off peak times (Night), and to encourage consumers to offer their hot water heating as controllable load.

7.6 Power Factor

While BEL currently does not apply a Power Factor charges to any connections the provision for such a charge exists as part of the legacy Use of System Agreement (UoSA) we have with the major Retailers trading on our network.

7.7 Price Calculation

The final step in the Price-Setting process is to determine Delivery Prices – the fixed and variable price component values – so that the Target Consumer Group Revenue and overall Target Revenue are forecast to be recovered. With reference to Figure 3 this is the Price Calculation task of the Price-Setting Methodology.

Given a set of Delivery Prices the Forecast Consumer Group Revenue can be calculated for each Price Component using appropriate forecasts of the consumer numbers, Chargeable Capacity and energy consumption. BEL's forecasts for 2020/21 take the view that there will be no material increases in energy (GWh) consumption or customer numbers.

The previous year's prices are normally used as the initial prices, and these prices are then modified in an iterative manner, with a goal of achieving the best pricing solution subject to a range of criteria including:

- The difference between the Target and Forecast Consumer Group Revenues
- The split between fixed and variable line charge revenue for each Consumer Group and for the overall revenue
- Percentage and dollar value allocation of the forecast revenue across the Consumer Groups
- Overall Consumer Group revenue impacts, and possibly also the charge impacts at the individual consumer level if deemed necessary
- The percentage change in prices between years
- Compliance of the residential prices (Consumer Groups LG1 and LG1L) with the LFC Regulations 2004

The Price Calculation task is a relatively simple process if the required price increases are minimal or not required, and increases in complexity the greater the required price increases.

7.8 Forecast Consumer Group Revenue

The Forecast Consumer Group Revenue and associated pricing statistics for the 2020/21 financial year are summarised in Table 8. The percentage Consumer Group Revenue:

- Forecast for the 2019/20 financial year
- Forecast for the 2020/21 financial year
- Target for the 2020/21 financial year

are given in Table 9 and shown graphically in Figure 8.

The Delivery Prices set for the pricing year from 1 April 2020 are considered to be cost reflective in terms of the Target and Forecast Consumer Group Revenue being approximately equal.

Consumer Group	ICPs	Energy (GWh)	Capacity (kW)	Fixed Revenue (%)	Variable Revenue (%)	Fixed Revenue (\$k)	Variable Revenue (\$k)	Total Revenue (\$k)
LG1	1,360	8.2		49.5%	51.5%	730	746	1,475
LG1L	2,706	11.2		8.1%	91.9%	148	1,677	1,825
LG2	517	9.0		33.4%	66.6%	511	1,022	1,534
LG3	85	4.8		51.8%	48.2%	392	365	758
LG4	11	5.3	1,615	50.6%	49.4%	400	391	791
LG7	1	10.8	2,386	50.6%	49.4%	659	643	1,302
Total	4,680	49.3		37.0%	63.0%	2,840	4,844	7,684

Table 8 Forecast Consumer Group Statistics for the 2020/21 Financial Year

Allocation	LG1	LG1L	LG2	LG3	LG4	LG7	Total
Expected 2019/20	19.6%	23.4%	19.6%	10.4%	10.2%	16.7%	100%
Forecast 2020/21	19.2%	23.7%	20.0%	9.9%	10.3%	16.9%	100%
Target 2020/21	18.1%	25.1%	19.5%	10.3%	9.2%	17.8%	100%

Table 9 Consumer Group Forecast Revenue Percentages

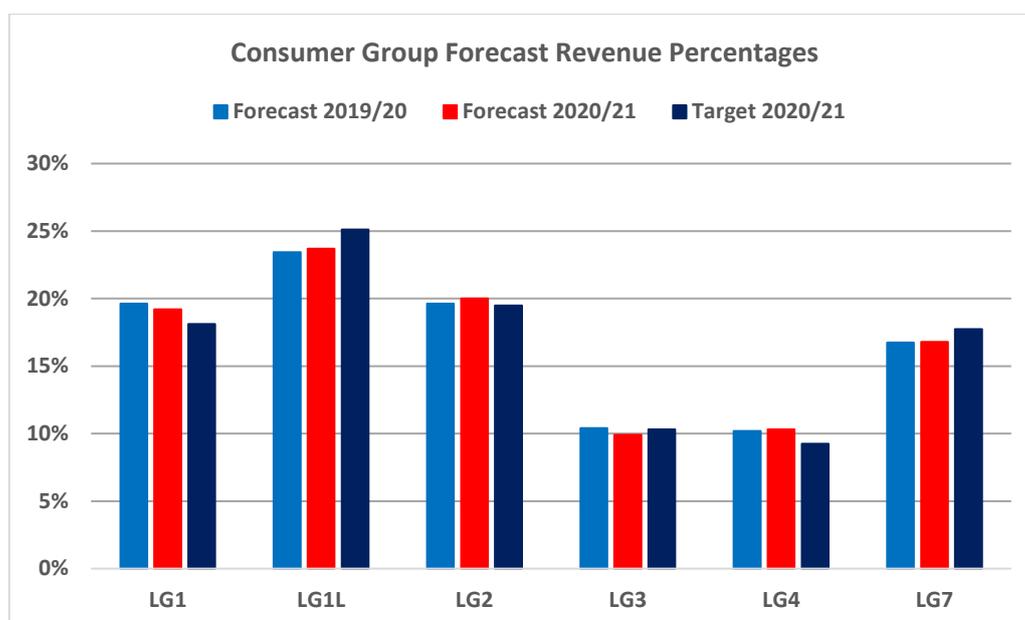


Figure 8 Consumer Group Forecast Revenue Percentages

7.9 Consumer Group Overall Delivery Price Increases for 2020/21

The overall increase in Delivery Prices for the Consumer Groups for the 2020/21 financial year is summarised in Table 10. This is determined by applying 2019/20 and 2020/21 Delivery Prices to the forecast 2020/21 fixed and variable price component quantities e.g. consumer numbers, Chargeable Capacity and energy consumption, and comparing the resulting year on year total Consumer Group Line Charge Revenue on a percentage change basis. The Line Charge changes determined in this manner reflect the overall average change in the Delivery Prices & Line Charges to consumers in each Consumer Group.

Consumer Group	Description	Average Overall Change in Delivery Prices
LG1	Residential Standard User	0%
LG1L	Residential Low-User	0%
LG2	Small Commercial	1.97%
LG3	Medium Commercial	2.00%
LG4	Large Commercial	1.98%
LG7	Commercial >1000kVA	1.99%
LG1 + LG1L	Overall Residential	0%
LG2 + LG3 + LG4	Overall Small/Medium/Large Commercial	+1.98%
Overall		+1.12%

Table 10 Average Overall Change in Consumer Group Delivery Prices

It is noted that whether or not an individual consumer will actually experience an increase, decrease, or no change in their Line Charges from year to year depends on the Delivery Prices they are subject to in combination with their electricity usage patterns.

Appendix A – Delivery Price Schedule 2020/21

Delivery Price Schedule for Buller Electricity Limited



Applicable from 1 April 2020

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 / Consumer Group LG1 / Number of consumers: 1,360		
Fixed Daily Charge	1.4700	\$/Day
Volume Charge – Uncontrolled	0.1045	\$/kWh
Volume Charge – Controlled	0.0470	\$/kWh
Volume Charge – All Inclusive	0.0829	\$/kWh
Volume Charge – Day	0.1257	\$/kWh
Volume Charge – Night	0.0314	\$/kWh
Residential Low Users / Consumer Group LG1L / Number of consumers: 2,706		
Fixed Daily Charge	0.1500	\$/Day
Volume Charge – Uncontrolled	0.1645	\$/kWh
Volume Charge – Controlled	0.1054	\$/kWh
Volume Charge – All Inclusive	0.1422	\$/kWh
Volume Charge – Day	0.1862	\$/kWh
Volume Charge – Night	0.0894	\$/kWh
Small Commercial up to 15kVA / Consumer Group LG2 / Number of consumers: 517		
Fixed Daily Charge	2.7100	\$/Day
Volume Charge – Uncontrolled	0.1219	\$/kWh
Volume Charge – Controlled	0.0550	\$/kWh
Volume Charge – Day	0.1466	\$/kWh
Volume Charge – Night	0.0364	\$/kWh
Volume Charge – Lighting	0.0940	\$/kWh
Medium Commercial over 15kVA / Consumer Group LG3 / Number of consumers: 85		
Fixed Daily Charge	12.6400	\$/Day
Volume Charge – Uncontrolled	0.0783	\$/kWh
Volume Charge – Day	0.1015	\$/kWh
Volume Charge – Night	0.0302	\$/kWh

Large Commercial over 100kVA / Consumer Group LG4 / Number of consumers: 11

Capacity Daily Charge	0.6783	\$/kW/Day
Volume Charge – Uncontrolled	0.0721	\$/kWh
Volume Charge – Day	0.0935	\$/kWh
Volume Charge – Night	0.0277	\$/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).

Appendix B – Distribution Pricing Principles

This Appendix outlines and comments on the aspects of our Pricing Methodology that relate to the regulatory requirements of the Electricity Authority’s Pricing Principles and the Commerce Commission’s Information Disclosure requirements.

The then Electricity Commission published a set of pricing principles in February 2010, together with information disclosure guidelines. The principles-based approach to distribution pricing encourages all Distributors to conduct their pricing in a similar way. The Authority inherited these principles and guidelines on its establishment in November 2010. It has recently revised the principles, replaced the guidelines with a practice note, and introduced a scorecard approach to assess distributor pricing and pricing development.

B.1 Electricity Authority Pricing Principles

The Commerce Commission Information Disclosure Determination (IDD) requires EDB’s 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.”

The Electricity Authority Distribution Pricing Principles⁹ were updated in July 2019 and are as follows:

- | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>a) Prices are to signal the economic costs of service provision, including by:</p> <ul style="list-style-type: none">i. being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs);ii. reflecting the impacts of network use on economic costs;iii. reflecting differences in network service provided to (or by) consumers; andiv. encouraging efficient network alternatives. <p>b) Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.</p> <p>c) Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:</p> <ul style="list-style-type: none">i. Reflect the economic value of services; andii. Enable price/quality trade-offs. <p>d) Development of prices should be transparent and have regard to transaction costs, consumer impacts, and uptake incentives.</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

⁹ <https://www.ea.govt.nz/dmsdocument/25179-decision-paper-more-efficient-distribution-network-pricing-principles-and-practice-pdf>

The following Sections provide comments on the alignment of our Pricing Methodology with the Pricing Principles.

B.2 Principle (A) – Signalling Economic Cost

- a) Prices are to signal the economic costs of service provision, including by:**
- i. being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs);**
 - ii. reflecting the impacts of network use on economic costs;**
 - iii. reflecting differences in network service provided to (or by) consumers; and**
 - iv. encouraging efficient network alternatives.**

Principle a) – i

BEL considers that our prices are subsidy-free in the sense that our costs are allocated to Consumer Groups using the Cost Allocation Algorithm, and the Target Consumer Group Revenue is approximately recovered from each Consumer Group using appropriate set Delivery Prices.

It is noted that the term subsidy-free is used here in the context that costs are averaged over all consumers in a Consumer Group. Our current pricing implementation 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.

BEL has established that the incremental costs (economic costs) incurred in supplying another unit of electricity is close to zero in most cases, and our signalling prices and associated Signalling Revenue are zero.

Standalone cost is the consumers next best alternative to connection to BEL's distribution network. The primary options available for network bypass is using small-scale PV solar plus battery solutions for those with low electricity requirements, and diesel generation for larger consumers.

Principle a) – ii

While our economic costs are near zero, we nonetheless have historically, and continue, to provide consumers with price signals at the periods of highest network demand when use of the network is most likely to result in future incremental costs. This is in the form of:

- Lower prices for controllable and night-time loads which incentivises movement of load away from the periods of high network demand
- Fixed capacity-based charges for all connections (either \$/day or \$/kW/day) which incentivises consumers to reduce their contribution to the local and overall network Any-Time Maximum Demand. While consumers are not charged directly for their contribution to

the network Coincident Any-Time Maximum Demand (CAMD) or the Regional Coincident Peak Demand (RCPD), these cost drivers are accounted for in the Cost Allocation task of the Price-Setting Methodology as they influence the Target Consumer Group Revenue on a lagged basis. Any growth in Consumer Group CAMD and RCPD results in higher relative prices and charges to the Consumer Group (and associated consumers) in the future.

Principle a) – iii

The nature of interconnected distribution networks, where the assets and costs are shared by all for collective benefit, is that in most cases consumers are unable to individually select their level of service. The primary exceptions to this are the:

- Demand/Capacity service as larger consumers pay higher capacity based fixed charges (\$/day or \$/kW/day)
- Controlled load service where the consumer offers their hot water heating for BEL to control in exchange for lower variable consumption prices associated with this load

In terms of fault repair and restoration following widespread power outages our objective is to minimise the extent of the disruption to our consumers, subject to the physical resources available to do this work at the time. An inherent by-product of this equation is that in general terms larger consumers will be restored prior to smaller consumers if/when/where this becomes a matter of resource allocation. Furthermore, it takes longer to find, repair and restore faults in rural areas compared with urban areas. This is viewed by BEL as another aspect of the inherent price-quality trade-off which exists on our network.

Principle a) – iv

When prices are above the standalone cost for particular consumers, a situation is created where the possibility of inefficient alternatives to existing infrastructure arises. Given that BEL's services are currently priced below that of the equivalent standalone alternative in most cases we are of the view that our pricing does not currently encourage inefficient network alternatives.

While 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, more economic alternatives may arise. In the medium term, BEL intends to consider options for encouraging alternative supply when that is efficient.

B.3 Principle (B) – Allocation of Residual Costs

b) Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.

We are of the view that our current allocation of residual costs creates the least possible distortion of network use given:

- We currently have a 50% Fixed Revenue proportion – excluding the Consumer Groups which are fixed charge constrained. The LFC Regulations 2004 are clearly a material constraint in this area.
- Our existing policy to not increase the Fixed Revenue proportion in any Consumer Group to be greater than 50%
- Revenue collected via Fixed Price Components (\$/day or \$/kW/day) are less likely to create distortion in network use as they are less demand responsive than other measures

B.4 Principle (C) – Responsiveness to End Users

- c) *Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:***
- i. Reflect the economic value of services; and***
 - ii. Enable price/quality trade-offs***

While BEL currently applies standard services and prices to all consumer connections, we are open to negotiation in situations where our standard terms of supply are inadequate or inappropriate. BEL believes that this approach will allow consumers to make price/quality trade-offs which better match their circumstances. To date this has not been required, and it is expected that this would only be a realistic option for our major consumers.

More generally, all customers are free to invest in ways of achieving a higher quality service than that provided by our network, by for example:

- Installing an on-site backup generator to achieve higher reliability than that provided by our network
- Using a relatively low-cost UPS (Uninterruptible Power Supply) to supply critical loads, such as computers and cash registers

B.5 Principle (D) – Transparency

- d) *Development of prices should be transparent and have regard to transaction costs, consumer impacts, and uptake incentive.***

BEL is committed to establishing a formal, prescribed and transparent Pricing Methodology which aims to allocate costs to individual consumers in a manner which fairly reflects the cost of providing network services.

We seek to minimise the transaction costs associated with our pricing and revenue collection via Retailers by limiting the complexity of the Consumer Groups and Price-Structure we use.

BEL recognises that consumers have made investment and/or consumption decisions on the basis of expectations that have been shaped from past pricing arrangements. Price stability and price certainty are key considerations when making material pricing decisions. Wherever possible, any material changes to pricing should be signalled well in advance, and implementation should be phased in over time. To avoid price shocks, any significant rebalancing between Consumer Groups, or any reweighting between Fixed and Variable Price Components within a Consumer Group are modelled, using actual historic consumer Retailer Billing data , to assess the impact on consumers – with an intention of demonstrating and ensuring that price adjustments are not unreasonably large from year to year.



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IN ACCORDANCE WITH THE COMMERCE ACT

Electricity Distribution Information Disclosure Determination 2012

Certification for year beginning Disclosure 2020

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.

A handwritten signature in black ink, appearing to read "F. Dooley", written over a dotted line.

Director

A handwritten signature in blue ink, appearing to read "G. Naylor", written over a dotted line.

Director

Dated: March 26 2020
