

Distribution Pricing Policy



1 April 2023 – 31 March 2024

Buller Electricity Limited – Distribution Pricing Policy

As referenced by the Default Distributor Agreement:

Price Categories

Delivery Price Schedule

Loss Factors

Billing & Settlement Process

Effective: 1 April 2023

Table of Contents

1. Introduction	1
1.1. Definitions	1
2. Implementation of AMD Based Pricing.....	5
2.1. AMD Definition.....	5
2.2. Capacity Measurement Period (CMP)	5
2.3. AMD Assessment Process.....	6
2.4. Pragmatic Approach to Consumer Categorisation	6
2.5. Setting of the Chargeable Capacity	6
2.6. Chargeable Capacity for New Connections & Upgrades	7
2.7. Updating of Registry Pricing Data Effective 1 st April	7
2.8. Updating & Backdating of Registry Pricing Data	8
3. Price Categories	10
3.1. Residential Price Categories	10
3.2. Non-Residential Price Categories	10
4. Price Schedule & Application	11
4.1. Price Types & Price Component Codes	11
4.2. Delivery Price Schedule 2023/24 – Residential	12
4.3. Delivery Price Schedule 2023/24 – Non-Residential	13
4.4. Network Time Definitions.....	14
4.5. Meter Configurations	14
4.6. Price Option Descriptions	16
4.7. AMI Price Assignment.....	16
4.8. Variable/Volume/Consumption Price Ratios	16
4.9. Billing Data Requirements	17
4.10. Load Control Schedules	19
5. Loss Factors.....	22
5.1. Residential and General Connection Loss Code	22
5.2. ICP Specific Loss Code.....	22
6. Billing & Settlement Process	23
6.1. General	23
6.2. Submission of Billing Data	23
6.3. Invoicing & Payment.....	23
6.4. Revision Cycles and Reconciliation.....	24

6.5.	Electronic Transfer of Data & Invoice Returns	25
7.	Annual Pricing Notification (APN)	26
8.	Explanation for the Adoption of AMD Based Pricing	27
8.1.	Pricing Options Available to BEL.....	27
8.2.	Connection Capacity Based Pricing	28
8.3.	Anytime Maximum Demand Based Pricing	30
8.4.	Authority’s Response to BEL’s Pricing	30
8.5.	Distribution Pricing Consultation Submission November 2021	32

1. Introduction

This Pricing Policy applies to Buller Electricity's Distribution Network effective from 1st April 2023.

The Delivery Price Schedule (Section 4 of this Pricing Policy) is referenced by Schedule 7 of our Default Distributor Agreement (DDA).

The Billing and Settlement Process (Section 6 of this Pricing Policy) is referenced by Schedule 2 of our Default Distributor Agreement (DDA).

Where any provision of this Pricing Policy conflicts with the provisions of any Retailer Agreement, the Retailer Agreement will prevail. Unless the context otherwise requires, terms used in this Pricing Policy have the meanings defined in the Retailer Agreement.

BEL made a decision to implement Anytime Maximum Demand (AMD) based pricing for Non-Residential connections from 1 April 2021. A detailed explanation of the reasons for this decision are provided in Section 8.

1.1. Definitions

Anytime Maximum Demand (AMD) means the maximum average kW demand measured over a half hour period (normally an electricity market trading period) occurring in the 12-month period ending 31st August

Avoided Cost of Transmission (ACOT) is the amount equal to the actual reduction in Transpower's annual charges payable by BEL to Transpower under Transpower's Transmission Pricing Methodology (TPM) arising as a direct result of the Generator being connected to BEL's Distribution Network

Authority means the Electricity Authority

BEL means Buller Electricity Limited and any of its subsidiaries, successors and assignees

Billing Data means data provided by the Retailer to the Distributor in the EIEP format as required under the Retailer Agreement, so that BEL is able to undertake the monthly billing process

Billing Data Due Date means the date by which the Retailer must provide Billing Data

Billing Month means the latest completed Report Month (the month associated with the Initial Billing Data which is being processed)

Calendar Month means the period from the first day to the last day of a month (inclusive)

Calendar Year is a one-year period that begins on 1 January and ends 31 December

Capacity Measurement Period (CMP) means the year ending 31st August

Code see **Electricity Industry Participation Code**

Connection or **Point of Connection** means each point of connection at which a supply of electricity may flow between the Distribution Network and the Consumer's Installation, as defined by the Distributor

Consumer means a purchaser of electricity from the Retailer where the electricity is delivered via the Distribution Network to a Point of Connection

Current Month means the month in which the charges to the Retailer are being invoiced

Customer means a direct customer or a Retailer (where the Retailer is the customer)

Data Hub means the Electricity Registry Data Hub which is used by Participants for the transfer of data files

Delivery Charges means the fixed and variable charges levied by the Distributor on Customers for the use of the Distribution Network, as described in this Pricing Policy

Delivery Price Schedule refers to Section 4

Demand means the rate of expending electrical energy expressed in kilowatts (kW) or kilovolt amperes (kVA)

Distributed Generation or **Embedded Generation** means electricity generation that is connected and distributed within the Network

Distributed Generator or **Embedded Generator** means an electricity generation plant producing Embedded Generation

Distribution Network or **Network** means the electricity network owned and operated by BEL

Distributor means Buller Electricity Limited, as the operator and owner of the Distribution Network, and includes its subsidiaries, successors and assignees

EIEP means the regulated and non-regulated Electricity Information Exchange Protocols published by the Electricity Authority

Electricity Industry Participation Code or **Code** means the rules made by the Electricity Authority under Part 2 of the Electricity Industry Act 2010, as may be amended from time to time

Financial Year (FY) means the year ending 31st March

GST means Goods and Services Tax, as defined in the Goods and Services Tax Act 1985

Half-Hour Metering (HHR) see **Time-Of-Use Metering (TOU)**

Installation Control Point (ICP) means a Point of Connection on the Distributor's Network, which the Distributor nominates as the point at which a Retailer is deemed to supply electricity to a Consumer, and has the attributes set out in the Code

kVA means kilovolt-ampere

kVAh means kilovolt-ampere hour

kVArh means kilovolt-ampere reactive hour

kW means kilowatt

kWh means kilowatt hour

Load Control Equipment means any equipment (including meters, receivers, relays and ripple control receivers) designed to receive Load Management Service signal

Load Management Service means providing a signal for the purpose of reducing or interrupting delivery of load to all or part of a Consumer's premises

Low Voltage (LV) means voltage of value up to 1,000 volts, generally 230 or 400 volts for supply to Consumer's

Monthly Maximum Demand (MMD) means the Anytime Maximum Demand (AMD) for each Calendar Month

MVA means megavolt-ampere

Payment Month means the month in which the Retailer must remit money in respect to the Current Month's charges. For electricity Retailers, the Payment Month is the same month as the Current Month

Point of Connection means the point at which electricity may flow between the Network and the Consumer's Installation and to which an Installation Control Point is allocated

Price Category means the relevant price category selected by the Distributor from this Pricing Schedule to define the Delivery Charges applicable to a particular ICP

Pricing Policy refers to this overall document which is referred to in Schedules 2 & 7 of the Default Distributor Agreement (DDA)

Pricing Year means the 12-month period between 1st April and 31st March

Price Option means a Price Category provides for Retailer choice amongst two or more options, subject to a particular configuration of metering and Load Control Equipment

Processing Month means the month in which the Distributor processes the relevant data files

Reconciliation Manager (RM) means the person appointed from time to time as the Reconciliation Manager pursuant to the Code or such other person from time to time to whom metering data in respect of electricity is to be sent pursuant to the Code

Report Month means the month the Billing Data relates to

Retailer Agreement means the Use of System Agreement, Conveyance and Use of System Agreement, Default Distributor Agreement or Agreement for Use of Networks and, to avoid doubt, includes any agreement in the form of the Authority's Model Use of System Agreement (MUoSA) or Default Distributor Agreement (DDA)

Registry means the Electricity Registry (<http://www.electricityregistry.co.nz>)

Residential Connection(s) means a premise that:

- Is used or intended for occupation mainly as a place of residence (for example, not mainly as a business premises);
- Is a domestic premises as defined by Section 5 of the Electricity Industry Act 2010;
- Is not a building ancillary to a person's principal place of residence (for example, a shed or garage) that is separately metered; and,

Retailer means the supplier of electricity to Consumer's with installations connected to the Distribution Network

Site has the same meaning as Installation Control Point (ICP)

Time-Of-Use Metering (TOU) (also referred to as HHR metering) means metering that measures the electricity consumed for a particular period (usually half-hourly) and complies with Part 10 of the Code

Trader see Retailer

TPM Transpower's Transmission Pricing Methodology

2. Implementation of AMD Based Pricing

BEL made a decision to implement Anytime Maximum Demand (AMD) based pricing for Non-Residential connections from 1 April 2021. A detailed explanation of the reasons for this decision are provided in Section 8.

A key part of our implementation of AMD based pricing is an AMD assessment process undertaken annually/biennially. This is the first step in our annual pricing setting process which leads on to Price Category and Chargeable Capacity assignment, price setting, pricing notifications to Retailers, Registry updates effective 1st April, and billing from the start of the next Pricing Year. Relevant details of these steps and associated matters are explained in the following Sections.

BEL has only undertaken an AMD assessment for a small number of selected connections for the 2023/24 financial year, the AMD for the remaining connections being rolled over from the 2022/23 financial year. BEL intends to undertake a full AMD assessment prior to the 2024/25 financial year.

2.1. AMD Definition

AMD is to be determined as the maximum of the average demand (in units of kW) over a half-hour period which is normally an electricity market trading period. While AMD can be defined over a range of time periods – from instantaneous to the average over multiple half-hour trading periods – BEL has chosen the half-hour AMD as the most appropriate/convenient as it provides some time averaging, is reflective of the required long-term capacity rating of the Consumer's supply, and can easily be determined from Smart Meter half-hour data.

Where Smart Meter half-hour data is available this will be the preferred source of data for AMD assessment. As legacy metering remains in place for approx. 30% of the connections to our network, BEL has undertaken load monitoring using data loggers at high consumption Sites (>50MWh) to supplement the half-hour data derived AMD. For data logger AMD assessment, the half-hour periods may not necessarily be time synchronised to the electricity market trading periods.

2.2. Capacity Measurement Period (CMP)

The period over which the AMD is to be assessed is for the 12-month period ending 31st August – referred to as the Capacity Measurement Period (CMP). Where a full 12-month half-hour or Monthly Maximum Demand (MMD) dataset is unavailable a partial dataset will be used.

For BEL load monitored Sites a CMP of 3-7 days has been deemed to be suitable given the resources available to undertake this work. BEL does not intend to reassess manually load monitored Sites in the future unless there is a specific reason for us to do so e.g. requested by the Retailer or Consumer, or suspected change in use at a Site.

2.3. AMD Assessment Process

For Sites where half-hour data is available from Smart Meters BEL intends to assess AMD on an annual/biennial basis for the year ending 31st August until further notice. The AMD is used to assign the Price Category, and if a Fixed Capacity Charge (\$/kW/Day) applies, the Chargeable Capacity is set to the AMD from 1st April of the following year. The Price Categories that BEL uses are detailed in Section 3.

If half-hour data is unavailable the AMD for the current CMP, the AMD for the previous CMP will be rolled over unless there is good reason to suggest that the AMD at the Site may have materially changed (e.g. significant change in energy consumption has occurred) and BEL load monitoring is deemed to be necessary. In the interests of ensuring that BEL has current data on which to assess AMD, and that Consumer's are charged appropriately, we encourage Retailers to:

- Install Smart Meters at all Sites >50MWh consumption as a priority
- Install Smart Meters at all commercial Sites
- Provide half-hour data to BEL on an annual basis so that we are able to reassess Consumer's AMD

Power account holders can apply (via their Retailer, an agent or directly to BEL) to have their AMD reassessed at any time in situations where there has been a material change in electricity use at the Site. The application should be accompanied by an explanation as to how/why network use has changed, the circumstances surrounding the expected future electricity use at the Site, and supporting half-hour data from a Smart Meter if this is available.

2.4. Pragmatic Approach to Consumer Categorisation

The initial implementation of an AMD based pricing for 2020/21 required BEL to adopt a pragmatic approach to assigning Sites to Price Categories where an AMD measurement was not available. From the AMD data which has been obtained to date it has been found that the vast majority of Sites with consumption < 50MWh have an AMD < 15 kW. Most Sites for which BEL does not have an AMD measurement (from half-hour data or manual load monitoring) remain in the lowest demand/capacity Non-Residential Price Category (AMD < 15 kW).

2.5. Setting of the Chargeable Capacity

For Price Categories subject to a Fixed Capacity Charge the AMD will be used to set the Chargeable Capacity for the following Pricing Year. The Chargeable Capacity will be:

- Rounded to one decimal place
- Notified to Retailers along with the annual pricing information prior to the end of January each year – 40 business days' notice
- Populated on the Registry in the Chargeable Capacity field in the Pricing area of the Registry shortly after 1st April

Under normal circumstances Price Category & Chargeable Capacity changes resulting from the Annual AMD Assessment will only take effect from the start of the following Pricing Year. Given that there is a potential 7-month delay between the annual AMD assessment and associated updating of

the pricing for a Site, in situations where the existing Chargeable Capacity assessment and most recent AMD assessment are materially different, BEL may decide at its discretion to bring forward a Price Category and/or Charge Capacity change.

Under normal circumstances BEL will not backdate pricing changes which involve a change in the Chargeable Capacity. Our preference is that Chargeable Capacity changes are effective at the start of the next Calendar Month to facilitate billing using the normalised replacement billing methodology. In circumstances where there has been a material increase in the AMD due to an upgrade of supply capacity or otherwise, BEL reserves the right to reassess and update the Chargeable Capacity subject to a suitable notification period.

In situations where a Site will be eligible for a downgrade following a change of use at a Site BEL requests that the Consumer and/or Retailer contact BEL in advance, or as soon as possible following when the change occurs, so that the required pricing change can be put in place. All pricing upgrades and downgrades will be subject to future review to ensure that Consumer's change in network use is not temporary and BEL charging is appropriate.

2.6. Chargeable Capacity for New Connections & Upgrades

For new connections and upgrades that will be subject to Fixed Capacity Charges as standard practice the Chargeable Capacity will initially be set at half of the connections requested Connection Capacity, or a more appropriate estimate as determined by BEL. As soon as actual measured AMD data becomes available the Chargeable Capacity used for billing will be updated.

2.7. Updating of Registry Pricing Data Effective 1st April

The Pricing Area of the Registry (Figure 1) will be updated on or shortly after 1st April each year with the information indicated in Table 1.

#	Field Description	Details
1	Effective Date	1/4/2023*
1	Distributor Price Category Code	Price Category Code effective 1/4/2023*
2	Distributor Loss Category Code	Loss Category Code effective 1/4/2023*
3	Distributor Installation Details	Null
4	Chargeable Capacity	Chargeable Capacity (kW) for Sites to which a Fixed Capacity Charge applies (otherwise blank/null) effective 1/4/2023*

Table 1 Electricity Registry Pricing Data

***Effective Date for the start of the 2023/24 Pricing Year**

This information will be provided to Retailers in the form of a spreadsheet as part of BEL's Annual Pricing Notification made to Retailers.

Pricing	Event history	>
Event Date	26/02/2018	>
User Reference		>
Distributor Price Category Code	LG1	>
Distributor Loss Category Code	BL1	>
Distributor Installation Details		>
Chargeable Capacity	0.00	>
Reversal Indicator		>

Figure 1 Distributor Installation Details – Pricing Area of the Registry

2.8. Updating & Backdating of Registry Pricing Data

To facilitate the billing of Fixed Capacity Charges BEL intends to make changes to the Chargeable Capacity on the Registry with an event date of the first day of the month. For Registry Price Category changes which do not involve a change in the Chargeable Capacity these can now be backdated by more than 3 business days following the change the Authority has made to the Code as part of the Code Review Programme 4 Decision¹. In all cases BEL intends to act in a reasonable manner and to take into consideration all factors on a case-by-case basis when making Registry Pricing Attribute changes and their backdating.

For Non-Residential ICPs (all PCCs except for RSU & RLU), the vast majority of Registry Pricing Attribute changes will occur on 1st April each year following our annual AMD reassessment pricing notification to Retailers.

In a limited number of cases, it may be necessary to make a Registry Pricing Attribute change during a Pricing Year due to a change of use at a Site which necessitates a Capacity/Pricing downgrade/upgrade. Such a change could be either initiated by a Retailer/Customer request or alternatively at the discretion of BEL where there has been a material change of use at a Site.

In terms of the BEL business process and timing of the Registry Pricing Attribute changes, two specific cases have been identified, as explained below:

Case 1: In the situation where a Registry Pricing Attribute change is required during the Pricing Year these changes can be made on any day of the month in the following situations:

- A Registry Chargeable Capacity change is **not** required
- Or a Fixed Capacity Charge is currently **not** being applied
- Or a Fixed Capacity Charge will **no** longer be applied

¹ <https://www.ea.govt.nz/development/work-programme/operational-efficiencies/code-review-programme/development/code-review-programme-2019/>

Case 2: In all other situations:

- A Registry Chargeable Capacity change is required
- And a Fixed Capacity Charge is currently being applied and will continue to be applied
- Registry Pricing Attributes changes will only be made effective on the 1st of day of the month

The primary reasons for making the **Case 1 & Case 2** distinction is so that:

- No confusion exists as to the correct Chargeable Capacity value which is to be applied in any calendar month – the same Chargeable Capacity value will apply for the entire month
- To facilitate billing using the replacement data methodology

Note that:

- For the avoidance of doubt BEL makes that clarification that a Price Category Code and associated Chargeable Capacity change can be made on any day of the month if this change marks the beginning or ending of a Fixed Capacity Charge e.g. this is a **Case 1** situation
- If a Registry Pricing Attribute change involves a Price Category Code change the Loss Code will also be changed on the same date as the Price Category Code change

3. Price Categories

In determining which Price Category should apply to an ICP, the Distributor will have regard to the Consumer's Connection, the information provided by the Consumer or their representative with respect to the expected load, the Consumer's demand profile and Capacity requirements and any other relevant factors. The process for the Price Category of an ICP to be changed by the Distributor or at the request of the Retailer, Consumer or the Consumer's agent is described in the relevant Retailer Agreement (including the required notification and response periods).

3.1. Residential Price Categories

Residential Price Category Codes for the 2023/24 Pricing Year are detailed in Table 2.

Price Category 2023/24	Price Category / Connection Description	Anytime Maximum Demand (AMD)	No. of Connections	Fixed Charge Type
RSU	Residential Standard User	AMD ≤ 15kW	1,546	\$/Con/Day
RLU	Residential Low-User	AMD ≤ 15kW	2,697	\$/Con/Day

Table 2 Residential Price Category Codes & Renaming

3.2. Non-Residential Price Categories

Non-Residential Price Category Codes for the 2023/24 Pricing Year are detailed in Table 3. With the exception of the Price Categories G15 & STL the AMD is also to be used as the Chargeable Capacity which determines the Fixed Charge – applied as a Fixed Capacity Charge (\$/kW/Day). For Price Categories G15 & STL a Fixed Daily Charge (\$/Con/Day) applies.

Price Category 2023/24	Price Category / Connection Description	Anytime Maximum Demand (AMD)	No. of Connections	Fixed Charge Type
G15	General Connection – Small	AMD ≤ 15kW	409	\$/Con/Day
STL	Streetlight Connection	AMD ≤ 15kW	46	\$/Con/Day
G69	General Connection – Medium	69kW ≥ AMD > 15kW	89	\$/kW/Day
DFM	Dairy Farm Connection		65	\$/kW/Day
GHH	General Connection – Large	1,000kW ≥ AMD > 69kW	6	\$/kW/Day
STK	Large Industrial Connection	AMD > 1,000kW	1	\$/kW/Day

Table 3 Non-Residential Price Categories

4. Price Schedule & Application

This Section provides a wide range of information including the Delivery Price Schedule and associated information which describes how our pricing should be applied by Retailers. This includes the appropriate Meter Register Content Codes, description of Pricing Options where these exist, and Billing Data requirements.

4.1. Price Types & Price Component Codes

BEL's convention for the naming of Price Component Codes (Price Codes) is as follows:

Price Component Code = "Price Category Code" & "_" & "Price Type"

where the Price Types are given in Table 4.

Price Type	Charge Type	Description	EIEP Direction	Units	Standard Meter Register Content Codes
FD	Fixed	Daily Charge		\$/Con/Day	
FC	Fixed	Capacity Charge		\$/kW/Day	
UN	Variable	Uncontrolled Volume	X	\$/kWh	UN
CN	Variable	Controlled Volume	X	\$/kWh	CN
IN	Variable	All Inclusive Volume	X	\$/kWh	IN
D	Variable	Day Volume	X	\$/kWh	D
N	Variable	Night Volume	X	\$/kWh	N, NO
SL	Variable	Streetlight Volume	X	\$/kWh	SL
EG	Variable	Distributed Generation Volume	I	\$/kWh	EG

Table 4 Price Types 2023/24

An example of the Price Codes for Price Category RSU using this standard format is given in Table 5.

Price Category	Price Type	Price Code
RSU	FD	RSU_FD
RSU	UN	RSU_UN
RSU	CN	RSU_CN
RSU	IN	RSU_IN
RSU	D	RSU_D
RSU	N	RSU_N
RSU	EG	RSU_EG

Table 5 Price Category RSU Price Component Codes 2023/24

4.2. Delivery Price Schedule 2023/24 – Residential

All charges are exclusive of GST.

Price Code 2023/24	Fixed / Variable	Price Code Description	Explanation / Details	2023/24 Price (\$)	Unit of Measure
Residential Standard User Connections					
RSU_FD	F	Daily Charge		1.4900	\$/Con/Day
RSU_UN	V	Uncontrolled	Available 24 hours a day	0.0939	\$/kWh
RSU_CN	V	Controlled	For use with the Uncontrolled consumption category for control of hot water and storage heaters	0.0702	\$/kWh
RSU_IN	V	All Inclusive	Storage water heating must be subject to control	0.0892	\$/kWh
RSU_D	V	Day	Day Rate for Day/Night rate 0700-2300 (16 hours)	0.1034	\$/kWh
RSU_N	V	Night	Night Rate for Day/Night rate 2300-0700 (8 hours)	0.0512	\$/kWh
RSU_EG	V	Generation	Distributed/Embedded Generation	0.0000	\$/kWh
Residential Low User Connections					
RLU_FD	F	Daily Charge		0.4500	\$/Con/Day
RLU_UN	V	Uncontrolled	Available 24 hours a day	0.1350	\$/kWh
RLU_CN	V	Controlled	For use with the Uncontrolled consumption category for control of hot water and storage heaters	0.1010	\$/kWh
RLU_IN	V	All Inclusive	Storage water heating must be subject to control	0.1282	\$/kWh
RLU_D	V	Day	Day Rate for Day/Night rate 0700-2300 (16 hours)	0.1486	\$/kWh
RLU_N	V	Night	Night Rate for Day/Night rate 2300-0700 (8 hours)	0.0738	\$/kWh
RLU_EG	V	Generation	Distributed/Embedded Generation	0.0000	\$/kWh

Table 6 Residential Price Category Price Components 2023/24

4.3. Delivery Price Schedule 2023/24 – Non-Residential

All charges are exclusive of GST.

Price Code 2023/24	Fixed / Variable	Price Code Description	Explanation / Details	2023/24 Price (\$)	Unit of Measure
General Connections – Small					
G15_FD	F	Daily Charge		2.70000	\$/Con/Day
G15_UN	V	Uncontrolled	Available 24 hours a day	0.0990	\$/kWh
G15_CN	V	Controlled	For use with the Uncontrolled consumption category for control of hot water and storage heaters	0.0740	\$/kWh
G15_D	V	Day	Day Rate for Day/Night rate 0700-2300 (16 hours)	0.1090	\$/kWh
G15_N	V	Night	Night Rate for Day/Night rate 2300-0700 (8 hours)	0.0540	\$/kWh
G15_EG	V	Generation	Distributed/Embedded Generation	0.0000	\$/kWh
Streetlight Connections					
STL_FD	F	Daily Charge		2.3300	\$/Con/Day
STL_SL	V	Streetlight	Lighting	0.1078	\$/kWh
General Connections – Medium					
G69_FC	F	Capacity Charge		0.4982	\$/kW/Day
G69_UN	V	Uncontrolled	Available 24 hours a day	0.0955	\$/kWh
G69_CN	V	Controlled	For use with the Uncontrolled consumption category for control of hot water and storage heaters	0.0714	\$/kWh
G69_D	V	Day	Day Rate for Day/Night rate 0700-2300 (16 hours)	0.1052	\$/kWh
G69_N	V	Night	Night Rate for Day/Night rate 2300-0700 (8 hours)	0.0521	\$/kWh
G69_EG	V	Generation	Distributed/Embedded Generation	0.0000	\$/kWh
Dairy Farm Connections					
DFM_FC	F	Capacity Charge		0.4099	\$/kW/Day
DFM_UN	V	Uncontrolled	Available 24 hours a day	0.0841	\$/kWh
DFM_CN	V	Controlled	For use with the Uncontrolled consumption category for control of hot water and storage heaters	0.0628	\$/kWh
DFM_D	V	Day	Day Rate for Day/Night rate 0700-2300 (16 hours)	0.0926	\$/kWh
DFM_N	V	Night	Night Rate for Day/Night rate 2300-0700 (8 hours)	0.0458	\$/kWh
DFM_EG	V	Generation	Distributed/Embedded Generation	0.0000	\$/kWh

Price Code 2023/24	Fixed / Variable	Price Code Description	Explanation / Details	2023/24 Price (\$)	Units of Measure
General Connections Large					
GHH_FC	F	Capacity Charge		0.7901	\$/kW/Day
GHH_UN	V	Uncontrolled	Available 24 hours a day	0.0723	\$/kWh
GHH_D	V	Day	Day Rate for Day/Night rate 0700-2300 (16 hours)	0.0796	\$/kWh
GHH_N	V	Night	Night Rate for Day/Night rate 2300-0700 (8 hours)	0.0393	\$/kWh
GHH_EG	V	Generation	Distributed/Embedded Generation	0.0000	\$/kWh
Large Industrial Connection					
STK_FC	F	Capacity Charge		0.7265	\$/kW/Day
STK_D	V	Day	Day Rate for Day/Night rate 0700-2300 (16 hours)	0.0793	\$/kWh
STK_N	V	Night	Night Rate for Day/Night rate 2300-0700 (8 hours)	0.0392	\$/kWh

Table 7 Non-Residential Price Category Price Components 2023/24

4.4. Network Time Definitions

All times stated in this Pricing Schedule are in New Zealand Daylight Saving Time.

Description	Time of Day
Day Period	07:00 – 23:00
Night Period	23:00 – 07:00

Table 8 Network Day/Night Period Definitions

4.5. Meter Configurations

Given the presence of legacy Register Content Codes, BEL explicitly defines the price assignment to Meter Register Content Codes in Table 9. Where controlled load has an 8-hour period of availability, it is assigned against the night price. The scheduling of this load is in alignment with the Day/Night ripple control schedule. All other controlled load registers (with more than a minimum 8 hours of availability) are assigned against the controlled price. All Residential Inclusive meter registers are assigned to the All-Inclusive price, whilst commercial inclusive meter registers are assigned to the Uncontrolled price as an inclusive commercial price is not available.

Energy Flow Direction	Register Content Code	Registry Period of Availability	BEL Load Control Period of Availability	Price Component Subcode
I	EG	24	24	EG
X	CN	8	8	N
		11	16	CN
		12		
		16		
		17		
		18		
		19		
		22		
	D	14	14	UN ²
		16	16	D
	DIN	8	8	
		10	8	
		16	16	
	IN	8	8	IN ³
		16	16	
		17	16	
		19		
	N	8	8	N
		10	10	UN ²
	NB	10	10	CN
	NIN	8	8	N
		10	8	N
		16	16	N
	NO	8	8	N
	SL	12	12	SL
	UN	24	24	UN

Table 9 Residential Price Category Price Components 2023/24

² The combination of Day 14 and Night 10 register period of availability are not eligible for Day Night Pricing.

³ Residential inclusive register volume is assigned to the Inclusive price, however commercial inclusive register volume is assigned to the Uncontrolled price.

4.6. Price Option Descriptions

BEL provides a range of Uncontrolled, Controlled, Inclusive and Day/Night price options to specific Price Categories. The assignment of price options is described in detail in Table 10 taking into account the range of meter register configurations available on the BEL network.

Price Description	Price Component Code	Register Content Code	Description
Uncontrolled	UN	UN24 D14/N10	Continuous 24-hour supply
All-Inclusive	IN	IN16	24-hour single load register meter combined with a downstream control relay. BEL control schedules include only 8 and 16-hour minimum periods of availability (except for streetlights).
Day/Night	D/N	D16/N8, DIN16/NIN16, NO8, CN8	Where a time split is available on the customer load at 23:00 and 07:00 every day, volume may be submitted as day and night respectively. This includes Inclusive registers where day and night are split, and Night Only / controlled 8-hour registers. Time splits other than this must be negotiated with BEL prior to use.
Controlled	CN	CN16	Electricity is available (under normal circumstances) for a minimum of 16 hours per day (except for streetlights). Controlled load appliances must be permanently wired and not able to be supplied from uncontrolled meter registers
Streetlight	SL	SL12	Streetlight specific ICPs are allocated the streetlight price, with a nominal period of availability of 12 hours per day.
Distributed Generation	EG	EG24	Embedded generation must comply with BEL's Distributed Generation Policy. The period of availability is required to be 24 hours.

Table 10 Residential Price Category Price Components 2023/24

4.7. AMI Price Assignment

For the avoidance of doubt, where AMI interval data, or less than 16-hour day duration registers are used to produce EIEP1 volume data, any transition between Day/Night and Uncontrolled price assignment inter-alia, require consultation with BEL. This is to limit complexity of EIEP1 billing. Where a Trader varies price assignment without consultation, the energy will be invoiced as uncontrolled load.

4.8. Variable/Volume/Consumption Price Ratios

Historically the differential between BEL's Volume Prices e.g. Uncontrolled/Controlled & Day/Night have been wide and different for each Price Category. Starting from 1 April 2021 the ratios between our Volume Prices have been standardised across all Price Categories and a 3-year plan to reduce the differentials between Volume Prices was put in place. This 3-year plan is being completed in 2023/24 with the standard Price Ratios detailed in Table 11.

#	Volume Price Ratio	2023/24
1	Controlled / Uncontrolled	0.750
2	All Inclusive / Uncontrolled	0.950
3	Day / Uncontrolled	1.100
4	Night / Uncontrolled	0.550
5	Day / Night	2.000

Table 11 Standard Variable/Volume/Consumption Price Ratios

Given that BEL has a Pricing Strategy which seeks to preserve incentives for managed water heating load and off-peak network consumption the 2023/24 ratios given in Table 11 are considered to represent the lowest Volume Price differentials which will satisfy this objective.

4.9. Billing Data Requirements

BEL requires data files for non half-hour billed ICPs to be provided in the latest regulated version of the EIEP1 and EIEP3 protocols for half hourly data. The file character encoding format UTF-8 is recommended.

BEL requires EIEP1 data files in 'Replacement Normalised' format, which has been mandated as the standard methodology for Distributor → Retailer billing by the Electricity Authority from 1st April 2021.

BEL uses the underscore '_' character as a separator between the price category and price option to define price component codes for non-half hourly data from 1st April 2021. Variable consumption should be provided to BEL as detailed in Table 12.

Price Category	Price Option	EIEP1 Price Component Code	File Type
RSU	UN	RSU_UN	EIEP1
	CN	RSU_CN	
	IN	RSU_IN	
	D	RSU_D	
	N	RSU_N	
	EG	RSU_EG	

Price Category	Price Option	EIEP1 Price Component Code	File Type
RLU	UN	RLU_UN	EIEP1
	CN	RLU_CN	
	IN	RLU_IN	
	D	RLU_D	
	N	RLU_N	
	EG	RLU_EG	
G15	UN	G15_UN	EIEP1
	CN	G15_CN	
	D	G15_D	
	N	G15_N	
	EG	G15_EG	
STL	SL	STL_SL	EIEP1
G69	UN	G69_UN	EIEP1
	CN	G69_CN	
	D	G69_D	
	N	G69_N	
	EG	G69_EG	
DFM	UN	DFM_UN	EIEP1
	CN	DFM_CN	
	D	DFM_D	
	N	DFM_N	
	EG	DFM_EG	
GHH	UN	GHH_UN	EIEP3
	D	GHH_D	
	N	GHH_N	
	EG	GHH_EG	
STK	D	STK_D	EIEP3
	N	STK_N	

Table 12 Residential Price Category Price Components 2023/24

4.10. Load Control Schedules

BEL's load control schedules are presented in Table 13. The additional legacy load control schedules detailed in Table 14 are currently under review and BEL's intention is that these are phased out of operation.

Geographical assignment of master command '102' codes are summarised in Table 15.

Commands		Description	Schedule					
Individual	Master		ON	OFF	ON	OFF	ON	OFF
10	102	domestic off peak 16	0:00					
11	102	domestic off peak 16	0:00					
12	102	domestic off peak 16	0:00					
13	102	domestic off peak 16	0:00					
14	102	domestic off peak 16	0:00					
15	103	domestic off peak 16	0:00					
16	103	clock tower	19:00	0:00				
17	103	business off peak 16	0:00	18:00				
18	103	business off peak 16	0:00	18:00				
19	103	business off peak 16 SPECIAL	22:00	4:00	6:00	13:00	16:00	20:00
40	108	domestic nightsave 8 (2 rate meter)	23:00	7:00				
41	108	domestic nightsave 8 (load:water)	23:00	7:00				
42	108	domestic nightsave 8 (load:heat)	23:00	7:00				
43	108	domestic nightsave 8 (load:water)	23:00	7:00				
44	108	domestic nightsave 8 (load:heat)	23:00	7:00				
45	108	business nightsave 8 (2 rate meter)	23:00	7:00				
46	108	business nightsave 8 (load:water)	23:00	7:00				
47	108	business nightsave 8 (load:heat)	23:00	7:00				
48	108	business nightsave 8 (load:water)	23:00	7:00				
49	108	business nightsave 8 (load:heat)	23:00	7:00				
55	111	business streetlighting	BLOCK		8:00			
56	111	business streetlighting	UNBLOCK		16:30			
57	111	business under veranda lighting						
58	111	private security lighting						

Table 13 Load Control Schedules

Commands		Description	Schedule					
Individual	Master		ON	OFF	ON	OFF	ON	OFF
0	100	domestic priority controlled 22	20:00	18:00				
1	100	domestic priority controlled 22	20:00	18:00				
2	100	business priority controlled 22	20:00	18:00				
3	100	business priority controlled 22	20:00	18:00				
4	100		20:00	18:00				
5	101	domestic continuous 20	21:00	17:00				
6	101	domestic continuous 20	21:00	17:00				
7	101	business continuous 20 (future)	21:00	17:00				
8	101	business continuous 20 (future)	21:00	17:00				
9	101		21:00	17:00				
20	104	domestic economy 14	23:00	7:00	13:00	16:00	19:00	22:00
21	104	domestic economy 14	23:00	7:00	13:00	16:00	19:00	22:00
22	104	business economy 14	23:00	7:00	13:00	16:00	19:00	22:00
23	104	business economy 14	23:00	7:00	13:00	16:00	19:00	22:00
24	104		23:00	7:00	13:00	16:00	19:00	22:00
25	105	domestic super economy 12	23:00	7:00	13:00	17:00		
26	105	domestic super economy 12	23:00	7:00	13:00	17:00		
27	105	business super economy 12	23:00	7:00	13:00	17:00		
28	105	business super economy 12	23:00	7:00	13:00	17:00		
29	105		23:00	7:00	13:00	17:00		
30	106	dom/bus storeheat 10 (2 rate meter)						
31	106	domestic storeheat 10 (load:heat)	1:00	7:00	13:30	17:30		
32	106	domestic storeheat 10 (load:heat)	1:00	7:00	13:30	17:30		
33	106	business storeheat 10 (load:heat)	1:00	7:00	13:30	17:30		
34	106	business storeheat 10 (load:heat)	1:00	7:00	13:30	17:30		
35	107	dom/bus waterheat 10 (2 rate meter)						
36	107	domestic waterheat 10 (load:water)	2:30	7:30	9:00	11:30	15:00	17:30
37	107	domestic waterheat 10 (load:water)	2:30	7:30	9:00	11:30	15:00	17:30
38	107	business waterheat 10 (load:water)	2:30	7:30	9:00	11:30	15:00	17:30
39	107	business waterheat 10 (load:water)	2:30	7:30	9:00	11:30	15:00	17:30

Table 14 Legacy Load Control Schedules to be phased out of operation

Command	Area Code	Description
10	1	CARTERS BEACH
	2	ESPLANADE / ADDERLEY
	3	PALMERSTON STREET NORTH
	4	PALMERSTON STREET SOUTH
	5	RUSSELL STREET NORTH
	6	RUSSELL STREET SOUTH
	7	QUEEN STREET NORTH
	8	QUEEN STREET SOUTH
	9	PEEL STREET NORTH
11	10	PEEL STREET SOUTH
	11	ROMILLY STREET NORTH
	12	ROMILLY STREET SOUTH
	13	DERBY STREET NORTH
	14	DERBY STREET SOUTH
	15	COATES, FORBES, SHELLSWELL STREETS, SNODGRASS, UTOPIA ROAD
12	16	ROEBUCK, STOUTY, BALANCE STREET, NINE MILE, STAFFORD STREET
	17	EASTONS ROAD, McKENNA ROAD, SEGEANTS HILL, STEVEN ROAD, EXCELSIOR ROAD, KEW ROAD, ABATTOIR ROAD
	18	DOMETT STREET
	20	BENTHAM, WEBB, DISRAELI, HASELDEN STREETS
	21	MILL, FONBLANQUE STREETS
	22	RINTOUL, COLVIN, LARSEN STREETS, RILEY, GOTHARD, SCANLON PLACE
13	23	WAKEFIELD STREET, LUFF PLACE
	24	BROUGHAM STREET, DELLACA PLACE
	25	LYNDHURST, HENLEY, HUNTER STREET, ROCHFORD PLACE, HARKNESS PLACE
	35	PAKINGTON, OROWAITI, COBDEN STREETS
	36	LYTTELTON, CHAMBERLAIN, BRIGHT, GLADSTONE STREETS
14	26	HECTOR
	27	NGAKAWAU
	28	GRANITY
	29	GRANITY
	30	MILLERTON, STOCKTON, DENNISTON
	31	BIRCHFIELD, OROWAITI BRIDGE TO KERRS CROSSING & RETURN
	37	WAIMANGAROA
	38	WAIMANGAROA
	39	MAJOR CONSUMER'S
	40	MOKIHINUI
	41	SEDDONVILLE
15	1	CARTERS BEACH
	32	BULLER BRIDGE, OKARI, CAPE FOULWIND, RETURN
	33	CARTERS BEACH (PART)
	34	CHARLESTON
	48	WILSONS LEAD ROAD
	50	PUNAKAIKI
14	42	CORBYVALE, KARAMEA BRIDGE
	43	KARAMEA BRIDGE TO POST OFFICE
	44	POST OFFICE / KARAMEA
	45	OPARARA
	46	LITTLE WANGANUI SUBSTATION

Table 15 Geographical assignment of ripple control commands (Master 102, 16 hours).

5. Loss Factors

The Reconciliation Loss Factors (Loss Factors) are used in the Electricity Market to account for the losses which occur when electricity is conveyed across the Distribution Network.

Loss factors may be reviewed and amended by the Distributor from time to time, on reasonable notice to the Retailer and not less notice than specified in the applicable Retailer Agreement, to ensure that they accurately account for losses, so far as reasonably possible, and the Distributor is meeting its compliance obligations.

5.1. Residential and General Connection Loss Code

BEL utilises Segmented Loss Factors which means that a unique Loss Code is used for each Price Category. The purpose of this is to facilitate the aggregate reporting of half hour reconciliation data for each Price Category. The value of the Segmented Loss Factors for 2023/24 are given in Table 16 and are unchanged from their 2022/23 values.

Price Category Code	New Loss Code	Loss Factor Consumption	Loss Factor Generation	Start Date
RSU	LC_RSU	1.0782	1.0000	1/4/2021
RLU	LC_RSU ⁴	1.0782	1.0000	1/4/2021
G15	LC_G15	1.0782	1.0000	1/4/2021
STL	LC_STL	1.0782	1.0000	1/4/2021
G69	LC_G69	1.0782	1.0000	1/4/2021
DFM	LC_DFM	1.0782	1.0000	1/4/2021
GHH	LC_GHH	1.0782	1.0000	1/4/2021
STK	LC_STK	1.0782	1.0000	1/4/2021

Table 16 Segmented Loss Factor Codes 2023/24

5.2. ICP Specific Loss Code

BEL makes use of one ICP Specific Loss Code (LC_ROC) as detailed in Table 17. The value of the ICP Specific Loss Factors remains unchanged from the value used in 2023/24.

ICP	New Loss Code	Loss Factor Consumption	Loss Factor Generation	Start Date
0003146255BU6E0	LF_ROC	1.0782	0.9964	1/4/2021

Table 17 New ICP Specific Loss Factor Codes 2023/24

⁴ The same Loss Code is being used for Price Categories RSU & RLU

6. Billing & Settlement Process

6.1. General

The following sections detail BEL's billing and settlement processes. Both the Distributor and the Retailer recognise that the process of calculating accurate charges is dependent on the prompt and accurate supply of information by the Retailer to the Distributor.

ICP-based billing is the billing methodology/process used by BEL and all ICPs are currently billed via the Retailer – no direct billing takes place.

6.2. Submission of Billing Data

Retailers must provide Initial Billing Data for the Report Month on or before the 5th working day of the Processing Month (Billing Data Due Date). Revision Billing Data must be provided prior to the start of the Processing Month. The Report Month and Processing Month Billing Schedule is detailed in Table 18.

Billing Data must be normalised using the Replacement Normalised methodology. Normalised data is adjusted to reflect a start and end date that matches the start and end date of Report Month (Calendar Month) to be billed.

Each Retailer should submit Billing Data to the Distributor via the Registry Data Hub. Files delivered to BEL must be compliant with the format of the latest regulated version EIEP1 and EIEP3 protocols. Each Retailer must upload a single EIEP1 Initial data file, which includes records for all its ICPs on the Distributor's Network.

If, by the Billing Data Due Date, Retailers have not submitted Initial Billing Data that complies with the latest regulated version of the EIEP1 and EIEP3 protocols (or have not submitted Initial Billing Data at all) then the Initial Billing Data may not be accepted for billing and the Distributor may estimate the charges to be invoiced to the Retailer.

6.3. Invoicing & Payment

BEL will provide Retailers with a **single** invoice each month which aggregates the EIEP1 returns (combined ICPNHH & ICPHHR) across all Revisions as follows:

- **Invoice**

Filename: BUEL_E_XXXX_YYYYMM_Invoice.pdf
XXXX: Receiving Participant Code e.g. CTCT
YYYYMM: Billing Month e.g. 202104

The amount of the single invoice each month will be the aggregation of:

- Initial billings (Revision 0)
- **plus**, Replacement billings (Revision 3, 7 or 14)
- **less**, replaced billings (previous initial or replacement billings)

BEL's invoices are currently provided summarised information at the Price Category and Fixed/Variable Charge level of EIEP1 returns.

In addition to the invoice BEL will provide additional monthly billing reports as follows:

- **Line Charge Report**

Filename: BUEL_E_XXXX_YYYYMM_RZ_Line_Charge_Report.pdf
XXXX: Receiving Participant Code e.g. CTCT
YYYYMM: Billing Month e.g. 202104
RZ: Revision Number e.g. R0 or R3

A report for each initial and replacement billing (combined ICPNHH & ICPHHR) aggregated at the Price Category and Price Component levels.

- **Replacement Billing Report**

Filename: BUEL_E_XXXX_YYYYMM_RM_SUM_Report.pdf
XXXX: Receiving Participant Code e.g. 202104
YYYYMM: Billing Month e.g. 202104

A report which aggregates the EIEP1 returns at the Revision level e.g. Initial, Replacement & Replaced Billings (credit), with separate details for ICPNHH and ICPHRR returns.

The invoice for the Billing Month including the revision billing differential for previous months will be sent to the Retailer by the 10th working day of the Payment Month, and will be payable on the 20th day of that same month.

If the Distributor fails to send an invoice to the Retailer by the 10th working day of the Payment Month, then the due date for payment will be extended by one working day for each working day that the invoice is late.

6.4. Revision Cycles and Reconciliation

For billing using the replacement methodology (ICPMRM) BEL's standard practice is as follows:

- Process/bill ICPMRM Revision 0
- Process/bill ICPMRM Replacement Revision 3

In situations where Retailers commonly request BEL to bill replacement ICPMRM Revision 7, or it is common for there to be a material difference between Revision 3 and Revision 7, BEL may request that we only process/bill ICPMRM Revision 7 e.g. Revision 3 is not processed/bill.

In situations where the monthly billing amount is very low, BEL may request that we either:

- Only process/bill ICPMRM Revision 0 data
- Process/bill replacement data on an annual or bi-annual basis as a part of a bulk replacement billing process, with settlement occurring in the appropriate Pricing Year

BEL does not require Retailers to provide ICPMRM Revision 1 data.

The Revision Billing Schedule for 2023/24 is shown in Table 18.

Processing Month	Revision	Report Month	Processing Month	Revision	Report Month
Apr-23	Initial	March 2023	Oct-23	Initial	September 2023
	R3	December 2022		R3	June 2023
	R7	August 2022		R7	February 2023
	R14	January 2022		R14	July 2022
May-23	Initial	April 2023	Nov-23	Initial	October 2023
	R3	January 2023		R3	July 2023
	R7	September 2022		R7	March 2023
	R14	February 2022		R14	August 2022
Jun-23	Initial	May 2023	Dec-23	Initial	November 2023
	R3	February 2023		R3	August 2023
	R7	October 2022		R7	April 2023
	R14	March 2022		R14	September 2022
Jul-23	Initial	June 2023	Jan-24	Initial	December 2023
	R3	March 2023		R3	September 2023
	R7	November 2022		R7	May 2023
	R14	April 2022		R14	October 2022
Aug-23	Initial	July 2023	Feb-24	Initial	January 2024
	R3	April 2023		R3	October 2023
	R7	December 2022		R7	June 2023
	R14	May 2022		R14	November 2022
Sep-23	Initial	August 2023	Mar-24	Initial	February 2024
	R3	May 2023		R3	November 2023
	R7	January 2023		R7	July 2023
	R14	June 2022		R14	December 2022

Table 18 Revision Billing Schedule

6.5. Electronic Transfer of Data & Invoice Returns

BEL's preferred method of returning data and invoices to Retailers is using a single zip file bundle (transferred via the Registry Data Hub) for each billing month as per the following details:

Filename: BUEL_E_XXXX_EIEP_YYYYMM_YYYYMMDD_HHMM.pdf

XXXX: Receiving Participant Code

YYYYMM: Billing Month e.g. 202104

YYYYMMDD: Date e.g. 20210411

HHMM: Hour + Minutes e.g. 1134

Zip File Contents:

- Invoice – *BUEL_E_XXXX_YYYYMM_Invoice.pdf*
- EIEP1 Returns e.g. ICPNHH & ICPHHR as separate EIEP1 data files
- Line Charge Report – *BUEL_E_XXXX_YYYYMM_RZ_Line_Charge_Report.pdf*
- Replacement Billing Report – *BUEL_E_XXXX_YYYYMM_RM_SUM_Report.pdf*

BEL also accommodates Retailer's preferences for data & invoice returns which differ from that described above, including:

- EIEP1 returns as individual files via the Registry Data Hub
- Emailing of data & invoices to nominated email addresses BEL has on record

EIEP1 replaced billing returns are provided to the Retailer at the month of the initial or replacement billing and will not be returned a second time at the month they are replaced.

7. Annual Pricing Notification (APN)

BEL notifies Retailers of our annual pricing changes applicable from the 1st April each year prior to end of January (requirement of 40 business days' notice).

The annual pricing notification typically consists of the following information:

- **Information for Retailers**
A document explaining our annual pricing notification and pricing changes
- **Distribution Pricing Policy**
Updated BEL Distribution Pricing Policy (this document) available from our website [here](#)
- **EIEP12 PRICE Data File**
Filename: BUEL_E_XXXX_PRICE_YYYYMM_YYYYMMDD_1000.txt
- **Register Price Data (RGSTPD) Information**
Filename: BUEL_E_XXXX_RGSTPD_YYYYMM_YYYYMMDD.txt
A spreadsheet which contains the data which will be used to update the Registry Price Data (RGSTPD) for a Retailers specific Non-Residential ICPs (effective 1st April) including the Price Category Code and Chargeable Capacity if applicable. If this spreadsheet is not provided to the Retailer, the Retailer currently has no Non-Residential ICPs.

This information (except for the Pricing Policy) is bundled into a zip file and sent to Retailers via the Registry Data Hub and emailed to the nominated pricing notification email addresses BEL has on record as follows:

- **Annual Pricing Notification (APN) Zip Bundle**
Filename: BUEL_E_XXXX_APN_YYYYMM_YYYYMMDD_1000.zip

8. Explanation for the Adoption of AMD Based Pricing

BEL made a decision to significantly change its pricing from 1st April 2021 including the adoption of Anytime Maximum Demand (AMD) based Pricing Structure. This decision warrants explanation as it differs from that of a conventional Connection Capacity based Pricing Structure.

In our pricing implementation AMD is primarily being used for the purposes of allocating the fixed costs associated with our network. As AMD is being used as a replacement for Connection Capacity it is not a targeted demand charge levied on Consumer's that use the network during periods of congestion. Charges which are targeted at Consumer's that use the network during peak periods will be the subject of further pricing reform work which we intend to undertake in the future as the need arises.

In this Section BEL presents our case for AMD based pricing and fully explains our reasons for adopting this approach to pricing. In addition, we highlight some of the issues associated with the Authority's views on Distribution Pricing and the outdated concept of Connection Capacity.

8.1. Pricing Options Available to BEL

The pricing changes BEL made in from 1st April 2021 addressed issues with our pricing for Non-Residential Consumer's that had their origins in the Monthly Maximum Demand (MMD) pricing system BEL had in place in the 1990's. Following deregulation of the industry in the late 1990's and the sale of BEL's retail business, the MMD pricing system was replaced with a pseudo Connection Capacity based system with wide Connection Capacity bands. Given that delivery charges at the time were heavily weighted towards variable/consumption charges, these wide capacity bands, and the incorrect categorisation of Consumer's, were of limited consequence.

As BEL sought to increase the proportion of fixed charges to 50% of total revenue during the period 2017/18 – 2020/21, the categorisation/charging inconsistencies which existed between some Non-Residential Consumer's became increasingly material and problematic. In terms of rectifying this situation three options were identified on which to base our Pricing Structures (Price Categories & Fixed Capacity Charges):

- **Connection Capacity** – The physical Connection Capacity originally requested by the Consumer subject to subsequent physical and/or pricing upgrades/downgrades
- **Anytime Maximum Demand (AMD)** – The Connection Capacity actually used by the Consumer – in this case the parameter of interest is the half-hour AMD
- **Banded Anytime Maximum Demand (AMD)** – Essentially a variant of the above 2 options where the AMD is rounded up into increments which are either:
 - The standard Connection Capacity increments determined by the available physical electrical supply components e.g. fuse and/or transformer size
 - Increments which are smaller than the standard Connection Capacity increments for pricing purposes e.g. **not** restricted to the fuse and/or transformer size

As BEL's fixed charges have historically not been accurately charged based on the actual Connection Capacity there was a very limited justification and ability for BEL to adopt a Pricing Structure which

was based on this parameter. For example, in many historic cases the actual Connection Capacity requested is unknown, and because charges have not been accurately based on this quantity it has not been subject to the standard upgrade/downgrade process. While Banded AMD pricing was considered as an alternative there is also limited justification for using this as a basis for pricing for the same reasons associated with Connection Capacity pricing. As a result, BEL deemed it necessary and most appropriate to reset our Non-Residential Price Categories using Anytime Maximum Demand (AMD).

While Connection Capacity and AMD are different quantities, they are also in many ways similar/equivalent. Provided that a Consumer's supply equipment is not underrated, the Connection Capacity should be the AMD rounded up to the next available size of physical Connection Capacity. In the limit as the discrete increments between the available Connection Capacities is reduced to zero, the Connection Capacity will approach the AMD. As a result, BEL considers that the existing use of Connection Capacity is essentially a special case within a broader AMD based pricing framework.

Given that AMD provides inherent benefits over Connection Capacity for the implementation of Distribution Pricing Structures (as described in the following sections), BEL is of the view that for the purposes of pricing Connection Capacity is currently being used in the industry as a proxy for AMD. Consumer's are very well versed with the concept of user pays as a basis for pricing and charging, and in terms of electricity AMD (not Connection Capacity) represents their use of the network. Furthermore, as Smart Meters are now commonplace, and half-hour consumption should be readily available, AMD is able to be determined cost-effectively and half-hourly demand data should be made available to Distributors monthly for network management and pricing purposes.

The following sections delve further into the areas of Connection Capacity based pricing, AMD based pricing, and the Distribution Pricing Principles in more detail.

8.2. Connection Capacity Based Pricing

The standard method of defining & determining Price Categories for Commercial/Industrial connections is by using the Connection Capacity:

A Consumer's Connection Capacity (or Capacity) can be defined as the upper limit on the amount of power that the Consumer is able to draw from the distribution network. Capacity is measured in kW and may be physical (i.e. the physical capacity of the connection to the premises) or contractual (where a Consumer contracts for a certain capacity to be available).

While we agree that the Connection Capacity is a very important aspect of a Consumer's connection, after consideration of the alternatives, BEL is of the view that it is not necessarily the most appropriate on which to base the Fixed Charges paid by Consumer's for the following reasons:

- A significant disconnect can exist between the Connection Capacity and actual use (AMD), and as a result the allocation of upstream assets to Consumer's based on Connection Capacity can often be neither fair and/or cost-reflective

- The half-hour data provided to BEL by Retailers has enabled us to identify Dairy farm Sites which have a 3-4 fold variation in the utilisation of the dedicated transformer in relative terms – ranging from 40% utilisation to 150% utilisation. Under a standard Connection Capacity based pricing one Site would experience 3-4 times higher Fixed Charges, on a relative basis, for essentially the same service.
- The Connection Capacity of new connections is often significantly overrated/oversized as this is the position of least consequence in terms of ensuring new plant can be successfully commissioned
- Constraining Consumer's Fixed Charges to the Connection Capacity – essentially a function of the arbitrary and discrete sizes of electrical components (fuses & transformers) – which cannot be tailored to the Consumer's exact requirements, represents an unnecessary pricing constraint
- In terms of the performance of fuses & transformers these components can operate for extended periods of time above their nominal or continuous rating, and as a result Connection Capacity is a quantity that is dependent on the duration of any overrated load
- The commonly referred to Connection Capacity is best described as the long-term or continuous load which can be drawn from the network without the Consumer experiencing power quality issues and/or the connection failing
- The primary purpose of fuses is to protect the network supply components, the Consumer's installation under fault conditions, and to ensure the safe delivery of electricity – there is no hard cut-off under normal operating conditions
- Typical Connection Capacity based Pricing Structures have wide bands and significant jumps between the Fixed Charges at the boundaries of the Price Categories. These jumps becoming more significant as the proportion of revenue collect via Fixed Charges is increased.
- Connection Charge based pricing means that a small AMD reduction resulting in a Connection Capacity and pricing downgrade – because the Consumer's installation is operating in close proximity to a Price Category break point – is valued much more highly than one that doesn't result in a downgrade (valued at zero). Charge decreases resulting from AMD reduction are therefore somewhat arbitrary in nature and BEL sees no reason why these small AMD reductions should not be equally valued across Consumer's.

While the use of Connection Capacity for pricing purposes has significant shortcomings it clearly remains the most suitable parameter on which to base the charges for Connection Assets such as dedicated transformers.

8.3. Anytime Maximum Demand Based Pricing

BEL is of the view that Anytime Maximum Demand (AMD) has distinct advantages for the implementation of Distribution Pricing Structures as it represents actual network use, rather than the potential to use the network (Connection Capacity), and as a result it is a fairer and much more cost-reflective for the allocation of the costs associated with shared upstream assets.

The Anytime Maximum Demand (AMD) is a very important parameter of a Distribution Network connection for which distributors currently have very limited visibility. Readily accessible AMD data would open significant opportunities for Distributors to improve their practices in the areas of asset management & pricing as follows:

- Being able to easily determine if connections are in the appropriate Price Category and are subject to the correct distribution pricing
- While Consumer's with overrated connections can be subject to connection & pricing downgrades, in many situations it is difficult for the Distributor or Consumer to know if this is a viable option if no AMD data is available
- Once AMD information is readily available for making a pricing decision (Price Category assignment) why not also use this information for application of pricing e.g. using AMD to set the Chargeable Capacity?
- AMD based pricing ensures that AMD reductions by Consumer's are valued similarly regardless of where the operation of a Consumer's installation sits within a Price Categories AMD or Connection Capacity band

The materiality of a Connection Capacity vs AMD based Fixed Charge difference increases as the Fixed Charge Ratio is increased – BEL has a policy of 50% Fixed Charges.

8.4. Authority's Response to BEL's Pricing

BEL is aware that our use of AMD rather than Connection Capacity for basing Fixed Capacity Charges puts us at odds with the Authority's view of pricing which 'least distorts network use'. The Authority was made aware of our intention to implement AMD based pricing in October 2020 by way of a copy of our Retailer consultation document being provided for comment (this document contained the vast majority of the detail contained within this Appendix).

In a response by letter the Authority stated the following:

As you have foreshadowed in your paper, the Authority is concerned about the core change proposed in your consultation document, ie, a shift to an anytime maximum demand (AMD) based pricing structure. We would welcome the opportunity to better understand your proposal and thinking, but our initial view is that this approach would likely be contrary to the Authority's distribution pricing principles. This is based on the understanding that:

- *BEL's network is generally not near to capacity*
- *Increases or decreases in customers' maximum demands are therefore unlikely to impact the economic costs of the network*

- *But an AMD based pricing structure nonetheless incentivises customers to reduce demand.*

We are concerned therefore that, on the face of it, BEL's proposed pricing structure would be likely to distort network use, by creating incentives to reduce maximum demands even if the network is not congested and by prompting investment (eg, in batteries) for the purpose of cost shifting between customers.

On a related point, we note that your consultation refers to balancing pricing with fairness and equity considerations. It is difficult for us to comment on these as the paper does not then lay out exactly how those considerations are applied, and what trade-off with efficient pricing is being made. We would welcome more information from you on this point. Without this clarity, the risk we see is that these fairness judgements, while intuitively appealing, may in fact lead to poorer outcomes for Consumer's in aggregate over time (including Consumer's who are least able to afford it, due to continued cost shifting incentives).

While our decision to base our pricing on AMD is influenced by the historic MMD pricing structures BEL had in place, we are also of the view that the Authority has an overly weighted focus on pricing which 'least distorts network use', with there being a distinct trade-off against pricing which is fair and equitable. It is BEL's view that this is a matter this is not being acknowledged or given sufficient consideration by the Authority.

BEL has no issue with the Authority's reasoning for promoting pricing which 'least distorts network use' e.g. so that Consumer's are not provided with incentives to make investments in disruptive technology which simply results in fixed costs being shifted on to other network users. We do however question to what level this overall objective can actually be achieved using Connection Capacity based pricing, or by any alternative means, and/or whether the outdated concept of Connection Capacity (for pricing purposes) is simply being used by the Authority as a means of practically implementing its economic ideology. BEL is concerned that pricing being promoted by the Authority will introduce undesirable outcomes in relation to fairness and equity – this being an area which is not being given sufficient consideration.

In terms of our overall views on Distribution Pricing we would like to emphasise the following points:

- User pays is a concept that Consumer's are very familiar with and it is a fair way to allocate the costs of shared upstream assets (the vast majority of assets) – using Connection Capacity as a basis on which to allocate these costs is inappropriate
- Given that Connection Capacity is subject to physical/pricing upgrades/downgrades, incentives for Consumer's to distort their use of the network (e.g. reduce peak demand) exist in a Connection Capacity based pricing as Connection Capacity is not actually a fixed quantity
- As the proportion of Fixed Charges is increased, the charging arbitrage which exists between Connection Capacity increments and Price Categories increases, thereby increasing the likelihood of charging inconsistencies developing

- The fairness and equity considerations BEL has identified are visible to Consumer's in the short term e.g. what Consumer's pay this year rather than the Authority's longer term view, and it is noted that the former is very important to Consumer's
- BEL is of the view that in terms of following Good Electricity Industry Practice, and being a prudent network operator, it is in our interests (and in the interests of our Consumer's) to maintain incentives for Consumer's to reduce their peak demand. This is especially the case given the expected growth in the use of electricity with the adoption of EV's and the de-carbonisation of the economy.
- BEL has settled on making our overall Fixed Charge proportion 50%, and we are of the view this provides a good balance between fixed and variable charges, and is entirely justifiable and reasonable level of fixed charging
- It is simply not possible for Distributors to prevent network Consumer's investing in disruptive technology and reducing their electricity costs

The changes BEL have decided to implement will ensure that our pricing is fairer and more equitable as the fixed charges for Consumer's with an AMD >15kW are proportional to their demand and the Connection Capacity which is actually used. It is very clear to BEL (and our Consumer's) that this will result in better pricing outcomes in terms of fairness and equity considerations. We give this particular importance as a Consumer Owned Trust EDB.

It is noted that the approach we have taken to the resetting of our pricing using AMD is analogous to the method which will be used to reset the Transmission Pricing Methodology (TPM) for the allocation of Residual Costs. While the notion of fixing the AMD (and Residential Cost allocation) in perpetuity (subject to 'material' change) is considered workable at the TPM level, BEL contends that it is neither practical nor implementable at the Distribution level. In terms of promoting its economic ideology, BEL contends that the Authority could perhaps consider how network use can be best determined and the allocation of Residual Costs undertaken.

On a final note, BEL would welcome the Authority reopening its work on Distribution Pricing with a view towards taking a much more holistic approach which considers the important real world and practical implementation issues we have raised. We agree with the Authority that Distribution Pricing is a very important part of the electricity industry as a significant proportion of the costs associated with supplying electricity to end use Consumer's are associated with the Distribution Network.

8.5. Distribution Pricing Consultation Submission November 2021

The Authority issued the consultation 'Supporting Reform to Efficient Distribution Pricing' in September 2021. BEL's submission (available [here](#)) highlighted the inherent economic inefficiency associated with the approach to Distribution Pricing (100% non-responsive fixed charges) which the Authority considers to be the most appropriate for unconstrained networks. It is disappointing that BEL has yet to receive a response to the matters raised, with this being pointed out in a letter sent to the Authority in late 2022. We look forward to the Authority taking the matters we have raised in consideration with the upmost urgency.