Firstlight network™

Pricing Methodology

FOR THE YEAR COMMENCING 1 APRIL 2023

Contents

1. About this document

This document sets out Firstlight Network Limited's (Firstlight) pricing methodology for line charges from 1 April 2023 (FY2024). This document aims to explain how Firstlight's prices are determined. We have restructured the document from prior years, and it now sets out:

- Considering the interests of consumers—feedback and how this is impacting the pricing methodology and implementation;
- Pricing strategy—Firstlight's long term strategy to evolve prices in line with the Electricity Authorities requirements;
- Pricing methodology—how Firstlight has defined its pricing methodology in line with its pricing strategy;
- FY2024 prices—how Firstlight has set its prices for FY2024 using its pricing methodology;
- Compliance—an explanation of how Firstlight's strategy, methodology, and prices comply with the Electricity Authorities requirements.

Each year Firstlight is required to publish a pricing methodology that complies with the Electricity Distribution Information Disclosure Determination 2012. Directors have confirmed that this document complies with the determination.

2. Introduction

Firstlight Network operates the electricity distribution network for Gisborne and Wairoa regions, delivering electricity to approximately 26,000 homes and businesses.

In addition to maintaining the distribution network (the poles, wires and underground cabling), since 2015, we also own and operate the region's high voltage electricity transmission network previously owned by Transpower, which are the 110kV steel pylons and poles. These assets now form part of our subtransmission system and connect our region to the national grid operated by Transpower.

Other than Gisborne city and Wairoa township, Firstlight Network supplies the remotely populated region of the East Coast of the North Island, a combined land area of 11,952km^2. As a result, Firstlight's consumer density is amongst the lowest in New Zealand. Low density networks typically require a higher level of assets per consumer then would be the case in higher density networks.

Firstlight Network also supplies one of the lowest social-economic regions, which means that consumers ability to pay high electricity prices is limited. At the same time, Firstlight's consumers face one of the highest retail electricity prices in New Zealand.

The average consumption by Firstlight Network consumers is amongst the lowest in the country, reflecting the low socio-economic circumstances for consumers, and the absence of a large industrial consumer base. Large industrial consumers typically carry a large proportion of subtransmission costs, hence in our case, the burden of subtransmission assets falls on small commercial and domestic consumers.

Given these factors, historically Firstlight Network has sought to minimise its investment in subtransmission and zone substation assets that provide redundancy (i.e. network security); rather, we have provided subtransmission and zone substation security through lower cost generation alternatives. The consequence of this practice has been that Firstlight has maintained reasonable line charges on a per consumer basis despite its very low customer density.

Prices are set to recover the economic costs of owning and operating the Electricity Distribution Network that conveys electricity throughout the Te Tairawhiti and Wairoa districts. The economic costs include the recovery of the costs of operation plus, an appropriate regulated return on investment (cost of capital), and depreciation.

Firstlight aims to develop efficient pricing to correctly signal the economic cost of providing line services. Correctly signalling of the economic cost allows consumers to consider the value they receive from Firstlight's line services when considering alternatives. Achieving efficient prices is a transition and requires trade-offs to be made. Firstlight's pricing roadmap set outs how we are transitioning to efficient prices. The key trade-off is the speed of change vs. the extent of pricing structure change and the level of price shocks consumers see as prices transition. Given the context of affordability and the current high delivered retail price,Firstlight is appropriately tempering the speed of the transition to avoid undue stress on consumers that are disadvantaged by the transition.

3. Considering the interests of Consumers

3.1 Summary of consumer survey

Each year Firstlight commissions a survey seeking the views of consumers. The survey focuses on the network service, our prices, customers' behaviour around shifting discretionary consumption switching retailers, uptake of solar panels and electric vehicles and electrification of industrial heat processes.

The key conclusions of the November-December 2022 survey were:

Domestic and commercial consumer groups

- Customers still consider keeping the power on and getting it back on quickly as the most important part of our service;
- Wairoa is still more sensitive to line charges than Gisborne and keeping line charges low is increasing in importance;
- Awareness of domestic TOU pricing is low across all market segments (Gisborne mass market, Wairoa mass market) with 25% of customers being aware that Firstlight introduced Time of Use pricing.
- There was no particular trend in the time horizon for when domestic and commercial consumers last changed their retailer;
- Most domestic and commercial consumers said they could change their consumption patterns either easily or with a little difficulty.
- Domestic and commercial consumers interest in rooftop solar is low, with 45% of Gisborne and 52% of Wairoa mass-market customers saying *never* and only 12% in both Gisborne and Wairoa saying *within 2 years*.
- Domestic and commercial consumers interested in installing is very low.
- Expected purchases of electric cars within the next 2 years by both commercial and domestic consumers is low.

Industrial consumer groups

- Of the five large industrial consumers for whom electrifying industrial heat is still an option (i.e. not already done, or not applicable) all expect it to be more than 5 years away;
- Large consumers changing retailers is dominated by either *2 to 5 years ago* or *never changed*, but is evenly spread for mass-market customers.
- Almost all large customers said it would be very difficult for them to alter their consumption patterns;
- All large industrial customers expect to be at least 2 years away from installing roof top solar.
- Although three large industrial customers are interested in installing a battery within 2 years, mass-market interest is very low.
- Three of our large industrial customers are looking at electrifying process heat in the next 5 years and further three after that.
- Expected purchases of electric cars within the next 2 years is low.

3.2 Implications from the survey

Domestic and commercial consumer groups

The pace of electrification of transport and the uptake of solar PV and batterie is likely to be slow in Gisborne, and even slower in Wairoa. This provides comfort that we can implement changes at a modest pace in an effort to manage price shocks over time. Whilst some consumers may make uneconomic investments in solar and batteries, this is not likely to be significant.

The low awareness of time of use (TOU) Tariff is a little concerning. Whilst domestic and commercial consumers say they could change their consumption patterns it is likely that few will unless they are aware of the price signals provided by the TOU Tariff.

The slow uptake of EVs also means that we are not likely to see constraints on the network for some time, and hence the need to implement more localised pricing and the signalling of constraints (and the cost of new capacity) is not required in the near-term.

Industrial consumer groups

All industrial consumers are exposed to fixed capacity and TOU prices yet they state that they have limited ability to change their consumption patterns. Provided the variable capacity and TOU charges recovery around the long-run marginal cost of the network services then those consumers will be able to make economic decisions in relation to managing their demand using alternatives. The survey results seem to indicate some level of apathy in this area.

3.3 Consumer survey results in more detail

3.3.1 Importance of electricity distribution service

Domestic and commercial consumer groups

Gisborne domestic and commercial consumers regard keeping the power on all the time as most important. Second most important is split between getting the power back on quickly if it goes off and keeping line charges low, with a skew towards getting the power back on quickly. Third choice was split between keeping line charges low and getting the power back on. Similar to 2021 there seems to be some confusion between continuity and restoration.

Wairoa domestic and commercial consumers customers regard keeping the power on all the time as most important, but similar to Gisborne there may be some confusion between continuity and restoration. Keeping line charges low dominated the third choice.

Industrial consumer groups

Industrial customers regard keeping the power on all the time as most important, with getting the power back on quickly if it goes off as a clear second choice. Third choice was dominated by keeping line charges low (whereas in 2021 third choice was evenly spread between keeping line charges low, not having the light dimming and sufficient notice of planned shutdowns.

3.3.2 Eastland network performance

Domestic and commercial consumer groups

Gisborne domestic and commercial consumers have a range of views on how well Firstlight is keeping the power on, from *excellent* to *average* but with a skew towards *very good* Similarly, there are a wide range of views on how well Firstlight is at keeping line charges low clustered around *average*. Views on how well Firstlight gets the power back on range from *excellent* to *average* with a skew towards *good*.

Wairoa domestic and commercial consumers' views on how well Firstlight is keeping the power on range from *excellent* to *poor* with a slight skew towards *very good*. Similarly, views on how well Firstlight gets the power back on range from *excellent* to *average* with a slight skew towards *very good.* Views on keeping line charges low range from *excellent* to *poor*, with a slight skew towards *average*.

Industrial consumer groups

Industrial customers have a range of views at how good Firstlight is at keeping the power on and getting the power back on, ranging from *excellent* to *average* with a definite skew towards *very good*. Most responses to getting the power back on quickly, not having the lights dimming, and sufficient notice of shutdowns were *very good.*

3.3.3 Awareness of Time of Use pricing for domestic customers

In April 2021 Firstlight Network introduced Time of Use pricing for domestic customers with a communicating smart meter.

We have included a question in 2021 survey to gauge awareness of this pricing structure change so we can understand the likelihood of impact on customer behaviour.

Domestic and commercial consumer groups

Only 19% of valid responses from both the Gisborne and Wairoa domestic and commercial consumers were aware of Firstlight's domestic TOU pricing, which is a decline from 2021.

Industrial consumer groups

Three of the large industrial customers were aware of Firstlight's domestic TOU pricing (up from nil in 2021).

3.3.4 Electrifying of industrial process heat

As New Zealand is progressing toward net-zero carbon economy, more and more commercial and industrial customers are expected to electrify their heat processes.

The large industrial customers for whom electrification is applicable and not already done indicated more than 5 years.

Similarly, both the Gisborne and Wairoa mass-market customers for whom electrification is applicable and not already done indicated more than 5 years.

3.3.5 Changing retailers

Research shows that people who switch electricity retailers regularly save money. With more than 20 retailers operating in Tairawhiti, this question was trying to understand the switching patterns and general customer engagement with electricity.

Domestic and commercial consumer groups

Most of the Gisborne domestic and commercial consumers' have not changed retailer within the last 2 years.

Wairoa domestic and commercial consumer responses are spread, with a skew towards more than 5 years ago.

Industrial consumer groups

Large industrial customer responses were spread, with most either having changed retailer 2 to 5 years ago, or not at all.

3.3.6 Consumer appetite to alter consumption pattern

Domestic and commercial consumer groups

The Gisborne domestic and commercial consumers shows a slight skew towards being able to easily shift consumption, which might merit a more targeted study.

Similarly, the domestic and commercial consumers also shows a skew towards being able to easily shift consumption.

Industrial consumer groups

Only one of the large industrial customers could easily shift their consumption to off-peak periods, with one large industrial customer saying they could shift to off-peak periods with some difficulty. Common themes were that most of their load is chilling (and is therefore already 24 hours) of that they operate 2 and 3 shifts during harvest seasons. This compares well with no large customers stating they could easily change their consumption patterns in 2021.

3.3.7 Likely installation of solar panels

Domestic and commercial consumer groups

Both the Gisborne and Wairoa domestic and commercial consumers have definite skews towards *never* installing rooftop solar, but there is definitely a group who might install within 5 years.

Industrial consumer groups

Installation of rooftop solar is likely to be at least 5 years away if at all for most large customers.

3.3.8 Likely purchase of an electric car

Domestic and commercial consumer groups

Similar to the 2020 and 2021 surveys, both the Gisborne and Wairoa mass markets have a definite skew towards Never buying an electric car.

Industrial consumer groups

There is a definite interest amongst large customers of buying an electric car (presumably as an office run-about) within 2 years.

4. Pricing Strategy

4.1 Our pricing strategy

Firstlight Network's pricing strategy is to:

Implement cost reflective pricing to support our regions transition to a net zero-carbon economy.

Implementation of our pricing strategy will seek to balance cost reflectivity with other factors such as socio-economic situation in Te Tairawhiti and Wairoa, and the varying quality of service across our network. Our pricing should encourage electrification of transport, development of energy storage and Distributed Energy Resources (DER) and electrification of industrial processes. While this strategy is consistent with prior years, our execution of it has evolved and developed as demonstrated through the implementation of first stage of Pricing Reform in 2021 (Mass market time of use) and second stage of the Pricing Reform in 2022 (revision of Cost of Supply and pricing model) in 2022.

4.2 Previous pricing strategy implementation

As part of our journey to adopt increasingly cost reflective pricing, we introduced a new 'Time of Use' pricing structure effective from 1 April 2021. This pricing structure has rolled out mandatory Time of Use (TOU) pricing across mass market and low capacity commercial customers with consistently communicating smart meters. TOU tariffs introduce higher prices during peak times of the day when the network is more congested, and lower rates during off peak times when there is plenty of capacity on the network. This indicates to consumers that consuming electricity off peak may reduce or delay investments into network assets and shares this benefit with consumers who consume off peak.

In selecting Time of Use pricing, we considered several pricing options, including customer peak demand, network peak demand, installed capacity, and nominated capacity. We assessed these options against a number of criteria, including their ability to manage peak loads, improve utilisation of network assets, signal the best time to charge electric vehicles (EV), better ensuring all consumers contribute fairly to fixed and peak costs, giving consumers the ability to manage their bill (where Retailers pass through directly and transparently), being simple for consumers to understand, managing our revenue risk and finally the electricity market readiness. After years of planning, research and consultations we established that TOU is the most appropriate option right now.

While current TOU pricing offers consumers the ability to reduce their electricity bill by shifting some electricity use from peak to off-peak times as well as encouraging take-up of new technology, we recognise that TOU pricing is only a stepping stone to a more cost reflective pricing model. Firstlight Network will observe the wider electricity arena and the Electricity Authority and Electricity Network Association guidance and be prepared to implement more cost reflective pricing, e.g. locational pricing/ demand or capacity based. It is unlikely that demand based or capacity-based pricing for mass market will be considered by many networks in New Zealand in the next few years.

4.3 Further changes made this year

As outlined in this document, we carried out a review of our Cost of Service Model (CoSM) in 2022 ready for prices effective 1 April 2023. The key update for this year was to include an asset cost allocator. This updated model used geo-spatial asset analysis to allocate asset-related costs to consumer group based on the extent of assets used by that particular consumer group. Further details on the updated cost allocation methodology in the Cost Allocation section of this document.

Electricity Authority has announced a 5-year plan to phase out Low Fixed Charge (LFC) regulation. As a result, we have increase fixed charge for our low user domestic customers from 30c to 45c from 1 April 2023. Our intention is to remove Low user domestic tariff once the 5-year phase out window elapses.

Transpower's new pricing methodology comes into effect from 1 April 2023, which will see a 26% reduction in transmission charge to the Network. While this cost reduction is fully passed onto our customers, the update to transmission cost allocation methodology means there is a mixed impact on various pricing groups and customer within pricing group depending on their consumption. All transmission costs are passed onto the customers via fixed charges, which is a change from previous years.

As the majority of our costs are fixed in nature (more than 90%), meaning that they do not vary based on how much electricity our consumers use, we will continue moving towards higher proportion of distribution charges being fixed. As we still would like to keep the ability to send TOU price signal, we currently deem 70% fixed as a reasonable target to allow enough variable charges to send peak price signals to encourage EV charging off-peak, the use of batteries and solar, etc.

With a high take up of roof solar panels on our network (circa 20% annual increase), there is an increase of cross-subsidy from connections without solar generation. Even though variable charge based on kW rating of solar panel installed seems like a solution to this cross-subsidy problem, it is widely believed in the industry that such charge would result in undesirable reduction in solar panel installations. As we increase proportion of fixed charges and as low fixed charge regulation is phased out, this cross-subsidy issue will reduce and so will the need for PV panel variable charges. We will continue to review this area and look for alignment with other EDBs.

In order to prepare for electrification of transport in Te Tairawhiti and Wairoa, we are looking to recommend Controlled tariff to be the main tariff used by EV users, i.e. all EV chargers should be on ripple relays (to be driven by Connection Standards and keeping Controlled tariff the cheapest option available).

4.4 Future strategy implementation work

As part of our pricing strategy, Firstlight Network will relook at density-based pricing. We removed density-based pricing in 2020 to reflect the fact that areas with lower densities, while having higher cost per connection, experience significantly higher outage time due to their remoteness. We will continue developing cost reflective pricing that will take into consideration both connection density and quality of service. As 2023-24 pricing year was already experiencing a multitude of changes (LFC, CoSM update, new TPM and new transmission allocation), we decided to postpone this density-based pricing consultation to next year.

We have commenced work on calculating the long-run marginal cost (LRMC) for the network. Our preliminary calculation indicates that this is in the order of $300-$350 per kVA per year. This value is higher than observed at other network companies and reflects the cost of the third 110kV subtransmission line to Gisborne proposed in the early 2040's. The value of $300-$350 per kVA per year equates to ~$2.3 million p.a. This value is an indicator of the extent of revenue that should be recovered each year through (demand based) variable prices. That is, over the long-term, Firstlight Network should be agnostic to consumer behaviour that alters electricity usage to avoid demand charges set via variable prices as the reduction in revenue should match the reduction in long-term costs.

We intend to undertake further work on the LRMC, including assessing scenarios in relation to the third transmission line to Gisborne, during the coming year,

4.5 Progress vs. the Pricing Roadmap

Firstlight Network pricing roadmap focused over the past 5 years on implementing various stages of the Pricing Reform. Time of Use pricing reform was implemented for mass market effective from 1 April 2021. Year 2022 marks a long-awaited update to our Cost-of-Service Model, which improves understanding of the assets being used by the different pricing groups and helps allocate costs with higher accuracy. The new model also improved allocation of transmission costs, which closely followed Electricity Authority guidance. All these reforms are reflected in the pricing effective from 1 April 2023.

The strategy roadmap focuses on fine tuning out pricing structure and progress the EA guidance, increasing cost reflectivity, and keeping moving network pricing in the direction as set out in our strategy statement.

Strategy Roadmap - 5 year plan			
	Activity	Objective	Timing
1	Time of Use Pricing Reform implementaion	To introduce Time of Use pricing structure for mass market and low capacity commercial connections.	Completed 2021
2	Post Pricing Reform implementaion review	Review desired outcomes of newly implemented TOU pricing structure. Review of peak and off-peak differentials. Review of periods. Review of structure.	Completed 2021 – 2022
3	Review Cost of Supply Model	Review value of assets and cost of maintenance by region and allocation per tariff category. Review tariff categories and review allocation of overheads, pass-through and recoverable costs, e.g. transmission costs.	Completed 2022 – 2023
4	Solar generation cross subsidy review	To review the cross-subsidy problem between connections with and without solar generation. Review pricing of other EDBs for national alignement.	2023
5	Implement quality of service and connection density into pricing model	Firstlight Network removed density based pricing in 2020 based on a rationale that lower density areas while having higher cost per connection receive materially different level of service. We will look to include this into the model, which may see re-introduction of density based pricing with a quality level overlay.	2023 – 2024
6	Increase fixed proportion of prices	Continue moving towards higher proportion of distribution charges being fixed. Currently 70-80% fixed seems as an appropriate target.	2022 – 2026
7	Transition of Low Fixed Charge customers to higher fixed charge	Phase out low fixed charge as per LFC regulation 2021 amendment. Removal of LFC tariff after 5 year LFC phase out window.	2022 – 2026
8	EV and battery tariff	To investigate and implement tariff to incentivise network control over EV chargers and home battery systems.	2023 - 2027

5. Pricing Methodology

5.1 Consumer Groups

Consumer groups are usually defined to reflect the different impacts that different classes of consumers have on the network. For Firstlight, consumers are broadly grouped according to their assessed capacity requirements. Capacity is assessed based on installed fuse rating or transformer capacity (where transformers are dedicated to supply of an individual consumer).

The consumer groups are:

- Domestic consumers – which are further separated into standard and low fixed charge groups;
- Commercial consumers – which are further separate by capacity (being 50, 100, 300, 500, 1000 kVA);
- Industrial consumers – which are further separate by capacity (being 4500, 6500 kVA);
- Generator consumers – which are further separated by the installed capacity of the generator (being (500, 1000, 4500, 6500 MW);
- Distributed generation – being installations where small scale distributed generation is installed;
- Other (being low capacity 3kVA, unmetered load and streetlights).

The current consumer groups (introduced in 2021) makes a clear distinction between domestic, commercial and industrial consumers and other connections, which includes tariffs for unmetered load, streetlights and low-capacity connections (e.g. pumps). No changes were made to consumer groups for the pricing-year starting 01 April 2023.

2023-2024 Pricing Structure	
Price Tariff	Consumer group
Domestice consumers	
DOMFLC	Domestic Low User
DOMSTD	Domestic Standard User
Commercial and industrial consumers	
COM0050	Commerical & Industrail (<50kVA)
COM0100	Commerical & Industrail (50kVA- 100kVA)
COM0300	Commerical & Industrail (101kVA- 300kVA)
COM0500	Commerical & Industrail (301kVA- 500kVA)
COM1000	Commerical & Industrail (501kVA- 1000kVA)
COM4500	Commerical & Industrail (1001kVA- 4500kVA)
COM6500	Commerical & Industrail (4501kVA- 6500kVA)
GEN0500	Generation (<500kVA)
GEN1000	Generation (501kVA- 1000kVA)
GEN4500	Generation (1001kVA - 4500kVA)
GEN6500	Generation (4501kVA- 6500kVA)
Other consumers and special use tariffs	
OTH0003	Other Low Capacity (<3kVA)
DUML	Unmetered load (lights,Pay&display, CCTV)
STLGM	Metered Street lights

5.2 Cost Allocators

5.2.1 Cost of supply model refresh

The Firstlight Network's Cost of Supply Model (CoSM) is used to determine the revenue requirement by consumer group that is necessary to efficiently allocate costs and reflect the actual cost of its services. Firstlight Network has engaged an experienced consultant to review the CoSM as per our 5 year plan in order to improve the methodology and reflect better the utilisation of assets by various pricing groups. This revised methodology includes dedicated assets analysis and also an improved peak demand analysis to determine a more accurate costs of supply for each consumer group.

Eastland revised its cost of supply model during CY2022. The updates included:

- Future prices (for each consumer group and tariff) were calculated from historical prices multiplied by a price change;
- Target quantities (by consumer group and tariff) reflected Firstlight's forecasts for the forthcoming pricing year;
- The cost of supply (by consumer group) was prepared by allocating the various cost components of the net allowable revenue (the target revenue) using an allocator that best reflected the component's cost driver (this is discussed in more detail below);
- The forecast revenue (for each consumer group) was calculated from future prices multiplied by target quantities.
- The forecast revenue was tested against the target revenue and the cost of supply (for each consumer group). Future price changes were then optimised to ensure that the forecast revenue (in total) did not exceed the target revenue and that the forecast revenue (by consumer group) was in-line with the cost of supply (by consumer group). In respect of the latter test,Firstlight optimised the price changes to improve (i.e. reduce the difference between) the forecast revenue and the cost of supply for each consumer group whilst also managing price shocks;
- Improvements were also made to the cost allocators (this is discussed in more detail below).

An overview of the cost allocators is discussed below.

5.2.2 Asset cost allocator

Asset value for each consumer group was derived from the most recent (FY2022) published Regulatory Asset Base (RAB). The allocation of asset to consumer groups use:

- Geo-spatial analysis to, where possible, allocate assets to consumer group based on the extent of assets used by that particular consumer group;
- The installed transformer capacity to allocate the value of distribution transformers and substations to consumer groups;
- The number of connections to allocate the value of LV lines, LV cables, consumer connections and load control to consumer groups;
- The remaining assets (i.e. the assets that could not be directly attributable to a particular consumer group) where allocated to consumer groups based on peak period consumption.

5.2.3 Connection cost allocator

ICP forecasts are derived after considering expected changes during the forthcoming pricing year. This data is based on historical averages plus or minus any forecast changes we are aware of.

5.2.4 Consumption cost allocator

Forecast Annual kWh use is based on historical averages plus or minus expected changes because of growth, weather patterns and economic conditions.

5.2.5 Installed capacity allocator

Installed capacity is based on fuses installed or transformer capacity if a dedicated transformer is installed. This allocator is used in the allocation of assets.

5.2.6 Demand cost allocator

The demand allocator is based on the allocation of coincident peak demand for those consumer groups where coincident peak demand can be measured, the residual demand is then allocation to consumer groups using the peak period consumption.

5.2.7 Peak period consumption allocator

Peak Consumption is based on peak consumption during the three months when the network reaches the maximum demand. This allocator is used in the allocation of residual assets in the asset allocator and in the allocation of residual demand in the demand allocator.

5.2.8 Cost allocator metrics

Firstlight Network's revised CoSM contains the following input assumptions and statistics for the purpose of cost allocation. Firstlight Network used the following statistics to allocate costs to consumer groups.

Table 4: Cost Allocators

Cost Allocation						
Price Category	ICP Count	Consumption kWh	Assets $k	Capacity incl DG Installed kVA	Peak Period Consumption kWh	Peak Demand MW
DOMLFC	12,191	63,688,633	58,775	406,265	6,860,349	17.5
DOMSTD	8,336	71,936,753	49,671	200,925	6,676,736	17.0
COM0050	4,665	41,050,611	27,784	230,229	3,275,739	8.3
COM0100	445	21,131,645	12,021	41,808	1,743,140	4.4
COM6500	1	6,717,534	2,261	6,500	511,848	1.3
COM4500	3	25,711,983	3,092	13,500	1,963,138	3.7
COM0300	118	20,245,305	16,384	33,600	2,492,071	6.3
COM0500	25	8,948,500	6,756	10,708	1,040,027	1.8
COM1000	24	31,143,597	7,412	24,167	2,970,044	4.9
OTH0003	81	257,568	185	246	21,518	0.1
DUML	174 (5132*)	1,556,388	1,721	720	251,806	0.6
STLGM	32 (242*)	28,356	56	10	6,119	0.0
GEN4500	1	-	202	4,500	-	-
GEN6500	1	100,008	1,716	6,500	-	-
	26,095	**292,516,881**	**188,035**	**979,679**	**27,812,534**	

** fixtures/ lamps*

5.3 Cost Allocation to Consumer Groups

Following the determination of the allocators, the costs of supply (being the various components of Firstlight Network's costs to provide line function services) is allocated to consumer groups.

Firstlight Network allocates most of its costs based on assets used for distribution of electricity. This is to reflect the view that there is still limited growth in the Firstlight Network region and that Firstlight Network's costs are driven by long lasting assets and therefore largely fixed. It is also a reflection that electricity distribution assets have been built to meet the capacity requirements at a connection point irrespective of the actual volume of energy used. As the network has currently enough spare capacity most of the time this allocation is deemed the most suitable.

While the view on how to allocate costs remained focused on assets, the cost allocation has now used asset value as a more accurate allocator.

Table 5 below illustrates how the various cost categories of the network are allocated.

Recoverable and Pass-through costs have been allocated using a mix of allocators. The biggest proportion of this cost category are Transmission costs, which have been allocated using a suggested methodology for distributors to align with Transpower's methodology. Connection charge and Residual charge have been allocated using peak demand during the highest peak observed by Transpower. For those customer groups where this information is not readily available, peak demand consumption during the highest demand months was used as a proxy to demand. Benefits based charge was allocated based on kWh usage of the various pricing groups. All Transmission costs have been allocated using fixed charges as recommended by the Electricity Authority.

Network Opex and System Operations and Network Support costs are fully allocated based on asset values. This reflects that the costs to manage, operate and maintain the network are driven by the quality of assets, that is the scale of the network. The value of assets is the best measure of the scale of the network.

Business Support costs are more general overhead costs that are driven by both the scale and complexity of the business. The number of connections is considered to be the best allocator of both scale and complexity.

Capital charges are driven by the value of assets and as such as allocated to consumer groups based on asset value.

5.3.1 Cost allocators

The cost, cost drivers, and cost allocators used in the revised CoSM are as shown in the table below:

Table 5: Application of cost allocators

Cost Group	Cost Type	Cost Driver	Cost Allocator
Pass through costs	Rates on network assets	Quantity and location of assets	Assets
	MBIE and EA Levies	Levies based on electricity consumption	Consumption
Recoverable costs	Transpower Customer Investment Contract	Contracted charge for new assets installed by Transpower	Demand
	Transmission Connection Charge	Transpower's costs to provide connection assets	Demand
	Transmission Benefits Based Charge	Transpower grid charges[1]	Consumption
	Transmission Residual Charge	Transpower grid charges[2]	Demand

[1] Refer to the Transmission Pricing Methodology.

[2] Refer to the Transmission Pricing Methodology.

Cost Group	Cost Type	Cost Driver	Cost Allocator
	Avoided cost of transmission	Value of avoid assets (assets that did not need to be commissioned as a result of distributed generation)	Assets
	FENZ Levies	Value of assets subject to FENZ levies	Assets
Network opex	Costs to operate, inspect and maintain the network	The type, quantity and condition of the assets	Assets
Non-network opex	System operations and network support	The type, quantity and condition of the assets	Assets
	Business support	the size of the business and number of customers	Connections
New connections	Capital contributions and vested assets	Costs (or income) associated with new connections	Assets
Capital charges	Return of capital (depreciation)	Value of assets x depreciation rate	Assets
	Sale of assets	Gain (or loss) on sale of assets	Assets
	Return on capital	Cost of capital x regulated asset base less indexation	Assets

The material change from prior allocation is the introduction of the asset based cost allocator.

5.3.2 Costs of supply by allocator

Table 6 below shows that 70% of the cost of supply is driven by assets values. Demand and connections are the other two main allocators used mostly for transmission costs and business support costs.

Table 6: Cost of supply by allocator

Allocator	Cost of supply allocation
Assets	70%
Connection	15%
Demand	12%
Consumption	3%

5.4 Specific Aspects of the Pricing Methodology and Tariff Design

5.4.1 Low User Fixed Charges

Low-fixed charge definition

A consumer only qualifies for the domestic Low Fixed Charge (LFC) tariff DOMLFC tariff if it satisfies the following:

- It is the consumer's primary and permanent place of residence. Thereby excludes: Holiday homes, shearers' quarters, separately connected outbuildings, premises that constitute any part of premises described in the Residential Tenancies Act 1986.
- No other person permanently residing in these premises is claiming primary domestic residence at another site whether on Firstlight Network's distribution system or elsewhere in New Zealand.

- The connection does not supply electricity for any Non-Domestic, Business, or Commercial activity. Therefore, metering and electricity consumption must be for Domestic reasons only (i.e. mixed end use of electricity reverts to Non-Domestic supply).
- Does not exceed the following current limits:

1 Phase	Up to 62 amps
2 Phase	Up 42 amps per phase
3 Phase	Up to 32 amps per phase

- Annual consumption is less than 8,000kwh per annum.

For the avoidance of doubt, a person cannot have multiple primary places of residence eligible for the Electricity (Low Fixed Charge Option for Domestic Consumers) Regulations 2004.[3]

All consumers wishing to change from a standard to the LFC tariff will be required to make a declaration and provide supporting documentation such as appearing on the local electoral roll.

Application of the low-fixed charge

Since 2004 the low user fixed charge regulations have capped fixed distribution charges to domestic consumers. These charges were fixed at 15 cents (excl. GST) per day and due to an amendment to the regulation in 2021, from April 2022 these charges increase by 15c over a five year period until the regulation is dissolved (see table below). This fixed charge component is less than that determined by the Firstlight Cost of Supply Model described earlier. As such, the remainder of the fixed cost allocated to LFC consumers is necessarily recovered through variable charges. Accordingly, the variable charges for LFC consumers are much higher than the variable charges for standard users. Standard users instead have higher fixed charges and therefore lower variable charges.

Table 7: Low-fixed charge transition

Pricing Year	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
LFC charge	15c	15c	30c	45c	60c	75c	90c	TBC

Lower consumption driving variable rates are also available for those consumers that allow Firstlight to switch their hot water off during peak times of network use. Controlled rates are priced at discount to any other tariff to provide an incentive to allow Firstlight Network control of hot water. This effectively shifts consumption to periods outside of peak network demand.

Electricity delivered to consumers via controlled metering allows Firstlight to switch off load via ripple control to appliances connected to the controlled meter during periods of peak electricity demand. The price reduction is achieved through the reduction in peak period demand which drives transmission interconnection charges.

Transmission costs that have been allocated to domestic consumers are recovered predominantly through variable charges with a small portion recovered through fixed daily charges. Transmission charges have been structured in the same manner as distribution charges.

5.4.2 Time of Use Tariff

Firstlight Network applies Time of Use (TOU) tariffs to all consumers who have a reliably communicating smart meter. These TOU tariffs enable consumer to manage their loads more effectively and take advantage of a cheaper off-peak tariff. From April 2021, the introduced TOU

[3] See Firstlight Network Ltd Tariff definitions, terms and conditions of supply attached to the 2023/24 schedule of prices.

pricing structure enables all residential and commercial consumer groups with communicating smart meters to be on TOU pricing. TOU tariffs introduce higher prices during peak times of the day when the network is more congested, and lower rates during off peak times when there is plenty of capacity in the network. This indicates to consumers that consuming electricity off peak may reduce or delay investments into network assets and shares this benefit with consumers who consume off peak.

Consumers may need to ask for a smart meter to be installed and/or change to a retailer that offers TOU tariff with a direct pass through of network charges.

There is a default (flat/anytime) tariff and peak and off-peak tariffs under all tariff codes (with exception of high capacity commercial tariffs 101-6500kVA:COM0300, COM0500, COM1000, COM4500, COM6500). Default (uncontrolled) tariff will be used when an exemption applies.

Eligibility for the default (uncontrolled tariff) will be applied when:

- Consumers do not have communicating smart meters that record consumption data in 30-minute time periods needed to calculate TOU tariffs;
- ICPs have intermittent or stopped communications;
- Retailers do not have smart meter agreements with meter providers;
- Retailers need validation process and billing system upgrades to process half hour consumption data needed to calculate TOU tariff;

Prices for peak and off-peak tariff were set so that a consumer with standard electricity consumption profile (based on Firstlight network profile) will pay the same as a customer on a flat rate. Whether customer is on a flat rate or TOU rates depends whether they have a smart meter installed (circa 70% ICPs do) and if the retailer can access reliably the HH data. We currently only receive peak and off-peak consumption for 57% of customers with a smart meter. The reason for this is either unavailability of HH data from the smart meter due to connectivity issues or inability of the energy trader/retailer to process HH data. There are several traders that currently have exemptions from the mandatory use of peak/off-peak consumption data due to their system issues.

Based on actual consumption observed on our network, a standard domestic customer uses 33% of electricity during peak periods.

Peak and off-peak period for domestic customers and lower capacity commercial and industrial connections (COM0050, COM0100) are following:

- Peak: 7:00-11:00, 17:00-21:00 (Monday – Friday)
- Off-peak: 11:00-17:00, 21:00-7:00, Weekends

High capacity commercial tariffs (COM0300, COM0500, COM1000, COM4500, COM6500) use more granular TOU pricing, i.e. morning peak, evening peak, off-peak and night:

- Evening Peak: 17:00 - 21:00
- Morning Peak: 07:00 - 12:00
- Off-peak: 12:00 - 17:00 & 21:00 - 23:00
- Night: 23:00 - 07:00

While Firstlight Network has considered demand and capacity based pricing for the mass market, TOU pricing is currently considered to be the best option considering the state and preparedness of

the New Zealand electricity market, while still sending pricing signals based on time periods when capacity in parts of the network is approaching upper limits.

5.4.3 Assessment of variable charges vs. LRMC

Over the long-term, Firstlight Network should be agnostic to consumer behaviour that reduces electricity demand to avoid charges set using variable demand prices where the total revenue from variable charges is equal Firstlight Network's long-run margin cost (LRMC).

In respect of TOU tariffs, the differential between peak and off-peak tariff has been set so that across all consumer groups the incremental charge is $2.7 million p.a.. Domestic customers contribute 67% to this through their peak charges.

We have commenced work on calculating the long-run margin cost (LRMC) for the network. Our preliminary calculation indicates that this is in the order of $300-$350 per kVA per year. This value is higher than observed at other network companies and reflects the cost of the third 110kV subtransmission line to Gisborne proposed in the early 2040's. The value of $300-$350 per kVA per year equates to ~$2.3 million p.a. This value is an indicator of the extent of revenue that should be recovered each year through variable prices.

Firstlight Network has been observing a significant increase in demand over the past couple of years (7% year-on-year) and further investment in peak capacity may be required. The investment in new capacity is the driver behind the LRMC of $300-$350 per kVA or ~$2.3 million p.a. A further test is the annualised cost of supply for a 1MW/$MWh battery is ~$3million p.a. An investment into either an industrial scale battery, a diesel generator or a peaking plant is one of the options to augment capacity.

Due to the constraints on the implementation of TOU tariffs, Firstlight Network has a range of other residual variable tariffs and this increases the total variable revenue recovery will in excess of Firstlight Network's LRMC (refer to Table 7).

Table 7: Variable charge assessment

Revenue analysis	Revenue recovery ($m)	%
Revenue from fixed charge	15.7	53%
Revenue impact from ToU load shift from peak to off-peak	2.7	9%
Revenue from other variable charges	11.5	38%
Total	**29.9**	**100%**

5.4.4 Assessment of uneconomic bypass risk

Uneconomic bypass can occur where the charges from Firstlight Network are high enough to drive consumers to seek alternative options and the alternative option bears costs for the consumer but does not reduce costs of the same magnitude for the network. Uneconomic bypass will occur where the cost to a consumer of the alternative is lower than the reduction in network charges (due to variable tariffs) but higher than Firstlight Network's LRMC. The LRMC is very difficult to quantify and Firstlight Network has prepared an initial assessment based on the forecast additional opex and capex to service the forecast additional demand to 2045.

The decreasing cost of emerging technologies such as solar and batteries is likely to encourage uneconomic bypass by some residential consumers. This is due to high variable charges enforced on

the industry by the Low Fixed Charge regulations. As LFC regulation is phased out over the next four years, variable charges for most Firstlight customers should significantly reduce.

Table 7 (above) indicates that further shift from variable to fixed charging is required to minimise the risk of uneconomic by-pass. Further increases in daily fixed charges are planned as mentioned in Section 5.4.1.

Other risk of uneconomic bypass could come from large customers who could potentially connect directly into the Transmission network, however Firstlight Network views this risk to be highly unlikely as there are currently no consumers (existing or potential) of sufficient scale or close enough to Transmission lines to enable them to connect directly to Transpower's transmission lines. With the transfer of the Transpower assets to Firstlight Network this possibility is now even more remote.

5.4.5 Distributed Generation

Connection charges

Distributed Generation pricing is determined in accordance with distributed generation pricing principles contained in Schedule 6.4 of Part 6 of the Electricity Industry Participation Code 2010.

Distributed Generation connection tariffs are asset value based and comprise a fixed distribution charge only for Matawai Hydro and a mix of fixed and variable distribution charges for Waihi Hydro. Transmission charges are not applied to Distributed Generation that do not export to the transmission grid. This pricing means that the Distributed Generator, (based on generation capacity) is charged only for the distribution assets employed to connect and distribute energy produced. Therefore, in accordance with the distributed generation pricing principles, distributed generators are charged no more than the incremental cost of connection to the network.

Distributed Generation Allowance

In accordance with Part 6 of the Electricity Industry Participation Code Firstlight used to make payments to distributed generators for Avoided Cost of Transmission (ACOT). These payments were based on the generator's contribution to the reduction of transmission charges. The reduction in Transmission charges was calculated as a reduction in interconnection charges. Interconnection charges are calculated on Firstlight's contribution to the 100 peak regional demand periods. As the Transmission pricing methodology for Pricing year 2023-24 moved away from interconnection charges based on RCPD periods to Benefits based model, ACOT payments to distributed generators are no longer applicable as of 1 April 2023.

Payment for Reduction of Losses is not made, as the benefits are realised by the energy retailer and are passed on to end users. In addition, due to the varying load conditions typical in the distribution network, the assessment of the physical losses applicable to a single installation is typically complex, and as such Firstlight does not financially recognise the reduction of losses.

5.4.6 Distribution Loss Factors

Line losses are determined as the metered energy (in kWh) measured by the metering equipment at each ICP multiplied by the appropriate loss factor. This calculates the equivalent energy at the GXP supplying that ICP for the purposes of the reconciliation agreement and the registry. The loss factor (appearing below) into which each ICP falls will be determined by the point within the distribution network voltage at which the metering for that ICP takes place, together with the particular circumstance of supply.

The allocation of losses is not a contracted line function service and Firstlight does not charge specific recoveries for losses.

Loss factors applicable to Firstlight changed from 1 April 2015 as a result of the acquisition of Firstlight transmission spur assets from Transpower. This is because the metering point for Transpower changed from three GXP's to one GXP. Firstlight have picked up the losses that were previously factored in Transmission into its Distribution network.

The undermentioned Loss Factors are applicable to all time periods, at the GXP.

Loss factors applicable to Firstlight Network:

- 400V connected supplies (LV Low Voltage) 1.1007
- 11kV connected supplies (HV High Voltage) 1.0789

Loss adjustment factors are reviewed annually and may be amended by Firstlight from time to time, to ensure that they reflect unaccounted for energy on the distribution network as accurately as possible. These have been updated for the pricing year 2023-24.

5.4.7 Non-Standard Contracts

Firstlight Network has no non-standard contracts with retailers.

6. FY2024 Price Calculation

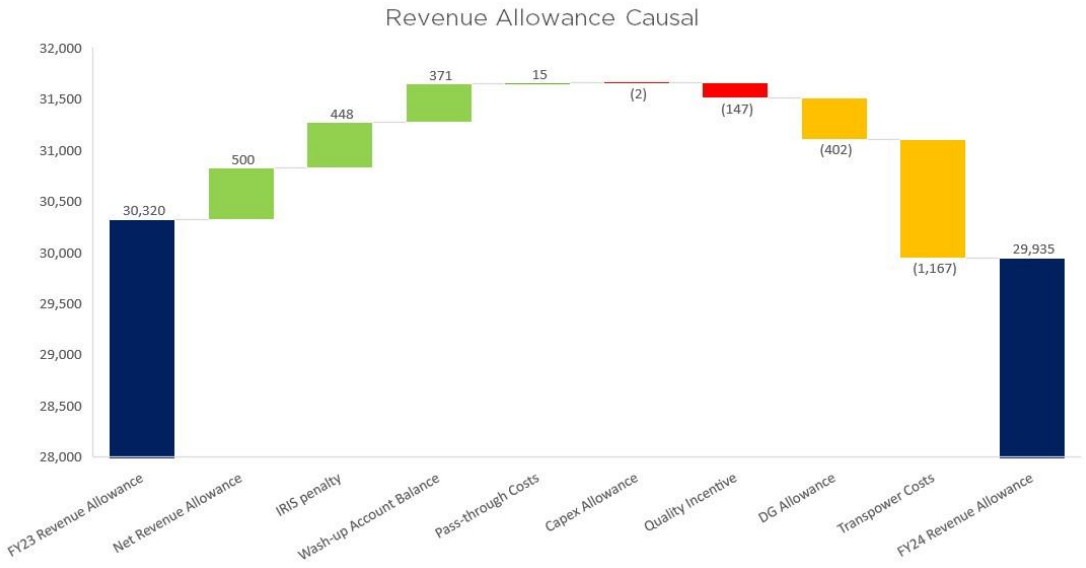
This section sets out how Firstlight has set its FY2024 prices using its pricing methodology.

6.1 Target Revenue

Target Revenue is calculated as a sum of Forecast Net Allowable revenue, Forecast Pass-through Cost, Forecast Recoverable Costs, Prior period wash up and Pass-through balance allowance. The table below shows the components of Revenue Allowance for Firstlight Network for the 2023/24 pricing year. Despite increases in price path allowances for revenue (+2%), decreases in IRIS penalty and lower wash-up balance, Network costs for 2023/24 are forecast to decrease due lower pass-through and recoverable costs which a direct impact of the new Transmission Pricing Methodology (TPM). These changes to pricing components result in the Forecast Allowable Revenue reducing by 1.3% year on year.

Table 1: Revenue Allowance

Revenue Allowance ($000)	FY23 DPP3 P3	FY24 DPP3 P4	Delta %
Forecast Allowable Revenue	30,320	29,935	*-1.3%*
Forecast Net Allowable Revenue	24,993	25,493	*+2.0%*
Forecast Pass-through and Recoverable Costs	5,670	4,414	*-22%*
Pass-through Balance Allowance			
Wash-up adjustment	(344)	28	*-108%*



6.2 Pass through and Recoverable costs

Pass through and recoverable costs are costs that are permitted under the DPP regulations to be passed through directly to consumers.

6.2.1 Pass-through costs

Pass-through costs are defined under clause 3.1.2 of the Electricity Distribution Services Input Methodologies Determination 2012 (Input Methodologies). These are costs that outside the control of Firstlight Network and are associated with the supply of electricity distribution services. These costs include

- rates on system fixed assets payable to a local authority.
    - levies payable
        - under section 53ZE of the Commerce Act 1986.
        - under regulations made under the Electricity Industry Act 2010; and
        - by all members of the Electricity and Gas Complaints Commissioner Scheme.
    - Ministry of Business, Innovation and Employment levies and Electricity & Gas Complaints Commission levies.

Table 2: Pass-through Costs

Pass-through Costs ($000)	FY23 DPP3 P3	FY24 DPP3 P4	Delta %
Forecast Pass-through Costs	416	434	*+4.5%*
Rates on Network Assets	280	280	*+0.2%*
MBIE & EA Levies	136	154	*+13%*

6.2.2 Recoverable costs

Recoverable costs are defined under clause 3.1.3 of the Electricity Distribution Services Input Methodology Determination 2012.

There are a number of costs specified in the Input Methodologies. Those applicable to the prices for Eastland for the 2023/24 year are:

Table 3: Recoverable Costs

Recoverable Costs ($000)	FY23 DPP3 P3	FY24 DPP3 P4	Delta %
Forecast Recoverable Costs	5,255	3,980	*-24.3%*
Transpower Benefits Based and Residual Charge	5,321	4,097	*-23.0%*
Transpower Connection Charge	261	318	*+21.7%*
Transpower New Investment Charge	75	75	-
Distributed Generation Allowances	402		*-100.0%*
FENZ Levies	31	28	*-12.5%*
IRIS	(741)	(293)	*-60%*
Quality Incentive Allowance	(17)	(164)	*+890%*
Capex allowance	(79)	(81)	*+2.9%*

Transpower Charges

Transpower charges for **Firstlight Network** are comprised of five elements: 1- Connection charges, 2- Customer investment contract charges and the Interconnection charge has transitioned under the new TPM to 3- Benefits based charge, 4- Transitional cap and 5- Residual charge.

1. Connection charges

Connection charges are an annual amount based on the connection assets used by Firstlight at the point of connection to the transmission grid. Firstlight's point of connection is the Tuai Grid Exit Point (GXP).

2. Customer investment contract charges

The customer investment contract charges relate to metering assets that were installed as part of the acquisition of assets by Firstlight Network from Transpower on 31 March 2015.

3. Benefits based charge

The benefits-based charge is a charge that is applied to transmission users based on the benefits they receive from using the transmission system. The purpose of the benefits-based charge is to allocate the costs of the transmission system among the users who benefit from its use, in a fair and equitable manner. The benefits-based charge is set based on a formula that considers the capacity and usage of the transmission system by each user, the level of investment required to provide the transmission services, and the benefits that each user receives from using the system.

4. Transitional cap

The transitional cap is a mechanism that is used to limit the amount of the benefits-based charge that a transmission user must pay during a transitional period. The purpose of the transitional cap is to provide a temporary buffer to transmission users as they adjust to changes in the transmission pricing methodology, and to help ensure that the changes are implemented in a smooth and orderly manner.

The transitional cap is set as a percentage of a user's previous transmission charges, and is designed to limit the increase in a user's charges as the new transmission pricing methodology is implemented. The transitional cap is in place for a limited period of time, after which it is removed and the full benefits-based charge is applied.

5. Residual charge

A residual charge is a charge applied to a transmission user to recover the residual costs of the transmission system, which are costs that cannot be recovered through other pricing mechanisms. This charge is used to recover the costs of providing transmission services to customers who are not directly participating in the wholesale electricity market, such as some large industrial customers or residential consumers.

Distributed Generation Allowance

Distributed generation is electricity generation that is connected to a distribution network. A distributed generation allowance is defined in the Electricity Distribution Services Input Methodologies Determination 2012 as

> "any positive allowance for costs incurred and amounts payable, or negative allowance for amounts receivable, in relation to avoided transmission charges arising from distributed generation …"

The regulations set out in the Electricity Distribution Services Default Price-Quality Path Determination 2020, allow a distribution company to recover the costs of avoided transmission from its consumers and/or electricity retailers via line charges.

Any distributed generation allowance made must be paid in accordance with the Pricing Principles in Schedule 6.4 of The Electricity Industry Participation Code 2010. Clause 2 of this schedule states that charges to Distributed Generators are

"… to be based on recovery of reasonable costs incurred by a distributor to connect the distributed generator … and must include consideration of any identifiable avoided or avoidable costs"

Accordingly, where a generator provides an alternative to Transpower's transmission services, the benefit of avoided transmission charges will be passed through to the generator. The value of such benefit used to be based on the assessed impact that these alternatives had on GXP load profiles both in terms of demand and kWhs and were calculated in a similar method to Transpower's transmission pricing methodology.

With the changes to the Transmission Pricing Methodology to a benefits based model, payments to generators are no longer applicable as of 1 April 2023 (see Table 3).

Avoided Connection Costs

A generator that increases the capacity of the distribution network may be recognised as an alternative to a Transpower upgrade of connection assets. There will be a benefit to consumers over the Transpower solution if that capacity can be delivered on a more economically-efficient basis.

The avoided cost of connection charge is the total amount of connection charges that have been avoided due to the presence of Distributed Generation on Firstlight Network's network. Connection charges may be avoided either by:

- Avoiding a new transmission connection asset; or
- Avoiding an existing transmission connection asset.

The amount of avoided connection charge is calculated based on the value of new transmission connection asset projects and/or existing transmission connection assets that have been avoided. The value of new transmission connection projects is converted to an avoided connection charge using Transpower's current pricing methodology for connection assets. The value of existing connection assets that are avoided is calculated based on the most recent connection charge (for the assets avoided) inflated to current costs. Avoided charges payable to the generator are capped so that the generator earns no more than their weighted average cost of capital on invested assets.

No such payments are current made nor included in the distribution revenue.

Fire and Emergency New Zealand Levies (FENZ)

Fire and Emergency New Zealand Levies are a new recoverable cost introduced in the amendments to the Input Methodologies in 2019.

Incremental Rolling Incentive Scheme (IRIS)

The IRIS scheme provides incentives for EDBs to control costs. Where expenditure deviates from the Commerce Commission allowances, penalties or rewards are imposed. For the 5 year period from 1 April 2015, Eastland operating expenditure was above the Commission's allowances, consequently, penalties of $293k have been imposed for the 2023/24 pricing year. This amount has been deducted from allowable revenue calculations for the 2023/24 pricing year. This penalty is $448k lower than in the pricing year 2022/23.

Quality Incentive Allowance

The Quality Incentive Allowance is an incentive scheme that rewards or penalises those electricity distribution businesses that over or under achieve against set quality targets.

During the 2021/22 year, Firstlight's assessed quality results fell within the limits set by the Commerce Commission but exceeded its quality targets due to many adverse weather events during

that year. This means that under the quality incentive scheme allowable revenue is decreased by $164k for the 2023/24 pricing year, which is $147k higher penalty than in the pricing year 2022/23.

6.3 Network Opex, System Operations & Network Support, Business Support, Depreciation and Taxation

The revenue requirement components including, network maintenance, system operations & network support, business support, depreciation and taxation are based on budgeted regulatory costs for FY2024.

6.4 Return on Investment

Network owners are allowed to achieve a return on the value of their investment. Under the regulatory regime the return on investment is recovered through revenue and also through the increase in value of the regulated asset base (i.e. indexation).

The value of the investment is the regulated asset base (RAB) less the value of regulatory deferred tax (RDT).

The rate of return is the weighted average cost of capital (WACC) as determined by the Commerce Commission.

$$ROI_R = (RAB - RDT) \times WACC - Indexation$$

Where:

ROI_R	–	Return on Investment component included in revenue
RAB	–	Regulated Asset Base at the beginning of the pricing year
RDT	–	Regulated Deferred Tax as calculated in accordance with the clause 2.3.7 of the Input Methodology Determination 2012.
WACC	-	Weighted Average Cost of Capital
Indexation	-	The value of the indexation of RAB

The weighted average cost of capital for the 2021 to 2025 pricing years has been determined by the Commerce Commission as 4.23%[4], however, the price path threshold creates a cap on this return and the actual return on investment may vary from this.

6.5 Target revenue vs. cost of supply

Table 8 summarises the difference between the target revenue from FY2024 prices and the cost of supply. Ideally all values should be zero. Positive values indicate that the target revenue is greater than the cost of supply and negative values indicates that the target revenue is below the cost of supply.

[4] 67th percentile estimate of post-tax WACC - Electricity Distribution Services Default Price-Quality Path Determination 2020 [2019] NZCC 21;

The material conclusion is that currently the cost of supply for the domestic low-fixed charge consumer group is not being fully recovered through revenue. This shortfall is being recovered from the standard domestic consumer group.

Table 8: Differences between target revenue and cost of supply

Item	Commercial	Domestic LFC	Domestic Standard	Generators	Other
Transmission	(0.0)	0.0	(0.0)	(0.0)	0.0
Distribution	0.2	(1.2)	1.0	(0.1)	(0.0)
Pass through & recoverable costs	0.0	(0.0)	(0.0)	(0.0)	(0.0)
Total	**0.2**	**(1.2)**	**1.0**	**(0.1)**	**(0.0)**

Note: Values are $ million.

However, Table 9 indicates that the overall alignment of target revenue and cost of supply has improved for commercial and domestic consumers. This improvement reflected the recovery of transmission costs via fixed charge tariffs. There has also been an improvement in the recovery of the cost of supply from standard domestic consumers.

Table 9: Change in target revene vs. cost of supply

Item	Commercial	Domestic LFC	Domestic Standard	Generators	Other
Transmission	1.7	0.6	1.0	(0.0)	0.0
Distribution	(0.9)	(0.0)	0.3	(0.1)	0.0
Pass through & recoverable costs	0.2	0.0	0.1	(0.0)	0.0
Total	**1.1**	**0.6**	**1.4**	**(0.1)**	**0.1**

Note: Values are $ million

The tables above indicate that Firstlight Network does not charge all consumer groups their true cost of supply. This is due to a number of factors including:

- Low Fixed Charge regulations which restrict the level of domestic fixed charges;
- Balancing higher cost per ICP in lower density areas with lower quality of service in these areas;
- The complexity, and potential arbitrary results in determining individual costs of supply;
- The desire to make the tariff schedule administratively simple;
- The desire to manage rate shock.

The planned increases to fixed charges will improve the cost recovery for the domestic low-fixed charge consumer group.

7. FY2024 Pricing Changes

Firstlight Network - Price Changes FY24 vs FY23					
Price Tariff	Consumer Group	Charge Type	FY24	FY23	Delta %
DOMLFC	Domestic Low User	Fixed Daily Charge	0.4500	0.3000	*+50%*
		Consumption Uncontrolled	0.1116	0.1237	*-10%*
		Consumption Controlled	0.0979	0.1050	*-6.8%*
		Peak	0.1588	0.1770	*-10%*
		Off Peak+Night	0.0882	0.0957	*-7.8%*
DOMSTD	Domestic Standard	Fixed Daily Charge	2.0001	2.0000	*+0.0%*
		Consumption Uncontrolled	0.0427	0.0469	*-9.0%*
		Consumption Controlled	0.0229	0.0260	*-12%*
		Peak	0.0708	0.0778	*-9.0%*
		Off Peak+Night	0.0280	0.0309	*-9.4%*
COM0050	Commercial (<50kVA)	Fixed Daily Charge	2.3065	2.3000	*+0.3%*
		Consumption Uncontrolled	0.0346	0.0400	*-14%*
		Consumption Controlled	0.0208	0.0241	*-14%*
		Peak	0.0591	0.0674	*-12%*
		Off Peak+Night	0.0237	0.0270	*-12%*
COM0100	Commercial (50 to 100kVA)	Fixed Daily Charge	8.7471	8.3500	*+4.8%*
		Consumption Uncontrolled	0.0467	0.0524	*-11%*
		Consumption Controlled	0.0308	0.0345	*-11%*
		Peak	0.0829	0.0931	*-11%*
		Off Peak+Night	0.0332	0.0373	*-11%*
COM0300	Commercial (101-300kVA)	Fixed Daily Charge	17.1694	16.0000	*+7.3%*
		Consumption Uncontrolled	0.0411	0.0414	*-0.7%*
		Consumption Evening Peak	0.0376	0.0375	*+0.3%*
		Consumption Morning Peak	0.0351	0.0350	*+0.3%*
		Consumption Off Peak	0.0278	0.0278	-
		Consumption Night	0.0155	0.0154	*+0.6%*
COM0500	Commercial (301-500kVA)	Fixed Daily Charge	40.0264	32.0000	*+25%*
		Consumption Evening Peak	0.0218	0.0375	*-42%*
		Consumption Morning Peak	0.0203	0.0350	*-42%*
		Consumption Off Peak	0.0161	0.0278	*-42%*
		Consumption Night	0.0090	0.0154	*-42%*
COM1000	Commercial (501-1000kVA)	Fixed Daily Charge	78.7439	50.0000	*+57%*
		Consumption Evening Peak	0.0208	0.0375	*-45%*
		Consumption Morning Peak	0.0194	0.0350	*-45%*
		Consumption Off Peak	0.0154	0.0278	*-45%*
		Consumption Night	0.0086	0.0154	*-44%*
COM4500	Commercial (1001-4500kVA)	Fixed Daily Charge	218.6888	140.0000	*+56%*
		Consumption Evening Peak	0.0262	0.0366	*-28%*
		Consumption Morning Peak	0.0245	0.0343	*-29%*
		Consumption Off Peak	0.0196	0.0274	*-28%*
		Consumption Night	0.0108	0.0150	*-28%*
COM6500	Commercial (4501-6500kVA)	Fixed Daily Charge	282.7105	200.0000	*+41%*
		Consumption Evening Peak	0.0326	0.0366	*-11%*
		Consumption Morning Peak	0.0305	0.0343	*-11%*
		Consumption Off Peak	0.0244	0.0274	*-11%*
		Consumption Night	0.0134	0.0150	*-11%*
GEN0500	Generation (301 to 500kVA)	Fixed Daily Charge	20.2076	20.2076	-
GEN1000	Generation (501 to 1000kVA)	Fixed Daily Charge	30.4809	30.4809	-
GEN4500	Generation (1001 to 4500kVA)	Fixed Daily Charge	63.3949	76.6858	*-17%*
GEN6500	Generation (4501 to 6500kVA)	Fixed Daily Charge	110.7198	104.9645	*+5.5%*
	Generation (4501 to 6500kVA)	Consumption Uncontrolled	0.0309	0.0309	-
DUML	Distributed Unmetered	Fixed Daily Charge/fixture	0.0679	0.0608	*+11.7%*
		Consumption Uncontrolled	0.0697	0.0729	*-4.4%*
STLGM	Street lights metered	Fixed Daily Charge/fixture	0.0656	0.0665	*-1.4%*
		Consumption Uncontrolled	0.0820	0.0729	*+12%*
OTH0003	Low Capacity (<3kVA)	Fixed Daily Charge	0.5198	0.4918	*+5.7%*
		Consumption Uncontrolled	0.1063	0.1042	*+2.0%*

7.1 Domestic Customer Price Changes

Domestic – Low user (<8,000kWh)

The government is phasing out low fixed electricity pricing plans across New Zealand, started in April 2022. The change was a key recommendation of a 2019 independent panel review of electricity prices.

The review found low fixed charge regulations were poorly targeted and resulted in a number of unintended consequences, such as shifting costs to households with low incomes and high electricity use.

The change means that the electricity sector can implement fairer pricing plans for distributing electricity, which will ultimately help networks manage the load more efficiently during peak times.

The changes to the regulations resulted in the fixed charge increasing from 30c to 45c. However, due to the reduction in the network forecast allowable revenue and increases in kWh consumption, we could reduce the variable rates and thus reducing the price shock to this consumer group.

DOMLFC	kWh	New	Old	Delta
Low	2,000	$380	$346	*+9.6%*
Average	5,000	$703	$702	*+0.2%*
Max	8,000	$1,026	$1,057	*-2.9%*

An average low user domestic consumer (5,000kWh) will see their network charges go up by +0.2% or $1 per annum. While the average increase for a LFC customer is only +0.2%, the 950 customers that consume around 2000kWh will see charges go up by 9.6% or $34 pa.

TOU pricing (as introduced in April 2021) means that a customer can see a variance to the above average reduction based on when they consume electricity and whether their current retailer passes distribution charges directly through to the customer (most retailers still aggregate their distribution charges).

Prices for peak and off-peak were set so that a consumer with standard electricity consumption profile (based on Firstlight network profile) will pay the same as a customer on an anytime rate. Whether customer is on a flat rate or TOU rates depends whether they have a smart meter installed (circa 70% ICPs do) and if the retailer can access reliably the HH data and supply to us for billing (only about 57% of ICPs with smart meters are being billed based on TOU usage).

A standard customer uses 33% of electricity during peak periods on a weekly basis. A customer can save on network charges (based on standard profile and average consumption) by shifting a discretionary load to off-peak periods during weekdays or to the weekend (depending on their retailer plan).

Conversely, a peaky consumer (i.e. consumer who consumes more electricity during peaks than the average customer) may see a higher increase on their annual bill.

Domestic - Standard users (>8,000kWh)

Prices for higher user domestic tariff or non-residential consumers (e.g. holiday homes) were set in a way to achieve 8,000kWh pivot point, while maintaining cost reflective fixed charge.

Due to increases in kWh consumption of domestic customers and lower need for low user cross-subsidy as a result of LFC regulation changes, prices have decreased for an average high consuming customer (8,600kWh) by -3.1% ($33 per annum). Holiday homes with lower consumption (2,000kWh) will also see a decrease of -1% ($8 per annum) on their distribution charges. Given that

holiday homes consume electricity often during off-peak periods, charges to the retailer will likely be lower than those shown in table below.

Fixed charges are staying mostly unchanged as fixed proportion of charges for standard user domestic customers is now in alignment with our Pricing strategy, i.e. approx. 70% fixed. Variable charges are dropping by circa 10% as there is a reduction of cross subsidisation to the low user customers.

Residential customers with consumption over 8,000kWh will benefit from switching to Domestic standard user tariff (DOMSTD) as they will benefit from lower variable charges. Should consumption exceed 20,000kWh, such consumers would be switched to low capacity commercial tariff (COM0050) to benefit from even lower variable rates.

DOMSTD	kWh	New	Old	Delta
Low	2,000	$804	$812	*-1.0%*
Pivot point	8,000	$1,027	$1,058	*-2.9%*
Average	8,600	$1,050	$1,083	*-3.1%*
Max	20,000	$1,473	$1,551	*-5.0%*

7.2 Commercial Customer Price Changes

Fixed charges increased for all commercial and industrial connections, while variable rate tariffs reduced for all pricing groups. These changes were both an impact of the new Transmission Pricing Methodology (TPM) and a subsequent change of how these costs are allocated to customers. In alignment with how the new TPM calculates charges, the Electricity Authority (EA) recommended to use of fixed charges where possible. Since there was a 26% reduction in Transmission charges to the network customers, Firstlight Network used this opportunity to implement this EA recommendation fully as the price shock is mitigated by the overall revenue recovery reduction.

The updated Cost of Service Model resulted in varied impact to the different commercial and industrial pricing groups. An improved insight into customer group dedicated assets and an analysis into peak demand analysis by major customers helped improve the accuracy of cost allocation and therefore cost reflectivity.

Commercial (<50kVA)

COM0050	kWh	New	Old	Delta
Low	2,000	$903	$911	*-0.8%*
Average	8,300	$1,097	$1,135	*-3.3%*
Pivot point	20,000	$1,457	$1,550	*-6.1%*
High	50,000	$2,379	$2,617	*-9.1%*

The low-capacity commercial tariff COM0050 was introduced in 2021 to make a clear distinction between small businesses and domestic connections in our pricing structure.

COM0050 has 15% higher fixed charge than standard commercial tariff to reflect the higher cost associated with the higher capacity electricity distribution equipment. There has been an immaterial change to the fixed charge and due to the lower need for cross-subsidisation in the favour of low user domestic customers, variable charges are coming down by circa 13%. The new prices result in an average charge reduction of -3.3%. Higher consuming connection will see a higher benefit (-9.1% reduction) of 2023-24 price changes, while low consuming ICPs (2000kWh) will see a lower reduction (-0.8%).

Home businesses that would qualify for domestic tariff (DOMSTD) will benefit from COM0050 tariff once consumption exceeds 20,000kWh.

An average low capacity commercial customer (8,300kWh) will see $38 decrease on their annual distribution charges.

Commercial (50 to 100kVA)

COM0100	kWh	New	Old	Delta
Low	20,000	$4,127	$4,096	*+0.8%*
Average	57,000	$5,855	$6,035	*-3.0%*
High	300,000	$17,203	$18,768	*-8.3%*

Fixed charges for commercial and industrial connections with capacity between 50 and 100kVA will go up by +4.8% while variable charges decrease by -11%. An average connection (57,000kWh) will see $180 decrease on their annual distribution charges. The overall reduction in revenue recovery requirement from this pricing group is a direct impact of the Cost of Supply Model update.

Commercial (101-300kVA)

COM0300	kWh	New	Old	Delta
Low	40,000	$6,858	$6,429	*+6.7%*
Average	200,000	$9,221	$8,787	*+4.9%*
High	600,000	$15,128	$14,681	*+3.0%*

Prices for commercial and industrial connections with capacity between 101 and 300kVA will go up on average +4.9% and an average connection (200,000kWh) will see $434 increase on their annual distribution charges, bringing this pricing group back to 2021-22 level of revenue recovery.

Fixed charges increased +7.3% due to the new TPM, while variable rates remained mostly unchanged.

Commercial (301-500kVA)

COM0500	kWh	New	Old	Delta
Low	40,000	$15,254	$12,789	*+19%*
Average	300,000	$19,440	$19,998	*-2.8%*
High	1,100,000	$32,320	$42,179	*-23%*

Prices for commercial and industrial connections with capacity between 301 and 500kVA will go down on average -2.8% and an average connection (300,000kWh) will see $558 decrease on their annual distribution charges.

Fixed charges increased 25%, while variable rates decrease 42%. As a result of these high tariff movements, customers will low consumption that enjoyed low distribution charges in the past are being brought closer to the average cost of connection in this consumer group.

Commercial (501-1000kVA)

COM1000	kWh	New	Old	Delta
Low	300,000	$33,344	$26,544	*+26%*
Average	1,000,000	$44,084	$45,898	*-4.0%*
High	4,000,000	$90,110	$128,842	*-30%*

Prices for commercial and industrial connections with capacity between 501 and 1000kVA will go down on average -4% and an average connection (1,000,000kWh) will see $1814 decrease on their annual distribution charges.

Fixed charges increased 57% to pass through transmission costs via fixed charges, while variable rates decreased 45%. As with previous pricing category, these high movements in tariff changes have a varying impact on customer based on their energy consumption. These tariffs are resulting in a fairer annual charge, which is closer to the average cost of connection and will correct the historic undercharge of low consuming customers and overcharge of high consuming customers.

Industrial (1001-4500kVA)

COM4500	kWh	New	Old	Delta
Low	2,700,000	$131,828	$123,747	*+6.5%*
Medium	6,000,000	$195,392	$212,537	*-8.1%*
High	14,000,000	$349,487	$427,786	*-18%*

Network charges for industrial customers under tariff category COM4500 tariff will see a varying impact of the 2023-24 pricing. While the lower consuming customer will see their charges go up +6.5%, the highest consuming customer will see a significant saving of -18%. The revenue requirement from these customers has reduced due to an update to our cost of service model.

Fixed charge increased by 56%, while variable rates decreased 28%.

Industrial (4501-6500kVA)

COM6500	kWh	New	Old	Delta
Customer	6,717,534	$267,797	$257,862	*+3.9%*

The commercial customer on COM6500 tariff will see their network charges go up by +3.9% year on year despite the fixed charge increase of 41% thanks to variable charges reducing by 11%.

Generation (4501 to 6500kVA) – Waihi

GEN	kWh	New	Old	Delta
Matawai		23,139	27,990	*-17%*
Waihi	100,008	43,503	41,402	*+5.1%*

The distribution charges for hydro scheme Waihi in increasing by +5.1% and Matawai Hydro reducing by -17% due to changes to the cost allocation methodology.

Metered Streetlights, Unmetered Load and Other

DUML	kWh	New	Old	Delta
Total	1,556,388	235,669	227,350	*+3.7%*
STLGM	**kWh**	**New**	**Old**	**Delta**
Total	28,356	8,120	7,941	*+2.2%*
OTH0003	**kWh**	**New**	**Old**	**Delta**
Average	3,000	$509	$492	*+3.4%*

Special purpose tariffs will see small increases between 2.2-3.7%.

Appendix 1 - Pricing Principles

Information Disclosures require Firstlight Network to demonstrate consistency with the pricing principles published by the former Electricity Commission in 2010, adopted by the Electricity Authority, and updated in 2019.

Principle 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.

As Electricity distribution networks make very long-term decisions regarding investment in assets a prudent planning margin is built into assets installed to enable additional small increments to be gradually added until such time as new investment in infrastructure is required.

> "The planning margin is necessary given the very long lead-time to increase supply capacity in respect of 110kV Substations and 110kV transmission lines. Having headroom in the capacity is considered to be of particular importance in the Gisborne region given the unpredictability in growth associated with wood harvesting and related industrial activity[5]."

Consequently, short-term incremental costs are minor or nil.

Where long-term incremental costs are incurred these costs are included in prices over the life of the assets. As there is little growth in the Eastland region, this is considered appropriate. Where there are areas of significant growth and corresponding constraints on the network, those requiring additional capacity are typically required to provide some capital contribution for the additional investment incurred. These additional investments are quite localised and therefore easily attributable to customer requests. As pricing for these localised areas are not easily separated from general pricing, capital contributions are appropriate. The value of these contributions will assist the customer to determine whether an alternative supply is a more beneficial solution for them and reduces the chance of cross-subsidies.

The standalone price is the cost of a consumer obtaining electricity from an alternative source. However, as distribution costs are only approximately 43%[6] of the total cost of a power bill in the Eastland region, the cost of energy and retail margins will also influence the customer's decision.

Currently Firstlight's pricing is heavily influenced by regulation and in particular the pricing structure has been developed to comply with the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 whereby fixed charges are limited to 45c per day for pricing year

[5] *Extract from Firstlight Network Limited Asset Management Plan*

[6] *Quarterly residential sales-based electricity cost – March 2019; Ministry of Business, Innovation & Employment*

2023-24. Consequently, the remainder of the domestic revenue required is received through variable (c/kWh) pricing. While historically, this variable pricing has had the effect of allowing customers to reduce their power bills through energy efficiency initiatives, new opportunities to reduce usage are being achieved through the instalment of small-scale generation such as solar panels on rooftops. This is becoming more prevalent as the price of solar and batteries reduce. However, the cost of these alternatives has not yet reduced to the point where standalone is more economic than connection to the network. However, the high variable charge for domestic connections encourages inefficient investment in these types of technologies. Until such time that household scale electricity storage is cost effective, reliance on network delivered energy will still be required during seasonal & peak times.

Eastland Network's tariff structure divides customers according to capacity thereby signalling the economic cost of service provision based on capacity.

Firstlight Network introduced from 1 April 2021 Time of Use (TOU) for all consumers with communicating smart meter in addition discounted controlled load tariffs for residential consumers. These tariffs allow the customer or the network to reduce load during peak periods and consequently the consumer is rewarded with cheaper rates during off peak times.

Principle 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.

This principle is based on Ramsey pricing where prices are inversely adjusted according to their elasticity of demand. That is, prices are higher for those customers who are less likely to change demand as a result of price changes.

The difficulty of applying this principle in practise is that a) it works to the detriment of socially deprived domestic consumers as their demand is generally the least elastic; and b) obtaining reliable price elasticity information regarding various groups of customers is extremely difficult.

An alternative to this is to measure elasticity over time intervals rather than by customer groups[7]. It would be expected that peak periods during the cold winter evenings would be the least elastic and consequently prices during peak periods could be set to recover any shortfall in revenues from efficient incremental cost pricing.

Firstlight has implemented Time of Use (TOU) pricing to all residential customers alongside larger commercial customers from 1 April 2021 as a step to managing peak loads on the network. Firstlight recognise that there are no capacity constrains in many areas of the network, however overall the network has been observing a significant increase in demand over the past couple of years (7% year on year) and will lose N-1 security during peaks over the few years if this trend continues. An investment into either an industrial scale battery, a diesel generator or a peaking plant will be a necessary step and we prepare for further electrification of transport, heating and industrial heat.

Principle 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

[7] Regulation of the Power Sector, Springer-Verlag London 2013, Edited by Ignacio J Perez-Arriaga

ii. enable price/quality trade-offs.

Firstlight Network is willing, if the situation warrants, to discuss alternative arrangements with customers whose connections are remote and costly to maintain. Firstlight does provide some flexibility with regard to capital contributions for new connections to counter uneconomic bypass. This enables Firstlight and their customers to negotiate price-quality trade-offs. Firstlight Network is currently working on moving some remote customers outside the main network to a microgrid.

There are no current or future planned industrial operations of sufficient scale and close enough to a GXP to connect directly to the Transmission grid. Large-scale off-grid alternatives are also not currently an economic alternative to connection to the distribution network.

Firstlight Network owns multiple diesel generator to secure power supply to remote locations on its network during maintenance and network faults. These generators provide security of supply at a significantly lower cost than building additional overhead lines.

Firstlight Network also requires installation of load control relays for all new connections to enable demand response on its network which is implemented regularly during daily peak periods. Where the relays are owned by Firstlight Network, the cost to maintain and replace the relays are also borne by Firstlight Network thereby ensuring load control is available as a tool for demand response.

Principle D

Development of prices should be transparent and have regard to transaction costs, consumer impacts, and uptake incentives.

Development of prices is disclosed in this document which is publicly available. Tariff categories have been updated twice over the past few of years (2020 and 2021), but impact on consumers remained of significant importance as Firstlight Network prepares for electrification transport and industrial processes. Firstlight is consistently reviewing its pricing strategy to address progression towards net zero carbon economy. This strategy and change process will involve considerable engagement with end consumers, retailers, regulators and other key stakeholders.

Electricity distribution prices in the Firstlight Network region are applicable to both the Wairoa and Gisborne networks and are the same across all retailers. This allows for simplicity across both regions and provides a level playing field for all retailers within the Eastland region.

Appendix 2 – Consumer Group Target Revenue

Firstlight Network - Revenue by Tariff category

Price Category	Consumer Group	ICPs/ fixutures*	Consumption kWh	Forecast revenue $
DOMLFC	Low User Fixed Charge	12,191	63,688,633	**8,919**
DOMSTD	Standard Domestic	8,336	71,936,753	**8,835**
COM0050	Capacity (0 to 50kVA)	4,665	41,050,611	**5,312**
COM0100	Capacity (101 to 300kVA)	445	21,131,645	**2,400**
COM0300	TOU - Demand (201-300kVA)	118	20,245,305	**1,434**
COM0500	TOU - Demand (301-500kVA)	25	8,948,500	**504**
COM1000	TOU - Demand (501-1000kVA)	24	31,143,597	**1,168**
COM4500	TOU - Demand (1001-4500kVA)	3	25,711,983	**735**
COM6500	TOU - Demand (4501-6500kVA)	1	6,717,534	**268**
GEN4500	Assessed Capacity (1001 to 4500kVA)	1	-	**23**
GEN6500	Assessed Capacity (4501 to 6500kVA)	1	100,008	**44**
DUML	Distributed Unmetered	174 (5132*)	1,556,388	**236**
STLGM	Street lights metered	32 (242*)	28,356	**8**
OTH0003	Low Capacity (0 to 3kVA)	81	257,568	**43**
	ICPs	**26,095**	**292,516,881**	**29,928**
	Fixtures*	**5,374**		

* Fixtures are only applicable to DUML and STLGM tariffs and relate to street lights, decorative lights, pay&display machines and CCTV camers

Appendix 3 - Pricing Schedule

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Firstlight Network Schedule of Charges - Effective 1 April 2023

Price Tariff	Tariff Code	Consumer Group	Charge Type	Distribution Charge	Transmission Charge	Total Charge
DOMLFC	DOMLFCF	Low fixed charge domestic customers <8,000kWh	Fixed	0.1844	0.2656	**0.4500**
	DOMLFCU		Uncontrolled	0.1116	0.0000	**0.1116**
	DOMLFCC		Controlled	0.0979	0.0000	**0.0979**
	DOMLFCP	12191 ICPs	Peak	0.1588	0.0000	**0.1588**
	DOMLFCO		Off Peak+Night	0.0882	0.0000	**0.0882**
DOMSTD	DOMSTDF	Standard domestic customers >8,000kWh	Fixed	1.6370	0.3631	**2.0001**
	DOMSTDU		Uncontrolled	0.0427	0.0000	**0.0427**
	DOMSTDC		Controlled	0.0229	0.0000	**0.0229**
	DOMSTDP	8336 ICPs	Peak	0.0708	0.0000	**0.0708**
	DOMSTDO		Off Peak+Night	0.0280	0.0000	**0.0280**
COM0050	COM0050F	Commerical customers <50kVA + Domestic >20,000kWh	Fixed	1.9662	0.3403	**2.3065**
	COM0050U		Uncontrolled	0.0346	0.0000	**0.0346**
	COM0050C		Controlled	0.0208	0.0000	**0.0208**
	COM0050P		Peak	0.0591	0.0000	**0.0591**
	COM0050O		Off Peak+Night	0.0237	0.0000	**0.0237**
COM0100	COM0100F	Commerical customers <100kVA	Fixed	5.9541	2.7930	**8.7471**
	COM0100U		Uncontrolled	0.0467	0.0000	**0.0467**
	COM0100C		Controlled	0.0308	0.0000	**0.0308**
	COM0100P	445 ICPs	Peak	0.0829	0.0000	**0.0829**
	COM0100O		Off Peak+Night	0.0332	0.0000	**0.0332**
COM0300	COM0300F	Commerical customers <300kVA	Fixed	6.3638	10.8056	**17.1694**
	COM0300U		Uncontrolled	0.0411	0.0000	**0.0411**
	COM0300EP		Evening Peak	0.0376	0.0000	**0.0376**
	COM0300MP	118 ICPs	Morning Peak	0.0351	0.0000	**0.0351**
	COM0300OP		Off Peak	0.0278	0.0000	**0.0278**
	COM0300N		Night	0.0155	0.0000	**0.0155**
COM0500	COM0500F	Commerical customers <500kVA	Fixed	22.3379	17.6885	**40.0264**
	COM0500EP		Evening Peak	0.0218	0.0000	**0.0218**
	COM0500MP		Morning Peak	0.0203	0.0000	**0.0203**
	COM0500OP	25 ICPs	Off Peak	0.0161	0.0000	**0.0161**
	COM0500N		Night	0.0090	0.0000	**0.0090**
COM1000	COM1000F	Commerical customers <1000kVA	Fixed	37.6059	41.1380	**78.7439**
	COM1000EP		Evening Peak	0.0208	0.0000	**0.0208**
	COM1000MP		Morning Peak	0.0194	0.0000	**0.0194**
	COM1000OP	24 ICPs	Off Peak	0.0154	0.0000	**0.0154**
	COM1000N		Night	0.0086	0.0000	**0.0086**
COM4500	COM4500F	Commerical customers <4500kVA	Fixed	129.8528	88.8360	**218.6888**
	COM4500EP		Evening Peak	0.0262	0.0000	**0.0262**
	COM4500MP		Morning Peak	0.0245	0.0000	**0.0245**
	COM4500OP	3 ICPs	Off Peak	0.0196	0.0000	**0.0196**
	COM4500N		Night	0.0108	0.0000	**0.0108**
COM6500	COM6500F	Commerical customers <6500kVA	Fixed	157.9124	124.7981	**282.7105**
	COM6500EP		Evening Peak	0.0326	0.0000	**0.0326**
	COM6500MP		Morning Peak	0.0305	0.0000	**0.0305**
	COM6500OP	1 ICP	Off Peak	0.0244	0.0000	**0.0244**
	COM6500N		Night	0.0134	0.0000	**0.0134**
GEN0500	GEN0500F	Generation <500kVA	Fixed	20.2076	0.0000	**20.2076**
GEN1000	GEN1000F	Generation <1000kVA	Fixed	30.4809	0.0000	**30.4809**
GEN4500	GEN4500F	Generation <4500kVA 1 ICP	Fixed	63.3949	0.0000	**63.3949**
GEN6500	GEN6500F	Generation <6500kVA	Fixed	110.7198	0.0000	**110.7198**
	GEN6500U	1 ICP	Uncontrolled	0.0309	0.0000	**0.0309**
OTH0003	OTH0003F	Low Capacity <3kVA	Fixed	0.3959	0.1239	**0.5198**
	OTH0003U	81 ICP	Uncontrolled	0.1063	0.0000	**0.1063**
DG		Distributed Generation	Fixed	0.0000	0.0000	**0.0000**
DUML	DUMLF	Distributed Unmetered Load	Fixed (per fixture	0.0463	0.0216	**0.0679**
	DUMLU	5132 fixtures	Uncontrolled	0.0697	0.0000	**0.0697**
STLGM	STLGMF	Street lights metered	Fixed (per fixture	0.0502	0.0154	**0.0656**
	STLGMU	242 fixtures	Uncontrolled	0.0820	0.0000	**0.0820**

Firstlight network

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Appendix 4 - Glossary

AMP	Asset Management Plan
Avoided Cost of Transmission (ACOT)	A reduction in the transmission costs payable by distributors to Transpower (usually in the context of embedded generation).
Code	Electricity Industry Participation Code 2010 and subsequent amendments.
Commission	Commerce Commission
Consumer	A person or an entity whose electricity installation is connected to the electricity network.
Controlled	An option where consumers elect to have part of their electricity supply subject to interruption at Firstlight's discretion. The most common example is control of electrically heated hot water.
COSM	Cost of Supply Model
Demand	Electricity load, measured in either kW or kVA, usually averaged over a half-hour period.
Distributed Generation	Generating plant that is electrically connected to a distribution network.
Distribution Business (EDB)	An entity other than Transpower which owns an electricity network other than an embedded network. Often denoted as an Electricity
Domestic	Any person who purchases or uses electricity in respect of their home. Home means the premises used or intended for occupation principally as a place of residence.
DPP Regulations	Electricity Distribution Services Default Price-Quality Path Determination 2015.
EA	Electricity Authority
EGCC	Electricity & Gas Complaints Commission
FENZ	Fire and Emergency New Zealand
GXP	Grid Exit Point. The point at which Eastland Network connects to the National Grid.
Half-hour metered	An ICP with metering that records electricity consumption in half-hour intervals.

ICP	Installation Control Point. An individual connection to an electricity distribution network
IRIS	Incremental Rolling Incentive Scheme
Input Methodology	Electricity Distribution Services Input Methodologies Determination 2012.
kVA	Kilovolt-amp. Measure of total apparent power.
kW	Kilowatt. Measure of true power.
kWh	Kilowatt-hour. Rate of energy flow.
LFC Regulations	Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.
MBIE	Ministry of Business, Innovation and Employment
Power factor	kW/kVA
Principal Place of Residence	In the context of clause 3 of the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.
PV	Photovoiltaics
RCPD	Regional Coincident Peak Demand. Customer off-take at the Tuai Grid Exit Point (GXP) during a regional peak demand period
Residential Consumer	A consumer at a residential ICP which satisfies the definition of "domestic premises" in Section 5 of the Electricity Industry Act 2010
The Code	Electricity Industry Participation Code 2010.
TOU	Time of Use

Firstlight network™

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Appendix 5: Directors' Certification

Schedule 17: Certification for Pricing Methodology Disclosures

Clause 2.9.1

We, Jon Nichols. and Matanuku Mahuika , being Directors of Firstlight Network Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

a) The following attached information of Firstlight Network Limited prepared for the purposes of clauses 2.4.1 to 2.4.5 of the Electricity Distribution Information Disclosure Determination 2012 in all material respects complies with that determination.

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

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Director 24 Feb, 2023 1:50:02 PM GMT+13

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Director 24 Feb, 2023 2:27:58 PM GMT+13

Firstlight network

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