wellington electricity™

DPP3 reopener application – Weta FX

February 2024

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1 Introduction

Wellington Electricity Lines Limited (**WELL**) is seeking to reopen its DPP to provide for an unforeseen major capex project – specifically, a customer request for additional capacity.

Weta FX are a world-leading creator of digital media and are responsible for movies such as Avatar. The number of movies they produce grows in line with their success and having recently won a seventh Academy Award they are experiencing rapid growth for CGI services which requires a load increase at their studio in Miramar to supply larger capacity servers.

To maintain their production schedules, they require a 1.5MW increase in their load by May 2024. The Miramar network which hosts Weta FX's studios cannot meet this additional capacity without reinforcement of the supporting high-voltage (11kV) network.

This application is made under Subpart 5, Clause 4.5.5A Unforeseeable major capex project, of the Electricity Distribution Services Input Methodologies Determination 2012. The application is for $2.2m of additional capex (net of contributions) to be added to WELL's capex allowance in the regulatory year ending 31 March 2025. The overall project is forecast to cost $2.6m. Applying WELL's Customer Capital Contribution Policy, Weta would fund $0.4m as an upfront contribution.

WELL was not aware of this project when it provided the 2020 AMP forecast that the DPP3 capex allowance calculation was based on. The formal request for the additional capacity was made in March 2023, after the Academy Awards which led to new film projects. An early exploratory request was made in 2022 about whether extra capacity was available if new film requests did go ahead. The high-level modelling indicated the network would have the capacity. However, the modelling assumed a standard 1.5 MW connection with 60% load diversity. The detailed modelling made with the formal request in 2023 included a load study which highlighted that the new load would need to be available over peak demand periods which means network investment would be required.

Miramar is a high growth area in Wellington and the additional high-voltage capacity will also benefit other Miramar customers. Over the last year since the release of the Government's May 2022 Emission Reduction Plan (ERP), WELL has modelled the likely impact of decarbonisation-related growth and significant new capacity is also required in Miramar for the electrification of private transport and the likely transition from residential use gas to electricity.

This application will demonstrate that the investment meets the unforeseeable major capex project criteria. The following documents have been provided to support this application.

Figure 1 lists the supporting documents for this application.

Figure 1 – supporting documents

Document	Purpose	Location
Customer letter	Supporting the investment and confirming agreement to pay capital contribution	Appendix A of this application
Commercial terms and conditions	A copy of the commercial offer to Weta	Appendix B of this application
Customer Contribution Policy	Provide financial workings	Appendix C of this application

1.1 Project timetable

Figure 2 provides the high-level project timetable. The new capacity must be in place before May 2024 to meet film schedules. WELL is having to deliver the connection in parallel to the application to meet the customer timeframes. While the project will not be Commissioned by the expected application decision date, construction will be close to complete.

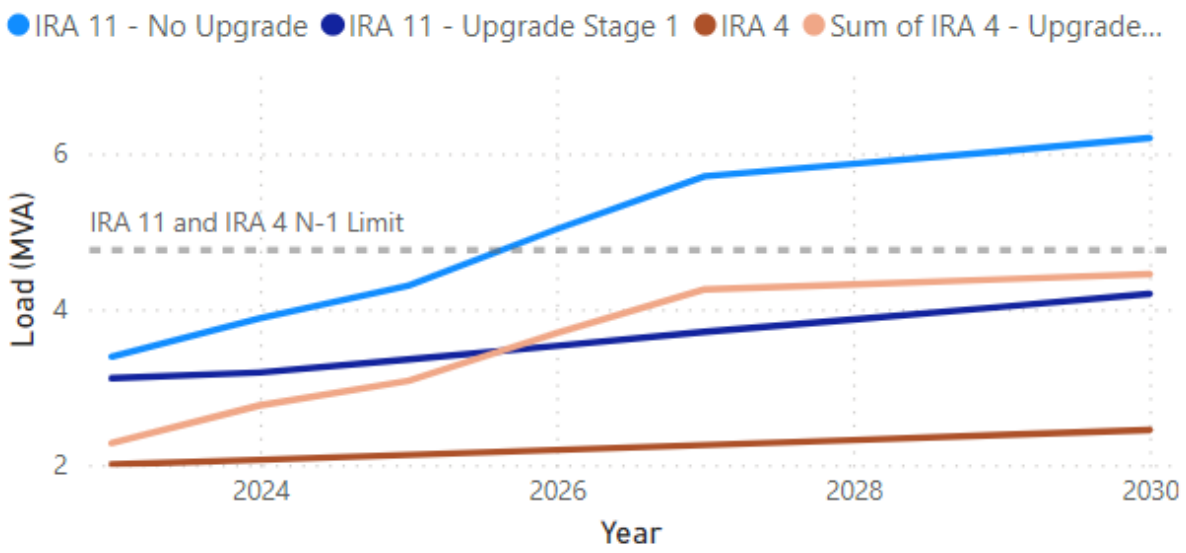
Figure 2 – project timetable

Project step	Delivery date
Detailed design	Completed
Contractors appointed	Nov 2023
Reopener application submitted to the Commerce Commission	Feb 2024
High-voltage network reinforcement works start	Jan 2024
Connection works start	Feb 2024
Reopener approved and DPP3 reopened (TBC)	TBA
Construction finishes and asset commissioned	May 2024

2 Background of new connection requirements

Weta FX has requested 1.5MW of additional capacity. The Miramar network does not have the capacity for this increase and reinforcement of the wider 11kV high-voltage network is required. This will allow Weta's new load to be redistributed across two feeders (IRA 2 and IRA 4), while maintaining network security. Figure 3 shows the current load forecast for the IRA 2 feeder which Weta is connected to (the Blue line). We will not be able to maintain N-1 security with the current network configuration. The Figure also shows the demand forecast after the wider reinforcement which will allow part of the future load to be distributed to the IRA 4 feeder and will allow WELL to provide Weta with their additional demand.

Figure 3 – Demand on the IRA 2 feeder that Weta is connected to



2.1 Future growth

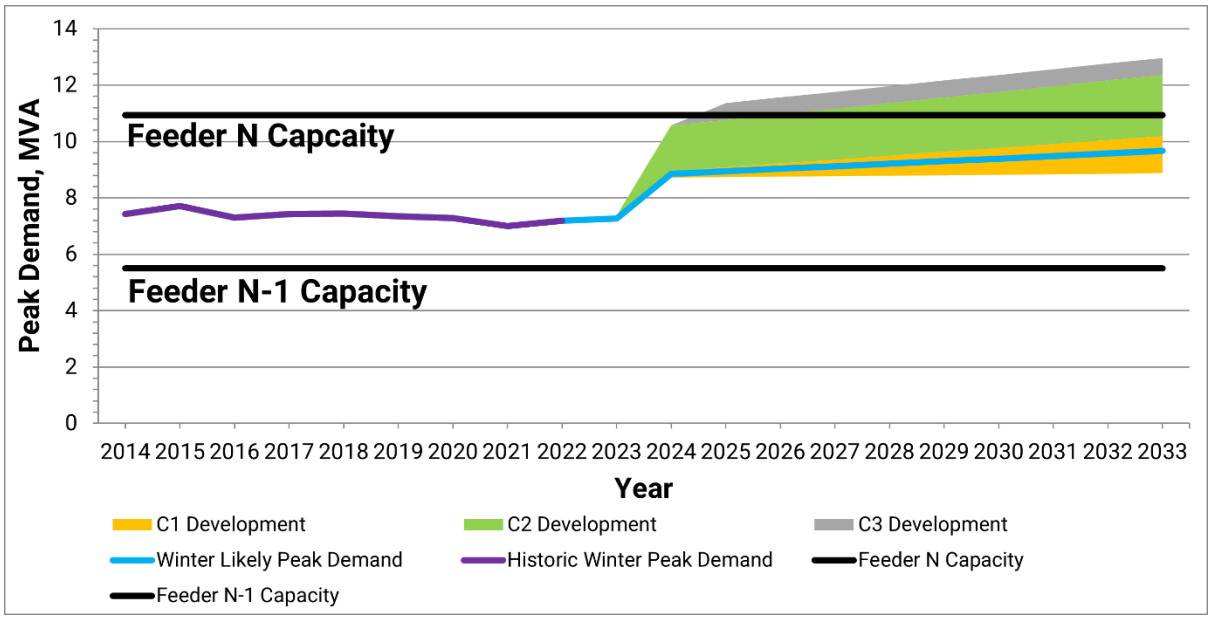
We are also forecasting significant growth from existing connections in Miramar. The requirement for wider reinforcement of the Miramar network was not known in 2020. Section 3.2 provides the capex projects from the 2020 AMP to demonstrate that these upgrades were not included in the DPPP3 allowances. The growth is mainly decarbonisation-related and was confirmed by the Government with the release of the ERP in May 2022. In addition to the ERP, the local council has recently indicated it will also require new capacity for the Moa Point Wastewater plant. It was not reasonable to have known about these future growth requirements and the need to reinforcement the Miramar network in 2020 before the release of the government's emissions reduction plans.

Growth expected from within the Ira Street zone substation catchment includes:

- Airport decarbonisation – the airport is electrifying its gas boilers and is planning connections for electric planes which are expected to start operations in the late 2020's.
- Moa Point wastewater treatment plants sludge minimisation project (the current council consent to dump sludge will no longer be renewed).
- Electric vehicle (EV) uptake is expected to be high in the affluent Miramar suburb.
- Residential gas electrification is expected to be faster than average in affluent suburbs like Miramar.

Figure 4 provides the load growth forecast for the 11kV feeders (IRA 2 and 4) supplying Weta and the surrounding area. The orange forecast includes known, certain growth and the green forecast includes likely growth (growth that hasn't been finalised but is highly likely). Currently, we can operate above the N-1 limit because the load can be redistributed to other feeders. However, the new large Weta load will mean the wider network will not have the capacity to re-distribute load to maintain N-1 security.

Figure 4 – Load forecast for the 11kV feeder suppling Weta



Note, while the new capacity is needed immediately for the Weta FX connection, wider growth in Miramar isn't needed until DPP4. The Weta network reinforcement will be used as part of the future network solution to meet the wider future Miramar demand growth. Future reinforcement includes reinforcement of the 33kV subtransmission network and is included in the 2023 AMP. Figure 5 provides the 2023 33kV load forecast for Miramar (from the 8 Ira Street Zone Substation) and shows that new capacity is needed in 2026 (the mesh network will be able to redistribute excess demand to the 11kV network up until then). The 2023 AMP includes a $4m to upgrade the 33kV gas cables and $10m to upgrade the surrounding 11kV cables, to provide Miramar with the capacity needed.

Figure 5 - 8 Ira Street 2023 Demand Forecast

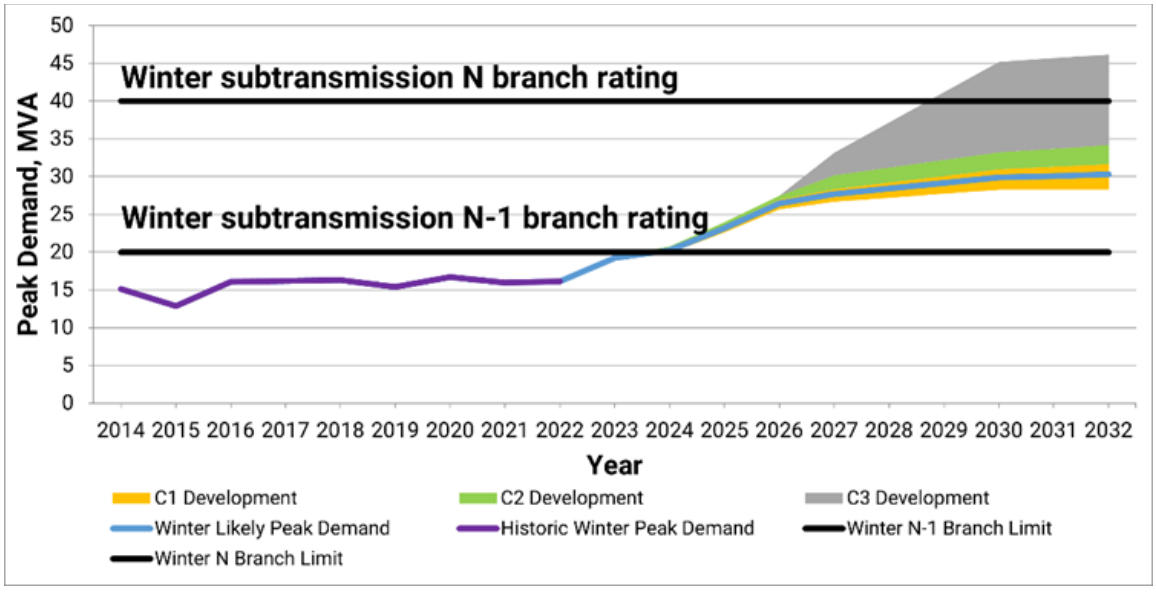
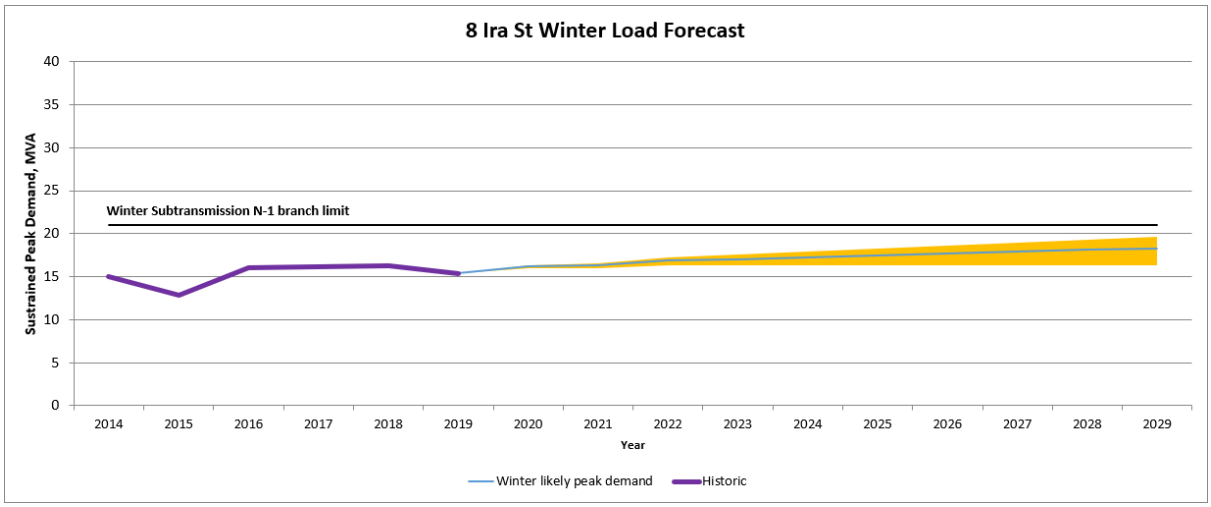


Figure 6 shows the same 33kV load forecast for Miramar (from the 8 Ira Street Zone Substation) from the 2020 AMP which the DPP3 allowances were calculated from. In 2020 we were not expecting new demand to exceed the N-1 limits.

Figure 6 - 8 Ira Street 2020 Demand Forecast



2.2 Staged capacity upgrade

A staged approach to provide new capacity to Miramar customers is planned, reflecting:

1. The 6-month time frame before Weta FX needs its new capacity is too short to build enough capacity to meet all future requirements.
2. Other Miramar customers will not need their new capacity before the next regulatory period - there isn't an urgent need to reinforce the wider area.
3. There are no significant long-term efficiencies from building the future (non-Weta FX) capacity now. The high costs of retrenching the 11kV cable needed for the additional Weta FX capacity can be avoided by installing ducts with the new 11kV cable that can be used to install larger cables in the future when they are needed, without the need to retrench. Note, the ducts are included in the component of the project funded by network tariffs and will be funded by wider users who will benefit from the future capacity it enables.

The current Weta FX load comes from a ring between Ira Street and Evans Bay zone substation. The feeder providing supply is at capacity. The proposed solution provides additional capacity using another 11kV connection from the Ira zone substation. This is a less expensive option than upgrading the existing connection to the Evan Bay substation.

The 11kV reinforcement will require approximately 3,000m of underground 11kV cables, switch gear at the zone substation at 8 Ira St and two 1MVA transformers and switch gear on the Weta FX site.

The project has been separated into two stages, with stage one providing enough new capacity for Weta FX and installing spare conduits that can be used during the later stage two to provide future capacity. Stage 2 provides new capacity for future growth.

This application is for funding for Stage 1. Stage 2 has been included in the AMP and in the DPP4 work programme.

Stage 1 of the 11kV reinforcement will provide the additional 1.5MVA for Weta FX's immediate needs and will provide the additional capacity to meet future growth in Miramar (once cables are installed in the ducts in stage 2). While the exact additional capacity won't be known until stage 2 is designed, it will provide the 10MW needed to meet future growth requirement.

The Stages are:

Stage 1: Cables and spare conduits from the substation at 52 Ira St, and temporary/permanent Transformer and switchgear at Weta's premises

Stage 2: Cable from 52 Ira St to 8 Ira zone substation, new switchgear at 8 Ira. Permanent switchgear and Transformers at Weta's premises. This second stage reinforces the Stage 1 works, providing further capacity to the wider Miramar area.

2.3 Network line drawings

Figure 7 provides a network line drawing for the current connection. Supply to the site is via a ring between 8 IRA zone substation and Evans Bay zone substation. Operationally supply is from one zone sub only however Evans Bay does not have capacity to supply all the load so Wexford st is usually feed from 8 Ira.

Figure 7 - Current supply to Weta at 127 Wexford St

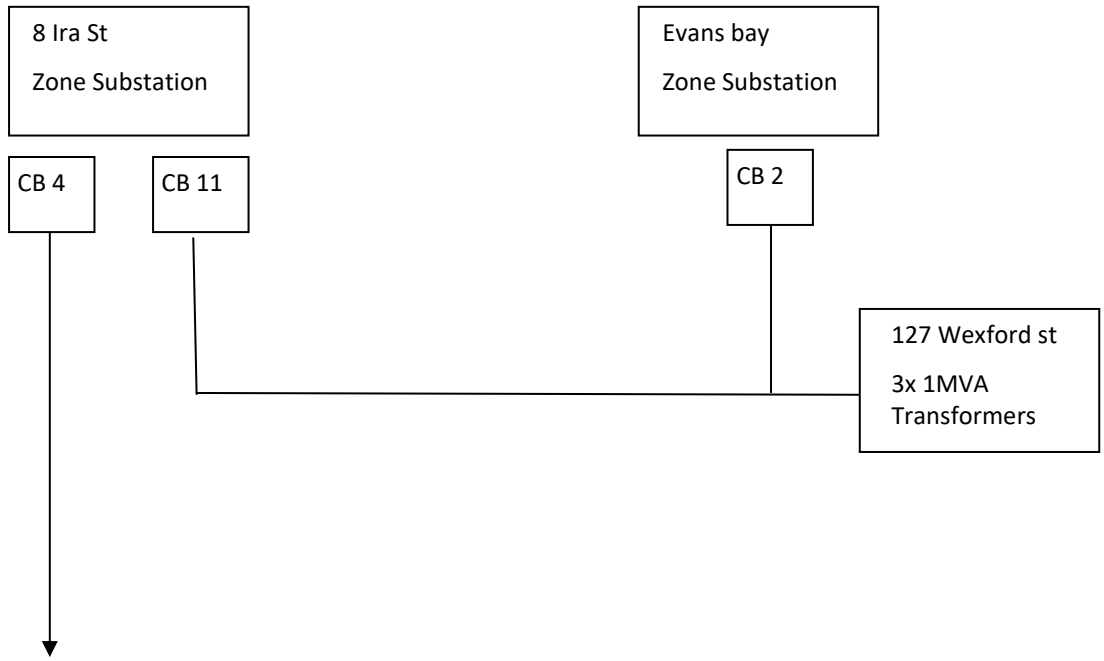


Figure 8 illustrates Stage 1. The current CB11/CB2 ring as at capacity and cannot provide the additional 1.5 MW connection for Weta FX. A new 11kV connection will be provided from Ira St to two 1 MVA transformers onsite at Weta FX. The new 11kV connection will include cables for Weta FXs requested load and ducts that will be used during Stage 2 to install larger cables for future growth in Miramar.

Figure 8 – Stage 1 development, providing Weta's new load

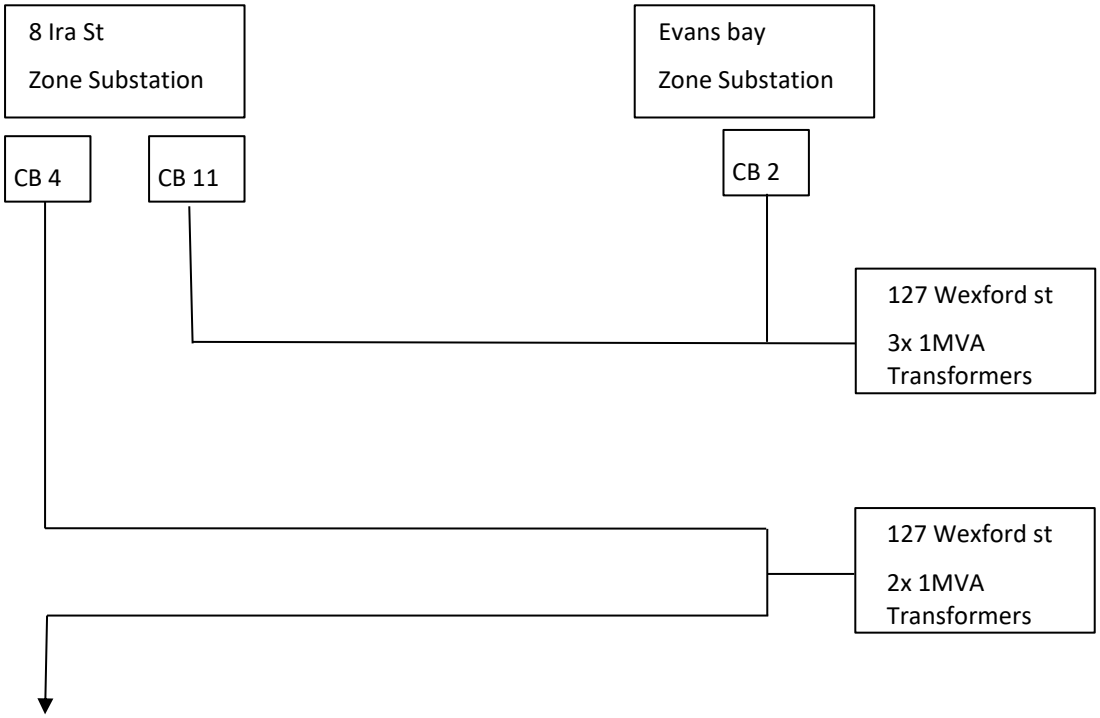


Figure 9 illustrates stage 2 which reinforces the Stage 1 networks, installing larger cables in the Stage 1 ducts and adding switchgear at the Ira Street zone substation that is needed to provide new capacity to the wider Miramar area.

Figure 9 – Stage 2, providing new capacity for future growth in Miramar

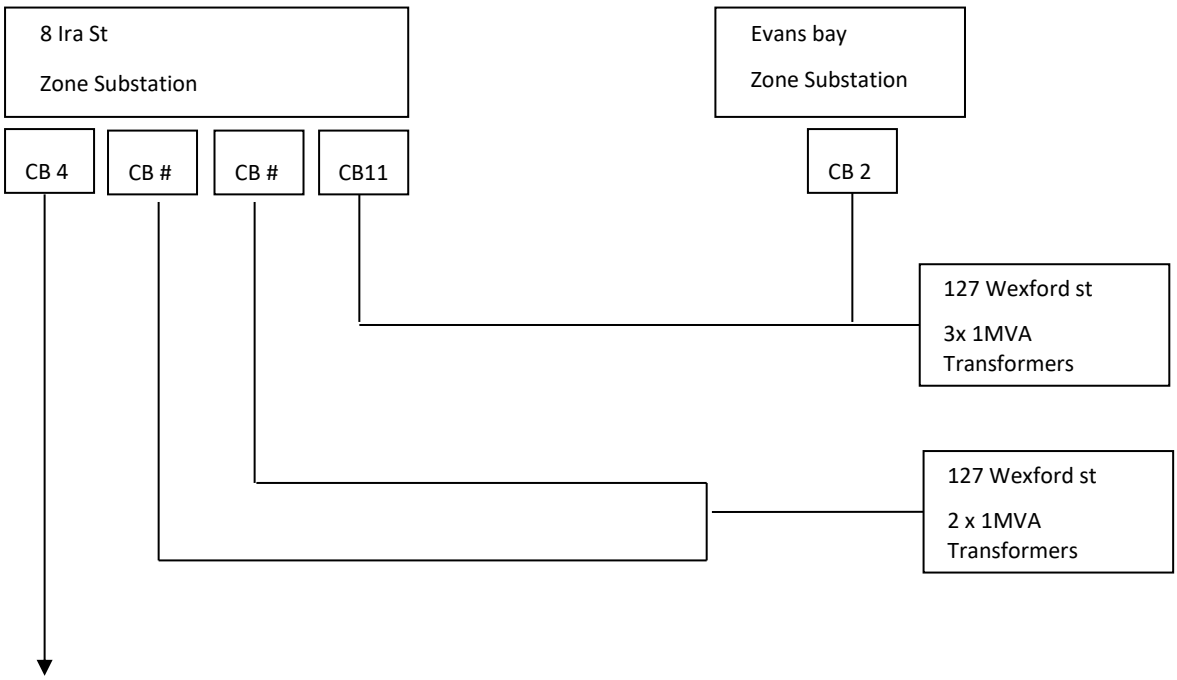
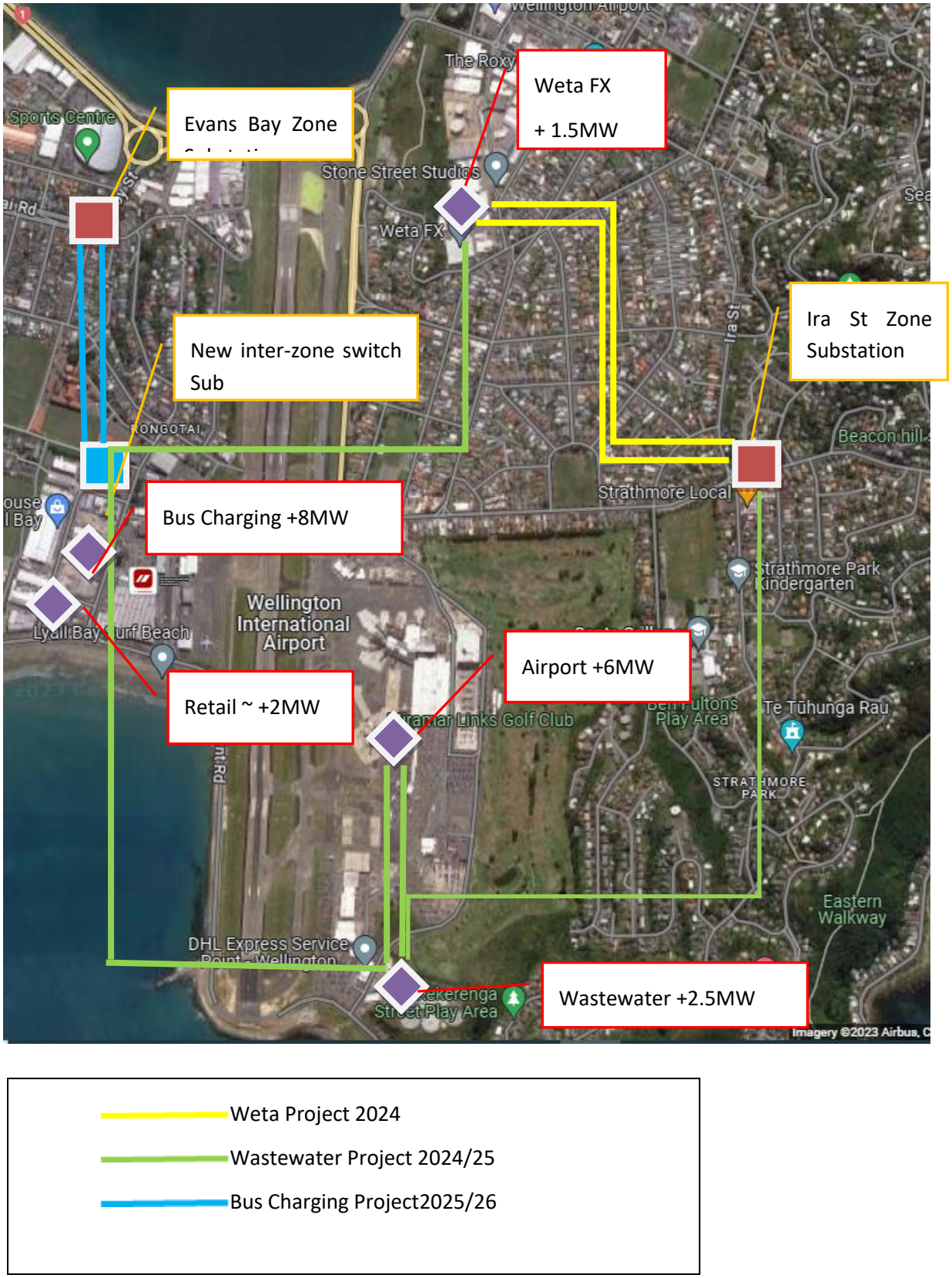


Figure 10 provides a high-level schematic of the new asset configuration planned on the Miramar peninsula. This reflects the completion of stage 1 and 2.

Figure 10 – future network configuration on the Miramar Peninsula



2.4 Other solutions considered

A number of other solutions were considered. Figure 10 summarises the options considered and the reasons why they were not selected.

Figure 10 – other options considered

Option	Why it wasn't selected	Estimated cost ($m)[1]
The selected option – separate the build in to two stages, the first stage providing the capacity for Weta FX's immediate needs.	This is the selected option – added for comparison	$2.6m
Run a new feeder from Ira Street Zone Substation (essentially implement stage 1 and 2 together).	• Could not complete the project within Weta FX's timeframes. • The new capacity that the full solution provides is not needed until the next regulatory period. Customers would pay earlier than what is needed.	$7.4m
Run cables to Wayside West and cut into existing Evans Bay feeder (provide initial load from the next best alternative route).	• Capacity available but would no longer be available for other known projects in the area. This solution would only allow for the initial stage of the project. Later stages would require significant investment.	$3.3m
Expanding the capacity from the existing feeder to the Weta FX site from Evans Bay Zone Substation.	Capacity not available – the whole feeder is at maximum capacity and couldn't be sensibly increased without a significantly more expensive upgrade.	$4.5m

3 Reopener criteria

Figure 11 demonstrates that the relevant unforeseeable major capex project criteria have been met.

Figure 11– Assessment of the unforeseeable major capex project criteria

Criteria	Assessment	Supporting evidence
Input Methodology clause 4.5.5A Unforeseeable major capex		
(a-d) primary driver	(d) a combination of connection capex and system growth capex. Other customers on the Miramar peninsula will benefit from the additional capacity the system growth capex will provide.	See technical project description provided in section 2 and section 4 provides the

[1] Application cost (before contributions)

Criteria	Assessment	Supporting evidence
		connection/growth cost components.
(e) DPP3 capex forecast did not include this project	The 2020 AMP growth forecast, used to calculate DPP3 capex allowances, reflected growth projects known at the time the forecast was developed. Reinforcement of this area of Miramar was not included in the AMP forecast. While this part of the network did not have head room for large new connections, no new demand was forecast that would need new capacity in the DPP3 period. Section 3.2 lists the 2020 AMP growth projects that were included in this section of the network. Reinforcement of the wider Miramar areas (stage 2 of the build) is provided in the 2023 AMP and will be included in the DPP4 work programme. The Customer letter provided in Appendix A provides that the request for more capacity was made March 2023, after the 2020 AMP is submitted.	See section 3.2 for a list of growth projects in Miramar included in the 2020 AMP
(f) Reasonable not to have included it	The additional customer load is a result of the success of the movie Avatar in 2022 and the decision to commence filming the sequels. The additional load requirements were not known in 2020 when the capex budget used to calculate DPP3 allowances were set. It was also reasonable to have not included growth capex in the 2020 AMP. The ERP which confirms that governments plans to decarbonisation was released in 2022, after the 2020 AMP. The request for more capacity for the Moa Point wastewater plant was not formally made until 2023. This new capacity will be provided in the DPP4 programme by stage 2 (see section 2).	See Appendix A for the customer letter
(g) Sufficient for circumstances and in accordance with contribution policy	Consistent with Customer Capital Contribution Policy which calculates a customer capital contribution as the difference between the incremental revenue provided by a new connection, less incremental cost of the new connection, less a contribution towards the shared network costs. This ensures the Customer Capital Contribution Policy principle – that existing customers should be made no worse off by the new connection – is met. Also consistent with the contribution policy, the wider network reinforcement will be funded by network tariffs. The impact on tariffs is provided in section 6. The Miramar network is constrained (it does not have the capacity to add the additional load) and the new high voltage capacity will benefit existing customers in Miramar in the future, to meet new demand from Electric Vehicles and the transition away from gas. In addition, there are other large new load forecasts on this part of the network that will also help fund the additional high voltage capacity – this includes the airport upgrade and the Moa point waste treatment plant.	See section 5 See Appendix C for WELL's contribution Policy

Criteria	Assessment	Supporting evidence
(h) Material value	The $2.1m project cost (net of contributions) exceeds the $2m reopener minimum	See section 4
(i) Customer confirmation	A letter from the connecting customer, Weta, has been provided in Appendix A. The letter confirms they are committed to the project by providing that: They agree to fund the project cost and contribute towards the shared costs by paying an upfront capital contribution and then on-going network tariffs. They agree to the key commercial terms provided in the offer to connect provided in Appendix B.	See Appendix A for the customer letter and Appendix B for the commercial terms provided in the offer to connect.
(j-l) Prudent investment	The investment is prudent because: (1) the solution selected provides the best long-term benefits to consumers by staging the investment so that capacity is provided only when its needed (customers aren't paying earlier than needed). The solution is also the least expensive option. Section 2.1 provides alternative options considered, and why the proposed solution was selected. (2) The cost for the selected solution reflects market rates. An initial request for expressions of interest provided that only two contractors had both the competencies to do the work and were available to complete the work in the desired timeframe. We used a direct engagement model with third party price verification to agree the prices. Section 4.1 provide the methodology used to determine the project cost reflects market prices.	Section 2.4 provides alternative options considered, and why the proposed solution was selected. Section 4.1 provide the methodology to determine the project cost reflects market prices
(m) Apportionment of future revenues	WELL's customer contribution policy means that $0.4m of the $2.6m project cost is funded by an upfront customer contribution and $2.1m is funded by network tariffs of which Weta FX will contribute $93k p.a. in network tariffs (assuming 2023 prices). Section 5 provides the methodology to apportion the costs between customer contribution and tariff revenue. WELL's cost allocation and tariff structures sets customer tariffs based on the level of services used - those who are driving new demand (and the need for new capacity) will pay more and large users of electricity will also pay more. See WELL's Pricing Methodology which can be found on our webnsite at https://www.welectricity.co.nz/disclosures/pricing/2023-pricing/. The 1.5MW connection means that the GTX1501 network tariff will apply to Weta FX. As highlighted in section 5, it is estimated that, in addition to the $0.4m capital contribution, Weta will contribute $93k p.a. towards:	Section 5.1 provides the allocation of costs between contributions and network tariffs. Section 5.2 calculates the upfront contribution and estimates future tariff revenue from the new connections. Section 6 estimates the impact the connection will have on network tariffs.

Criteria	Assessment	Supporting evidence
	• ~ 30% of the connection costs (the average proportion of all connections costs included in the RAB) • A share of the ongoing costs to operate the network, including contributing towards network reinforcement/growth. Section 6 estimates the overall network price impact this connection and the wider high voltage growth will have on network tariffs.	
Input Methodology clause 4.5.6 When price-quality paths may be reconsidered		
(4) Reopener applications must not exceed $30m is a disclosure year	WELL has combined three applications to streamline the consultation and reopening process. These are WELL's first applications and they total ~14m, less than the annual $30m threshold.	n/a
(5) (a) – show that customer contributions have not been included in allowance calculation	The requested increase in allowances is net of customer contributions. The total project value is $2.5m, customer contribution is $0.4m and the requested increase in allowances is $2.1m.	Section 5 provides the capital contribution calculation
(5) (b) – show that any amount relating to the project already included in the DPP allowances is not included	The project was not included in the 2020 capex forecast that the DPP3 allowance calculation was based on.	Section 3.2
Input Methodology clause 4.5.7 Amending price-quality path after reconsideration		
(3) – only includes costs that reflect an efficient cost	The project cost reflects an efficient cost because the: • design and equipment requirements are provided by an experienced external designer • design has been reviewed by WELL's Engineering Planning team. • Equipment has been ordered using standard equipment prices inline with other new connections. • Contractor prices have been reviewed by a third party, confirming they reflect a market price.	Section 4.1 provides the methodology used to ensure the cost reflects an efficient cost.

3.1 Other criteria

The recent Input Methodology Review Reopener workshop suggested other criteria, not included or are not explicit in the current IMs. We thought the additional criteria would be useful for the Commission assessment. Figure 12 provides the workshop criteria not already covered by the IMs and our assessment against those criteria.

Figure 12 – Assessment against the

Criteria	Assessment	Supporting evidence
Justifiable urgency	The new capacity is needed to meet Weta's forward work programme. The customer letter provided in Appendix A confirms the new capacity is needed for the Avatar sequels. The planned movie release dates means that they cannot wait until DPP4 allowances are awarded in 2025.	See Appendix A
A demonstration by the applicant of any consumer consultation	Relying on the Commissions consultation phase.	See Appendix A
Whether an EDB has considered reprioritisation of its DPP/CPP expenditure allowance	The large value of the new connection means that other projects cannot be sensibly reprioritised. The $2.1m project value (net of contributions) is equivalent to 20% of the annual growth allowance. Also note, there are a number of other unforeseen, projects that relate to the energy transition that WELL is also having to fit within its programme. Other unforeseen programmes include: 1.) [still to add]	n/a
The extent to which there could be 'fast-track' amendments	n/a	n/a

3.2 Confirmation the project not included in DPP3 allowance

Figure 13 summarises the 2020 AMP constraint assessment of Wellington southern network. The assessment did not identify any 11kV assets as being constrained. Note, the growth forecast used to forecast when constraints would become binding uses known customer projects and historic growth (which has been modest in Wellington). We did not know about the large WETA load in 2020 and this wasn't included in the volume forecast. Also note, that we did identify the wider 33kV would become constraint in 2026. The 33kV network has enough capacity for the Weta load but will need reinforcement in DPP4 (this forms part of the stage 2 works).

Figure 13 – 2020 AMP high voltage capacity assessment

Zone Substation	Season	Subtransmission N-1 branch rating (MVA)	Constraining Branch Component[2]	Sustained Peak Demand (MVA)		Date Constraints are Binding	ICP Counts as at 2019
				2019	2029		
Existing constraints							
Frederick Street	Winter	23.2	33kV cable	27.4	31.0	Existing	7,275
	Summer	19.5	33kV cable	21.5	24.0		

[2] Subtransmission branch consists of incoming 33kV circuits, the 33/11kV transformer and the 11 kV incomer circuit breakers

Zone Substation	Season	Subtransmission N-1 branch rating (MVA)	Constraining Branch Component[2]	Sustained Peak Demand (MVA)		Date Constraints are Binding	ICP Counts as at 2019
				2019	2029		
Palm Grove	Winter	24	33/11kV transformer	24.2	26.0	Existing	10,432
	Summer	24	33/11kV transformer	17.5	18.5		
Forecasted constraints							
The Terrace	Winter	30	33/11kV transformer	27.1	31.0	2021	1,621
	Summer	30	33/11kV transformer	29.2	32.1		
Karori	Winter	21	33kV cable	14.7	18.0	2022	6,052
	Summer	11	33kV cable	10.2	13.8		
8 Ira Street	Winter	21	33kV cable	15.4	18.0	2026	4,906
	Summer	15	33kV cable	12.2	16.1		
Nairn Street	Winter	22	11kV incomer cables	21.0	25.0	2021	6,852
	Summer	22	11kV incomer cables	16.6	24.7		
Not Constrained							
Evans Bay	Winter	19	33kV cable	13.9	16.0	Not constrained	4,880
	Summer	15	33kV cable	10.4	13.1		
Hataitai	Winter	22	33kV cable	14.7	18.0	Not constrained	6,817
	Summer	13	33kV cable	10.9	12.9		
Moore Street	Winter	30	33/11kV transformer	18.8	24.0	Not constrained	679
	Summer	30	33/11kV transformer	21.2	28.1		
University	Winter	25	33kV cable	17.7	19.0	Not constrained	6,286
	Summer	20	33kV cable	15.2	17.7		
Waikowhai Street	Winter	21	33kV cable	14.1	14.0	Not constrained	5,714
	Summer	13	33kV cable	9.3	11.2		

Figure 14 provides the growth capex provided in the 2020 AMP for the southern network. Consistent with the constraint assessment provided in figure 10, there is no 11kV growth capex for Miramar.

Figure 14 – 2020 AMP southern network growth capex

Issue ID	Category	Constraint	Preferred Option	Investment Period	Investment Amount (M)
A1I1	SUBT	FRE 33kV subtransmission capacity	Two new 33 kV FRE cables 1000mm^2 AL CPK - FRE	2020-2022	$7.5

Issue ID	Category	Constraint	Preferred Option	Investment Period	Investment Amount (M)
A1I2	DIST	FRE 13/14 ring feeder capacity	Reuse old 33 kV cable at 11 kV and install new CB at ZS and Bidwill St to create a new feeder	2027	$0.6
A1I3	SUBT	TER 33/11 kV transformer capacity	Permanently transfer some load away (Transfer load to UNI, FRE (after 33 kV cable upgrade, KAI)	2022	$0
A1I3	SUBT	TER 33/11 kV transformer capacity	Build Bond Street ZS	2028-2032	$33
A1I4	SUBT	TER 33 kV subtransmission capacity	Same as A1I3	2022	$0
A1I5	DIST	KAI 6/7/9/10 ring feeder capacity	Work with the customer to build dedicated feeders from NGA – Site	2023	$0.8
A1I6	DIST	KAR 3/6 ring feeder capacity	Break KAR 8/10 feeder ring and use KAR10 cable for a third feeder into the KAR3/6 ring with feeder swap	2021	$0.3
A1I7	SUBT	FRE 11 kV bus rating	Maintain bus arrangement, monitor and limit current flow	2021	$0.2
A1I8	SUBT	KAR 33 kV subtransmission capacity	Transfer load to UNI through UNI8/10 follow UNI8/10 reconfiguration plan	2022	$0
A1I9	DIST	UNI 8/10 ring feeder	Transfer load to WKW 6 and MOO11 and rebalance to KAI 12/13/15/16	2022	$0
A1I10	DIST	UNI 12 feeder	Investigate the spare UNI3 cable that terminates to the same sub	2022	$0
A2I1	SUBT	EVA 1 33 kV cable condition	EVA 33 kV Bus	2020-2022	$4.5
A2I2	DIST	EVA 2/4 ring feeder capacity	Transfer some load to IRA01 - Open Clamperdown CB04 and close Napier Street S0055-1. Also transfer load to IRA11.	2020	$0
A2I2	DIST	EVA 2/4 ring feeder capacity	Add a three bay panel at bus section CB at Clamperdown switchboard	2023	$0.4
A2I3	SUBT	PAL 33/11 kV transformer capacity	Upgrade PAL transformer capacity - replace existing with 36 MVA units	2023-2025	$4.5
A2I3	SUBT	HAT 33 kV cable capacity	Transfer load between PAL and HAT through a new tie point at hospital, work with hospital on expansion plan	2025	$0.6
A2I4	DIST	PAL 8/10/12 ring feeder capacity	New feeder tie between PAL11 (109 Quebec St) and PAL08 (PE at 84 Frobisher Street)	2026	$1.4

Issue ID	Category	Constraint	Preferred Option	Investment Period	Investment Amount (M)
A2I5	SUBT	NAI 11 kV incomer capacity	Increase incomer capacity by running two additional 630 mm^2 Cu cables (to make 4x per phase)	2021	$0.3
A2I6	DIST	NAI 11/13 ring feeder capacity	NAI13/14: Transfer load to adjacent feeders UNI11 - Open CB 1 at St Johns and close UNI CB11	2020	$0
A2I7	SUBT	HAT 33 kV subtransmission capacity	Identify and remove pinch points.	2024	$0.6
A2I8	SUBT	IRA 33 kV subtransmission capacity	Use IRA – EVA ties to manage peak demand during contingency. Monitor load growth in the next five years.	2026	$0

4 Project cost

Figure 15 provides a summary of the project cost for the connection assets and the wider 11kV growth works.

Figure 15– project cost

	Weta FX connection	11kV reinforcement	Total cost
Weta FX site (2 x 1 MVA transformers + switchgear)	$364,500		$364,500
Pre-construction (including design)	$0	$98,000	$98,000
Cable installation works		$314,000	$314,000
4 Ira st protection		$4,000	$4,000
8 Ira st protection		$65,000	$65,000
Duct installation works	$148,528	$1,163,922	$1,312,450
PM costs	$47,481	$156,591	$204,072
Contingency	$51,303	$157,992	$209,295
	$641,624	$1,972,023	$2,613,647

Methodology to determine that the project cost reflects market prices

The short time frames and contractor availability did not allow for a full market tender. To ensure the price reflects a market price, WELL has ordered the equipment directly using standard network equipment rates (standard network equipment WELL regularly purchases) and the contractor installation prices have been reviewed independently. The process used to ensure a market price is:

1. Equipment (the latest component being the 2x 1MVA transformers) purchased directly using standard equipment types. The equipment is frequently purchased and the price is well known.
2. Civil works (trenching being the largest cost component of the project) has been procured by seeking two contractor prices (only two contractors were available within the project timeframes). The job was split between contractors matching the parts of the works that best suited their capability and priced provided.
3. The contractor prices and construction methodology were externally reviewed (James Ogilvie – independent consultant), confirming they were aligned with market prices.

5 Customer capital contribution calculation

WELL's customer contribution policy provides the methodology used to decide:

1. what proportion of the project costs are included in the customer contribution calculation.
2. What proportion of the costs included in the capital contribution calculation will be paid upfront as a capital contribution, and how much will be funded from tariff revenue over time.

5.1 Application of the policy

As per WELL's Contribution Policy, the majority of the cost of a new customer connecting to the network is funded by an upfront customer capital contribution. These costs are for assets that only the connecting customer benefits from.

WELL funds the on-going operation of the distribution network including asset replacement and maintenance from tariff revenue. WELL also funds most network growth from tariff revenue, reflecting:

- The majority of future network demand growth is expected from existing connections. Specifically, new demand from the electrification of fossil fueled activities including light transportation and the transition away from gas. Most parts of the Wellington network will need to be reinforced to deliver New Zealand decarbonation plans and the majority of customers will benefit. The most efficient way to recover network growth costs is therefore from network tariffs.
- WELL is cognisant of keeping the cost of connecting affordable so as not to constrain network growth and the benefits of being able to spread network costs over a larger customer base.

WELL's Customer Capital Contribution Policy does apply network growth costs to the contribution calculation if a customer is the primary beneficiary of the investment and it isn't equitable to recover the growth capex from network tariffs. An example of when this would apply is if a new connection was on a new spur connecting a single customer or a small group of customers. In this example, the growth capex will support the wider Miramar community and its more appropriate to recover the cost from tariff revenue. $0.6m of the project cost (the connection asset) will be included in the customer contribution capital calculation. The $2.0m growth capex will be recovered from tariffs.

5.2 Connection cost calculation

WELL calculates customer capital contributions so that, on average, a customer will fund 70% of the connection cost up front, the remaining 30% being funded by tariffs. This reflects a balance between a customer funding the costs that they drive and keeping connection costs affordable. Affordable connection costs benefit all network customers as it encourages more customers to join the network which spreads the network operating costs over a larger customer base.

WELL has consistently applied a 70/30 split of connection costs to reduce the likelihood of a connecting customer cross-subsidising other customers (and visa versa) over time. i.e. intergenerational cross-subsidisation is limited because everybody has paid the same relative amount to connect. If a customer pays more upfront and then also pays a standard network tariff, then they will be subsidising existing customers who have paid less upfront when they connected and are paying the same tariffs.

The Policy provides that the capital contribution will be calculated the '*C. Complex pricing band*' methodology because the connection is equal to or over 1.5 MVA. The capital contribution policy calculates a customer capital contribution as[3]:

Customer capital contribution = NPV [Incremental cost of connecting plus Contribution towards shared costs less Incremental revenue]

A spreadsheet providing the NPV calculation is provided in support of this application. The NPV calculation provides that Weta should contribute an upfront capital contribution of $422k of the $642k connection cost. A contribution of 66% of the connection cost is inline with WELL's target of customers contributing 70% of the connection costs. Figures 16 provides the key assumptions used in the NPV calculation.

Figure 16 – inputs into the NPV calculation

Component	Input	Explanation
Study length	44 years	Aligns with the average asset life
Discount rate	4.57%	Aligns with the current regulatory WACC
Inflation	2%	Aligns with average long term monetary policy and the approximate implicit inflation assumed WACC
Revenue	$93k p.a.	GTX1501 tariff which applied to dedicated transformers over 1.5 MW. Only the distribution component of the tariff is applied, reflecting that Transmission and Passthrough costs are excluded from the cost inputs.
Incremental maintenance	$9k p.a.	Set at 1% of asset value which is based on the ratio of WELL's maintenance costs to asset value.

[3] The general approach to calculating a capital contribution is provided at the bottom of page 10 and the specific calculation for large connections is provided on page 14, "*C. Complex pricing band*"

Component	Input	Explanation
Shared network costs	$78k p.a.	Shared costs calculated as a proportion of the total annual cost to operate the distribution network. The total cost is adjusted to reflect the cost to supply dedicated transformer connections (i.e. the service doesn't use the low voltage network). Costs are allocated using energy used. 70% of the shared cost is allocated reflecting WELL's target of customers contributing 70% of the connection costs.
Tax expense	28%	Based on the corporate tax rate. Straight line depreciation is used to calculate the depreciation expense.

6 Impact on future network tariffs

This project will increase tariff revenue by approximately $90k or 0.1% (measured as the increase in revenue that is recovered from customers by network tariffs).

This has been calculated using the Commission's Financial model for Wellington Electricity CPP to DPP transition. The increase in revenue is calculated by adding the project $2.2m value to the 2023/24 Commissioned assets and measuring the change in BBAR before tax for the 2024/25 regulatory year. The percentage change is calculated as the revenue change ($93k) as a proportion of Forecast Net Allowable Revenue provided by WELL's Price Setting Compliance Statement (which is $146m).

7 Commercial terms and conditions

The signed agreement provide in Appendix C provides the capital contribution, on-going tariff and the payment terms and conditions reflected in this offer and that Weta has agreed to.

8 Next steps and closing

Thank you for taking the time to consider this reopener application. Please don't hesitate to ask any questions you might have [redacted]

9 Appendix A: Customer letter

wētāFX

6th November

Wellington Electricity Lines Ltd
85 The Esplanade
Petone, Wellington
New Zealand

Attn: Kevin Small

New Demand Request – Wētā FX

To whom it may concern,

Wētā FX is committed to the construction of a new distribution connection to the Wellington Electricity network that will provide 1.5MW of additional capacity to the site at 127 Wexford Road, Miramar, New Zealand.

Wētā FX agrees to contribute $422,000 ex GST towards building the new connection and will pay the ongoing network costs.

Sincerely,

[redacted]

Kathy Gruzas
Chief Information Officer
Wētā FX
kgruzas@wetafx.co.nz

127 WEXFORD ROAD, MIRAMAR, WELLINGTON 6022, NEW ZEALAND [redacted] WWW.WETAFX.CO.NZ

Appendix C: Customer Capital Contribution Policy

Customer Contribution Policy

October 2023

Pursuant to:

Electricity Distribution Information Disclosure Determination 2012 (Clause 2.4.6)

1. Table of Contents

2. Glossary

Abbreviation/Term	Definition or description
Allowances	The amount, set by the Commerce Commission, that a EDB is allowed to collect from customers. This is the amount an EDB has to run its Distribution network.
Commissioned Assets	New assets that are installed and ready for use in the Wellington Distribution network. The value of the new assets are added to the RAB on commissioning.
Commerce Commission	New Zealand Commerce Commission (NZCC)
Connecting Customer	A person, residential or business that wishes to connect to the distribution network
Consumer or customer	A person, residential or business, that uses electricity or acquires electricity lines services
Customer capital contributions	A customer contribution towards the capital cost of designing and installing the new connection assets or any new assets needed to adjust their existing services
Default Distribution Agreement (DDA)	The default commercial and operational contractual terms between EDBs and electricity retailers for the provision of electricity distribution services.
Demand	Electricity use at a point in time
Direct Agreement	A contract directly with a customer that provides additional operating or commercial terms or responsibilities to those provided by we*s Network Connection Standards or Default Distribution Agreement with Retailers,
Distribution Network	A distribution network is the network of equipment that carries electricity from the high voltage transmission grid to industrial, commercial and domestic users

Distribution pricing practice note	The 2021 distribution pricing practice note 2nd edition 2021 provides guidelines to help distributors interpret and apply the distribution pricing principles. This can be found on the Electricity Authority's website.
DPP	The Commerce Commission sets a price-quality path for each regulated lines company - a price path is the maximum total revenue a lines company can recover from its consumers and the quality path is the minimum level of quality of service that it must provide. A default price path (DPP) is a low cost, standard method of calculating the price-quality path for lines company's not on a CPP
DPP Determination 2020	we*'s current price-quality path, Decision No [2020] NZCC 25, Electricity Distribution Services Default Price-Quality Path (Wellington Electricity transition) Amendments Determination 2020
EDB	An Electricity Distribution Business is an entity that owns and operates an electricity distribution network to provide electricity distribution services
Electricity Authority	The Electricity Authority. The Electricity Authority is an independent Crown entity responsible for the efficient operation of the New Zealand electricity market. It is the electricity market regulator
Electricity distribution services	Electricity distribution services are the conveyance of electricity on lines from the transmission GXP to consumers ICPs
Headworks	The headworks is the augmentation of the existing network to meet the capacity and/or security of supply requested by the customer, which is not available from the existing network.
HV	High Voltage – equipment or supplies at voltages of 11kV, 22kV or 33kV
ICP	An Installation Control Point (ICP) is a physical point of connection on a local network or an embedded network that the distributor nominates as the point at which a retailer will be deemed to supply electricity to a consumer

ID Determination 2012	Electricity Distribution Information Disclosure Determination 2012 – consolidated version – 9 December 2021
IM Determination 2012	Electricity Distribution Services Input Methodologies Determination 2012 (consolidated 20 May 2020) – 20 May 2020
LV	Low Voltage – equipment or supply at a voltage of 230V single phase or 400V three phase
Network	The electricity distribution network owned by Wellington Electricity Lines Limited for the conveyance of electricity. Network assets include substations, lines, poles, transformers, circuit breakers, switchgear, cabling etc.
Network Connections Standards	The operational standards customers must meet when connection to the Wellington Distribution network. The Network Connections Standards are published on we*s website.
Point of connection	A point at which a consumer's fittings interconnect with the Network as described by diagrams as used from time to time by Wellington Electricity Lines Limited
Pricing Methodology	Wellington Electricity Lines Limited's Pricing Methodology Disclosure Document outlining how it sets its tariffs used to recover the cost of operating the Wellington distribution network.
Pricing Principles	The Electricity Authority's updated Distribution Pricing Principles have been provided in "Distribution Pricing: Practice Note", August 2019. This can be found on the Electricity Authority's website.
RAB	Regulated Asset Base – is the regulated value of the distribution assets that Wellington Electricity uses to provide line function services

Tariffs	we*s prices it charges for using electricity distribution services.
Tariffs – standard (published)	Standard prices that we sets each year for using electricity distribution services. Standard tariffs are published each year on we*s website.
Tariffs – nonstandard	Non-standard tariffs are negotiated directly with a customer. Non-standard tariffs are used to reflect costs, operating terms, commercial terms, or service levels different to we*s standard offering.
we*	Wellington Electricity Lines Limited

3. Introduction

This Policy describes Wellington Electricity Lines Limited's (we*) methodology for calculating customer capital contribution. The Policy meets the requirements of clause 2.4.6 of the *Electricity Distribution Information Disclosure Determination 2012*.

we* owns and operates the electricity distribution network in the Wellington region. We manage the poles, wires and equipment that provide electricity to approximately 400,000 consumers in the Wellington, Porirua, Lower Hutt and Upper Hutt areas. we* recovers the cost of providing electricity distribution services through a combination of standard (published) and non-standard tariffs, and customer capital contributions from new connections.

we*s standard and non-standard tariffs recover the cost of operating the existing distribution network. The costs to operate the distribution network include on-going maintenance costs, the cost to replace aging assets, electricity power restoration, business and network support costs and vegetation management. Tariffs also fund building new network capacity to support new connections and increasing customer demand. These costs are for assets and services that many customers benefit from and therefore are shared across customers.

The cost of a new customer connecting to the network or customers altering their existing services, are funded by either (or a combination of) tariff and upfront customer capital contribution. These costs are for assets that only the connecting customer, or the customer altering their existing connection, benefit from. The cost of connecting to the network or altering existing services is the capital cost of designing and installing the new connection assets or any new assets needed to adjust a customers existing services. Figure 1 summarises how distribution service costs are recovered.

Figure 1 – how distribution service costs are recovered

Distribution service costs	Costs are recovered by:
Costs to operate the existing network, including maintenance, vegetation management, asset replacement, service interruptions and emergency responses, system interruptions, network and business support.	Tariffs
The costs of building new capacity to allow future customers to connect and to deliver increasing electricity demand	Tariffs
Capital costs to connect to the network and costs to relocate network assets at a customer's request	Customer capital contribution and/or tariffs

Details of how we* calculates tariffs and the ongoing costs of operating the network that tariffs fund, are provided in a separate Information Disclosure called the Pricing Methodology. The Pricing Methodology Information Disclosure can be found on we*s website (https://www.welectricity.co.nz/disclosures/pricing/). The calculation of the ongoing costs of operating the network includes how we* recovers the cost of capital investments made and how the return for those investments is calculated.

This Policy provides the methodologies for calculating the customer capital contribution towards the capital costs of new connections and alternations to existing connections.

A customer capital contribution payment is a one-off payment made at the start of a project and is used to directly fund capital works. The rules (known as the Input Methodologies), used to calculate the on-going allowances[1] a network has to fund the operation of a network, require that the customer capital contributions are excluded from the allowance calculation. This reflects the customer rather than we*, has funded some or all of the capital costs of connecting. This also means that the customer capital contribution is excluded from tariffs, ensuring the assets are not paid for twice.

Practically, customer capital contributions are excluded from allowances by subtracting the contributions from the value of the assets added to the Regulatory Asset Based (RAB). The RAB records the value of the assets that we* has invested in and is used to calculate the allowances that a distribution network operator is provided to recover the cost of purchasing the assets and the return for making that investment. Excluding customer capital contributions from the RAB ensures a customer's investment is not included in allowances and tariffs.

[1] In the absence of competition (distribution services are generally a natural monopoly) the Commerce Commission sets how much money a distribution network operator has to operate the network, which in turn controls prices. The total funding that a network has to operate is referred to as a distribution network's allowances. The Commission sets allowances and prices at a level that reflects prices that would be experienced in a competitive market.

4. Objectives of the customer contribution policy

Under the regulatory framework for distribution businesses, distribution businesses will fund the cost of new customers connecting to the network or altering their existing services, from a customer capital contribution from the new customer and/or from an increase in tariff revenue. Customer capital contributions are set at a level that ensures other customers remain at least cost neutral from the new connection. Preferably, new customers should also contribute towards the shared costs of operating the network so that existing customers benefit from the economies of scale from shared costs being spread over a larger number of customers.

The customer capital contribution will reflect a balance between affordability and a customer funding the cost of connecting to the network that they drive. Affordable connection costs will encourage more customers to connect, lowering overall prices by spreading the costs of connecting and operating the network over more customers (providing economies of scale). We reflect this balance by the connecting customer paying the majority of the cost to connect and the remainder (or minority) of the cost of connecting being funded by tariff revenue over time. Historically, customer capital contributions have averaged between 60-70% of the cost to connect. The actual proportion will depend on details of the connection like the cost to connect and future tariff revenue. It is also important that the application of this Policy is consistent over time so that all customers connecting to the network pay a relatively similar (depending on the characterised of the connection) upfront cost, limiting intergenerational cross-subsidisation (e.g. if a customer pays more upfront and then also pays a standard network tariff, then they will be subsidising existing customers who have paid less upfront when they connected and are paying the same tariffs).

The Electricity Authority's Distribution Pricing Principles 2019 provides pricing principles for distribution networks to use when developing their tariff structures and their Customer Contribution Policy's. we*s Customer Contribution policy considers the Pricing Principles.

The primary objective of the Policy is to ensure that the incremental costs from a customer connecting to the network or changing their existing services, are funded by the customer benefiting (i.e. the customer connecting or changing their services).

The Customer Contribution Policy has been designed using the following principles:

1. Existing customers should be no worse off due to the new customers connecting or changing their existing services.
2. Incremental costs of a new customer connecting or changing their existing connection are determined using an avoidable cost approach - the cost that can be avoided if the customer was not connected or their existing connection was not altered.
3. Incremental costs include any network reinforcement to the upstream network if the reinforcement is to the primary benefit of the connecting customer. If the upstream network reinforcement benefits other existing or future customers, the reinforcement cost will be funded from tariffs, allocating the costs to other customers who will also benefit.
4. Preferably, new customers connecting to the network should also contribute towards the shared network costs, allowing existing customers to benefit from the economies of scale provided from more customers using the network.
5. The customer capital contribution will balance affordability to connect with a customer's funding the direct cost of connecting to the network upfront.
6. The customer capital contribution will reflect a balance between affordability and limiting cross-subsidisation of the connecting costs with other customers.

7. Provide tariffs and customer capital contributions that let customers assess other alternatives to using the distribution network. This includes considering energy savings to avoid increasing their connection capacity or whether alternative energy sources would be more economic.

we* calculates a customer capital contribution as the difference between the incremental cost of the new connection or change to the existing connection, plus a contribution towards the shared network costs and the incremental revenue provided by the new connection.

Customer capital contribution	=	Incremental cost of connecting	plus	Contribution towards shared costs	less	Incremental revenue

This ensures that the connecting customer receiving the benefits from the connection, funds all of the costs of connecting or augmenting the existing connection. Therefore, existing customers will be no worse off.

5. When will a customer capital contribution be required

we* may require a customer capital contribution towards capital expenditure when a customer requests:

1. A new connection
2. A change to an existing connection. This includes a request for more capacity or for a change in any operational restrictions agreed for the original connection.
3. The relocation of we*s assets

Customer contribution arrangements are entered into between we* and the customer(s) requesting the capacity required for their connection and the security of supply from the network. The customer contribution represents the amount paid by a customer to contribute to the cost of work necessary for the customer to obtain a supply of electricity at the price and quality choices they determine. For example, the contribution could relate to additional assets necessary for the customer to connect to the network. Examples of the additional assets are:

- Overhead lines;
- Underground cables;
- Pillars;
- Pits;
- Switchgear; and
- Transformers.

The calculation and methodology for determining the amount of a customer capital contribution towards the capital costs of a new connection or altering an existing connections, is based on the size and cost of the project. we* will provide quotations based on the cost of the assets and works required. If a customer requests capacity that exceeds the optimised level of the asset (i.e. the connection results in spare capacity), the additional cost will be charged to the customer.

At a later date a customer may find that their capacity requirements have changed from the original connection request, and they don't need all of the capacity provided. we* may consider applying a

fuse and a lower tariff in limited circumstances – the limited circumstances relate to whether the circumstances of the original connection have changed (e.g. a significant reduction in demand or peak demand) **and** whether the revenue from the lower tariff is high enough to fund the cost of connecting. In most cases the higher tariff will need to remain to pay for the original connection cost – especially for dedicated connections (where only one customer uses the connecting assets) because spare capacity on a dedicated connection cannot be used for other customers. we* applies strict criteria when considering tariff downgrades to ensure the connecting customer still pays for the connecting assets and other customers don't subsidise the capital cost of the connection.

Customer connections and upgrades to existing connections will be designed, priced and implemented in accordance with we*'s Distribution Connection Code (published on its website) and network security settings provided in we*'s Asset Management Plan.

Even though a customer contributes to the capital costs of connecting to the network, the connection assets are owned and maintained by we* and not the customer.

we*'s Capital Contribution Policy requires that the customer contribution is received before works commence. In some limited circumstances, we* may, at its discretion, provide prior approval for the customer contribution to be received subsequent to work starting on site. However, no livening will be permanently provided until all contributions have been received and the customer has a Retail contract for electricity supply.

If a customer requests the early procurement of equipment, we* may also require a customer to fund that equipment initially. We* will then adjust any further customer contribution payments to reflect the initial payment.

5.1. Using independent contractors

we* will deliver the work in accordance with we*s technical standards using approved contractors. we* may, at its discretion, provide prior approval for a customer to select an independent contractor, that is certified to work on the Wellington network, to undertake **some** of the work based on pre-approved terms and conditions. For example, trenching in a new subdivision can be performed by an external service provider based on the appropriate technical standards and certification of the resultant work. we* will charge a fee (if required) to oversee/review the work undertaken by the external service provider as we* needs to ensure the integrity of the network is maintained (refer to section 7.1).

6. Customer contribution calculation methodology

The general approach to calculating a customer capital contribution is a customer capital contribution = incremental costs plus a contribution towards shared costs less incremental revenue.

The specific application of this general approach varies depending on the size and complexity of the project. Simplified calculations based on standard or average cost estimates are used for small and medium connections. Larger, more expensive connections use calculations based on detailed cost estimates and use more complex modelling techniques. we* applies four different project categories and calculation methods to calculate the capital contribution required from the customer.

we* retains the discretion to select the project category that is applied to the customer. An indication of how we* expects to allocate projects to categories is outlined below.

- **A – "Standard" pricing** – residential connection, residential sub-division or single small commercial connections (connections that are not connected using a dedicated substation).
- **B – "Medium" pricing band** – commercial sub-division (including multi-floor high rise) and single connection via dedicated substation less than 1.5MVA
- **C – "Complex" pricing band** – where neither "standard" or "medium" pricing bands are appropriate to the circumstances of the customer
- **D – "Relocations" pricing band** – where the customer requests a relocation of we*'s assets

The method for calculating the customer capital contribution for each project category is described below. In addition to the customer contribution calculated below, other charges will be applied where applicable (refer to section 3).

All customer contributions are based on a GST exclusive value.

A. "Standard" pricing – residential connection, residential sub-division or single small commercial connections (connections that are not connected using a dedicated substation).

For new residential and small commercial connections, the size of the customer contribution for a "Standard" connection is dependent on the project cost (including headworks) of a new connection. Figure 2 provides the customer capital contribution for residential connections or, residential sub-division or single small commercial connections (connections that are not connected using a dedicated substation).

New connections or connection upgrade type	Customer capital contribution to connection cost
Rural connections that require a new transformer	Full value of the project cost, less the cost of the transformer (which we* will fund)
Upgrades to existing connections	Full value of the project cost
Project cost of a new connection is less than $6,000	Full value of the project cost
Project cost of a new connection is between $6,000 and $14,999	$6,000
Single residential or commercial connection project cost of a new connection is $15,000 or above	Full value of the project cost less $9,000
Subdivision (multiple ICPs) project cost is $15,000 or above	The lesser of: - the full value of the project cost less $9,000, and

	- the full value of the project cost less the number of ICPs multiplied by $750
Replacement of old-style customer connection assets like fuse terminal boxes (i.e. under veranda boxes and foundation boxes) and 'hard-tapped' connections (i.e. crutch/breach joints and D&S switches), with pillars or pits.	we* will contribute 50% of the replacement cost of replacing these types of connections with pillars or pits. we*s contribution reflects the age of the assets being replaced and we* asset replacement programme.

we*s contribution towards the cost of connecting is calculated as the difference between the average incremental cost of connecting and the average incremental tariff revenue expected from the new connection. we* may re-calculate the amount of its contribution if tariffs change or the average new connections costs change.

we* will calculate the customer capital contribution. The customer capital contribution calculation is subject to the following conditions:

1. New connection to a single switchboard which then supplies multiple properties or connections (e.g., apartment block), will be treated as a single connection.
2. 'Upgrades to existing connections' includes customer requests for a supply upgrade from single to two/three phases where the load increase would exceed a typical 63amp new connection.
3. In the case of a larger installation (over 200kVA), complex connection or unusual connection or upgrade solutions, we* may choose to calculate the contribution using either the "Medium" or "Complex" contribution methods.

B. "Medium" pricing band – commercial sub-division (including multi-floor high rise) and single connection via dedicated substation less than 1.5MVA

Developer/owner share of connection costs	Ongoing line charges
Up-front full value of the non-recoverable project costs and headworks fee (if applicable).	Published tariffs.

Recoverable costs – are costs that can be recovered through ongoing tariff revenue and/or assets that can be re-deployed or otherwise optimised by we* if the customer no longer requires the extra capacity. For example, the cost of transformers and HV switchgear where there is sufficient capacity demands for them to be redeployed elsewhere within the network.

Non recoverable costs – are all other costs including installation costs, project management costs and assets that cannot be recovered, redeployed or optimised by we* if the customer no longer requires the capacity or the lines charge does not recover capital investment of connection or headworks assets.

C. "Complex" pricing band - The project is classified in the "complex" pricing band if a customer requests a new connection where, the connection requires non-standard terms and conditions and/or in we*'s opinion and at we*s discretion:

i) the customer represents an unusual credit risk; or
ii) the customer wants to reserve future network capacity; or
iii) there are unusual asset ownership or demarcation issues; or
iv) the customer and/or we* wish to contract to additional services; or
v) the site to be connected has unusual locational or security issues; or
vi) the connection has additional operating or commercial terms or responsibilities than those provided in we*s Network Connection Standards[2] or Default Distribution Agreement[3] with Retailers.
vii) the connection relates to a commercial subdivision (including a multi-floor high rise building) and single connection via a dedicated substation 1.5MVA and above and/or is a high voltage connection.

Developer/owner share of connection costs	Ongoing line charges
Contributions are calculated using a net present value (NPV) model using the formula below.	Published tariffs or on a case-by-case negotiated Direct Agreement and tariff.

If the connection has additional operating or commercial terms or responsibilities to those provided by we*s Network Connection Standards or Default Distribution Agreement with Retailers, the connection may require a non-standard Direct Agreement with we*. A Direct Agreement is a contractual agreement between we* and the customer which includes the additional operating or commercial terms or responsibilities. A Direct Agreement replaces the Default Distribution Agreement terms that we* has with Retailers (and that Retailers pass through to customers) for distribution services.

We* will negotiate the additional operating or commercial terms or responsibilities with the connecting customer. This may include an on-going tariff structure that differs from we*s published tariffs.

Customer contribution = total NPV of the initial costs + incremental costs (IC) + other charges - incremental revenue (IR). The model inputs are described in Figure 3.

Figure 3 – inputs into the Complex pricing NPV calculation

[2] we*s Network Connection Standard can be found at: https://www.welectricity.co.nz/getting-connected/network-connection-standard/

[3] we*s Default Distribution Agreement can be found at: https://www.welectricity.co.nz/disclosures/dda/

Input	Input detail
Initial costs	Up front full value of the directly attributable project costs.
Incremental costs	• **Transpower transmission charge -** using the customer's expected usage and the applicable Transpower transmission charges. • **Maintenance costs -** directly relating to the project. • **Headwork costs (marginal cost of reinforcement) –** the incremental cost to reinforce the shared network to allow the new customer to connect. The incremental cost of network reinforcement will be included in the customer capital contribution calculation when the connecting customer is the primary beneficiary. Refer to section 3.2 for further details on this cost. • **Tax -** incremental revenue less initial and incremental costs and other charges multiplied by the tax rate.
Other charges that may be applied	• **Excess demand charge -** payable, at we*'s discretion, if demand exceeds contracted capacity. The quantum of the charge will vary with connection and relevant network asset utilisation and value. • **Termination charge -** takes the form of a customer bond or up-front contribution and is set at the total value of the connection project. This charge is only applied at term, or at early termination, of the contract. It covers we*'s risk relating to the connection's new investment costs. The Termination Charge does not attract an annual CPI adjustment. The Termination Charge is reduced at each successive contract term renewal based on "straight line" project cost amortisation. The Termination Charge applicable to successive renewals will be the straight-line reduction value applicable at the time of Agreement renewal execution. • **Contribution to shared network costs –** we* may apply a contribution towards the shared costs of operating the network. This would help ensure new connecting customers are also contributing towards the shared costs. The shared costs may include a direct share of wider network assets if the new connection uses a significant proportion of the capacity of those assets and where a general allocation does not reflect a fair allocation of costs. The appropriate allocation of shared cost is at we*'s discretion. • **Reconnection charge -** applicable charge for reconnection to the Distribution Network. • **Capacity change request fee -** this amount reflects we*'s estimated actual administrative costs in determining availability and terms on which excess capacity would be made available.

Input	Input detail
Incremental revenue	Revenue using the customer's expected usage and the applicable negotiated tariffs.

The NPV is calculated over the average expected life of network fixed assets using the estimate of vanilla WACC (including any percentile adjustment) set by the Commerce Commission for the relevant DPP regulatory period.

D. "Relocations" pricing band

The customer contribution is classified in the "relocations" pricing band if a customer requests a relocation of we*'s network assets. For example if a customer requests we* to relocate a pole on their own private land to a new alignment or to transfer overhead lines to underground cables.

Developer/owner share of relocation costs	Ongoing line charges
Up-front, full value.	Published tariffs.

Where it is technically and legally possible for we* to relocate network assets at the request of a customer, then all costs incurred will be charged to the customer.

In the case of a third party owned pole (e.g. Telecom or public transport overhead network) that supports we*'s assets and is being relocated by the third party, then the third party pays for the cost of relocating the pole and we* pays for the cost of relocating we*'s assets.

The relocation costs charged to a customer may include the cost of disposing and/or replacing an asset if an asset is not being utilised in a relocation, or the asset cannot be used elsewhere on the network. we* may fund the disposal and replacement of an asset being relocated if it's near the end of its asset life and is due to be replaced as part of the asset replacement programme. we* will consider the assets health and whether the asset being replaced is included in the replacement budget.

If a customer relocation includes upgrading an asset that is due for replacement, we* may consider funding an equivalent of the replacement cost and the customer would pay the incremental cost of upgrading. For example, if a customer wanted to transfer an overhead asset underground and the asset was due for replacement, we* may make a contribution equal to the apportionment of the replacement cost for the affected overhead line section. Any decision to may a contribution is at we*s discretion and will depend on other factors like budget availability.

7. Other charges

Other charges that may be applicable are listed below.

7.1. Network connection / disconnection fees

Network connection / disconnection fees are for those activities associated with any augmentation of the network that can only be provided by we*. Augmentation may form part of the connection / disconnection services we* provides to a customer to allow the supply of electricity from we*'s distribution network to an electrical installation of the customer. The fees can be classified into two components:

- Project fees; and
- Other fees and charges.

The project fee is used to recover costs in relation to preparation of the Offer for Network Connection Services including network planning, preparation of the design and associated administration costs. The amount of the fee will differ depending on the nature and the size of the project. If the project goes ahead the project fee is included in the initial costs in the customer contribution calculation (refer to section 6).

The project fee is non-refundable (irrespective of whether the project goes ahead) and is paid when the request is made for an Offer for Network Connection Services.

Other fees may be levied when we* is required to perform work that is not covered by the customer capital contributions or project fee. Such fees generally arise where construction work is undertaken by an external service provider.

7.2. Headwork costs (marginal cost of reinforcement)

The headwork costs (marginal cost of reinforcement) is the incremental cost to reinforce the wider distribution, providing additional capacity to allow the customer to connect. The cost will be included in the customer capital contribution if the connection customer is the primary beneficiary. If other customers (existing or future) will also benefit from the additional network capacity, then the costs will be added to the RAB and included in networks tariffs.

Specifically, there are network areas which can become capacity constrained based on the new connection demand or security of supply requirements. To manage the new load demand, the existing network needs to be strengthened with a larger capacity infrastructure.

we* may charge the headwork costs on the "Standard", "Medium" and "Complex" pricing band customers where existing network capacity becomes constrained from a new connection. If applicable, the headworks costs is included in the NPV model of the "Complex" pricing band.

7.3. Cost reapportionment for shared assets

we* may at its discretion, employ on a case-by-case basis a process for re-apportioning the costs of a customer funded network extension that is subsequently connected to by other customers within a defined period. The reapportionment will be on a pro-rata basis and subject to depreciation. Any payment by the new connecting customer will be made to we* and we* will make a payment to the customer who funded the initial works. we* will determine the reapportionment and payment process.

7.4. Recoverable costs for damage to existing works

we* is required from time to time to perform remediation work on its assets to ensure public safety and continuity of the supply of electricity following an adverse event which impacts the resilience of the asset (e.g. repair and relocation of assets. Where damage has been identified as being caused by a third party, we* will recover such costs from the third party responsible for the damage or loss.

Recoverable works include:

- Restoration of damage, including theft or loss, to we*'s supply network and associated property (for example a pole hit by a car or damage caused to a we* vehicle); and
- Relocation of we* assets as requested by third parties and outlined in section 6D above.

8. Pricing principles

The Electricity Authority's Pricing Principles are contained in the "Distribution Pricing: Practice Note", August 2019. we* understands that Pricing Principles consist of well accepted, high-level principles and were introduced on a voluntary compliance basis.

we*s Pricing Methodology describes its price setting methodology and outlines how costs are allocated to and recovered from the consumer groups who receive electricity distribution services from the Wellington distribution network – including the allocation and recovery of the cost of connecting to the network and the application of this Customer Contribution policy. The Pricing Methodology also includes a detailed assessment of how the Pricing Methodology meets the Pricing Principles (including the application of customer contributions). The Pricing methodology is published on we*s website (https://www.welectricity.co.nz/disclosures/pricing/).

Where relevant, we*'s customer contribution policy is consistent with the pricing principles for the following reasons:

- Customer contributions are based on incremental costs and discourage cross-subsidisation from existing customers for new customer connections;
- Customer contributions are responsive to the circumstances of the customers and are calculated based on the capacity required by the customer, the security of supply required by the customer, the level of available capacity, security of the present network configuration and the impact on upstream investment costs;
- Tariffs and customer contributions are set at a level that allows customer to consider whether there are more economic alternatives to connecting to the network or altering their existing connections.
- Customer contributions are recovered when the cost of the works will not be recovered through ongoing tariffs and/or requires expenditure that is not compensated for under the relevant DPP or CPP Determination set by the Commerce Commission; and
- The customer contribution policy is transparent and the impact on stakeholders is considered when setting / updating the policy.

Figure 4 sets out the Electricity Authority's Pricing Principles.

Figure 4 - Electricity Authority's Pricing Principles

Pricing Principles		
(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;
	(iv)	encouraging efficient network alternatives.
(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.	
(c)	Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:	
	(i)	reflect the economic value of services;
	(ii)	enable price/quality trade-offs;
(d)	Development of prices should be transparent and have regard to transaction costs, consumer impacts, and uptake incentives.	