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Submission to Default price-quality paths for electricity distribution businesses from 1 April 2025

19 December 2023

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3 Submission and contact details

Consultation	Part 4 IM Review 2023 Draft Decision
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4 Supporting submissions

The Electricity Network Association (**ENA**) has also provided a submission in response to the Process and Issues paper. WELL is a member of the ENA and participated in the submission development.

5 Introduction

Wellington Electricity Lines Limited (**WELL**) welcomes the opportunity to make a submission in response to the Commerce Commission's (**Commission**) Default Price-Quality Path Issues Paper titled, '*Default price-quality paths for electricity distribution businesses from 1 April 2025, Issues paper*'. This submission refers to the consultation document as '**The Issues Paper**'.

The DPP reset will need to balance managing the customer price shock with maintaining financial capital maintenance and attracting new investors. Prices are set to significantly increase as the recent high inflation is reflected in the regulatory model, mirroring the DPP3 price decrease which was driven by low inflation.

Increasing prices will be at the same time as network owners will be called on to increase their network investment, building new capacity to meet the electricity demand from New Zealand Emissions Reduction Plan (**ERP**). While increasing capital investment has a cushioning impact on customer prices because the costs are spread over the long asset lives, the perception of investing while prices are increasing will have to be carefully managed. Electricity Distribution Businesses

(EDBs) will have to maintain our social license, demonstrating we are providing value-for-money services and highlighting the savings that electrification will provide households. If we can't maintain our social license and we aren't provided the allowances to invest, we won't be able to maintain a secure electricity supply or delivery our part in New Zealand decarbonisation.

Network owners may need to double the capital¹ that is currently required to operate distribution networks in New Zealand. Local councils and trusts are unlikely to have access to the levels of new debt and equity required to fund the ERP-related investment. To attract new investors, the DPP price path must be set at a level where EDBs can expect to earn a real return for their investment. As highlighted in the Commission's, *Trends in Local Lines Companies Performance*², EDBs have not earned WACC for both the DPP2 and DPP3 regulatory periods. Allowances for operating expenses for the last two regulatory periods have not been large enough to cover actual costs and most non-except networks are incurring regulatory penalties for overspending.

The Issues Paper correctly identifies that EDB cost structures are changing as investment increases, and we consider new non-traditional solutions. This DPP will need to carefully consider how allowances calculations capture these changes so that EDBs can be confident of earning a real return and profits won't be eroded because they are funding allowance shortfalls and the resulting penalties.

The electrification of transport and process heat will mean that electricity will become New Zealand's primary energy source. New electricity demand for charging EVs, heating homes and businesses and hot water is already increasing and many networks built in the 50's and 60's don't have the capacity headroom to meet the expected step change in new demand. The consequences of underinvesting are significant. If EDBs can't provide new capacity in time, not only will New Zealand not be able to meet our decarbonisation obligations (electrification will provide 24% of total emissions reductions) we will not be able to maintain a secure electricity supply as demand exceeds capacity. It will be important to set allowances which incentivise a secure electricity supply through early investment rather than increased outages due to investing late.

¹ This is expanded on in section 7.4 of this submission.

² Page 42-43, https://comcom.govt.nz/__data/assets/pdf_file/0018/230517/Trends-in-local-lines-company-performance-13-July-2022.pdf

6 Context and challenges

The Issues Paper has identified most of the key industry characteristics and changing conditions that will impact the DPP price-quality reset. Several additional considerations have not been identified that we believe should be considered when setting the price-quality path.

6.1 Managing price shocks and affordability will need a multifaceted approach

The most important DPP4 issue will be the large starting price increase and how best to manage customer price shocks. Networks must maintain our social license so we can continue to invest in new capacity needed to meet increasing customer demand. We agree with the Commission's current view that prices should be smoothed to minimise year-on-year increases. EDBs are best placed to manage cashflow functions. It's our responsibility as the network owner to raise new capital to fund the increasing capex and any other business cashflow fluctuations (assuming network owners are also adequately compensated for making that investment).

We will not maintain our social license by just ensuring investments are efficient and price shocks are smoothed. The price reset needs to be provided with important context so that customers understand what's driving the increase and that they are still receiving value for money. Even if the large starting price increase has been smoothed, multiple years of smaller, but still large increments will look unreasonable without context. High prices will also be industrywide with Transpower prices set to increase and spot market prices predicted to become more volatile as we move to intermittent renewable generation.

The Commission and EDBs, with support from the wider sector, need to support the price reset with supporting messages and tools to reduce the size of price increases. While jointly developed communication with the Commission will not be appropriate (the Commission need to be independent of EDBs), EDBs could provide input into the Commission's supporting messaging. Actions to support the price increase could include:

- **Context about the drivers of the price increase:** Most of the increase is from updating the prices with current, higher inflation. Prices for the last five years have reflected a mix of actual inflation and inflation set in 2020 which was very low. The regulatory model delays the impact of inflation that consumers would have seen for their other good and services.
- **Electrification provides the best way to reduce householder energy costs:** Electrification of vehicles and home heating is expected to reduce household bills by around 26%. Investing in

the electricity network so that households can connect their electric vehicles and electric home heating, will help reduce the cost of living.

- **Supporting the development of flexibility:** Flexibility services that shift electricity use away from peak demand periods will defer network investment and help keep prices lower until investment is required to occur. Flexibility services will also help EDBs manage the rapid connection of customer devices on and allow them to maintain a secure electricity supply.
- **Considering the household energy wallet:** Electricity prices will increase as EDBs build and purchase (i.e. non-traditional services) more capacity. The impact of these changes needs to be considered in the context of the corresponding reduction in another energy cost. New household energy cost measures will need to be developed to demonstrate the savings provided by electrification.

6.2 Investing late will also impact quality

The Issues Paper correctly identifies one of the consequences of insufficient investment as the lack of network capacity to allow New Zealand to electrify and meet its decarbonisation goals. Insufficient investment will also mean that quality will deteriorate as demand exceeds the network capacity³. If EDBs do not keep pace with demand increases, customers will experience more power cuts as networks curtail electricity use to avoid electrical equipment overloading.

Our preliminary analysis about the impact of delaying network reinforcement has shown that if we don't build new capacity in time to meet demand increases, WELL's unplanned SAIDI will deteriorate by 1.1% p.a. leading to quality breaches occurring at a rate of 1 in 5 years.

6.3 Asymmetric impact of investing too early vs investing late

The economic principles provided in the Issues Paper recognise the general asymmetric consequences of over and under-investment⁴. We think the asymmetry will increase with decarbonisation to the point that the cost of investing too early will become trivial.

The environmental and long-term economic consequences of not meeting decarbonisation targets⁵⁶ and the increasing impact of outages as customers become more reliant on electricity as

³ Quality will reduce temporarily as EDBs build new capacity and planned outage increase. However, underinvestment will result in sustained quality deterioration.

⁴ Para A21.3 of the Issues Paper.

their primary energy source will increase the cost difference between underinvesting (or investing too late) and over-investing (or investing too early), even further.

An updated application of the ‘*asymmetric consequences*’ principle during the reset will be important if the consequence of investing too early is becoming trivial when compared to the impact of investing too late. For example, different capex adjustments could be considered, reflecting the low relative cost to customers of investing early.

We think the asymmetric impact of investing too early vs investing late should be re-qualified to include the wider economic consequences of investing late. We think this would provide important context to the price-setting process.

6.4 Incentivising suppliers to invest

The purpose of Part 4 of the Commerce Act 1986 (**Part 4**) includes a specific requirement to incentivise suppliers to continue to invest in distribution networks⁷. This will be especially important as New Zealand delivers its Emissions Reduction Plan which relies on the electricity sector delivering 24% of carbon reductions through electrification⁸. The Boston Consulting, ‘*Future is Electric*’ forecasts that EDBs will need to invest \$22b⁹ in new capacity in this decade. Figure 1 extrapolates the change in RAB and estimates the amount of new investment needed¹⁰. EDBs will need to find \$14.7b in new funding. All networks will have a limit to how much they can borrow, and trust or council-owned networks may have limited ability to raise new equity from their owners. The industry will most likely need to find new private investors who will only invest if they can expect a market return. Urban networks are forecasting faster growth than rural networks and so will also need access to new capital earlier than rural networks.

⁵ October 2023 World Economic Forum study estimated the global cost of climate change damage to be between \$1.7 trillion and \$3.1 trillion per year by 2050, <https://www.weforum.org/agenda/2023/10/climate-loss-and-damage-cost-16-million-per-hour/#:~:text=Climate%20change%20is%20costing%20the,per%20hour%20%7C%20World%20Economic%20Forum>

⁶ Deloitte estimated inaction on climate change could cost the world’s economy US\$178 trillion by 2070, <https://www2.deloitte.com/xe/en/pages/about-deloitte/press-releases/deloitte-research-reveals-inaction-on-climate-change-could-cost-the-world-economy-usd-178-trillion-by-2070.html>

⁷ Section 52A (1) (a)

⁸ Exhibit 3, Boston Consulting, Future is Electric, <https://web-assets.bcg.com/b3/79/19665b7f40c8ba52d5b372cf7e6c/the-future-is-electric-full-report-october-2022.pdf>

⁹ Section 3.5, Boston Consulting, Future is Electric, <https://web-assets.bcg.com/b3/79/19665b7f40c8ba52d5b372cf7e6c/the-future-is-electric-full-report-october-2022.pdf>

¹⁰ A high-level calculation which assumes the 2022 RAB from the Information Disclosures, an even investment rate using the *Future is Electric* \$22b capex and a depreciation rate assuming average network asset life.

Figure 1 - New capital requirements (constant \$2023)

RAB 2022	RAB 2030	New capital	Increase
\$14.5b	\$29.0b	\$14.7b	\$2.0x

The Commission's *Trends in Local Lines Companies Performance*¹¹ shows that networks have been earning a return less than WACC for the DPP2 and DPP3 period. This suggests the application of the DDP may not be meeting objectives of Part 4, specifically incentivising suppliers to invest.

Part of the reason for the suboptimal returns is the operating expenditure allowance calculation which does not provide enough allowances to fund network operating costs. Section 8 of this response demonstrates that non-exempt EDBs are forecast to overspend their allowances by 14% in 2025 and will be incurring IRIS penalties which they will need to fund from profits.

Other reasons include inflation leakage¹² in the opex IRIS, in inflation forecast difference for EDBs moving to the DPP later in a regulatory period and in the allowance for debt funding. We note the IMs have recognised these issues and are considering solutions.

While financeability is not an issue now, it could be as capex increases at a faster rate than depreciation allowance and price path smoothing increases the cashflow gap between regulatory revenue and cash outgoings.

We agree that affordability will be the number one issue for this regulatory period. However, this must be carefully balanced with ensuring the DPP will provide suppliers with the expectation of a real return so that they will continue to invest in distribution networks. The expectation of a real return will also be essential for attracting new investment.

6.5 Co-ordinated regulatory reform

All of New Zealand's energy policymakers and regulators are reforming their legislation and policies to reflect the Government's Emission Reduction Plan objectives. We understand that there are agreements and processes in place between regulatory bodies to ensure that regulatory reform is aligned. However, we are seeing examples where changes are not being coordinated which will

¹¹ Page 42-43, https://comcom.govt.nz/__data/assets/pdf_file/0018/230517/Trends-in-local-lines-company-performance-13-July-2022.pdf

¹² Higher than forecast inflation that is not captured in the inflation adjustments.

negatively impact the delivery of the specific regulatory objectives of individual regulators. Specifically, the Electricity Authority (EA) is proposing new quality standards in their review of the Default Distribution Agreement (DDA). These imply different quality standards than that applied in the price/quality path. We ask that any change to quality standards are applied through the price/quality reset so that the cost implications can be considered.

6.6 In summary – additional implications for the DPP reset

Consultation question 1: We are interested in your views on whether we have properly understood the changing industry context as it relates to the DPP4 reset.

Have we properly understood and represented the changing industry context and are there other implications for the DPP4 you believe we should consider?

The Issues Paper has identified most of the key industry characteristics and changing conditions that will impact the DPP price-quality reset. The key issues identified are:

- The key issue will be the large starting price increase and how to manage it.
- Most of the starting price increase is from the application of inflation. The impact of increasing investment is not a significant price driver for this reset.
- The price increase will need to be smoothed while ensuring networks can earn a real return for their investment. This includes adjusting allowances for any financeability issues.
- Networks will need to invest more to meet the expected decarbonisation demand increase. While the need to invest is certain, there is uncertainty about the timing of the investment.
- Networks will need new allowances to develop and offer flexibility services.
- The consequence of underinvesting or investing too late is much larger than the cost of investing too early which is becoming trivial.

We think there are several key issues not captured:

- It will be important to support the DPP4 price increase with the context of the price change and the benefits electrification will provide in the future. We must maintain our social license so that we can make the investment needed to decarbonise.
- Not only will underinvesting impact our ability to deliver the ERP targets, it will also impact quality if networks can't provide the new capacity to meet demand increases.
- The asymmetry between under and over-investing will grow once the costs of not meeting increasing demand and New Zealand emissions reduction targets are included. We think the cost of investing too early could be trivial and that re-quantifying the economic cost of underinvestment would provide important context to the price-setting process.
- Regulatory reform by other regulators is applying new cost burdens that must be captured in the

price/quality path so that the price/quality trade-off can be considered and EDBs' can maintain a real return.

7 Forecasting capex

We agree with the Issues Paper's assessment of the changing investment environment and that a new approach to setting allowances is needed. The new approach must reflect that a step change in investment is needed and to cater for investments where the timing is uncertain.

We would add that the impact of networks investing too early may be trivial and that any gating or adjustments to the capex allowance should reflect the asymmetric risk of investing too early compared to investing late.

The independent reviews of AMP should provide the Commission with the comfort and confidence to only consider adjusting capex allowances for investments that are very uncertain. Adjustments made on historic expenditure patterns will arbitrarily reduce allowances, slowing the provision of new capacity and increasing the probability of outages.

Building early would also have a limited impact on short-term prices and affordability. The costs of new investments are spread over the long lives of distribution assets (average of 44 years) and the annual impact of an increase in investment is comparatively small (when compared to the capital spend). Applying a higher level of capex scrutiny and more restrictive capex gates will not have a material impact on prices.

7.1 Proposed forecast approach

Consultation question 2a: We are proposing to adapt our approach to capex for DPP4 based on feedback from EDBs, that past expenditure is not a good starting point for considering future spend.

Do you have any particular concerns or issues with our proposed approach? If so, how could these concerns or issues be resolved?

We generally support the proposed overall framework. We agree with the assessment of the changing investment environment and that a new methodology is needed which considers substantial capex increases and allows expenditure profiles to be adjusted within a regulatory period to reflect changes in demand and investment timing.

We support the resulting draft solution of applying a higher level of scrutiny to the capex and then categorising the capex into investments where there is a high level of certainty about the need for the

investment and investment timing, and into a category for investments that are less certain. This will then allow the Commission to consider different adjustment rules depending on the circumstances of the investment.

Importantly, allowances for investments in the 'supported' category could be provided to networks unadjusted reflecting the higher level of confidence that the investments would be efficient in terms of timing and criticality (i.e. delaying these investments would impact reliability and network performance). The regulatory focus could then be on considering the less certain 'unsupported pool'. This was an idea which we supported in our submission to the IM Issues Paper Consultation¹³.

However, the purpose of the 'Adjust' stage needs to be better defined so that appropriate adjustment mechanism can be developed. For example:

- If the purpose is to remove or limit investments that are uncertain so that they can be addressed by uncertainty mechanisms like the reopeners, then the purpose of the 'adjust' should explicitly state this so that the resulting adjustment mechanism effectively exclude or reduce uncertain investments from the allowances.
- If the purpose is to indicate when a CPP will be more appropriate, then the purpose of the 'adjust' stage should explicitly include this so that the best 'adjust' mechanisms to achieve this can be selected.

We agree that a bottom-up independent forecast does not reflect low-cost regulation and that a forecast methodology must be flexible enough to reflect that each network's work programme will be different depending on its network characteristics. We also agree that the DPP3 approach which restricts allowances to a proportion of historic spend will not be appropriate because of the investment step change needed to deliver New Zealand ERP.

7.1.1 Access

We support using the AMP as a starting point for the reason provided. In addition to reflecting network-specific investment requirements, the AMP's provide supporting evidence to why the investment is needed and a ready way of verifying the capex profiles. For example:

- the demand and capacity forecasts highlight where and when new capacity is needed and the corresponding network growth capex.
- The asset health assessments highlight when assets need replacing to maintain quality levels.

¹³ Table 7 of our submissions to the IM Process and Issues Paper.

We note that the AMP's will not capture faster than expected demand from EVs or the gas transition and there may be investments missed. EDBs will be reliant on reopeners to provide any additional allowances. EDBs must be able to build quickly in response to unexpected demand to maintain security and reliability of supply and to support electrification. We expect we will have to use the reopeners often.

We also support the independent review which will utilise the existing AMP information that networks provide each year to support their investment forecast. This aligns with the low-cost purpose of DPP regulation. This support assumes that we will access new allowances if demand is faster than expected and we need to apply reopeners to build new capacity to maintain network security.

We note the proposed approach of using the Commission's own high-level analysis to verify the findings of the independent review. While national forecasts could provide some evidence about the general direction of the investment, care needs to be taken because the specific characteristics of a network will mean there could be large variations in capex forecasts between networks. For example, the network growth capex on the Wellington network is driven by investment drivers unique to Wellington:

1. Wellington's dense urban environment with short commuting distances will mean that EV growth in Wellington is likely to be higher than other regions.
2. Wellington is the highest residential gas connections in New Zealand with one and three homes being connected to gas.
3. Historically low demand growth and the networks relative old age means that the Wellington network will first become constrained at the high voltage level. The primary focus on the network growth capex is increasing the capacity of the 33kV voltage level, the most expensive assets to upgrade.

Other networks will have different, but no less significant, demand drivers. For example, other networks with large industrial customers (which Wellington doesn't have) will have large new connections and require targeted reinforcement of the existing networks, compared to Wellington and other urban networks that will see growth across the entire network from large numbers of small load increases from EVs and gas conversions.

7.1.2 Design and identify

We agree with a design approach of classifying capex into supported and unsupported expenditures and applying different allowance calculations for each expenditure category. We think that

allowances should be unadjusted for certain expenditures (the 'supported' category) and that uncertainty mechanisms could then be applied to less certain investments (the 'unsupported' pool). Uncertainty mechanisms could include reducing allowances for investments in this pool and a network making a reopener application once the inputs for that investment become more certain. We think this would be a pragmatic approach to managing investment certainty and would avoid using historic-based capex and gates that will no longer reflect future expenditure requirements.

We also think that, depending on a network's asset planning methodologies, there should be very little investment assigned to the unsupported pool. WELL only includes near-certain investments in our forecasts and in our AMP capex schedules.

Less certain investments have been excluded with the assumption that we would use a reopener at a later date when the investment becomes more certain. We model forecast demand using three categories, P1 investments being based on near-certain customer requests of where investment is needed to maintain network security. This forecast is used to forecast when we need to reinforce the network and is what the Network Growth and customer connection capex forecasts are based on. P2 and P3 investments are less certain customer works (works that have yet to be started or the customer is considering options) and are used to help guide the capacity and size of the electrical equipment that is programmed to be reinforced (rather than whether the investment is included in the forecast).

Similarly, our asset replacement programme is based on asset health assessments, and we only replace assets when that investment is needed to maintain our quality performance.

Therefore, we would expect that most of our investments should fall into the 'supported' category as we have already removed investments from the forecast that would have been classified as 'unsupported'.

It will be important that the Commission and the independent AMP reviewers apply a sensible level of precision in the classification of investments into the 'supported' and 'unsupported' pools. We believe the cost of investing too early could be trivial compared to the cost of investing too late. The impact of over-allocating investments to the 'supported' category is similarly low compared to applying strict allocation rules and over-allocating to the 'unallocated' category.

We also note that we will be reliant of reopeners. As customers change their choice of transport or heating away from fossil fuels, our forecast visibility for near-certain investments is less certain. Due to the dynamic nature of this change, we need to have thresholds set which trigger investment to

maintain network performance and limit asset and service deterioration. We will use these triggers to signal when a reopener will be needed.

7.1.3 Adjust

The purpose of the “adjust” step in the proposed process needs to be carefully defined and that definition reflected in the adjustment mechanism. The Issues Paper provides a general purpose of the ‘Adjust’ stage as adjusting the forecast to mitigate forecast risks and uncertainty. Applying that definition, any adjustment mechanism should therefore only focus on uncertain investments and the application of the mechanism should elevate that uncertainty.

7.1.3.1 Adjusting the ‘supported’ pool

Allowances for investments categorised as ‘supported’ should not need to be adjusted. The risk of investment uncertainty should have already been mitigated through the classification process. Any further restriction or reduction of investments in the supported allowance pools would be removing investments that the Commission are confident are required and are critical to meeting demand increases or maintaining network quality.

7.1.3.2 Adjusting the ‘unsupported’ pool

The need to adjust the size of the ‘unsupported’ pool will depend on the classification rules used to allocate investments and an EDBs asset planning practices. Assuming the rules used to allocate investments into the two categories do not over-allocate investments into the ‘unsupported’ category, then the size of the pool should reflect an EDBs treatment of uncertain investments:

1. Networks applying similar approach to WELL should have very little allocated to this pool as they will have already removed those investments from the capex in the expectation of using a reopener once the investment becomes certain.
2. Other networks may choose to include less certain investments in their AMP schedules, forecasting investments based on an estimate of the likely investment value and timing.

Not all networks will develop their capex plans like WELL and capex in the ‘unsupported’ budget may need adjusting to reflect the risk of forecast uncertainty and reopeners may provide a better solution. The external review of AMPs will provide insights into the different forecast methods. It may be that the adjustment to the ‘unsupported’ capex pool reflects the results of the review.

7.1.3.3 Deciding when a CPP is more appropriate

There will still need to be a mechanism for the Commission to indicate when a network needs to move onto a CPP. Historically, capex gates and caps have been used to indicate that the level of expenditure is greater than what a DPP was designed for and that a network may need to consider a CPP. However, we believe this is a blunt mechanism that does not reflect the guidelines provided in the IMs of when a CPP is best suited.

While we are unsure of what the best mechanism should be, it should reflect the CPP criteria provided in the IMs:

- Guiding criteria when a CPP will be best suited¹⁴
- Reopener criteria that explicitly considers where an application is better suited to a CPP¹⁵

7.1.4 Additional supporting data

Consultation question 2b: What alternative data and external sources should we use to support our consideration of capex forecasts, beyond the information in 2023 Asset Management Plans (AMPs), responses to section 53ZD notices and 2024 AMPs, and why should these be used?

We noted above our concerns about using Transpower data to sense check a network investment programmes.

We think there are other data sources that could also be useful if they are used in the right context and careful consideration is given to individual network characteristics that may drive differences to national or high-level data sources:

- Boston Consulting Groups, 'Future is Electric' which provides forecast demand and investment rates. It also highlights the importance of developing demand-side flexibility.
- The ENA is developing a demand modelling tool to verify EDB's growth forecast. The tool disaggregates demand forecasts down to a network level which could provide the Commission with a valuable tool to confirm AMP demand forecasts.

Care must be taken to account for individual network characteristics.

¹⁴ section 3.28 of the 'CPP and in-period adjustment mechanisms topic paper'

¹⁵ section 5.42 – 5.46 of the 'CPP and in-period adjustment mechanisms topic paper'

7.2 Applying the Capital Goods Price Index

Consultation question 3: We are proposing to apply the capital goods price index to forecast capex allocations.

Is there a more appropriate index which could be applied; and, if so, why?

We are concerned that the all-sector measures might not capture the higher electricity sector inflationary costs driven by high demand for labour, materials and equipment.

However, we agree that the proposed CGPI forecast is probably the best available.

7.3 Programme delivery

EDB capex programmes are planned and designed to maintain existing levels of quality and meet the regulatory quality targets that reflect those quality levels. Delaying those programmes would likely result in longer and more frequent outages. Specifically:

- Network growth programmes reflect the new capacity needed to meet forecast electricity demand. Delaying network growth investment will increase the probability that demand exceeds supply, resulting in more frequent and longer power outages and/or equipment damage as safe operating limits are exceeded.
- Asset replacement programmes are based on asset health assessments and asset failure models, replacing assets before their performance impacts expected performance levels.
- Resilience programmes strengthen networks or increase network supply diversity to better withstand new or more frequent major disasters. Customers will become more reliant on electricity as it becomes their primary (and possibly only) energy source. A secure supply will be essential as a customer's only source of heating, cooking and transportation (noting many parts of the network currently do not have N-1 security).

The AMP reflects the capex that an EDB must make to maintain expected quality standards. WELL strongly disagree with the Commission making further adjustments to the capex to reflect delivery concerns. Doing so sets allowances at a level that will not deliver the regulatory quality targets and consumer quality expectations. EDBs would have to choose to incur regulatory quality penalties, or alternatively, IRIS cost incentive penalties if they overspend their allowances to maintain quality. Either way, reducing the capex sets a price path that would not allow EDBs to maintain financial capital maintenance and earn a real return.

The Commission could reduce the quality targets to reflect the change in the price-quality tradeoff, reflecting the reduced quality in the price/quality path. However, we do not believe this is what customers expect as New Zealand electrifies and electricity becomes our primary energy source.

It is an EDB's responsibility to provide an AMP that details the capex needed to maintain existing quality levels and it is their responsibility to then deliver that capex (assuming sufficient allowances are provided to maintain the quality standards). EDBs are then held accountable for those responsibilities through the quality incentive regime and regulatory enforcement if they breach their quality targets.

Consultation question 4: We have concerns about the challenges in delivering increased programmes of work given current labour market, supply chain and economic challenges in New Zealand.

How should our capex forecast take into account potential sector-wide deliverability constraints?

As highlighted above, it is an EDB's responsibility to deliver their capex programmes so that they can maintain quality. EDBs will have already adjusted capex programmes to reflect their existing and forecast delivery capability. Capex programmes should not be reduced any further as this would impact an EDB's ability to meet its regulatory quality targets.

Fortunately, workforces follow investment, A forward capital work plan placed into a market will attract resources and training for new resources. In some cases, other utility plans can overlap and contractor panels involved in civil works can coordinate multi-utility requirements in the same road corridor based on forward work plans and coordination.

Without clear regulatory support of the increasing work programme, the market will not have the confidence to adjust their current labour supply. The delivery of the CPP work programmes provide a good example of suppliers expanding their delivery capacity in response to programme increases.

WELL is building a different delivery model that reflects the characteristics of our capex programme (as highlighted in Chapter Four of our 2023 AMP). The programme will initially focus on WELL's largest assets, the sub-transmission network. Sub-transmission assets are mostly underground, and the majority of the work programme will be civil works rather than electrical.

WELL is packaging the network reinforcement into large, multiple-year programmes aimed at attracting large civil contractors into the region. The work programmes will be procured as design and build agreements and will be managed using a Project Management Office function like that used by Transpower.

7.4 Resilience

As outlined in our AMP, the key resilience risk in Wellington is expected to be earthquakes followed by changing storm intensity. WELL consulted with the Lifelines Utility's Trust, local government, major customers and customer associations as part of its earthquake readiness CPP application. That programme was completed in 2020. This consultation also included the next stage in becoming more earthquake-resilient which is the replacement of the vulnerable gas cables and strengthening of the Central Part Transpower GXP. Customers supported these work programmes and they are included in this year's AMP and in Transpower's work programme (strengthening of their central Park GXP).

This year's AMP outlines how the ageing fluid filled sub-transmission cables also have limited spare capacity and will need upgrading to meet the decarbonisation-related electricity demand increase. This has enabled the accelerated replacement of these cables for no additional reliance cost to consumers.

Consultation question 5a: We will be using the s 53ZD notice to collect information about how EDBs have reflected resilience in their expenditure forecasts.

What engagement have EDBs had with consumers about resilience expectations, especially as it relates to significant step changes in forecast expenditure?

As outlined above, WELL consulted with customers on becoming more earthquake-ready in 2017 as part of our earthquake-readiness CPP application. It is also important to note that EDBs do not have a direct relationship with customers and are not funded to consult with consumers for a change in DPP resilience and quality levels. We agree that EDBs will need to develop this capability as customers become more reliant on electricity as their primary energy source and as distribution services evolve (providing new services like two-way power flows and flexibility and demand response when limited supply results from a limited network capacity).

Under a DPP, the Commission sets quality targets and EDBs do not need to consult with customers. Directly consulting with consumers is a new business function that would require a step change in Opex. If the Commission expect networks to consult, then networks will need time to provide evidence for an Opex step change. WELL's sister companies in Australia and the United Kingdom are required to directly consult with consumers on service quality levels and the cost is material.

Consultation question 5b What other considerations should we factor into our analysis of the resilience expenditure information collected from the s 53ZD notice and/or what is unlikely to be visible in the forecasts that we should consider?

Earthquake resilience build into AMP forecasts

As highlighted in Chapter 12 of our AMP, the decarbonisation-related demand increase has enabled us to consider an accelerated replacement of Wellington’s fluid filled cables, assets which are our most earthquake-vulnerable and have performance issues with increased loading. All of the fluid filled cables will now be replaced within the next 10 years. The replacement of these cables has been integrated into the network growth capex, rather than the resilience asset category. This reflects that network capacity is the first trigger of the investment.

Impact of worsening storms not included in capex forecasts

We are currently working with NIWA to model the impact of changing weather patterns on the performance of the network and the potential impact on network response costs and quality outcomes. Early modelling shows that storms are becoming more frequent, and the wind gusts are becoming turbulent (larger wind speed variations between the peaks and troughs). We do not know yet whether the network needs to be strengthened to mitigate the changing weather patterns or when that investment might be needed.

We will make a reopener application if we need to invest in the DPP4 regulatory period once we are more certain. We have assumed that the risk reopener will allow us to do this.

7.5 Capital contribution policies

WELL’s capital contribution policy balances affordability with minimising intergenerational cross-subsidisation. We reflect this balance by connecting customers paying the majority of the cost to connect (around 70%) and the remainder of the cost of connecting being funded by tariff revenue over time. The application of this Policy is consistent over time so that all customers connecting to the network pay a relatively similar (depending on the characteristics of the connection) upfront cost, limiting intergenerational cross-subsidisation.

Maintaining this balance over time is important. If a network change this allocation and a connecting customer pays a larger proportion, say 100% of the connection cost, and has the standard network tariffs applied to their on-going use, then they would be subsidising other customers who on average only paid 70% of their connection cost and are also paying the relatively the same (depending on their use and connection size) ongoing amounts using the same network tariffs. The consistent

application of the share of connection costs ensures an equitable application of tariff revenue going forward.

The connection cost may 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.

Network Growth on the Wellington network mostly benefits other existing or future customers and is therefore mostly funded by tariffs and not by customer contributions. We note that other networks will have different network characteristics and it is important that they can choose a capital contribution policy that best suits their circumstances.

Consultation question 6: We would like to understand how potential changes in capital contributions policies could be accommodated in DPP4.

How could changes to capital contributions policies, either in advance of or within the regulatory period, be accommodated within our capex forecasts for DPP4?

A change in capital contribution policy could significantly change some networks' capital forecasts and funding requirements. If the EA apply rules governing capital contribution policies, EDBs will need the ability to update their capex forecasts and access additional allowances.

Given the EA hasn't released any proposed changes for consultation and the tight timeframes for resetting the DPP, it's unlikely that the DPP process would allow a further capex update to be made before the DPP is finalised. We believe that networks would have to apply for a reopener for a within-period change to allowances.

We note that a material step change in capex could impact financeability. As highlighted in our submission to the Draft Input Methodology decision¹⁶, increasing capex could result in cashflows that do not reflect the +++B credit rating assumed in the WACC calculation and networks' actual debt costs may not be covered by the debt allowances. Reopeners are designed to be made by individual networks which would make it difficult for the Commission to assess whether the change in policies had impacted financeability for the notional entity. We would support an aggregated or group reopener application to allow the Commission to assess whether additional opex would also be needed to fund the higher costs of debt to support an increase in capex.

¹⁶ Section 3.1.4 of our submission to the Draft IM Decision.

7.6 Timing of investment and pace of change

We support the approach of building to the 'least cost' over the asset's life. As highlighted in the years AMP¹⁷, the largest cost of replacing or upgrading assets is usually the installation cost, and the cost of installing larger equipment at the time of installation is often comparatively small. We have found that the lowest long-term cost is often to install enough capacity at the time of installation to meet all new growth over the asset life. This is especially the case in Wellington which has a high proportion of underground assets where the largest single cost is the civil works (trenching).

Consultation question 7: We are interested to understand if EDBs are assessing investments driven by expected pace of change which may not be consistent with choices otherwise made under a least cost lifecycle basis.

Are there specific investment decisions being considered due to concerns on delivering increased scale of investment in limited time which are not consistent with a least cost lifecycle basis assessment; for example, areas where EDBs are intending to build well in advance of forecast need or for demand or generation that are only speculative?

On what basis are these investments being assessed?

Our capex planning methodology limits the risk of building too early, building new capacity for demand that doesn't eventuate or not installing enough capacity resulting in higher 'whole of life' costs. Our capex forecasting is conservative and reflects high probability demand increases. We will be relying on the reopeners for new allowances for faster than expected demand increases. Specifically:

As highlighted in our AMP our process for designing our capex for the sub-transmission and high voltage networks uses a forecasts demand that is classified into three tiers:

1. C1 which is for near-certain growth where the customer has committed.
2. C2 and C3 which are less certain. We use these for planning and to guide the size of the capacity being built.

We only include capex needed to support P1 growth in the AMP schedules, ensuring that we are only building to meet new demand that will happen. We rely on reopeners for P2 and P3 projects and will make an application once they become more certain. Note, this process also applies to upstream network growth. The AMP schedule only includes high voltage network reinforcement that is triggered by near-certain customer growth.

¹⁷ Section 4.3.5 Considering Long-Term Cost Efficiency

The mesh network design and hot water control allow us to redistribute faster than expected demand while we make a reopener application for capex not included in the allowances.

We use the P2 and P3 demand forecasts to guide the size of the equipment being installed and for signalling what reopeners might be needed in the future. Specifically, we use the P2 and P3 forecast to:

- **Inform network design standards:** we have standard designs for our low voltage networks to ensure they will have enough capacity to meet the new demand from the Emissions Reduction Plan. We are redesigning these standards to reflect the P1, P2 and P3 forecast which now include the electrification of transportation and process heat and the transition away from using natural gas.
- **Inform the designs of medium and high voltage network growth:** While we only include capex projects for P1 demand, we use the P2 and P3 demand forecast to inform the size of the equipment that needs to be installed. This ensures that the size of the equipment being installed is efficient. For network reinforcement that has a high installation cost (e.g. they are underground) this means ensuring that the equipment is large enough to meet all future growth, avoiding further installation costs if the assets need a further capacity upgrade before the end of its useful life.

Managing faster than expected demand on the high and medium voltage networks

We note our approach to forecasting capex on the high and medium voltages is conservative and faster than expect that demand could mean we need to invest earlier than what is provided in the capex allowances. We will be relying on the capex reopeners to provide more allowances in these situations.

Low voltage network

Demand on the low voltage network will be from new connections and new demand from existing connections. We are developing a probabilistic model which will estimate when LV assets will exceed capacity. We are using this to develop capex budgets which will estimate how many networks will need capacity upgrades. This will provide a capex pool to call on when needed.

7.7 Capex retention rate

We agree that it is important not to incentivise a preference for opex or capex. It is also important to allow EDBs to substitute capex and opex allowances if they find it is more efficient to swap what allowance expenditure is funded from. We support the approach of the opex and capex retention rates being the same. The ability to substitute capex and opex allowances will become more important as EDBs consider non-traditional solutions to building new capacity.

8 Forecasting operating expenditure

The current methodology for calculating operating allowances (both that proposed in the Issues Paper and what was used for DPP3) does not capture all of the costs an EDB needs to operate their network. EDBs are overspending their allowances to meet these increases. While it's an EDBs choice about the services they use and how they allocate their budgets, networks are incurring additional costs not covered in allowances, that they cannot avoid if they are to meet the quality standards and their regulatory, legislative and legal obligations.

The IRIS cost-saving incentive relies on the regulatory model capturing all expenses that are out of an EDBs control. As highlighted in The Issues Paper¹⁸, the overall 'revealed cost' approach to setting incentives, sets the incentive targets at the expenditure levels needed to operate the network. It then rewards or penalises the EDB for operating the network more or less efficiently (i.e. spending more or less than the incentive targets).

Currently, there are unavoidable costs that have been missed from the incentive targets, and EDBs are incurring IRIS penalties for expenditure they cannot avoid. A rational business would not unnecessarily overspend the operating expense allowance and incur an IRIS penalty which erodes profits and the real return. Figure 2 shows the overspend of operating costs as a percentage of allowances for non-exempt EDBs. The majority (14 of the 16) of non-exempt EDBs have spent, or are forecasting to spend, more opex than their allowances over the DPP4 period.

¹⁸ Para D10 and D11.

Figure 2 - Overspend as a percentage of operating expense allowances (non-except EDBs)

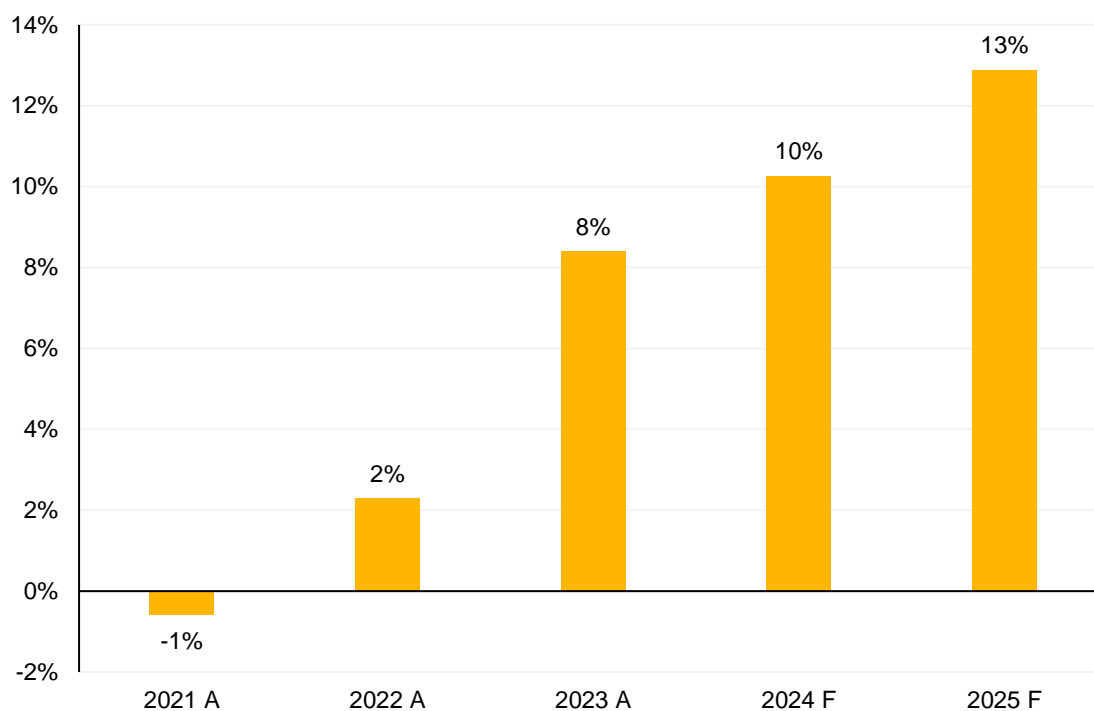


Figure 39 from the Commission's *Trends in local lines company performance*¹⁹ study shows that networks are earning a return below the regulatory WACC for both the DPP2 and part of the DPP3 period. New operating expenses not covered in allowances will be contributing to the low profits. The current operating expense allowances calculation does not meet the objectives of Part 4, specifically incentivising suppliers to invest. The price path is not being set at a level that an EDB can expect a real return and the financial capital maintenance principle²⁰ is not being met.

The Commission recognised this issue during the DPP3 reset, identifying \$59m in unexplained cost increases that were not captured by the DPP2 operating cost forecast mechanisms²¹.

There are a number of reasons why the DPP allowance calculations aren't capturing new costs:

- The step change criteria are narrow and restrictive. Many unavoidable cost increases do not meet the criteria and are excluded from allowances.

¹⁹ Page 42, https://comcom.govt.nz/__data/assets/pdf_file/0018/230517/Trends-in-local-lines-company-performance-13-July-2022.pdf

²⁰ Para A21.1

²¹ Figure A1 and section A16 of the DPP3 Draft Decision.

- Sector inflationary increases have risen faster than the all-sector cost escalators. Inflation adjustments using the all-sector inflation aren't capturing all cost increases.
- The network scale factors aren't capturing the increase in the delivery programme. The network growth investment programmes are rapidly increasing and driving additional costs in the network planning and project delivery teams. Most new demand is not coming from new connections but from more energy being delivered from existing connections as households purchase EVs and transition away from gas.

8.1 Base year

We agree with using the most up-to-date base year as this should be a close reflection of current expenditure requirements.

8.2 Scale trend factors

We are concerned that New Zealand's electrification of transport and process heat is changing how the networks will grow in the future. This could mean that the historic relationship between opex and the opex drivers used for the network scaling, may not reflect future growth. EV's and natural gas to electricity conversions will increase energy use from existing connections. ICP and line length cost drivers will not capture the reinforcement of the existing network and the costs to support these work programmes. The relationship between increasing opex costs and new growth from existing connections may not exist in the historic data set. The regression analysis provided in the Issues Paper, tests the fit of different cost drivers using historic data. The analysis will not capture how well new drivers change operating costs if that relationship is not already in the reference data.

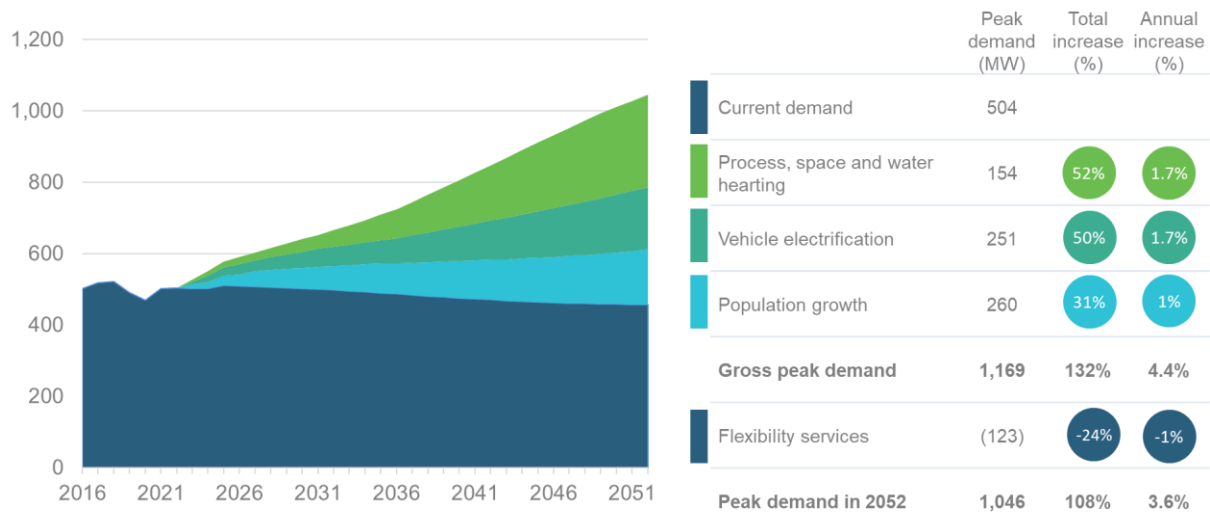
Our subjective observation is there are significant back office supporting cost increases needed to deliver a 120% increase in our capex programme. We are not expecting a change in the ICP and lines length growth rates so the current drivers would not provide for the increase in expenses.

8.2.1 Support exploring capex as a proxy of network growth

The drivers of network growth are changing and capex could be a good new driver to capture this growth. However, capex reflects the programme to build the new capacity rather than the change in network size so the fit may not be strong. We think the reset will need to consider how to test whether the reference data will represent changes in how the network will grow in the future. We don't believe we can rely on the regression measures of fit as these only measure the strength of the relationship in the base data and may not necessarily reflect future relationships for changes in growth patterns.

Figure 3 summarises network growth over the next 30 years and highlights that 80% (102% of the 132% gross increase) of this growth is from the transition from natural gas and the electrification of transportation. The majority of light vehicle charging and the electrification of gas hot water and space heating will be at home from exiting connections²². Only 20% (31% of the 132% gross increase) of the overall growth is forecast to come from population growth and from new connections.

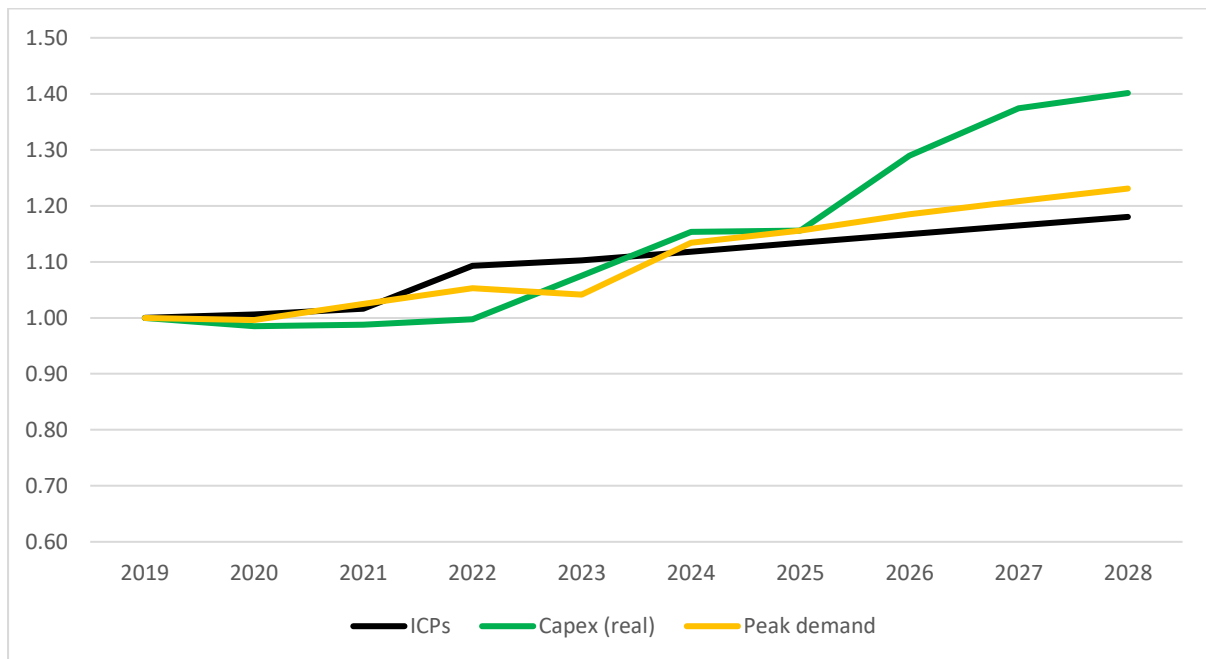
Figure 3 – forecast peak demand growth on the Wellington Network



²² Included in this is 30MW of industrial load.

Figure 4 illustrates the expected change in growth drivers for the 16 non-except networks. The Figure compares ICP, peak demand and capex for the past 10 years and the next 5 years. Historically peak demand and ICP growth have had similar growth rates, reflecting that most new demand came from new connections. However, as networks are reinforced to meet the decarbonisation-related demand, peak demand and capex start to increase at a faster rate than ICP growth reflecting more energy is being delivered from existing connections and the increasing work programme to build the new capacity. This is reflected in the growing gap between the ICP growth and capex and peak demand growth. Note, we still expect ICP growth to remain at historic growth rates so the ICP growth driver will still be important.

Figure 4 – comparison of cost drivers - indexed metrics (non-exempt EDB's)



The Commissions regression analysis has shown that peak demand as a price driver does not have a relationship with opex that isn't already captured by the existing regression inputs. We think this is because there hasn't been significant network growth capex in the past so there hasn't been a relationship with opex to capture.

We note that capex could be a good cost driver of the increase in energy being delivered from existing connections. Rather than capturing the change in network size, it would capture the works needed to build the new capacity. We agree with the Issues Paper that this should be explored as an additional non-network opex driver.

8.2.2 How to capture opex increases due to network growth that are not captured by the regression equation

Most networks will be electrifying transport and process heat and will need to deliver significant new demand from existing connections. The CPP provides the ability to provide bottom-up forecasts and we think that networks with significant capex programmes will need large increases in supporting opex which are best assessed using benchmarking, expert scrutiny and other tools available with a CPP.

However, the high regulatory cost of directly scrutinising AMP opex forecast doesn't fit the low-cost purpose of a DPP. EDBs will need to consider whether network cost increases that might normally be expected to be captured by the network scale factors will need consideration as a step change.

Consultation question 9a: We are considering revising our approach to scale growth trend factors, to better reflect EDBs increasing focus on investing to meet growth and renewal needs.

Do you support our emerging view that including forecast capex as a driver of non-network opex could improve opex forecasts, and that this conclusion makes sense in terms of the way EDBs run their businesses?

Yes, we support considering capex for a non-network cost driver. As highlighted above, most new demand growth is expected to come from existing connections and not from new connections. The majority of WELL's future capex will be to build new capacity to support this new demand. The existing ICP and line length cost drivers will not capture the increase in capacity of the existing network or the doubling of the work programme to build the new capacity.

Consultation question 9b: Are there alternative drivers that we should consider, and what evidence is there that they can meaningfully predict EDB scale growth?

The relationship between increasing opex costs and new growth from existing connections may not exist in the historic data set. The regression analysis provided in the Issues Paper tests the fit of different cost drivers using historic data. The analysis will not capture how well new drivers change operating costs if that relationship is not already in the reference data. Other than capex, we don't think any new regression inputs will capture the change in network growth drivers.

If future growth can't be reflected in the regression model because the relationships don't exist in the historic data, then EDB will need to consider the step change mechanism. We think an important emerging issue will be capturing legitimate cost increases that will no longer be captured in the network scale factors, as a step change.

8.3 Input price trend factors

Consultation question 8: We are considering updating our approach to forecasting opex input price escalation to better reflect the mix of inputs EDBs face.

Do you have a view on another index, or weighted mix of indices, which would improve the quality of opex forecasting compared to our current approach? (Using a 60/40 mix of percent changes in Labour Cost Index (LCI) all-industries and Producers Price Index (PPI) input indices.)

If so, what evidence supports this view?

We are concerned that the all-sector measures might not capture the higher electricity sector inflationary

costs driven by high demand for labour, materials and equipment.

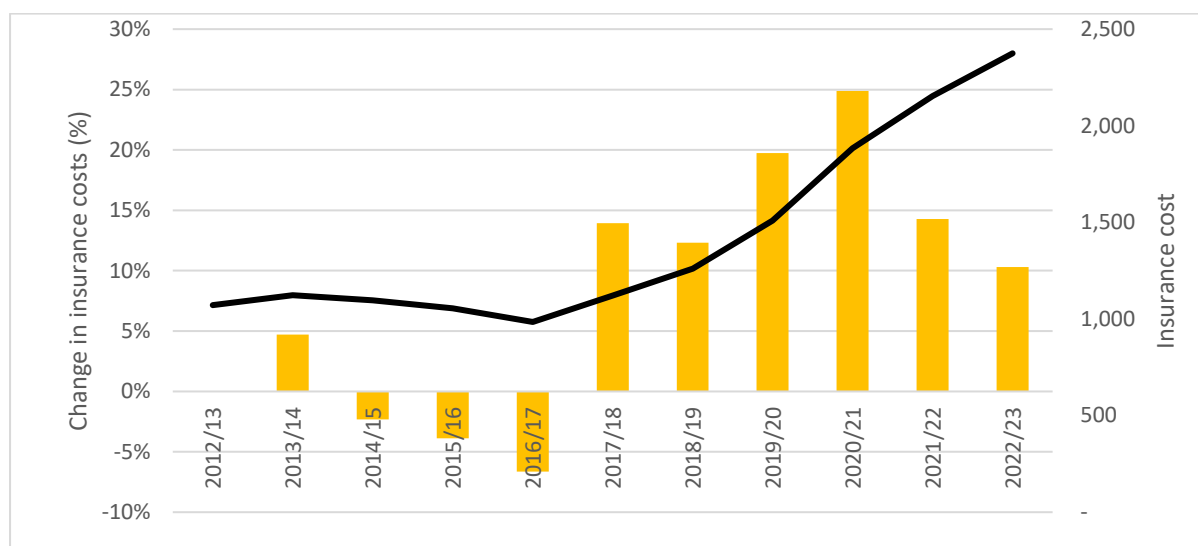
However, we agree that the proposed PPI and LCI forecast are probably the best available.

8.4 Partial productivity trend

We note the Commission will be providing an updated partial productivity trend. Our early analysis using the traditional productivity measures shows that most networks are becoming less productive. Subjectively we think this is because EDBs are incurring new unavoidable costs that do not improve the core network efficiency measures but are expected as part of a network's social license. For example, the following changes and associated new costs cannot be avoided and do not improve any of the productivity measures:

- Meeting our obligations under the Health and Safety at Work Act. Cost increases include a reduction in the number of more efficient energized work methods, increased traffic management and an increase in internal support staff.
- Increasing cost of resilience in response to recent earthquakes, cyber threats and increasing storms. The largest and most visible cost increase is the 88% increase in insurance costs over the last 5 years. Figure 5 below illustrates the rapid increase in insurance costs.
- Participation in overseas stock markets, debt renewals, insurance cover and financial reporting now require an Environmental, Safety and Governance compliance function. This has included new staff functions, new Board Sub-Committee and new financial and social reporting requirements. While this cost has historically not been material, we think it will be in the future.
- The government's Emissions Reduction Plan has doubled our participation in regulatory and policy consultations, and we are now funding various working groups, committees and forums which are coordinating the industry's delivery of our part in New Zealand's decarbonisation targets.

Figure 5 - Insurance price increases for WELL



As highlighted in section 8, non-except EDBs are nearly all exceeding their opex allowances and are incurring regulatory penalties to meet these obligations.

We also think that there is an Information gap that will make it difficult to verify why networks are becoming less productive. While it is clear that networks are incurring new unavoidable costs (it can be assumed that a rational business wouldn't incur regulatory penalties unnecessarily), the ID data is too aggregated to identify what's driving the faster-than-inflation increases. The exception to this is rapidly increasing insurance costs. We look forward to working with the Commission to provide insights into the productivity results that might not be visible from the ID data.

8.5 Framework for assessing step changes

We support the approach of developing objective step-change criteria that provides the Commission confidence that the additional expenditure will only be provided when it's efficient and necessary to do so²³.

Robust and objective step-change criteria will also provide EDBs with certainty that they will be provided with allowances to support the new functions needed to deliver the decarbonisation-related demand increase and to continue to provide reliable and affordable distribution services²⁴.

²³ Meeting the purpose of Part 4, 52 (A) (1), (d)

²⁴ Meeting the purpose of the IMs Part 4 53R.

We agree that the criteria must be set to balance providing EDBs with the allowances they need with ensuring allowances are efficient and EDBs aren't provided unnecessary allowances which can then be used to earn excessive profits. However, the application of DPP3 step change criteria was too rigid and networks have had to fund unavoidable costs to covered by allowances from profits (as outlined in section 8)

8.5.1 Subjective application of the step-change criteria

The DPP3 step change criteria were high-level and required subjective judgments about whether they applied or not. Requests for step changes that appear to have met the criteria have been turned down. For example, WELL requested additional allowances for increasing insurance costs as part of our transition from a CPP to DPP3. The price-setting process used the DPP3 step change criteria.

The step change request was rejected because the increase in insurance costs was deemed as not being material. The step change criteria did not provide a measure of what would be considered material. The increase was \$0.47m p.a. or \$1.9m across the DPP period which is the equivalent of 1.5% of total opex. We note this increase is close to the reopener materiality criteria which is set at a level which reflect the high cost of reopening the price path (a cost a step change doesn't incur).

Objective step change criteria will provide regulatory certainty.

8.5.2 Unavailability of supporting evidence

The application of DPP3 criteria and the early thinking about DPP4 criteria includes the provision of verifiable cost data. However, verifiable cost estimates may not be available at the time the price path is set. Two upcoming examples of this are:

- EDBs will need LV management software to collate and analyse smart meter data, providing visibility of the LV network and allowing EDBs to manage the rapid connection of DER and to host flexibility services. The cost to purchase smart meter data is known and can be verified by the meter provider. However, the ongoing software costs will depend on network operating requirements and the outcome of the procurement tender. EDBs could provide an estimate of the costs using industry experts, but they couldn't provide quotes or cost certainty.
- Several networks will be tendering their field services in 2024. Market intelligence indicates that rapidly increasing labour and materials costs will mean that field service providers will be resetting their price points to adjust for cost increases not captured in contract inflation

uplifts. EDBs know the cost increase will be material but will not know how much the increase will be until the market tender.

Consultation question 11: Given the possibility of a greater need for step-changes in opex in a context of industry transition, we have clarified further how we are thinking of applying the step-change criteria and the supporting evidence we expect.

Do you consider the expanded descriptions of the step-change criteria provide sufficient clarity about the types of step-changes we consider meet the Part 4 purpose?

We support using the proposed categories with better clarify and guidance about how they will be applied. We believe that the application of step change criteria to date has been subjective and the criteria too rigid. Known cost increases are being missed from EDB allowances.

We also agree that consideration are needed to distinguish when a CPP should apply. As noted in our comments on setting capex allowances, any assessment of when a CPP is best suited must relate back to the guiding principles provided in the IMs.

These CPP principles may not be practical to apply at a specific mechanism level. For example, the criteria that a cost increase must apply to most or all EDBs is used to highlight when a cost increase is unique to a network and might be best assessed as part of a CPP application. However, the step change may be material in the context of an increase in operating expenditure, but it may not be material in the context of the entire price path.

We believe that the assessment of when a CPP is best suited should be at the price path level rather than when assessing specific components.

8.5.2.1 Significance

We disagree that lower materiality limits or guidance on materiality cannot be provided. The onus and cost to gather and provide evidence sits with EDBs. An EDBs will therefore be best placed to decide whether it's worth doing so. Robust criteria around what EDBs need to provide to meet the 'verifiable' criteria will help guide EDBs to make this decision.

Without understanding what might be considered material, an EDB (and the customer in the long term) could incur the costs of providing verifiable evidence to make a step change request, only for it to be turned down and those costs wasted.

An example of this is provided above in the section 8.5.1. WELL, provided an invoice for the actual increase in insurance costs, making it easy for the Commission to verify, fitting with the “proportionate scrutiny principle²⁵” i.e. a step-change with clear drivers and an objectively assessable cost should have a low materiality limit. Yet a cost increase of an equivalent of 1.5% of total opex was denied as not being material.

Unless some guidance is provided about what would be considered material, the application of the step change criteria will continue to be subjective.

8.5.2.2 Robustly verifiable

The description of what constitutes robustly verifiable evidence is useful and provides a good overview of what is needed to support a step change request. We would add:

- EDBs should make joint requests (ideally via the ENA). This would allow any costs for expert advice to be shared, keeping step change requests within the context of the low-cost DPP regime.
- We support having the ability to provide cost estimates rather than relying on invoices and quotes. The actual cost may not be known until an EDB procures a service if they are procuring using a market tender. They may have to rely on expert cost estimates (using quantify surveyors or other procurement specialists) to support the step change request.

8.5.2.3 Not captured in other components

It is important to ensure that EDBs are not remunerated twice for a new cost. We also agree that a reopener may also be a better mechanism for many step changes as this would allow the results of a procurement process to be included, providing more accurate cost estimates.

This assumes that a reopener is available given their limited scope. We also note the high materiality limits of a reopener due to the high application costs (the cost of consulting and reopening the price path). Known and unavoidable cost increases may be excluded from allowances if reopeners are relied on and then those costs don't meet the different criteria and narrower scope.

²⁵ D91 of The Issues Paper

8.5.2.4 Outside the control of the distributor

This criteria only makes sense with the “a prudent and efficient EDB’ caveat. Many decarbonisation-related cost increases could be avoided but at higher long-term costs or at the cost of not meeting ERP obligations. We suggest changing the title of the criteria to ‘Outside the control of a prudent and efficient distributor’.

This is a good example of where guidance and examples to support the criteria are essential to make the application of the criteria objective. We support the early list of examples provided in D111. We would also support an early workshop before the draft decision where EDBs could share any new step change requests they are considering, and we could discuss whether they would meet the criteria.

8.5.2.5 Applicable to most or all distributors

We disagree with this criteria as some cost step changes only apply to a smaller group of networks (but not the majority) and where that spend is outside of the control of a prudent and efficient EDB.

We do note and support the Commission's recognition that flexibility is needed in the application of this criteria and we support the process for assessing a step change that only applies to a small group of EDBs provided in section D106 of The Issues Paper. We think the criteria should be amended to reflect this flexibility i.e. applicable to a group of distributors.

8.5.3 Process for providing step-change applications

We ask that the Commission add a step in the DPP reset process for EDBs to formally provide supporting evidence for a step change. Providing supporting evidence in response to the Draft Decision is too late as EDBs would not have an opportunity to answer any questions or provide any additional information that might be needed.

We think that the Commission should request²⁶ step-change applications early in the new year as part of their response to this Issues Paper submission. EDBs could then incorporate the Commission's views from this consultation when providing supporting information. We expect that EDBs would make consolidated applications (mostly likely via the ENA) to reflect that step changes

²⁶ Potentially this could be done as a 53ZD request using a template like the current quality data and AMP schedule update.

will apply to groups of EDBs. This will then allow the Commission to provide robust step-change decisions in the Draft Decision.

8.5.4 Potential step-changes

We will be working with other EDBs and the ENA to make a number of step change requests. We have provided examples of how we will be demonstrating the step changes will meet the criteria and ask for feedback as to whether the proposed approach would provide the evidence needed.

We also think that it might be useful to hold a workshop with the Commission to discuss the proposed approach.

8.5.4.1 LV monitoring and operations management

This is an essential new function needed to support flexibility services, the development of LV quality standards and to manage the rapid uptake of customer appliances like EVs. Figure 6 outlines our proposed approach to meeting the step change criteria.

Figure 6 – meeting the step-change criteria for LV monitoring and operating management

Criteria	Proposed approach
Significant	We expect the annual cost will be \$1.8m p.a. which is 5% of the total current opex. This is \$3.6m if the function is added in year 4 of the DPP4 regulatory period which meets the materiality criteria of a reopener. We think a reopener would have a higher materiality bar given the high cost of reopening a price path.
Robustly verifiable	There are four cost components, some costs are known and other costs will rely on cost estimation. The proposed verification methodology is: <ul style="list-style-type: none"> • Purchase of smart meter data: We propose using vendor \$per ICP quotes. Vector Metering own 90% of the meters in Wellington and can provide a quote. • LV management software: We have trialled LV management software which is priced based on the size (number of ICPs) or a network. We can provide an annual license fee quote. Installation costs will be capex. • Smart meter data storage and analytics: Vendors have provided annual license fee estimates. Installation costs will be capex. • Supporting headcount: Independent experts to provide supporting headcount numbers. Salary costs provided by Strategic Pay market salary estimates (which we use to ensure staff salaries align with market salary rates).
Not captured by other allowances	We have not developed this capability yet and the costs are not included in our base year and won't be captured in the network scale factors.

Outside of the control of the EDB	A prudent and reasonable EDB needs to develop an LV management capability. We could support this assumption using expert advice to confirm this capability is needed. The cost of this advice could be shared across all EDBs.
Applicable to most EDBs	All large EDBs are currently trialing LV management tools to support incorporating flexibility services. As highlighted in section F173 of the Issues Paper, EDBs will need this capability if they are to consider LV quality measures.

8.5.4.2 Cyber security

Like most network, WELL is having to invest in new cyber security capabilities to mitigate the growing cyber threat. We have an external audit of our cyber capability early next year which will set what our investment requirements are. Figure 7 outlines our proposed approach to meeting the step change criteria.

Figure 7 – meeting the step-change criteria for cyber security

Criteria	Proposed approach
Significant	We have an external cyber security audit early next year which measures our current capability against industry good practice (we use the KPMG Cyber Maturity Assessment (CMA)). This will also inform our investment requirements.
Robustly verifiable	We collect market quotes for any remedial works highlighted in the audit.
Not captured by other allowances	We have our existing cyber capability included in the base year. We will only include incremental costs in a step change request (if a step change is needed and the cost impact is material).
Outside of the control of the EDB	A prudent and reasonable EDB needs to protect itself against cyber threats. Our cyber security capability is targeted at the standard of good industry practice, which is reasonable for a prudent operator.
Applicable to most EDBs	All EDBs will need to consider cyber security. We will work with other EDBs and the ENA to confirm that most EDBs require a step change in their existing capability.

8.5.4.3 Large-scale customer demand

We agree that direct operating expenditure for large new connections are best suited to come from reopeners.

However, as highlighted in section 8.2 in our response to the network scale drivers, there are existing functions that will need to scale to support the increase in demand from large new connections that will not be captured in the proposed network scale factors. We note that many of

these increases are unique to WELL and best suit a CPP. However, there are core planning resources that most networks will need to meet their part in New Zealand’s decarbonisation plans (opex costs that will not be capitalised):

- Additional engineering planning staff to plan when and where new capacity is needed and to prepare the works for delivery.
- Additional quality and safety resources to support the safe delivery of the work plan.
- Additional finance transactional staff to support the increase in invoices, asset additions and external audit sampling.

We will work with other EDBs and the ENA to confirm whether the networks scale factor will capture the increase in supporting overhead costs needed to support delivering more energy from existing connections. Figure 8 outlines our proposed approach to meeting the step change criteria.

Figure 8 – meeting the step-change criteria for increases in costs to support the 120% increase in the capex

Criteria	Proposed approach
Significant	Based on current delivery levels (headcount as a proportion of current capex), we forecast we will need a 2.7% ²⁷ increase in operating costs to deliver the increase in capex. This is \$5m across the DPP4 regulatory period which meets the reopener materiality criteria which we consider has a higher materiality bar given the high cost of reopening a price path.
Robustly verifiable	We propose developing a verification methodology with the ENA that can be used across all EDBs. This will ensure the relatively high cost to scrutinise these new costs are spread across all EDBs and, overall, will meet the low-cost expectations of a DPP.
Not captured by other allowances	Part of this cost could be captured by the proposed new capex network scale factor cost driver. Any proposed step change would be net of what’s provided by the driver.
Outside of the control of the EDB	A prudent and reasonable EDB needs to build new capacity before demand increases to maintain network security and ensure the quality standards are met.
Applicable to most EDBs	Most EDBs have indicated that they are expecting material demand increases and forecasting large increases in their capex programmes.

²⁷ This is approximately \$1m p.a. The final figure will depend on what is provided via the network scale factor.

8.5.4.4 Cost associated with distribution system operations (DSO)

We agree with the Commission that the best operating model for a DSO function has yet to be defined to the point that robust operating costs could be forecast.

While we don't think a step change in operating expenditure is required yet, the capability has to be developed. This will be an important development area that the innovation allowance would be best placed to consider.

8.5.4.5 Avoided cost of distribution and flexibility services

Flexibility services will be an essential tool for managing the rapid connection of customer DER and for helping to keep the cost of distribution services affordable²⁸. As we highlighted in our submission to the IM Draft decision²⁹, the cost of flexibility payments and an associated payment budget will be very difficult to forecast and is unlikely to meet the step change criteria (especially the criteria to be robustly verifiable). Even when flexibility matures, we believe that it will still be difficult to forecast opex allowances with any accuracy because it will be difficult to forecast the inputs into the allowance forecast:

- How much EDBs and other buyers will pay for flexibility service (noting that EDBs will be competing with other flexibility buyers)
- What sort of demand response a flexibility service will provide, and for how long a capex investment can be delayed for (before demand increases exceed the additional capacity headroom flexibility can provide). This will depend on how fast the market matures and whether all of the components required to provide flexibility at the scale needed are in place³⁰.
- What assets will be constrained in the future and what assets will a non-wire solution be a viable alternative for. Network constraints will be a result of peak demand increases which are influenced by many external factors like EV uptake, Government emissions-related

²⁸ The Ministry for the Environment's 'Emission Reduction Plan', the EA's 'Updating the Regulatory Settings for Distribution Networks' consultation, Transpower's 'Whakamana i Te Mauri Hiko', and Boston Consulting Group's 'The Future is Electric' all highlight the central roles flexibility services will have in spreading out the investment in new capacity, managing demand and supply uncertainty, and helping to manage the size of customer bill increases.

²⁹ Section 3.2.1 of our submission to the IM draft Decision.

³⁰ Our EV Connect Roadmap highlights the many new functions that need to be developed across the flexibility supply change to allow flexibility to be offered <https://www.welectricity.co.nz/major-projects/ev-connect/>.

incentives or penalties, Government policy changes (like whether to continue with gas), technology changes impacting appliance prices etc.

- A networks visibility of the LV network and how efficiently the LV management tools allow a network to call on flexibility into their demand management (noting networks still need to develop this capability).

If an allowance can't be forecast accurately, then any application of the IRIS (or other cost-efficiency incentives) would be rewarding forecast errors and not cost-saving efficiencies. We do not believe the step change mechanism will be an efficient mechanism for providing flexibility allowances.

However, we disagree with The Papers statement that *"...the IRIS mechanism provide it with appropriate incentives to make the efficient choice. That is, if entering into the flexibility services contract / making ACOD payments results in the lowest overall costs, the EDB would overspend against its opex allowance, but this would be more than offset through the underspend against its capex allowance"*. As presented in IM Draft Decision, the IRIS does not substitute capex and opex across regulatory periods and the IRIS cannot be depended on to offset opex costs³¹. If the capex saving is not in the same regulatory period as the increase in operating costs, then a network will not get the offsetting capex incentive.

The Draft IM Decision was to rely on allowances to fund flexibility while the opex/capex substitution issues are solved. Given the difficulty in providing robust and verifiable flexibility costs, allowances are unlikely to be provided by a step change. We assume that the innovation allowance will be adjusted to provide flexibility allowances while the capex/opex substitution issue is resolved.

8.5.4.6 Direct customer consultation

We have assumed it's the retailers and the Commission (on behalf of consumers)) responsibility to consult with consumers under a DPP³². We do not have a customer consultation/communication function in our cost base apart from reactive services messaging.

We think that this will change and EDBs will need to lead direct communication with customers as customers become more reliant on electricity and customer services evolve³³. When there is a

³¹ The issues is detailed in Attachment C to the Financing & Incentivising Paper.

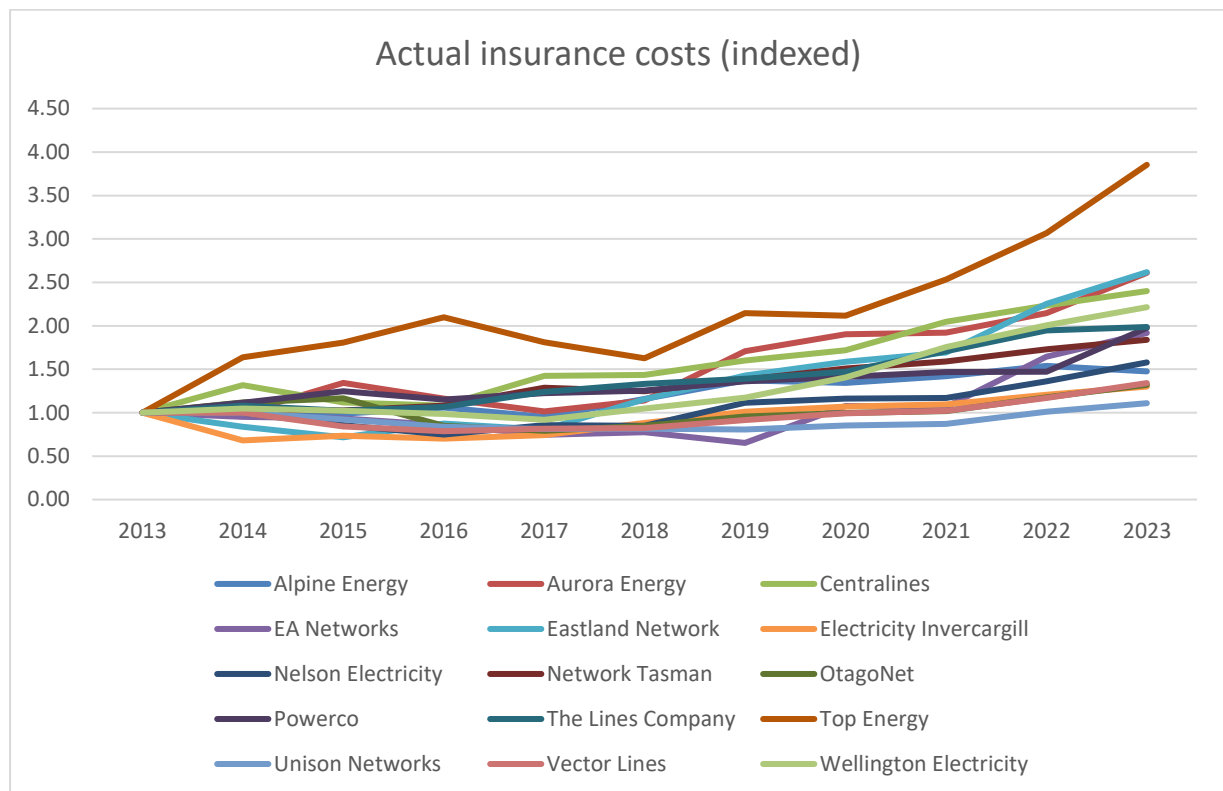
³² Noting is an EDB's responsibility under a CPP.

formal expectation for EDBs to consult with customers about their service levels under a DPP, a step change will be needed to provide this new capability.

8.5.5 Insurance

WELL purchases insurance using an insurance broker who tenders the cover to the global market and then chooses the least expensive. The cost of insurance is largely out of WELL’s control, with the final price driven by the local risks (earthquakes begin the primary risk in Wellington), and the impact of international events and the availability of cover (coverage becoming scarce and prices higher as the number of disasters increase). Figure 9 below shows the movement in insurance costs for the large EDBs (actual costs indexed to 2013). The Figure shows the large fluctuation in price between networks and between years reflecting the regional and international drivers.

Figure 9 - Changing insurance costs for non-except EDBs

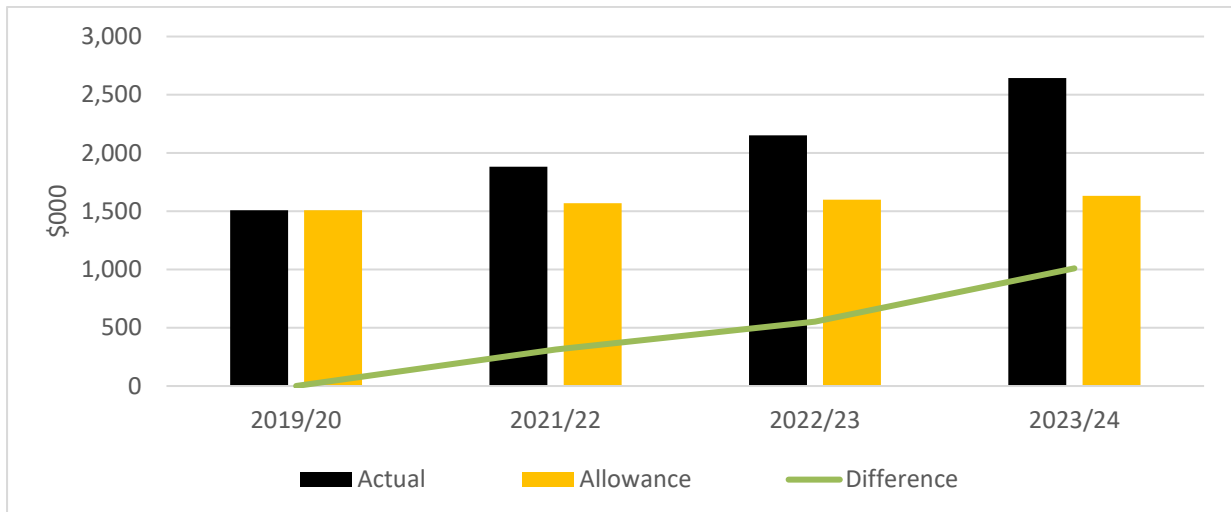


WELL has experienced above-inflation insurance cost increases which now means we have to find \$1m in savings each year (equivalent to 3-4% of our total opex allowance) to cover the gap in allowances.

³³ As described in section 2.4.3 of our 2023 AMP.

Figure 10 summarises the gap between our allowances and actual insurance costs. We are also able to leverage the buying power of our parent company that other networks would not have access to – their increases could have been much higher. The consequence of doing this is we are reducing the amount we could be investing in the innovation like that needed to develop LV management tools, flexibility or in improving our network quality.

Figure 10 - Actual insurance costs compare to the insurance regulatory allowance



A step change would be useful for capturing initial increase in insurance but it would also need to be supported with an price escalation factor to reflect that insurance costs are rising faster than inflation. The step change would capture the first years change but not ongoing increases.

As highlighted in our submission to the IM Draft decision, insurance costs are largely out of the control of an EDBs and we believe that they are better suited to a pass-through. A reopener and a supporting specific price escalator would be better than the current approach of providing no additional allowances for known cost increases. However, as shown in Figure 9, annual premium uplifts are volatile and reflect global supply and demand for coverage and not a forecastable trend. We believe that insurance is best treated as a pass-through to ensure that customers maintain a prudent level of coverage.

Consultation question 10a: EDBs have identified that insurance costs have been increasing at a greater rate than other costs they face.

What evidence do you have about how these costs are likely to evolve over time?

If so, what evidence supports this view?

As highlighted above, the price for insurance is a function of the global market and do not follow normal cost escalators like CPP. We have asked insurance brokers for a forecast of insurance costs. However, they will not provide a forecast due to the difficulty of forecasting what global prices will be. The closest we get to a forecast is the annual quote which covers the 12 months for the upcoming year.

Consultation question 10b: Is the option of trending insurance opex forward using a separate cost escalator workable? How could incentives on EDBs to make risk management decisions be maintained?

We do not believe there is a sensible cost escalator for forecasting insurance costs. Insurance costs are influenced by a range of factors including (advice from our broker):

- The Wellington region continues to have greater insurance challenges post-Kaikoura earthquake, than other areas of New Zealand.
- Increasing global demand for reinsurance capital is driving above-inflationary increases. Insurers need to buy more cover to maintain their current level of reinsurance protection.
- There has been a decrease in overall reinsurance capital globally. This is caused by many factors including significant catastrophe losses, higher loss costs due to inflation and supply chain issues impacting the cost of repairs.
- The impact of climate change on catastrophe losses creates uncertainty about long-term pricing adequacy.
- Insurers are expecting companies to demonstrate they are meeting minimum Environmental, Safety and Governance standards in order to maintain current prices (higher prices are applied if those standards aren't met).

As highlighted above, we think insurance should be a pass through and networks should be required to demonstrate they are providing efficient coverage.

Currently, networks are incentivised to reduce coverage and increase a customer's exposure to post-event recovery costs in response to the insurance cost increase. Customers are the beneficiary of a network maintaining prudent levels of insurance coverage and are therefore best placed to bear the risk of cost fluctuations.

The key decision that an EDB can influence is what level of insurance is efficient for consumers. We could do this by using external experts (actuaries) to set what a prudent level of insurance is. We believe that networks should be obliged to regularly review their insurance coverage. For example, for WELL this would mean checking that our current approach of only insuring for our substation and zone substation assets is a prudent approach and that's it's not better to insure more of fewer assets.

This assumes that EDBs are also funded to provide the prudent level of insurance. If EDBs were obliged to regularly review insurance coverage, then we think a pass-through is the best funding approach, reflecting EDBs have little control over costs (as discussed in our response to the Draft IM Decision³⁴).

9 Quality standards

A central mechanism of price/quality regulation is the relationship between price and quality. This enables a customer to choose a level of quality they want at a price they are willing to pay. They have a choice to pay more for a higher level of quality or pay less for a lower quality service. Care must be taken not to change one without considering the other. i.e. setting a higher (or lower) level of quality without also providing the corresponding price path adjustment to allow an EDB to change service levels without under or over-performing their profit expectations. Or visa vera, reducing (or increasing) allowances needed to maintain existing quality levels. There is a risk that the price/quality balance will not be maintained during the next DPP regulatory period, unless the price path (or quality path) has a corresponding adjustment:

1. Any reduction in capex due to the Commission's assessment of delivery risk. As highlighted in section 7.3, EDBs set their capex programmes at the level needed to maintain existing quality levels. If the capex programmes are reduced then a network may not be able to maintain their quality targets. We believe that a forced reduction in capex due to delivery risk will also need a corresponding quality path adjustment.
2. Recent High Cort decisions has provided the EA with the ability to impose quality targets and incentives. They are proposing two changes to the DDA with retailers which would apply higher levels of quality and significant additional cost. These quality changes must be made

³⁴ Section 5.6.1 of our submission to the IM Draft Decision.

within the price/quality regulatory framework to ensure that customers are happy to fund the higher level of quality and that EDBs are funded to do so.

3. Different quality expectations set when enforcing the quality standards. In our analysis and response to our 2018 quality breach investigation, we noted that quality enforcement was using a different measure of quality than what was used to set the quality standards. The quality breach uses a '*good industry practice*' measure to assess a networks quality performance which is very different to the 'no determination' principles that is used to set quality standards. For example, we observed that the breach investigation was assuming faster response times to an outage as '*good industry practice*' but were at a level we have not needed to provide in maintaining our current levels of SAIDI and SAIFI. Applying the '*good industry practice*' response times would significantly improve our SAIDI/SAIFI performance but at a significant cost increase.

We ask that the Commission take care to maintain the price/quality balance when considering price path changes that might impact quality, ask that the EA only make quality improvements via a price/quality reset and align the enforcement standards with price /quality regulation.

9.1 Understanding any changes in customer expectations

As customer electrify, they will become more reliant of electricity for their sole energy source. Once a residential customer shifts to an electric vehicle, nearly all of their energy use will be from electricity. It's likely that as customers become more reliant on electricity their quality expectations could also change. Currently, EDBs are not funded to directly communicate with customers, this being the responsibility of retailers.

We believe that EDBs or the Commission will need to develop a new capability to consult with customers about their quality preferences. We also believe that this new capability will need to be in place in the DPP4 regulatory period in time to inform future price/quality resets.

There already appears to be an expectation from the Commission that EDBs will ask customers about changes to service levels. Consultation question 5 asks EDBs what engagement they have had with consumers about resilience expectations. It is important to note that EDBs are not funded to

consult directly with consumers about service levels. For example, Wellington does not have a dedicated customer communication resource to manage a customer communication process³⁵.

9.2 Principle of no material deterioration

We support the principle of ‘*no material deterioration*’ to **unplanned outages** on networks that aren’t being impacted by rapid or uncertain demand growth. It provides a practicable way of quantifying and monitoring the price/quality trade-off described in the previous section, for networks that have capacity and are experience BAU operating conditions.

Network experiencing rapid and uncertain growth may not be able to maintain ‘*no material deterioration*’ level of quality for parts of their networks where growth maybe faster than they can build new capacity. We think that temporary quality paths maybe required for high growth feeder.

As highlighted in our submission to the Tranche 1 and 2 Information Disclosure reviews and in our response to our 2018 quality breach, we note that the enforcement of the quality standards is not consistent with the principle of ‘*no material deterioration*’. Enforcement is based on ‘*good industry practice*’ when assessing a quality breach. We ask that the Commission align the enforcement methodology with the DPP quality path to ensure EDBs can maintain the price/quality balance and they not incentivised to provide a different level of quality because of the threat of enforcement penalties.

We note The Issues Paper comments that the quality incentive scheme (QIS) allows an EDB to trade off the level of quality with cost³⁶. The value of lost load-based quality incentive calculation introduced in DPP3 provides incentives that are immaterial for EDBs with low SAIDI/SAIFI. For example, the quality incentive for WELL’s best ever unplanned SAIDI performance (regulatory year ending April 2022) was \$137k which has little impact on quality decisions. Most years are less than this. We are reliant on the price path providing the appropriate allowances for us to maintain existing quality levels (i.e. no material deterioration).

³⁵ We do survey customers after an outage if they would pay for fewer outages. However, this uses a static question set and provided limited data.

³⁶ The Paper para F12.

Consultation question 12a: Our initial view is to maintain the principle of no material deterioration and set quality standards on a basis consistent with that established in DPP3.

Do you agree with our proposed approach of maintaining the principle of no material deterioration and setting the quality standards on a basis consistent with DPP3? With regard to the quality standards, are the existing reporting obligations appropriate?

Unplanned quality standards for parts of the network with BAU operating conditions

Yes, we support the principle of '*no material deterioration*' and we support maintaining the current approach to setting quality standards (except for the planned quality standards which are discussed below).

This assumes:

- that EDBs allowances are also maintained in real term to continue to provide existing quality levels. This includes providing EDBs capex allowance to deliver the expected step change in demand.
- New quality standards are not indirectly applied through Electricity Code changes that are not also supported with the resources to deliver the change in quality (i.e. the price/quality balance is maintained).

If demand is faster than an EDB can build new capacity, then they may need a reduction in the quality targets to reflect that faster than expected customer demand is impacting quality and that it's not reasonable to be able to build at the pace needed to maintain supply. This will be network dependent and we don't think changing the '*no material deterioration*' approach is appropriate in these circumstances. We think that either a step change (with EDBs providing a separate quality path for high growth networks) or a reopener for a new quality path would be the best approaches for this situation.

We note that the Commission is considering whether to adjust the capex allowances for the ability of a network to deliver its capex programme. An EDB capex is a function on the investment needed to maintain existing quality levels by replacing assets before they fail and by building new capacity before demand exceeds the network security limits. If that capex programme is not delivered, then the probability of a network exceeding its quality targets will increase. Any reduction in the price path (i.e. a reduction in the capex programme) should also be accompanied by a reduction in the quality path to maintain the price/quality balance.

Unplanned targets for networks with volatile or rapid growth

We think that a different quality path may be needed where there is high and uncertain growth and where networks cannot build new capacity fast enough. The different quality path would reflect that the current quality targets cannot be maintained as customer rapidly connect there EVs and transition away from gas. We think the alternative quality path could be applied as a temporary step change.

Planned Quality Standards

We do not think it's sensible to apply the '*no material deterioration*' approach for the planned outage

quality standards. Planned SAIDI/SAIFI is a function of the size of an EDB's work programme, rather than a function of an EDB's outage response capability and asset management practices. A step change in an EDB's capex programme (i.e. the step change in decarbonisation-related investment) will also require a step change in planned outages to complete the works. We believe that the planned reliability targets should be directly linked to the size of the capex programme.

We think this is best achieved by changing the planned quality path calculation from using historic trends to calculating planned SAIDI/SAIFI targets as a function of the size of the forecast capex programme. As highlighted in The Issues Paper's Context and Challenges section, most networks will need to increase their investment programmes to allow New Zealand to electrify. The Issues Paper Figure F9 shows that planned SAIDI and SAIFI are already increasing faster than the historical average, in line with increasing capex (Issues Paper Figure E4).

Most networks will therefore expect to also need an increase in planned outages to complete those works. Given that capex programmes will reflect the individual characteristics of each network, we believe that it will be more efficient to directly calculate a planned quality path based on a capex profile, than making a step change adjustment to the current historic-based calculation.

9.3 10-year reference period

Consultation question 13: Our initial view is to maintain the DPP3 settings of a 10-year reference period updated for the most relevant information and normalisation approach for major events.

Do you think that we should maintain a 10-year reference period updated for the most relevant information and normalise major events on the same basis as DPP3?

Unplanned quality standards

We support The Issues Paper's position to maintain a 10-year reference period for unplanned outages rather than extending it to 15 years as this will better reflect the "*current underlying level of reliability performance and network operation practices*".

Planned quality standards

As discussed in the previous section, we believe that planned quality targets should be a function of the capex programme rather than a historic reference period. The historic planned outage levels will be a function of the past investment focus of asset replacement and will not reflect the step change in network growth and new connections capex needed to deliver New Zealand's decarbonisation targets.

9.4 Normalisation

We support maintaining the current normalisation approach.

9.5 Step changes in reliability criteria

9.5.1 Planned outages

Planned outages are a direct result of implementing a network work programme. If their work programmes materially change from historic levels, then the planned outages will also change.

We disagree with the approach of relying on three times the historical average to provide a buffer for increases in planned outages. Planned outages will increase as capex programmes increase. Relying on the buffer will mean that EDBs with increasing capex work plans will be penalised by the quality incentives for delivering their capex programmes. Perversely, the quality incentives will reward networks for not providing the capacity needed to meet customer demand increases and replacing aging assets to maintain a network's unplanned quality targets.

We think the best solution is to change the planned quality calculation from using historical data to linking it to the size of a network's work programme. The second-best solution is to provide a quality step change based on the step change in an EDB's work programme.

9.5.2 Change in recording approaches including inconsistency of SAIFI outage recording

We also disagree with the need for a consistent approach to measuring SAIFI as comparing SAIFI between networks is meaningless. Last year SAIDI performance ranged from 0.27 to 4.92, a range 10 times greater than WELL's total annual SAIFI of 0.47. What is important is a constant historic approach to measure changes in quality performance for a specific network.

We also would not support using a proxy data set to move to a multicount method as this could add forecast error. If networks were to move to the multicount method, then it should be based on historic actuals. Approximating historic data would further³⁷ degrade the operating of the quality standards by adding forecast risks into the quality targets.

³⁷ Moving to a multiple-count method disincentivises networks to sectionalizing network restoration, increasing outage times.

9.5.3 Changes to tree regulations

If the Tree Regulations are finalised in time to include in draft price path, then we would support a step change to reflect any quality impact. If they are not finalised in time, then we agree with the proposed approach of using a reopener.

9.5.4 Demand management / load shedding

Historically, demand management/load shedding is appropriately captured in the current quality settings. However, recent Code changes (i.e. real-time pricing) designed to increase System Operators' access to controllable load, has enabled third parties to operate flexibility services on a distribution network that the EDB has no visibility of. The unmanaged restoration of assets being managed by the third party could impact network quality. We think that the third-party operation of assets participation in flexibility services should be excluded from SAIDI and SIFI quality measures.

9.5.5 Accounting for non-performance of non-traditional and innovative solutions

We would not support permanently expanding the definition of an interruption to exclude interruptions relating to the non-performance of flexibility services. Quality targets are set at a level that reflects customer quality expectations. The quality measures, including what's counted as an interruption, should reflect customer expectations so that EDBs can manage their networks to meet those expectations. It is then an EDBs responsibility to manage the network to deliver the expected quality levels using the most efficient tools and solutions to do so. If flexibility services can't be relied on then it's unlikely an EDB would be comfortable using them as a substitute for traditional solutions.

Excluding the non-performance of flexibility service from the interruption definition would also send the wrong incentives to flexibility providers. If EDBs pay for flexibility services, then there will also be an expectation that they should be reliable. If flexibility services can't be relied on then the flexibility services may not be developed to the level needed to provide a viable non-wire alternative.

We do support temporarily excluding the impact of flexibility services from the quality targets while they are being developed. However, we think the innovation mechanism is a better tool to apply these exceptions.

Consultation question 21: Caution around treatment of non-performance of less proven solutions may create a reticence by EDBs to implement these types of solutions and result in a focus on more proven established technologies, typically, capex investments. Our intention is that the compliance with the quality standards and penalties under the QIS do not act as a potential impediment to innovation.

How should we account for non-performance of non-network solutions (regulatory sandboxing)?

We do support temporarily excluding the impact of flexibility services from the quality targets while they are being developed.

However, we think the innovation mechanism is a better tool (than a step change) to apply these exceptions. This will allow the exceptions to be applied to the specific trial activities.

We suggest a specific innovation mechanism for flexibility services that includes a standard exception for all services funded by the innovation allowance to also provide an exception to exclude any SAIDI/SIFI impacts from the annual quality assessment. We support a sand box approach.

9.5.6 Changing consumer expectations

We agree that a step change is not appropriate to reflect changes in customer expectations at the moment. We have not consulted with customers across all networks, so we do not know whether they want a step change in quality.

However, we do think that customer expectations will change as electricity becomes their primary energy source. As discussed in sections 9.1, EDBs or the Commission will need to deliver an on-going consultation function in the DPP framework to understand customer expectations. Once this is established, we can then reflect any changes in quality expectations in the price and quality paths.

9.5.7 Accommodating industrial consumers' preference for lower security of supply than N-1 to manage costs

We agree that for commercial customers during the DPP4 period, the impact on SAIDI and SAIFI of a handful of customers operating to a lower level of quality will have an immaterial impact on an EDB's quality performance.

However, in the future customer DER like EVs and household batteries could allow customers to provide a level of redundancy for themselves. The combination of the network providing N security and the customer providing their own alternate supply could provide a less expensive solution than the network operator providing N-1. This type of solution hasn't been developed to scale yet and isn't currently a viable option. While it won't meet the step change criteria for this DPP reset, it may in the future.

Consultation question 14a: Our initial view is step changes in reliability, if appropriate, may be accommodated through setting of values or revisions to definitions.

Are there identifiable step changes to reliability parameters for quality standards to manage operational or situational changes outside the control of the distributor compared to historical periods?

As above. The main change will be planned SAIDI/SAIFI which will increase with an EDBs work programme. However, the issue is the historic reference period will not reflect future planned SAIDI requirements so a step change to the quality targets would not correct the issue. A new quality target calculation based on a network's work programme is needed.

If demand is faster than an EDB can build new capacity, then a quality step change maybe required to the unplanned quality targets. Networks could provide an alternative quality path for parts of their networks that could be impacted by high demand. Alternatively, a network could apply for a reopener for a new quality path.

9.6 Setting the Quality Incentive Scheme

We note the current quality incentive scheme is based on VOLL which provides immaterial incentives for networks that already have low SAIDI. Our best-ever unplanned SAIDI performance resulted in an incentive of \$137k, with most years being less. The cost of improving quality generally outweighs the incentive rates. Under the current scheme, we are not incentivised to consider improvements. Our focus is therefore solely to ensure we do not breach.

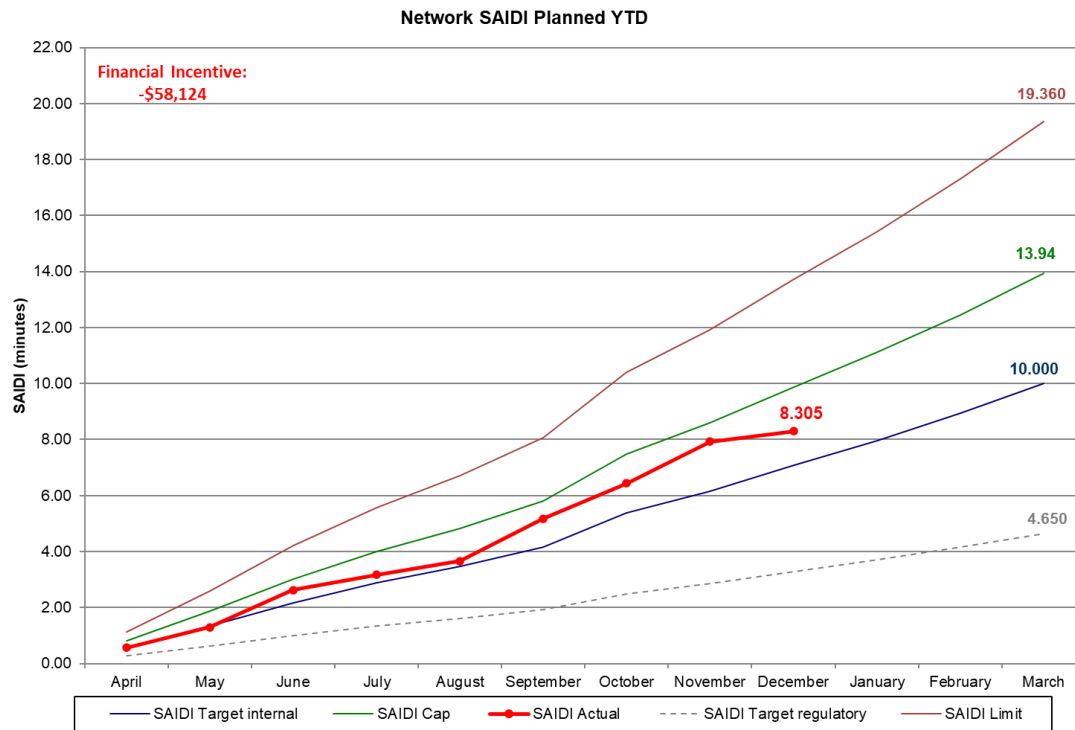
During DPP2 the incentive was up to \$1m p.a. and we used this to fund generation and other tools for reducing the impact of outages. While we do not disagree with valuing incentives at the VOLL, the Commission should be aware that networks with already low SAIDI/SAIFI are not incentivised to improve their quality performance.

9.6.1 Planned quality incentives

The planned SAIDI budget is based on modest historic work programmes which do not allow us to deliver our increasing capex without exceeding the target. Our budgeted planned SAIDI reflects our increasing capex programme and is always much higher than our regulatory target. This means we always incur a penalty. Improving this would mean not delivering critical asset replacement and network reinforcement. Essentially the planned quality incentive is just a penalty. Figure 11 provides our year-to-date planned SAIDI performance from our weekly network performance report. We operate to a planned SAIDI target of 10 minutes (blue line) which will allow us to complete our work

programme. The top left corner shows that we have incurred \$58k in penalties so far this year. We budget to be penalised \$100k p.a.

Figure 11 – budgeted planned SAIDI and actual performance for the DPP3 period to date



As highlighted in section 10.2, the current approach of calculating planned quality targets on historic data does not reflect what is driving actual planned outages. The planned quality targets should be a function of a network's work programme so that the budgets can increase in line with capex. Without this change, networks with increasing decarbonisation related work programmes will be penalised for delivering their capex and maintenance programmes.

We do like the planned quality standard being measured over the whole DPP period as this lets us adjust the planned SAIDI 'budget' to changes in the work plan. The top line in the figure above shows this. The 19 SAIDI minutes includes the previous year's SAIDI budget that was not used. This is calculated to allow us to roll programmes over and not breach.

9.6.2 Are EDBs considering the quality incentive scheme (QIS) in their investment decisions?

Consultation question 20a: Our initial view for DPP4 is to retain revenue-linked quality incentives for both planned and unplanned SAIDI, with targets, caps, collars, incentive rate and revenue at risk set on a consistent basis with DPP3.

Are EDBs considering the quality incentive scheme (QIS) in their investment decisions?

As outlined above, the unplanned quality incentive is immaterial and it does not influence quality decisions. The planned quality budgets are unrelated to the current work programme and are set to low. We focus on delivering the capex work programme and avoiding breaching the planned targets. The planned targets has no impact on our investment decisions, other than how we incorporate the penalties into our corporate budgets.

Consultation question 20b: Do you consider the proposed settings are appropriate for the QIS, including whether the incentive rate is driving appropriate outcomes with regards to consumer quality expectations

Incentivising unplanned quality improvements is inherently difficult because often a quality improvement will reduce the probability of an outage rather than providing a direct reduction in SAIFI or SAIDI. e.g. investing in more durable (but more expensive) equipment which reduces the likelihood an asset will fail. This often means that the benefits may not be in the year or regulatory period which the investment is made. Reducing the probability of an outage means that you might see the benefits in future periods.

We agree with reflecting the value that customers put on outages in the quality incentives to maintain the balance between cost and quality levels. However, given the probabilistic nature of quality improvements, we support keeping the calculation simple. In reality, EDBs will not be able to make a direct value trade-off.

We support maintaining the framework of the current incentives with changes to the rate. The \$25k per MWh will need adjusting to reflect the large recent inflationary increases. The studies calculating VOLL are also old and may need updating. We also think the 10% adjustment to reflect that EDBs are already incentives to avoid a breach is arbitrary and should be removed. The VOLL should be as close as possible to the value of avoiding an outage.

9.7 Compliance reporting obligations

We support the current compliance reporting obligations, with the exception for planned interruption standard reporting.

9.7.1 Planned interruption standard reporting

Consultation question 12b: With regard to the quality standards, are the existing reporting obligations appropriate?

We agree that the current reporting obligations are generally appropriate. The exception is planned works reporting which we think should change with a new quality standard.

We note that if demand is faster than an EDB can build new capacity, then they may need to apply for a

reopener for a new quality path or submit a new unplanned quality path as part of their CPP application.

9.8 Recording SAIFI

WELL does not support recording successive interruptions as multiple SAIFI counts. We would support networks adopting a measurement approach which best suits what customers want on a specific network. We think this is more valuable than being able to compare quality measures across different networks, where other factors like network density, asset age, and network design, drive the majority of differences in SAIDI/SAIFI measures.

For example, WELL supports treating successive interruptions as a single outage on the Wellington network as it incentivises us to restore power as quickly as possible. A fault on a larger urban network can impact multiple network locations. Power can be restored faster if the network can be sectionalized to locate where a fault has occurred i.e. each part of the network is turned on and off to identify on what section a fault is located. Power is left on for healthy sections of the network while the rest of the sections are checked. However, sectionalising creates repeat tripping and successive interruptions. There is a trade-off between faster power restoration (lower SAIDI) and successive small interruptions (higher SAIFI). A second tripping (due to sectionalising) is much shorter as field operators and faultmen are already on site and making network reconfigurations to quickly restore power.

Feedback from customers on the Wellington network is “if the power goes off, get it back on quickly” The priority is minimisation of SAIDI rather than SAIFI. Particularly as customers rarely see a second interruption and those that do will incur an interruption that is much shorter duration.

Consultation question 14b: What value and challenges do you see with different approaches to addressing inconsistencies in the recording of interruptions, the ‘multi-count’ issue, using either a proxy allocation basis or requiring a recast dataset

We disagree that the methodologies need aligning and see little value in doing so.

We also would not support using a proxy data set to move to a multicount method as this could add forecast error. If networks were to move to the multicount method then it should be based on historical actuals. Approximating historic data would further³⁸ degrade the operating of the quality standards by adding forecast risks into the quality targets.

Consultation question 14c: Are there alternative approaches which may appropriately address the issue?

The best solution is to allow EDBs to choose which method best incentivise the level of quality that customers on their networks want. On the Wellington network, customers want their power restored quality. The best way to do this is to sectionalise an outage. This incurs lower SAIDI but higher SAIFI.

9.9 Other quality measures

We agree that quality standards should align with what consumers value, and new quality standards should be included if the current standards are not capturing that value. EDBs should be incentivised to deliver the quality that customers want and are willing to pay for. The price/quality trade-off relies on the regulatory model correctly reflecting quality.

We also agree that some aspects of quality performance are best addressed through the information disclosure framework, especially for emerging or uncertain measures of quality that first need to be understood and where a robust data set isn't available to develop quality targets.

We agree that it will be better to introduce the potential new measures identified in the future once the Information Disclosures have collected data that can be used as a quality target reference set. It is too early to add any new quality targets for the DPP4 period and new targets should be considered for the connection process, LV quality and customer complaints for future DPP periods once robust targets can be calculated.

We are concerned that new quality targets and service levels will be added by the EA and enforced through Electricity Code changes outside of the Part 4 price/quality regulation. Proposed changes to DDA would improve customer quality at an additional cost not included in regulatory allowances.

³⁸ Moving to a multiple-count method disincentivises networks to sectionalizing network restoration, increasing outage times.

Even if additional costs are provided, we are concerned that quality levels are being changed without consideration of the price trade-off and whether customers are willing to pay more. Any quality changes need to be made through Part 4 price/quality regulation so that the Commission can balance the trade-off of higher prices for quality improvements on behalf of the customer. We ask that the Commission works with the EA to ensure that any changes to quality are considered along with the cost impact and allowances are adjusted so that financial capital maintenance is maintained. Details of the proposed changes to the DDA are provided below.

9.9.1 Outages caused by decarbonisation related demand increases

We think that the IDs should be adjusted to include an outage category which identifies outages caused by faster than expected demand from electrification. It will be important to recognise the impact of faster than expected demand. We think some networks may have to apply for a new quality path if demand grows faster than they can build new capacity.

9.9.2 Low voltage quality

LV quality and the management of the rapid connection of customer devices and flexibility services on to the LV network will be an important quality focus looking forward. We agree with the Issues Papers observation that any LV quality measures will be dependent on networks developing visibility of the LV networks. This will require a step change in investment to introduce this capability (see section 8.5.4.1).

There will also be steps taken to limit congestion affecting quality through published operating envelopes for feeders that are seeing growth ahead of new capacity build. This will have quality affects which require customer coordination pending allowances and resource scheduling to meet the required new investment.

We also note the importance of developing LV quality standards. The performance of the LV network will become more important as EDBs host flexibility services using customer devices. LV quality incentives will become an important tool for incentivising networks to manage LV capacity as demand increases.

9.9.3 Guaranteed service levels

We agree with the Commission's concerns about the implementation of guaranteed service levels, especially difficulties including the scheme into the cost base and how it would work with existing incentives. We agree with not including it in the DPP4 for the reasons provided.

9.9.4 Quality improvements via Electricity Code changes

A recent High Court decision as confirmed that the EA can apply quality targets and incentives but is prohibited from setting prices or revenue (this being the responsibility of the Commission under Part 4). While the EA has the authority to apply quality targets and incentivise a level of quality, we strongly disagree that it is appropriate to do so via the Electricity Participation Code. An essential premise of price/quality regulation is the ability to trade-off and choose what level of quality a customer wants at a price they are willing to pay for. The Commission is responsible for making this explicit trade-off when they reset the price/quality path every five years. Applying quality mechanisms and incentives outside of the Commission price/quality path reset means that customers cannot decide whether they want to pay the additional cost for a quality improvement.

Two examples of quality improvements being proposed in the revised DDA are:

1. It is proposed to require an EDB to plan outages so that they will provide the least disruption to customers. Minimising disruptions of planned works can be done by, for example, using generation, delivering the works outside of normal working hours or using temporary bypass connections to maintain supply. Minimising disruptions can be done but at a significant cost increase which networks are not currently funded for. The change does not consider whether customers may be happy to be disrupted occasionally if it keeps costs lower.
2. It is proposed that networks must reimburse distribution tariffs for outages that are longer than 24 hours. This implies a higher level of quality than is reflected under Part 4 price/quality regulation. Networks are designed to meet SAIDI and SAIFI targets (a maximum number and length of power outages) and not a maximum outage length (i.e. restoring power within 24 hours). Applying a different quality measure would require additional DPP allowances and new quality measures under the Information disclosures. Price/quality regulation also excludes major events that cause long outages to avoid EDBs building networks that are beyond customers' expectations (too expensive). Networks would have to make a significant investment to ensure power is always restored within 24 hours and customers may not be willing to pay the additional cost.

The recent real time pricing Code change is also causing unintended consequences. The change has allowed third parties to operate flexibility services on a distribution network independent of the EDB who is responsible to network quality. The restoration of power of an asset being controlled by a flexibility service can impact a network quality.

We ask that the Commission work with the EA to align quality expectations.

Consultation question 15: Are there any other quality of service measures beyond those currently required within DPP3 that we should consider introducing, and why?

We agree that no new quality measures should be added to the DPP4 quality path. The exception could be the quality changes being applied by the EA via the DDA if customers are happy with the price trade-off. However, given the time frames and the lack of a reference set to set quality targets, we do not believe these can be sensibly applied within the time frames.

10 Other Issues

10.1 The transition of Aurora Energy from its CPP back to the DPP in 2026

Consultation question 16: Aurora Energy is scheduled to rejoin the DPP from 1 April 2026.

Do you agree with how we propose to transition Aurora Energy to the DPP in 2026?

Yes, we think that transitioning to the DPP is sensible and is consistent with all other networks post CPP price paths.

Our experience was that participating in the DPP price-setting process helped to provide certainty about how allowances would be set. This assumes that, like with WELL's transition from a CPP, the Commission will use the DPP models and price-setting methodology with updated inputs.

It's important that Aurora understands what the price-setting process will be so they can plan and model the transition.

10.2 The regulatory period length for default price-quality paths

Our position has not changed from that expressed in the DPP Process Consultation. Our preference is to keep the five-year regulatory period and adjust and broaden the uncertainty mechanisms like reopeners that are available and to make them agnostic of when in the regulatory period an unforeseen project might fall.

A shorter regulatory period would also increase the regulatory compliance costs for the DPP regime which is designed to be a light-handed and low-cost.

Consultation question 17a: Section 53M(5) allows us to reduce the regulatory period if this would better meet the purposes of Part 4 of the Act. We are considering whether we should reduce the regulatory period

from five to four years.

What particular challenges do you perceive may arise from shortening the regulatory period?

As highlighted in the Issues Paper, a shortened regulatory period would create regulatory uncertainty and increase regulatory compliance costs. All of the regulatory mechanisms that are based on a five year period (IRIS, WACC components etc.) would need to be recalculated and EDBs and the Commission would incur a 1/5 increase in the costs associated with a regulatory rest.

Consultation question 17b: What are the potential benefits to consumers from maintaining or shortening the length of the regulatory period

We don't think there would be any material benefits if effective uncertainty mechanisms are also provided. Our submission to the Draft IM Decision outlines what uncertainty mechanisms we think would mitigate the risks associated with uncertain investment requirements.

10.3 CPP application windows

We agree with the 190 working day lead time which means the latest a network can make a submission is June. We also note that practically a network would want to submit an application in February or earlier so that a final pricing decision could be included in tariffs.

Consultation question 18: The DPP sets annual deadlines by which suppliers must make Customised Price-Quality Path (CPP) applications to enter into effect the following year.

Do you support retaining a similar approach to setting CPP application windows as was undertaken for DPP3?

Yes we support retaining the same approach to setting a CPP application window as used in DPP3.

10.4 Accelerated depreciation.

Consultation question 19: The current IMs provide for a discretionary shortening of asset lives.

Do you have views on the framework for assessing accelerated depreciation applications?

No comment on the application process.

We do note that some of the EDB value of accelerating depreciation has been reduced with the introduction of the revenue cap. The additional revenue would become tied up in the washup account and wouldn't be

available to offset increasing cash outflows.

11 Other incentives, including innovation

The Ministry for the Environment's *'Emission Reduction Plan'*, the Authority's *'Updating the Regulatory Settings for Distribution Networks'* consultation, Transpower's *'Whakamana i Te Mauri Hiko'*, and Boston Consulting Group's *'The Future is Electric'* all highlight the important role that demand side management and flexibility services will have in delivering the Emissions Reduction Plan. The use of Dynamic Operating Envelopes are also developing as a tool to manage network performance and customer demand behaviour to ensure quality of supply.

Our submission to the IM Draft Decision highlights the level of investment that other jurisdictions have needed to make to develop this capacity and additional allowances that they have been provided to do so³⁹. Our submission also highlighted our concerns that the current IM and DPP3 disincentives networks from innovating to develop demand side flexibility. The small innovation allowance that is retrospectively approved by the Commission means that the majority of the risk of innovating falls on the supplier. Suppliers have to fund any additional funding above the maximum allowance and 50% of the total cost. It is likely to take years for flexibility to be developed to the scale needed to benefit EDBs. Until then, EDBs bear the majority of the cost for no benefit.

We support the Commission's focus on developing a fit for purpose innovation mechanisms and would welcome the opportunity to participate in a workshop to develop options.

11.1 The current Innovation Project Allowance mechanism

We are in the processes of submitting two Innovation Project Allowance (IPA) applications which has provided us with practical experience we can share about the operation of the current mechanism. We think the general structure of the IPA is easy to use and is low cost. We have commissioned two expert reports verifying the projects met the innovation definition. The cost to do this was modest and our experts were able to produce them quickly. The recent changes made to the timing of when the report is needed was a significant improvement. Previously, a project could not be started until

³⁹ Section 3.4.1 of our submission to the Draft IM Decision, https://comcom.govt.nz/__data/assets/pdf_file/0021/323175/Wellington-Electricity-Submission-on-IM-Review-2023-Draft-Decisions-19-July-2023.pdf

the report was provided by the industry expert. Now the report can be provided after the project has started which removes any timing restrictions.

The outstanding weakness/issue with the scheme is the low value cap and the requirement for the supplier to fund 50% of the cost. This is appropriate for projects that provide cost savings that a supplier can fund this cost from but disincentivizes networks to invest in projects that will primarily benefit the customers or where the benefits to the supplier are less certain.

11.2 Reliance on innovation allowances to fund flexibility allowances

We note that the Draft IM Decision was that no sensible solution could be found that would allow opex and capex to be correctly substituted across regulatory periods and that the best approach to funding flexibility payments was to provide additional allowances. We also note the rigid step change criteria that require a high level of forecast certainty before a step change in new operating expenditure will be applied.

In section 8.5.4.5 of this submission, we describe why it's unlikely flexibility payment budgets can be provided with any accuracy and why a budget for flexibility payments will not be able to meet the step change criteria for new allowances. Therefore, EDBs will need to rely on innovation mechanisms to provide allowances to purchase flexibility services. We also believe that a specific innovation mechanisms would be the most efficient way to fund flexibility payments. We expand on this in our response to consultation question 24.

We also believe that funding flexibility payments from an allowance (whether provided by an innovation mechanism or by a change in operating expense allowances) should only be a temporary solution while flexibility services are developed. It will always be difficult to forecast flexibility allowances even once flexibility services are established as a demand management tool (as described in section 8.5.4.5). Correcting the opex/capex substitution issues will be the best long-term solution to avoid rewarding or penalising networks for forecast errors which would be unavoidable for difficult-to-forecast costs.

11.3 LV management tools

EDBs will also need visibility of the LV networks and the tools to incorporate flexibility services into their demand management response. EDBs have been testing this new capability over the DPP3

regulatory period and now have a good understanding of the cost needed to provide this capability⁴⁰. As such, we believe that a step change is the best mechanism for funding this new capability. However, if the Commission does not approve this step change, then the innovation mechanism will also need to provide allowances for the ongoing purchase of meter data, software and new staff costs. EDBs will not be able to use flexibility services without visibility and control over their LV networks. Otherwise, we would need to publish dynamic operating envelopes to limit demand from customers during network congestion periods.

Consultation question 22a: The regime’s baseline incentives may be insufficient to support innovation, such that it is appropriate to have an innovation (and/or non-traditional solutions) incentive scheme.

Do you agree with our understanding of the regime’s baseline incentives to support innovation, and the need for an innovation and/or non-traditional solutions scheme?

Yes, we agree with the assessment of the baseline incentives and the need for additional incentives to innovate. Currently, the baseline incentives and the DPP3 innovation allowances disincentivise EDBs from investing in innovation projects where:

- Where the primary benefit of the innovation is the customers and EDBs do not expect to recover their share of the innovation costs via the IRIS or quality incentives. The current IRIS issue of not being able to substitute opex and capex across regulatory periods exacerbates this.
- The majority of the risk of the project not providing the expected benefits falls on the supplier. This could be because the cost of innovating is higher than the IPA allowances and the supplier bears more than just 50% of the cost. It could also be that the quality incentives and penalties incentivise traditional capex solutions which are well understood and can be relied on and disincentivise non-network solutions which are perceived as more risky.

⁴⁰ Our own development programmes include trailing the FutureGrid LV management software and a ANSA capacity and hosting study of residential LV networks.

Consultation question 22b: Would you be interested in participating in a targeted workshop, and if so, are there any topics you consider should be covered?

Yes, we would like to be involved in a targeted workshop. A workshop format is well suited to developing options for technical topics like innovation mechanisms. Topics could include:

1. Develop a streamlined application process and robust guidelines on the content of an application and the supporting information/evidence.
2. The balance of risk/cost sharing with the customer (via allowances). How do we design a framework that doesn't (1) disincentivise EDBs from innovations that mainly benefit the consumer and (2) fund EDBs to provide new revenue streams from those provided within the regulatory framework?
3. A framework for coordinating and managing innovation projects overall so that:
 - The consolidated programmes are capturing all essential new tools/capabilities that EDBs will need going forward and that the new capabilities will be in place when they are needed (e.g. the Bosten Consulting, *'Future is Electric'* delivery programme requires a 3x increase in demand side management by 2030).
 - The innovation aligns with any relevant industry delivery plans. For example, the FlexForum has its Flexibility Plan 1.0 which outlines the key actions needed to develop flexibility services. Any flexibility-related projects should fit within this wider plan to ensure the innovation is necessary.
 - Innovation is efficient and projects aren't duplicated.
 - the results are quickly shared so that other stakeholders and EDBs can build on those learnings. Transparency of innovation projects will be important so that EDBs can build their own development programmes around when they expect the results from other networks. We think the ENA could play an important co-ordination role.

Consultation question 23a: We are interested in feedback on our initial thinking about how to design an incentive scheme to encourage innovation and/or non-traditional solutions in DPP4.

What are your views on the key principles (see Attachment I)?

Are they effective as the basis of an innovation and/or non-traditional solutions scheme?

Are there others you think may be suitable?

We support the approach of developing key principles to guide the development of an innovation scheme.

General comments and suggested refinements include:

- The additionality principle is the central principle for assessing whether innovation is needed. We disagree with relying on other funds to fund innovation. The availability of these funds is outside the control of the regulatory framework and they can't be relied on. This is especially true at the moment with the change in government and the review of government spending.
- The risk allocation and compensation principle is important. The development of flexibility services provides a good example of an important new capability that will provide customers with long-term benefits. Overseas the development of flexibility to the scale needed has taken multiple regulatory periods. Currently, IPA criteria for a supplier to fund 50% of any innovation, disincentivises suppliers from participating or investing in new capability that provides benefits that can't be recognised within the five years of the regulatory period in which the supplier incurs their share on the innovation cost.
- The principle's should recognise that the benefits may not just be a long-term cost reduction or quality improvement. Innovation projects can provide other important benefits like allowing a network to decarbonise or improve other environmental, social or governance measures.
- Care should be taken when applying the proportionate scrutiny principle so that innovation projects that have the potential to provide significant benefits are not excluded because of their value, complexity or impact on quality.
- We disagree that an innovation project must fit within the relatively low-cost DPP settings. An innovation project in itself is unlikely to trigger a CPP and the opportunity for significant improvements may be missed because no price path would capture it. We would support a tiered approach to scrutinizing innovation rather than binary acceptance criteria.

Consultation question 23b: What are your views on the potential scheme design characteristics?

Are they effective as the basis of an innovation and/or non-traditional solutions scheme?

Are there others you think may be suitable?

Yes, the design characteristics listed will provide a good starting point.

Another design characteristic include:

- Project fits within any wider industry development plans (like the FlexForum Flexibility Plan 1.0) and are not being duplicated by another innovation project.
- The results will be quickly shared with stakeholders so that all EDB development programmes and innovation projects can incorporate the results.

- Providing guidelines and examples to support the application of the final scheme. We are applying for allowances for two innovation projects under the current scheme and we found the Vector example and feedback from the Commission on our interpretation of the process very useful. We believe that robust guidelines and examples would reduce/eliminate the risks associated with ex-post applications and reduce application timelines and costs.

Consultation question 23c: How could these principles and characteristics be best applied in designing a potential scheme?

We would also welcome submissions with examples of overseas schemes/characteristics that you consider appropriate for a DPP.

As provided in our submission to the IM Issues Paper and the IM Draft Decision, we like the Ofgem Network Innovation Allowance mechanism, and this would provide a good starting point for the proposed workshop. The principles and characteristics could then be used to refine the framework to fit the DPP and the New Zealand operating environment.

We also like many aspects of the current IPA framework and think this could also be refined:

- Introduce an overall framework for coordinating projects across EDBs and for sharing results. We think EDBs should present the results to stakeholders, providing the opportunity to ask questions and understand the results. We are regularly sharing the results of our joint Resi-Flex project with Orion. Feedback on the results and progress provides us with valuable input and provides other networks quick access to the projects results.
- Recovering the approved projects costs as a recovery via the Annual Compliance Statement Process is low cost and avoids having to reopen a price path.
- The expert report confirming the project meets the definition of innovation is a low-cost form of scrutiny. We think future schemes should build on this concept and standardise more of the approval process. A tiered approach to scrutiny could be applied based on project value.

Consultation question 24: Our initial view is that a specific incentive for demand-side management and energy efficiency is not required for DPP4.

Is there a basis for strengthening the incentives for energy efficiency and demand-side management initiatives?

How could this best be done in the context of the DPP?

We believe that the development of flexibility services that can be provided as part of demand side management is sensible. EDBs will use operating envelope to signal when flexibility services are needed and will need purchasing flexibility services. A separate innovation mechanism for providing payment :

1. As highlighted in section 11.2, EDBs will need to rely on the innovation allowance mechanisms for additional operating expenses to signal congestion and the need to purchase flexibility services pending capacity investment occurring.
2. Baseline incentives mechanisms are unlikely to provide any value to suppliers using flexibility services because of the opex/capex substitution issue and the long development timeline for the service to be at the scale needed to defer traditional investment. Suppliers will need to pass on the full cost of payments to participate in flexibility services. This is likely to differ from other innovation projects where an EDB may see offsetting cost savings within a regulatory period.
3. There could be a high volume of requests for flexibility payments as EDBs grow their ability to use flexibility as a demand management response.
4. Unlike other innovation projects, innovation allowances for flexibility service payments could be standardised. Payment budgets could be based on a common calculation method providing the opportunity to standardise the application process.
5. As highlighted in section 9.5.5, we believe that interruptions caused by the non-delivery of flexibility services should be excluded from the quality measures while flexibility services are being developed. We believe this should only be a temporary adjustment to support the development process.
6. A common exemption from including the non-performance of a flexibility service in a network's quality measures (i.e. exclude any SAIDI/SAIFI caused by the nondelivered of a flexibility service).

We think the unique characters of this type of innovation would allow a streamlined approach to innovation i.e. applying a streamlined version of the current IPA which allows an EDB to recover flexibility payments as a recoverable cost applied as part of the Annual Compliance Statement. A standardised payment calculator⁴¹ and template could provide enough evidence for the Annual Compliance Statement Auditors to approve the payments on behalf of the Commissions. Applying the potential design characteristics:

What the project is for	Providing flexibility payment budgets when a non-traditional solution is a more efficient approach to providing new capacity. The projects will:
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⁴¹ We have developed a flexibility payment calculator as part of our joint Resi-Flex project with Orion. The calculator calculates a flexibility payment based of the avoided regulatory revenue from deferring a capex project.

	<ul style="list-style-type: none"> • Provide allowances based on the value of deferring a specific capex project. • Cater for a high volume of requests.
Approval timing:	Ex-post if EDBs can rely on the mechanisms to provide allowances when it's efficient to do so.
Expenditure approved:	Based on actual payments made and approved by the Annual Compliance Statement Auditors.
Share of expenditure approved	Payments 100% recovered while the capability is being developed to the scale needed for flexibility to be a viable alternative to traditional solutions.
When and on what conditions (if any) approved expenditure is received	The actual payments made align with the payment budget calculator which provides whether it was efficient to use a flexibility service.
Maximum expenditure permissible (\$ and/or %):	Scaled to the size of a network's capex programme.
Supporting evidence	<ul style="list-style-type: none"> • Payment budget calculator showing what the value of the payment should be. • Actual payments demonstrating they were made in line with payment budgets. • An independent engineer could be used to confirm the network constraint but given the services are still being developed, this is probably unnecessary.
Penalty/reward mechanism	The need to develop flexibility services will incentivise EDBs to develop flexibility services. The provision of innovation allowances will help remove the disincentives.

Consultation question 25: We are not proposing to implement a quality incentive scheme for line losses. We believe EDBs improved visibility of low voltage performance and improvements to the energy efficiency of distribution transformers should drive improvements in DPP4 without additional explicit incentives.

Do you agree with our approach to not introduce a specific quality incentive scheme related to reducing energy losses?

Yes we agree.

12 Setting revenue allowances, and price impacts

Distribution services must remain affordable and valuable, allowing EDBs to maintain our social license as we invest more to electrify. As highlighted in our feedback to the Context and Challenges section of the Issues Paper, managing affordability is a difficult issue and will require a multi-faceted approach. While the focus of this Issues Paper is on setting the price/quality path, the new price path must be supported by the wide range of actions that each adds to maintaining affordability. The price /quality path can't be set in isolation nor become a social welfare funding mechanism. The energy sources being displaced by electricity have a much higher household cost, so the network infrastructure would already benefit customers with the cheaper energy product.

12.1 Price smoothing will be important

As highlighted in The Issues Paper, the mechanics of the building blocks will mean a material increase in the starting price due to high inflation. We agree with the Commission that price smoothing will be important to minimise price shocks caused by inflation increases. It will be a difficult task to build customer support for electrification as prices increase at the same time as the spot price for electricity becomes more volatile, other infrastructure like water also needs investment and living expenses remain high. While we can't control increases to other household and business costs, we can smooth the increase in distribution prices.

As infrastructure asset owners we operate a business model that spreads costs over the long lives of the assets we own. This business model requires us fund any cashflow differences between regulatory revenue and cash outflows. Our role and responsibility in this business model to raise any additional capital required to meeting these cashflow differences. This includes funding increases in capex spend above what the depreciation allowances provides and to fund price smoothing mechanisms so that our services remain affordable.

The caveat is that price smoothing is applied under a framework that maintains financial capital maintenance for networks that will also be expected to increase their investment in distribution networks. This includes testing for financeability and compensating networks for any increases in debt costs. Practically this also means that any price smoothing must be contained within a regulatory period so that a network can match the cost of funding the cashflow differences with the allowance provided for funding those differences (i.e. actual debt costs can be matched with WACC for that period). We note that this challenge will be addressed in a separate consultation.

Consultation question 26: We are proposing to retain our approach of setting a 'default' X-factor of 0% (before considering price shocks or supplier financial hardship).

We are interested in your views on whether this approach (where long-run changes in sector productivity are accounted for in our building blocks analysis) remains appropriate.

We support setting a default X factor at 0% and including any productivity adjustment in the building blocks. As highlighted in our response to allowances for operating expenditure, we have concerns about whether productivity can be measured correctly with the data available from the ID's. We note that productivity will be addressed in a separate consultation once the Commission productivity analysis has been completed.

Consultation question 27a: Our emerging view is to assess price shocks for consumers using the real change in aggregate distribution revenue from year-to-year, with a particular focus on the change between regulatory periods.

Do you agree with this approach? If not, are there other alternatives we should consider?

Consideration of what constitutes a price shock will be based on judgment rather than a quantitative assessment. The primary measure for making this assessment should be the real change in distribution revenue (including wash-ups and incentives) as suggested because it will also guide the application of the price smoothing to the revenue cap.

We think that unit rates and prices will also be needed to translate the change in revenue into the impact on electricity bills and household energy costs which are better measures of affordability for the consumer.

Change in distribution revenue

We agree that pass-through costs and transmission costs should be excluded as these are not direct inputs into the provision of distribution services and are outside of our control.

We agree with removing the inflationary impact and we also think that changes in volume (kWh) should also be included in the assessment (i.e. indexing revenue for changes in kWh). As New Zealand electrifies,

they will be substituting electricity for more expensive fossil fuels. The assessment should remove the impact of volume changes, reflecting that while electricity prices may increase, household energy costs will decrease as expensive oil and gas consumption is avoided.

We also agree that the focus on the change between regulatory periods (the starting price or P_0) is appropriate as this will reflect the largest price changes (i.e. inflationary uplifts to WACC and the RAB).

It will also be important to separate what's driving the increase, separating mechanical adjustments for inflation with new investments. It will be important to provide stakeholders and customers with the context of the increase, that it's not new costs that are driving the majority of the increase but inflationary increases like those other goods and services are exposed to. Consumers will be aware of New Zealand's decarbonisation plans and it will be important they understand how the regulatory frameworks spread these costs over a long time keeping the cost impact low and its short-term economic factors that are driving the upcoming increase (6.1).

Impact on electricity bills and household energy costs

We think that secondary unit measures should also be provided to support the affordability assessment.

- \$ per ICP would provide a proxy for the change in electricity bill. The measure should be stratified by the ICP categories provided in the IDs for commercial customers.
- kWh energy use and \$ per kWh would remove the impact of volume increases from electricity replacing fossil fuels. A flat or gently sloping increase in \$ per kWh could indicate that prices remain affordable as energy consumption increases (as electricity substitutes fossil fuels). The Boston Consulting "Future so Electric" uses these metrics to assess the affordability of the different decarbonisation delivery paths the study assesses. The MBIE's annual electricity cost disclosure collects cents per kWh data, providing a robust source of historic regional and national data.

Revenue cap

While not addressed in this consultation, we think that similar adjustments should also be made to the revenue cap mechanism that will be used to apply any price smoothing that this analysis will guide. This includes adjusting the revenue cap so that it (in line with the Draft IM decision) excludes pass-through and transmission costs and excludes inflation and is adjusted for volume changes.

Consultation question 27b: When applying this (or any other) analysis, what factors should we consider in determining whether a price change amounts to a price shock?

We agree that any assessment will require judgment. We also think:

1. That the assessment of what's affordable and what constitutes a price shock should be a high bar. Networks should not be price smoothing to allow customers to continue to purchase non-essential

or luxury items. The Government's energy hardship definition will help define what affordability means.

2. Affordability assessment should be made in the context of wider economic measures and should consider other household and business income and costs. For example, wages will also be increasing with inflation and customers may already have been compensated for overall inflationary increases.
3. We believe that it's important for the government to manage social welfare so the industry doesn't inadvertently create intergenerational cross subsidies by not passing on the full cost of providing distribution services to the customers using those services.

Consultation question 28a: Our emerging view is that financial hardship will be 'undue' only where it is to such an extent that it is inconsistent with the long-term benefit of consumers.

Do you agree with this approach? If not, are there other alternatives we should consider?

We note that the emerging view that suppliers' financial hardship will be 'undue' only where it is to such an extent that it is inconsistent with the long-term benefit of consumers, assumes the price path is set with an expectation that a supplier will earn a real return and financial capital maintenance is maintained.

Currently, the IM's do not have an explicit financeability test and EDBs can't assume the price path will be set with the expectation of a real return. We note that there will be a separate consultation about financeability and for the purpose of this submission we will assume that EDBs will be provided with sufficient allowance to fund their cost of debt.

Assuming the price path will allow a network to earn a real return, we support the Commission's emerging view that financial hardship will be 'undue' only where it is to such an extent that it is inconsistent with the long-term benefit of consumers. We agree that the bar should be higher for suppliers as it's their responsibility to reprioritise investment if necessary and fund increases in capital requirements. Networks are in the best position to raise new capital, either from new debt or equity from their owners or new investors.

Consultation question 28b: When applying this (or any other) analysis, what factors should we consider in determining whether a supplier faces undue financial hardship?

The focus should be on ensuring networks have the allowances to cover the costs they incur to ensure the price path will allow an EDB to earn a real return for their investment. We believe that it's an EDB responsibility to raise any additional capital requirements and to manage cashflow volatility.

We agree that the proposed test will capture extreme situations where it would not be feasible for any prudent supplier to deliver services.

Consultation question 29: Previously we have forecasted indicative consumer bill impacts from information disclosed by EDBs. We are interested in understanding what other information may help refine our approach. What models or data inputs could be provided by EDBs which would improve our approach to modelling consumer bill impact?

EDBs have to consider the impact of price changes on customer bills as part of their annual price-setting process and their regulatory obligations/discloses like the Low Fixed User compliance testing and retailer consultations for any tariff structure change.

The Electricity Pricing Reform had a range of measures which were targeted towards customers across all industry participants which may have already provided benefits to customer electricity prices. This should be reviewed to check it has delivered the intended results for consumers.

MBIEs electricity price database also provides an existing source of historic price data and an existing reporting framework. The cents per kWh data could be applied to average energy use to calculate a high-level proxy of an electricity bill. EDBs could provide forecast tariff data to provide future bill amounts.