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Submission on EDB DPP4 capex workshop

11 March 2024

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2 Submission and contact details

Consultation	Submission on EDB DPP4 capex workshop
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3 Confidential information

There is no confidential information provided in this submission. This submission can be publicly disclosed.

4 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 (DPP) Capex workshop held on 26 February 2024. This submission will refer to the Capex Workshop slide deck as the '**Workshop Paper**'. This submission will also refer to the **Commission's** '*Default price-quality paths for electricity distribution businesses from 1 April 2025, Issues paper*' as '**The Issues Paper**'.

5 Answers to workshop questions

Question 1

In your view how could the “NZ EDB 2023 AMP Review” report be taken into account within our capex framework?

the external advice isn’t intended as verification of expenditure forecasts¹ however, it does assess a networks demand and expenditure forecasting practices. If those assessments are considered as being competent, then the Commission should have more confidence in the forecast and can limit any forecast adjustments.

We describe how we think the assessments can be incorporated into the proposed capex assessment process in later questions.

We believe the external review provides the Commission with valuable insights into a networks AMP practices. Strong expenditure forecasting practices will result in more accurate forecasts. We believe the results of the external review should be directly utilised in the capex forecasting process, rather than primarily being used for forecast trend analysis.

Question 2

Are the proposed metrics (individually and/or in combination) useful for identifying EDBs where additional scrutiny may be warranted?

Figure 1 summarises our views on the proposed metrics.

Category	Metric	Support	Reason
Non-network & relocation	Reviewing the rationale in AMP	Yes	We agree that there is no clear quantitative drivers and these categories represent a small proportion of forecast. A qualitative AMP review would quickly identify outlying investments and the AMP and 53ZD information request would provide the reasons for the forecast capex.
Renewal related capex	Ratio of capex and Depn	Yes	We agree that: <ul style="list-style-type: none">• Depn (with a buffer to reflect different stages in an assets lifecycle replacement) provides a

¹ Slide 16 of the Workshop Paper.

Category	Metric	Support	Reason
			<p>useful proxy for identifying where additional scrutiny is needed.</p> <ul style="list-style-type: none"> We also agree that the buffer applied to the capex/depn ratio should be wide to reflect that reopeners aren't available for most asset renewals. A large buffer would also reflect the high risk of an adverse impact on quality if assets aren't replaced before their performance degrades.
Renewal related capex	Review Schedule 12a	No	<p>While schedule 12a does provide the proportion of an asset class that needs replacing (based on asset condition), it would be difficult to translate the information to a comparable replacement capex:</p> <ul style="list-style-type: none"> The capex forecast is not provided in the same asset categories. The value of the RAB isn't provided in the same asset classes - this would be needed to provide a weighted comparison to the RAB (i.e. proportion of asset class due for replacement compared to the respective capex value).
Renewal related capex	Review 53ZD data provision	Yes	<p>Slide 32 of the Workshop Paper indicates that some networks have capex to address emerging drivers. The 53ZD data is likely to provide the reasons for including this capex. This could be used to highlight unique resilience plans.</p>
Connection capex	Cost per new connection	Yes	<p>This appears to be a good indication of programmes need further scrutiny.</p>
Network growth	maximum coincident peak demand growth	No	<p>Peak demand is a lead indicator of when new capacity might be needed but it's not the driver. A network may be experiencing strong demand but it may also have available capacity to meet that demand because those assets have just been replaced or the network has been built with spare capacity headroom.</p> <p>Available capacity is the driver of Network Growth. Network growth capex is needed when forecast demand exceeds the capacity of the network assets.</p>
Network growth	Forecast system growth expenditure / maximum coincident peak demand	No	
Network growth	System growth capex / incremental maximum coincident system demand	No	<p>This could be a good measure if a network has been consistently and regularly investing in similar types of network reinforcement projects as those needed in the next regulatory period.</p> <p>However, most networks are moving from a low-growth environment, focused on asset replacement. The forecast investment is a step change from past regulatory periods and the types of investments are changing. The graph on slide 49 shows that the '<i>System growth capex per incremental amount of maximum coincident system demand</i>' for nearly every network is changing materially (the majority showing a material reduction in the unit cost measure).</p>

Category	Metric	Support	Reason
Non-wire	Capex intensity trends	No	<p>We do not believe this measure has any merit (it may do once flexibility becomes a commonly used tool). Networks may not have included opex allowances for non-wire solutions because:</p> <ul style="list-style-type: none"> • The opex mechanism won't allow for new allowances that are very hard to forecast (as outlined in our Issues Paper submission) • Unlike overseas networks, EDBs in New Zealand haven't been funded to develop the tools to use and promote flexibility services. These services haven't been developed to the point that they can be incorporate into asset management plans. • Networks could be forecasting capex as their base forecast and then relying on the IRIS to fund and reward non-wire solutions if they are shown to be a less expensive and more efficient option. <p>The large change in capex intensity (compared to totex) is simply a reflection of traditional solutions being the only option that EDBs can sensibly forecast as a solution to capacity shortfalls.</p>

We also note the emerging view that capex driven by non-traditional drivers is uncertain. Care must be taken on how this view is used. We agree that many emerging drivers may be less well understood than traditional capex drivers, like asset health. However, we disagree this means that the resulting investment is uncertain and can be left to uncertainty mechanisms like reopeners.

For example, the electrification of transport is a non-traditional driver of new demand, but we are already seeing new demand from the electrification of public transport and electric vehicles. The government has set the emissions targets in legislation and the Emissions Reduction Plan is supported by both political parties. Networks will have to find or build new capacity if their networks don't have the capacity to meet new demand in order to maintain their quality targets. The need to invest will be certain to meet the new demand.

While we agree that classifying capex relating to non-traditional drivers is useful for highlighting when further scrutiny is needed, care must be taken to correctly assess whether that investment is actually uncertain and whether it's in the best interest of consumers to use an uncertainty mechanism. Delaying necessary capex will add regulatory costs and could potentially impact quality, especially on networks that are experiencing rapid demand growth.

Question 3

Are there other metrics we should consider? Please explain your reasons and provide evidence to support your proposal.

Customer connection capex

The size of Customer Connection forecasts can't be considered without offsetting the customer contributions. Networks that have a high proportion of connections costs funded directly by the customer, will probably not need a material increase in allowances. It's probable that further scrutiny will only be needed for a small number of networks because of the small net size of the allowances once contributions are also included. This additional adjustment combined with the proposed cost per connection metric could mean that little scrutiny is needed overall.

System Growth

A metric that measures capacity headroom should be used to assess whether further scrutiny of the Network Growth capex is needed. A network will schedule network reinforcements (Network Growth) projects when demand is forecast to exceed an assets rated capacity. However, the Information Disclosure schedules do not provide a ready measure of capacity headroom that would align with the low cost DPP regulatory framework.

A network Asset Management Plan does provide an assessment of the capacity head room (demand vs rated capacity) for each high voltage asset but this would require a higher level of scrutiny – the assessment is by asset and is not presented in an easily assessable table format like the other measures being proposed in the Workshop Paper.

A compromise could be using a peak demand metric as an initial screening with the understanding that the 'further scrutiny' would include an assessment of:

1. Using the external reviewer's assessment of the asset management planning practices to provide the Commission an assessment of whether the AMP demand and capex forecasting methodologies can be relied on.
2. If those practices were assessed as 'good', a more detailed scrutiny of the AMPs capacity headroom assessments (demand vs rated capacity) for each high voltage asset. While this is not low cost in relation to assessing every network, we believe this would be proportionality low cost if the assessment was only required for a few networks.

Question 4

Where an EDB's capex intensity is expected to change significantly (eg, 5% or more than historical), please provide indication where your 2023 AMP or s53ZD response explains the overall expected change in expenditure mix and the extent to which you have assessed the efficiency of this change (given the emerging scope for non-network/non-traditional solutions). Alternatively, please state whether you are expecting to provide an explanation as part of your 2024 AMP.

As indicated in our 53ZD response, we have several capex categories which have increased by more than 5%. The Network Growth capex has the largest material increase. The 2024 AMP incorporates the capex schedules provided as part of the s53ZD submission so the variance analysis provided in the 'variance worksheet' will still be relevant. Our response to the information request also explains the reasons for the disclosures and provides updated AMP chapters providing the supporting calculations (e.g. demand and capacity studies to support the Network Growth Capex increase).

Our demand forecasts include an adjustment for flexibility or demand response shifting peak demand load. We have assumed 24% of the gross peak demand growth will be shifted off-peak. Figure 2 provides a summary of the high-level demand forecast.

Growth		Assumption	98 th Percentile of Demand (MW)	Total change (%)	Annual change (%)
Current Demand (2023)			478	N/A	N/A
Growth Source	Population Growth	Population Growth + Housing Shortage	168	35%	1.2%
	Transport Electrification	Emissions Reduction Programme	237	50%	1.7%
	Transition from Gas	Emissions Reduction Programme	237	50%	1.7%
New Growth			665	N/A	N/A
Total Demand (2053) - Uncontrolled			1,122	135%	4.5%
Demand Management	Introduction of Flexibility Services		-115	-24%	-0.8%
Total Demand (2053) - Controlled			1,007	111%	3.7%

Our Network Growth capex forecast is built using this demand forecast – we compare the rated capacity of our assets to the demand forecast to identify when and where new capacity is needed. Network Growth capex reflects the network reinforcement needed to solve these constraints. Our Network Growth capex therefore assumes 24% of gross peak demand will be shifted off peak (i.e.

the efficiency from flexibility). The 24% is exclusive of existing hot water control which is already included in the peak demand base.

The 24% of peak demand we have assumed can be shifted to off-peak is based on very high level assumptions. We will refine the measure of the future demand management response as flexibility services to be developed and trialled.

While the capex programme incorporates some efficiency from using demand management to reduce peak demand, we haven't included a corresponding opex cost to purchase flexibility services. We have assumed that allowances for flexibility services will come from innovation allowance applications or from substituting capex and opex using the IRIS (when these costs can be substituted within a regulatory period).

Question 5

How could we assess that forecast expenditure has appropriately considered impacts that could be achieved through distribution pricing (in the context of a relatively low-cost DPP)?

It would be difficult to accurately forecast how customers might respond to peak period price signals. EDBs haven't been able to reflect the full cost of using electricity during the peak period (i.e. the long-run marginal cost or the cost of building new capacity) because the low fixed user pricing restrictions have limited how EDBs can structure their tariffs. These restrictions are gradually being removed and will be removed completely by the time the DPP4 regulatory starts. Until then, EDBs may not be signalling the full peak period price and they will not know how customers will respond to the strong price signals.

Our experience with ToU to date is, except for a few notable exceptions², a peak price signal of 5c kWh hasn't materially changed how much electricity is used during peak demand periods. This could be because the signal is only half of the national LRMC which sits around 10c kWh (based on a \$100kW/yr LRMC³). The low fixed user pricing restrictions are slowly relaxing, and this year we have

² Two retailers have products which promote off-peak electricity use and subsequently have the lowest peak period electricity consumption. However, the overall volumes from these retailers are relatively low and the reduction is not large enough to defer capex investment (yet).

³ Our joint Resi-flex project with Orion included the development of a commercial model for flexibility services. The commercial model included an estimate of the national LRMC.

increased the peak period price signal to $8c^4$ so we may see behaviour change. This assumes that retailers pass on the price signal to consumers.

Question 6:

Some EDBs are expected to be identified (according to the proposed metrics or alternative metrics) to belong to a 'further scrutiny grouping', for one or several expenditure categories. Please identify effective means of providing additional assurance (consistent with the relatively low-cost nature of a DPP) that the forecast levels of investments are in the long-term interest of consumers:

- additional information requirements and/or tests that could be applied
- how investments that are particularly uncertain could be identified (on the basis that they may be better addressed through reopeners).

We believe further scrutiny is needed to avoid slowing the provision of essential capex that networks might need to maintain their quality targets. The nature of the high-level metrics being proposed to clarify when further scrutiny is needed, only provides a rough measure of uncertainty.

As highlighted in our answer provided to question 3, we believe the next assessment tier should be provided by the external AMP review (used as a gate to a more detailed AMP assessment), and by the more detailed information provided in the AMP (including the Dec 53ZD information request).

Step 1 – external AMP review: The external reviewer's assessment of the asset management planning practices could be used to provide the Commission an assessment of whether the AMP demand and capex forecasting methodologies could be relied on. If the assessment rated a network's practices as good or better for the AMP forecast relevant to a specific capex type, then the Commission would be able to rely on a more detailed review of the AMP to better assess the certainty of the Capex. If the external reviews assessment was worse than good, then the initial assessment using the high-level metrics should be used as the uncertainty assessment.

Step 2 – AMP review: If the external review confirms the relevant capex forecast could be relied on, then a more detailed assessment of the AMP would provide a more accurate assessment of the investment certainty. For example:

⁴ The maximum we could increase it to while still meeting our low fixed users obligations.

- **Network Growth Capex:** The AMPs provide an assessment of capacity headroom. A network will compare demand forecasts to an asset's rated value and will forecast when that capacity will be exceeded and when network reinforcement is needed. This will provide evidence about whether the Network growth capex is needed to solve a network constraint.
- **Non-network Capex:** The 53ZD and AMP will highlight one-off projects that might be driving an investment step change.

The AMP review would be limited to reviewing the evidence provided in the AMPs. For example, confirmation that the demand and constraint analysis was present and completed.

This approach is proportionally low cost because the high level of scrutiny would only be applied to a small number of EDBs (investments that have been initially identified as uncertain using the high-level metrics and those which have good AMP practices) and to only part of their capex programme. The more detailed AMP review would be very low cost compared to multiple reopeners or a CPP.

Capex that the review finds to be uncertain can then be left for reopeners.

Reopeners will play an important role, but their purpose is for investment uncertainty rather than when investment levels increase. Care must be taken not to adjust allowances for investments that are certain as this adds costs and could impact quality if the extended process also delays the investment.

Question 7

Historical reference periods are likely required to assess the scale of change. What reference period should the capex framework adopt for DPP4 and why?

We note the Workshops Papers observation that historic expenditure might be less relevant as a starting reference for future expenditure. We agree with this point. Applying any caps based on historic expenditure would artificially reduce capex allowances when they are likely to be needed to maintain the regulatory quality standards.

We agree that there is value in using a historic reference period to assist in identifying where additional scrutiny might be needed. For this purpose, we don't think any of the three suggested periods are perfect, but a three year period that included the regulatory year ending 31 March 2024 would be the best because the impacts of Covid would have been mostly avoided and it would be more reflective of current investment conditions.

Question 8

Please identify whether large connection contracts (LCC)-eligible connection expenditure is listed in AMP 2023 and/or information provided in response to the s53ZD notice (issued November 2023) and the location of this information within the documentation provided.

- If you haven't identified LCC-eligible connection expenditure, please comment on the feasibility of creating a list of connection projects and programmes that would potentially meet the definition of an LCC in AMP 2024.
- If the information is readily available, please provide the listing.

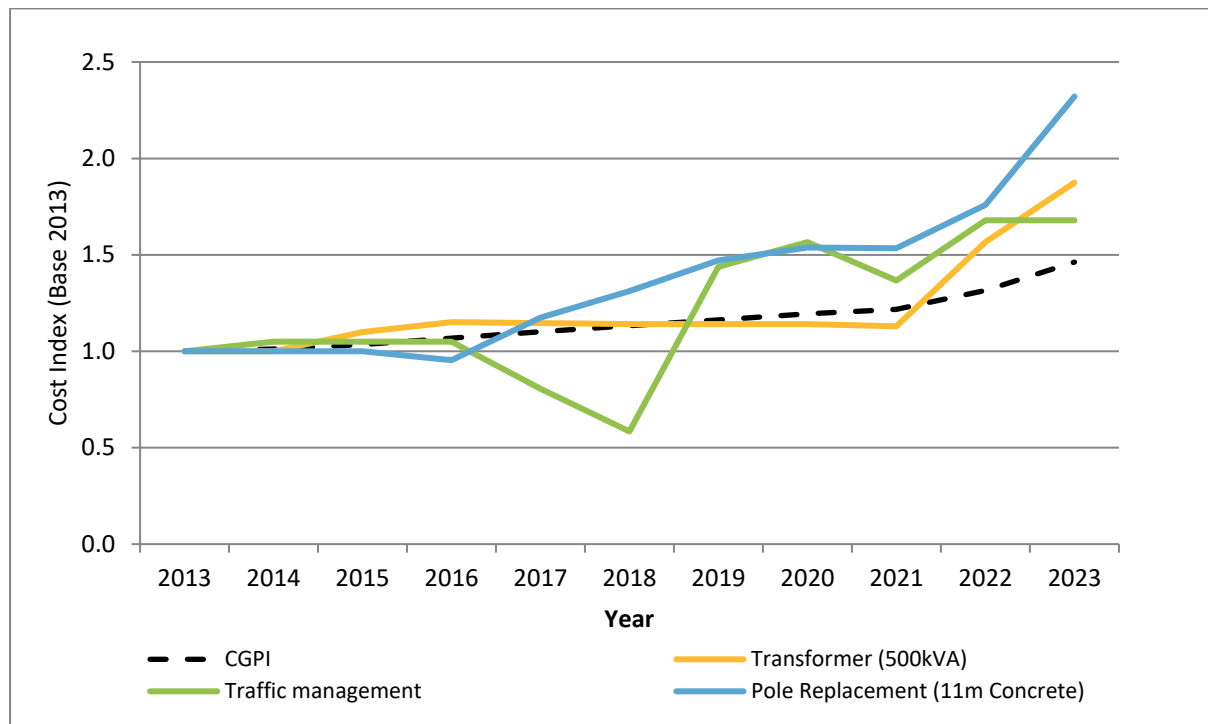
We have not identified eligible large connection contracts in the s53ZD notice. We will endeavour to provide a listing in our 2024 AMP. Projects in the AMP that could be eligible for the large connection contracts include a bus charging depot and public rail electrification.

Question 9a

We understand that forecast expenditure is driven by project size and scope, volume of work and cost of the work programme. To the extent that the increase in the forecast work programme is due to cost, please explain the variation in cost increases across capex categories beyond CGPI. What supporting information / analysis can you provide?

We run an outsourced model which tenders most large capital programmes to the open market. We base our capex cost forecasts on the latest market information (what the capex jobs have been tendered at) to ensure the costs reflect actual inflationary changes. Given the variability between different capex projects, its difficult to compare project and inflation over time. However, we do track key cost components which can be readily measured. Figure 4 compares the cost of poles (11m concrete), traffic management (average per job) and transformers (500kVA) to CGPI since the start of the current regulatory period.

Figure 4 – Unit cost increases (indexed to 2013)



Question 9b

Apart from having considered the challenges of delivering your work programme at an individual EDB level, what approach and evidence do you have that you have also taken into account potential sector-wide deliverability constraints?

The AMP capex forecasts reflect the investment need to maintain our quality targets. We have not reduced the capex programme to reflect potential sector-wide deliverability constraints.

WELL operates an outsourced delivery model, tendering large capex projects to external providers. We are expanding this capability by introducing a Project Management Office that will specialise in packaging and tendering large work programmes. Our experience to date, is the market will build new delivery capability if it is signalled in advance and the work packages are large enough to encourage suppliers to expand their operations.

However, we agree that the forecast capex increase is significant, and an increase of this size hasn't been tested.

We would also note that outsourcing large delivery programmes using a Project Management Office model suits long delivery timeframes. As outlined in our IM Issues Paper response, we think consideration needs to be given to allowing for programmes that span the regulatory boundaries.

We believe an IPP could be used to provide this flexibility. The ability to offer a clear forward foreword programme and the supporting allowances will improve deliverability.

Question 9c

What are your views on our proposal to consider deliverability as part of uncertainty regarding EDB expenditure, alongside need, timing and cost?

- What alternatives do you propose?
- Are there particular categories or capital expenditure which are more likely to be exposed to potential deliverability constraints?

As outlined in our submission to the Issues Paper⁵, an EDB's capex programme is 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.

The AMP reflects the capex that an EDB must deliver to maintain expected quality standards. WELL strongly disagree with the Commission making further adjustments to the capex to reflect delivery concerns, without a corresponding adjustment to the quality path. 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. We are already seeing examples of faster-than-expected demand growth caused by the transition from gas to electricity driving unexpected capex increases.

If the Commission reduces the allowances to reflect deliverability, then the quality targets should also be reduced to reflect the change in the price-quality tradeoff. The development of a method for assessing deliverability and for making a corresponding adjustment to the quality path if allowances are impacted by that assessment is not trivial.

⁵ Section 8.3, https://comcom.govt.nz/__data/assets/pdf_file/0033/339792/Wellington-Electricity-DPP4-issues-paper-submission-19-December-2023.pdf

Question 10a

What are your views regarding our proposal to place additional reporting requirements on EDBs with significant increases in work programmes?

- What alternative proposals can you suggest that would achieve a similar outcome of enabling interested stakeholders to assess how well EDBs are delivering their significantly increased work programmes?

We would not support additional reporting for the low-cost DPP regime. This would add significant additional costs to compile and potentially audit.

We also believe the existing Information Disclosures and assets management plans already provide a very high level of detail and transparency. The AMP provides a detailed assessment of asset health and network constraints to support the capex programme. Networks also have quality targets and penalties to incentivise them to make the required investments. The AMP and the Information Disclosures provide a network's quality performance and transparency about whether a network's delivery programme has been effective.

We note the significant resources that are needed to provide the additional CPP delivery reporting. If detailed variance reporting was needed, then we would suggest that the variance analysis should be provided as part of the director-certified AMP process, rather than the audited information disclosure schedules. This would help keep costs down.

Question 10b

What are the challenges you perceive in providing additional reporting?

- Are there any implementation or workability concerns that we should be aware of?
- What information do you currently produce for internal reporting purposes that could be used to achieve similar outcomes?

As above.

Question 11

Please add in any other feedback that you would like to share about key components of the emerging capex framework below.

The covering note accompanying the release of the external review of the AMPs, suggested we should provide feedback on the assessment as part of this submission.

The feedback said that the demand assumptions for the gas transition was unreasonable because the Emission Reduction Plan includes the possibility of natural gas being replaced with renewable gas sources. We have included the gas transition in our demand forecast because of the difficulties identified in last year's gas strategy consultation, of finding a viable replacement gas at the scale needed. While we hope there will be a viable gas alternative, we note the additional risks identified since the Emissions Reduction Plan.

We would also add that we expect the transition to gas to start after the next regulatory period, so our gas demand forecast has little impact of the 2025 to 2030 capex forecast.