

ERANZ submission on the default price-quality paths for electricity distribution businesses from 1 April 2020 (DPP3) draft determination

18 July 2019

1. Introduction

- 1.1.1 The Electricity Retailers' Association of New Zealand (ERANZ) welcomes the opportunity to provide feedback on the Commerce Commission's (the Commission) draft determination on the 1 April 2020 default price-quality path reset (DPP3) for monopoly electricity distribution businesses (EDBs).
- 1.1.2 Electricity distribution is critical to the electricity industry meeting the expectations of its customers. The consequences of EDBs' investment decisions are ultimately borne by end consumers, with sub-optimal investment decisions manifesting as either higher prices or reduced quality. As the customer-facing part of the industry, retailers' reputations and brands, as well as costs, are tied to the quality and cost of EDBs' service provision.
- 1.1.3 In competitive markets, customers use their contractual bargaining power to shop around. The customers of EDBs have no such contracting power - retailers and their customers cannot switch to an alternative electricity distribution provider. This creates a need to continually scrutinise distributor performance and pricing. We strive to do this in a way that is constructive, as cross-industry collaboration is integral to enabling an effective and efficient electricity system.
- 1.1.4 As well as setting out our specific feedback to aspects of the draft determination, our submission highlights some overarching concerns ERANZ and its members have regarding the regulation of EDBs.

2. Monopoly EDB performance

2.1 Falling electricity bills mask rising lines prices

- 2.1.1 The average household annual electricity bill has fallen by \$95 in real terms over the past five-years.^{1,2} But that overall reduction masks a mix of changes in lines charges, energy costs and household consumption.
- 2.1.2 Over the last ten years lines costs per kWh have increased by 24 per cent above inflation.¹
^{2,3} In that time, non-lines costs per kWh have increased by only 3 per cent.²

¹ All figures showing price changes over time have been adjusted for CPI inflation.

² MBIE: 'Sales-based electricity costs for residential' dataset.

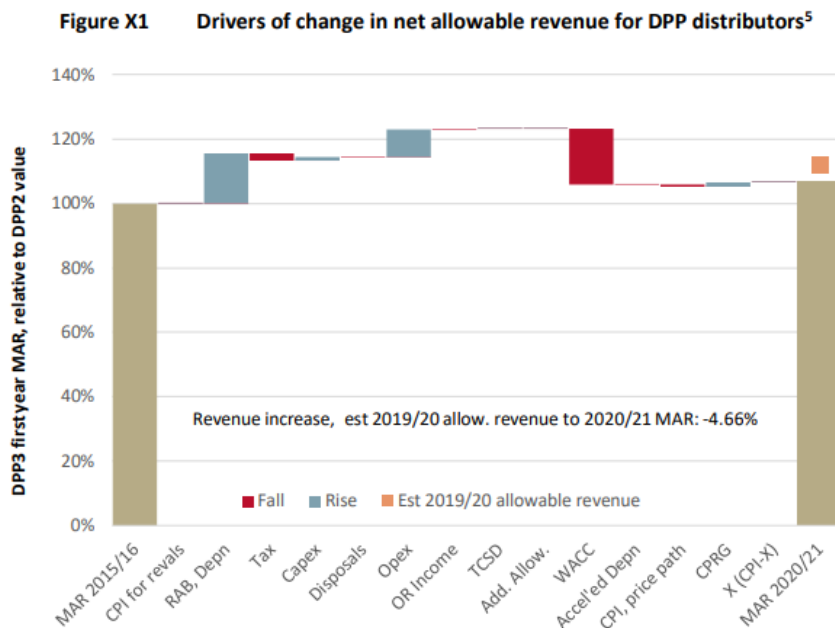
³ Made up of both transmission (up 33 per cent since Q1 2009) and distribution (up 22 per cent since Q1 2009) - breakdown from MBIE Quarterly Survey of Domestic Energy Prices.

- 2.1.3 Rising prices in part reflect higher necessary capex for some EDBs. But increased costs for consumers can also reflect other factors that are contributing to inefficiencies, including regulatory settings.
- 2.1.4 This issue is not universal. It appears some networks are operating efficiently, considering all costs, benefits and customer impacts. Some EDBs are well placed for future challenges and are actively investing in infrastructure, while others have steadily degrading assets or are redirecting capital in alternative investments – despite ongoing increases in revenue.

2.2 Looking forward, further distribution price increases appear likely

- 2.2.1 Overall, the DPP3 draft decision means the net allowable revenue for EDBs will be lower in 2020/21 than in 2019/20. On the face of it this appears to be positive in driving efficiency, but, as with overall electricity prices, the components of the change tell a different story.
- 2.2.2 The proposed change in the Weighted Average Cost of Capital (WACC) is the main reason EDBs revenue will be lower in 2020/21 than in 2019/20. However, this is the one factor entirely out of EDBs control – driven by a reduction in the risk-free rate of return.
- 2.2.3 The other two drivers of revenue - the Regulated Asset Base and opex - are more able to be influenced by EDBs, and both have increased considerably.

13



- 2.2.4 ERANZ recognises that additional investment in distribution infrastructure is required in some EDBs to support anticipated demand growth for electricity and replace ageing assets. In many areas this investment is necessary and important. But that doesn't counter the need for incentives to drive increased efficiency, which appears to be deteriorating for some EDBs. This is discussed further below.
- 2.2.5 Looking beyond DPP3, it appears likely EDB costs will contribute to further upward pressure on electricity prices unless there is a change in regulatory settings to drive efficiency, or a further substantial reduction in the risk-free rate of return.

2.3 Efficiency and reliability of EDBs

- 2.3.1 There is little evidence of efficiency, productivity, and reliability improvements by EDBs as a whole under the current regulatory regime.
- 2.3.2 Economic regulation should give monopolies incentives to innovate, invest and improve their efficiency. In reality, we have seen negative productivity growth, upward pressure on real prices for households, and reliability that is if anything declining on average.
- 2.3.3 The latest available data indicates productivity has declined across EDBs as a whole, while reliability has been static or deteriorating.
- 2.3.4 Economic Insights, in a report for the Commerce Commission, found EDB productivity fell by 1.1 per cent a year from 2004 to 2014,⁴ a decline largely attributed to growth in EDBs' capital investment.
- 2.3.5 The negative recorded productivity growth amongst New Zealand EDBs contrasts with the productivity trends in electricity lines business in the USA of around 0.6% p.a. The negative productivity growth for New Zealand EDBs also contrasts with the productivity performance of New Zealand's economy as a whole.⁵ While New Zealand's economy-wide productivity performance has been far short of stellar, labour productivity growth has averaged positive 1.4% p.a. since 1996.⁶
- 2.3.6 More recent evidence supports concerns about decreasing productivity across the New Zealand EDB sector. In the current DPP control period (DPP2) to date, there has been opex overspending (driven by 'other' opex⁷) despite circuit length and the number of ICPs not materially deviating from expectations. This is concerning as it could indicate a further deterioration of opex productivity in the current period despite the 34% incentive for EDBs

⁴ These figures are for total factor productivity involving two output specifications: customers numbers (46%) and circuit length (54%). Economic Insights' report also calculated three and four output-based estimates, however it recommends the use of two-output total factor productivity.

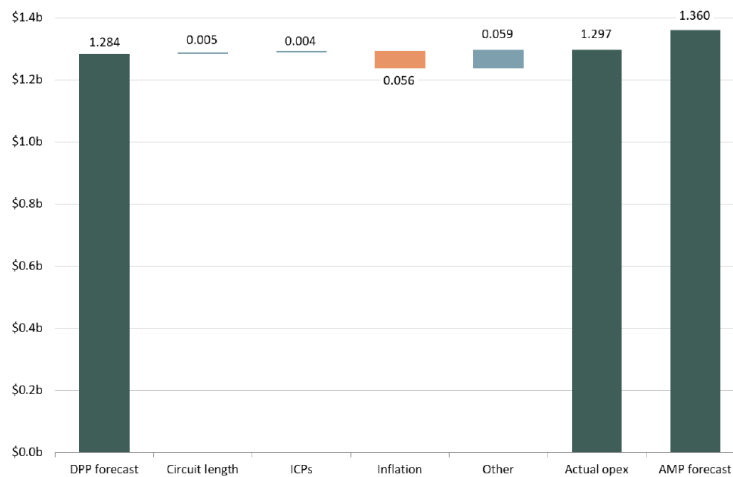
⁵ http://publicsde.regie-energie.qc.ca/projets/414/DocPri/R-4011-2017-C-AQCIE-CIFO-0032-Preuve-RappExp-2018_01_15.pdf

⁶ <https://www.productivity.govt.nz/sites/default/files/Productivity%20by%20the%20Numbers%202019.pdf>

⁷ P. 125 of https://comcom.govt.nz/_data/assets/pdf_file/0023/149801/Default-price-quality-paths-for-electricity-distribution-businesses-from-1-April-2020-Draft-Reasons-paper-29-May-2019.pdf

not to overspend. We encourage the Commission to undertake an analysis of the recent productivity performance of the EDBs and of the drivers of the overspending.

Figure A1 Deviations between DPP allowance and actuals, 2016–2018 (\$b)



2.3.7 While not within the scope of current regulations, the Commission should in our view have the authority to analyse and report on EDB benchmarking as part of the DPP process. Such benchmarking would assist the analysis suggested in para 2.3.6 above and would permit the Commission to present a more robust picture of the performance of EDBs. Such benchmarking would be consistent with the approach taken by the Australian Electricity Regulator (AER).

2.3.8 In regard to the reliability of the electricity distribution system, one notable change for the 2015-2020 period was the introduction of a new quality-incentives scheme by which EDBs are rewarded for outperforming the reliability target set by the Commission. The scheme is systematic and allows an outperforming EDB to recover additional revenue while penalising EDBs that do not achieve their target.

2.3.9 This performance-based scheme appeared to be a step towards improvements in EDB incentives. However, the data does not indicate it was successful in achieving the desired quality improvements. The average reliability of distribution networks if anything deteriorated over the 2015-2020 period, despite significant growth in capital investment, as shown in the following table

Average SAIDI and SAIFI for EDBs from 2013 to 2018⁸

	2013	2014	2015	2016	2017	2018
Outages - SAIDI (mins)	145	255	338	192	299	287
Outages - SAIFI	1.78	2.08	2.23	2.03	2.15	2.38

2.3.10 In all, there is little evidence the regulatory system is working effectively to improve the performance of the EDBs.

2.3.11 We believe there is a good case for the Commission to undertake work to investigate:

- whether the Part 4 system is delivering for consumers; and,
- if not, why it is not providing incentives for EDBs to improve their performance over time.

3. Feedback on specifics from the draft DPP3 decision

3.1.1 We now provide feedback in more detail on some specific aspects related to the Commission's draft DPP3 determination. Our comments focus on:

- the partial productivity factor adopted for opex allowances;
- the capex and opex retention rates;
- the WACC percentile uplift;
- quality measures and incentives;
- the proposed innovation allowance; and
- the accelerated depreciation allowances.

3.2 Partial productivity factor and opex allowances

3.2.1 The Commission has adopted a partial productivity factor (PPF) measure for the opex forecasts for the EDBs of 0%. In our view this is too low. It provides little incentive for the EDBs to boost their productivity and indicates that the system is not working to promote the long-term benefits of consumers.

3.2.2 In DPP2 the Commission set a PPF of -0.25%. The Commission has explained that this negative productivity factor was based on historical studies of productivity changes in New

⁸ Commerce Commission performance summaries for electricity distributors - <https://comcom.govt.nz/regulated-industries/electricity-lines/electricity-distributor-performance-and-data/performance-summaries-for-electricity-distributors>

Zealand's EDBs. Productivity should be expected to improve, not decline, over time. Regulation should not reward a track record of negative productivity in the past by building into allowable revenue projections an assumption of continuing productivity declines in the future. We support the move away from relying on historical studies of productivity change in the same jurisdiction as this practice can create perverse incentives for the regulated entities.

- 3.2.3 We agree with the Commission that *“continually decreasing productivity is generally not associated with workably competitive markets. Adopting a negative growth rate may entrench declines in partial productivity and weaken incentives to improve efficiency.”*⁹
- 3.2.4 The same reasoning should apply when setting the forward-looking PPF for DPP3. Setting the PPF at 0%, as is proposed in the draft determination, removes a key incentive for monopoly EDBs to innovate and become more productive. The costs from this lack of productivity are ultimately borne by electricity consumers through higher power prices.
- 3.2.5 Due to the risk of entrenching poor incentives, we support the Commission undertaking a more robust forward-looking study that canvases other jurisdictions and makes technological adjustments to analyse what the appropriate expected productivity improvement rate should be for EDBs in New Zealand.
- 3.2.6 In doing such a study, we recommend that the Commission should have regard to the estimates of the PPF of its international counterparts.
- 3.2.7 The Commission notes the AER has adopted a +0.5% PPF for EDBs, consistent with the finding that productivity growth for EDBs in the U.S. was +0.6%, as noted in Section 2 above.¹⁰
- 3.2.8 Ofgem in the U.K. has adopted an ongoing efficiency assumption of between +0.8 and +1.1% per year for distribution network operators' (DNOs) cost allowance. The range was adopted following exhaustive statistical analysis which also allowed for top-down innovation adjustments.^{11,12,13}
- 3.2.9 The Commission notes in its reasons paper that the Ontario Energy Board (OEB) adopted a 0% productivity measure. In its report for OEB, Pacific Economics Group Research

⁹ See para 5.59 of the Commission's reasons paper, https://comcom.govt.nz/_data/assets/pdf_file/0023/149801/Default-price-quality-paths-for-electricity-distribution-businesses-from-1-April-2020-Draft-Reasons-paper-29-May-2019.pdf.

¹⁰ P. 33 of http://publicsde.regie-energie.qc.ca/projets/414/DocPri/R-4011-2017-C-AQCIE-CIFQ-0032-Preuve-RappExp-2018_01_15.pdf.

¹¹ See para 11.51 of https://www.ofgem.gov.uk/sites/default/files/docs/2014/11/riio-ed1_final_determination_expenditure_assessment_0.pdf.

¹² See para 12.48 of https://www.ofgem.gov.uk/sites/default/files/docs/2014/11/riio-ed1_final_determination_expenditure_assessment_0.pdf.

¹³ Although we note that Ofgem uses totex and not capex and opex individually. However, the findings and conclusions relate to productivity change and therefore should be relevant to the Commission.

estimated past total factor productivity for electricity distributors in Ontario of +0.19% when it excluded special, one-off events that negatively impacted the productivity estimation.¹⁴

- 3.2.10 We also note that due to the use of a cost-performance benchmarking system, the OEB applies a 'stretch factor' to the productivity factors for individual EDBs. Because of this 'stretch factor' it appears that the actual productivity growth requirements faced by the electricity distributors in Ontario is 0% for only the highest performing benchmarked cohort. The remaining four benchmarked cohorts of distribution businesses face productivity growth factors between 0.15% and 0.6%.¹⁵
- 3.2.11 Given the observations of positive expected productivity growth adopted by regulators in comparable jurisdictions (ranging from 0% to 1.1%, with an approximate midpoint of 0.5%), we disagree with the Commission adopting a 0% PPF for New Zealand EDBs. We have not come across any submissions that identify a clear and quantifiable reason that productivity expectations for New Zealand EDBs should deviate greatly from other examined jurisdictions. The proposed forward-looking PPF of 0% is somewhat short of aspirational.
- 3.2.12 Productivity expectations have a material impact on costs borne by electricity consumers. Using the Commission's opex model, an increase in the PPF from 0% to 1%, consistent with Ofgem, would result in a reduction in total opex by year five of 6.8% (or \$133 million across the five-year period).
- 3.2.13 In its submission to the Commission, NERA Economic Consulting (NERA) points out ways in which a productivity factor of less than zero may reflect an industry becoming more productive. However, no quantification of the effect is provided by NERA, perhaps due to the complexity and uncertainty of the different variables relevant to the argument. In our view, NERA's submission points out interesting and relevant factors we consider the Commission should be aware of and, where possible, analyse in the future. However, at this time, without any quantification of the magnitude of the effects, or understanding of the likely impacts on incentives and outcomes for productivity in the sector, the points made by NERA remain largely academic and we would place more weight on the observed practice of overseas regulators.

3.3 Retention factors

- 3.3.1 In its draft decision, the Commission proposes equalising the capex and opex retention rates. We support the equalisation of the rates and believe that it is a useful change to aid in aligning incentives on decisions of capital and operational spending.
- 3.3.2 However, we raise the question as to whether the retention rate of 26% should be higher. In our judgement, the 26% retention rate does not give a large incentive for an EBD to

¹⁴ P. 15 of https://www.oeb.ca/sites/default/files/uploads/EB-2010-0379_Report_of_the_Board_20131121.pdf.

¹⁵ See para 2 of <https://www.oeb.ca/sites/default/files/ltr-2018-stretch-factor-20180823.pdf> for details of the benchmarking and cohort approach as it relates to the distributors and P. 3 of http://www.veridian.on.ca/wp-content/uploads/Dec_Rate_Order_Veridian_20180322.pdf for a succinct description of the productivity factor and the application of the "stretch factor"..

become more efficient. A higher retention rate may incentivise greater productivity growth in the sector by rewarding underspending and penalising overspending to a greater degree.

3.4 WACC 67th percentile

- 3.4.1 We remain concerned that adopting the 67th percentile of the WACC provides incentives that are not in the long-term interest of consumers.
- 3.4.2 Adopting a WACC at the 67th percentile provides excess returns from past and new capital expenditure for EDBs. This provides an incentive for EDBs to grow their RAB and not utilise third-party opex alternates.
- 3.4.3 In the future, where new technologies mean third parties are likely to be able to provide alternatives to network capex, this incentive is of particular concern. We continue to encourage the Commission to review this WACC adjustment and consider better measures to address potential network underinvestment.

3.5 Quality measures and incentives

- 3.5.1 ERANZ considers the draft decisions regarding quality measures are positive and provide better incentives for EDBs. Defining quality measures, targets and incentives is challenging. It appears that the Commission has largely followed international practice, with adjustments to fit the New Zealand context. We generally agree with this approach. However, we consider that the issues raised by NZIER's submission on behalf of MEUG are very relevant and should be kept in mind by the Commission.
- 3.5.2 ERANZ continues to support the Commission applying a detailed cost-benefit approach to setting quality standards and incentives for New Zealand EDBs. We support and reinforce the NZIER report to the Commission on behalf of MEUG, particularly that changes to service quality should be considered on the basis of the cost incurred relative to consumers' willingness to pay. The NZIER report also notes in particular:
- the difficulty in assessing and measuring the relationships between capex and opex and improving service reliability; and
 - that SAIDI and SAIFI measures do not accurately reflect the size of lost load associated with an outage.
- 3.5.3 Due to the nature and complexity of the quality standards and the quality incentive scheme in the Commission's draft decision, it is difficult to comment on the overall implications of the proposed changes. However, we provide some specific feedback on aspects of the draft decision below.
- 3.5.4 ERANZ supports the retention of SAIDI and SAIFI as quality measures, supplemented where possible by measures of the size of the lost load as noted above.

3.5.5 ERANZ also supports separate standards for planned and unplanned interruptions, and the enhanced automatic reporting standards for breaches of any quality standard:

3.5.5.1 We welcome the Commission's proposal to limit the movement in quality standards for unplanned interruptions as an intermediate measure.

3.5.5.2 However, we question whether redefining an extreme event to 3 times the SAIDI major event boundary value will result in a material benefit to consumers. Further, assessing planned outages over a five-year period and setting the quality standard to 3 times the average over the period could expose consumers to a deterioration of reliability quality - it is not clear that the EDBs in the most need of network upgrades will get the greatest increases in quality standard tolerance.

3.5.6 Regarding the quality incentive scheme:

3.5.6.1 ERANZ supports the move to SAIDI as the only quality measure for the incentive calculations.

3.5.6.2 We also support the Commission's adoption of Value of Lost Load (VoLL) in setting SAIDI incentives and we agree with the rationale behind discounting VoLL to align the revenue at risk with a cap.

3.5.6.3 We consider the Commission should conduct further analysis of the discount rates adopted for notified and planned outages (25% and 50% respectively) with respect to surveys of VoLL and therefore the impact that outages impose on consumers.

3.6 Innovation allowance

3.6.1 We do not agree with the Commission's proposed innovation recoverable cost and consider it should be removed entirely in the Commission's final determination.

3.6.2 The recoverable cost will result in higher costs for consumers without any additional long-term benefit, as it may cover expenditure that would have happened without its introduction. Its introduction will mean consumers pay directly for innovation projects even if the projects do not end up being successful.

3.6.3 The draft decision would appear to predetermine the outcome of the current joint project between the Electricity Authority and Commission which considers the extent to which EDBs activities in emerging markets could hinder competition and harm consumers in the long-term. As we have highlighted in our feedback on that workstream, further moves away from a level playing-field between regulated monopolies and organisations facing competition will likely stifle innovation by the competitive market and harm consumers in the long-term.

3.6.4 Under the current regulatory period, non-traditional investments are treated as part of regulated capex and are eligible for IRIS incentives and also feed into the asset base for return on investment in future regulatory periods (assuming they're capex projects). We consider those existing settings are sufficient to incentivise monopoly EDBs to invest in more efficient and innovate solutions.

3.7 Accelerated depreciation

3.7.1 Recent proposals for accelerated depreciation have highlighted a number of generic issues which we wanted to take the opportunity to comment on.

3.7.2 In advance of applications for accelerated depreciation, consultation with interested parties is essential to provide the Commission with a sound understanding of consumers' preferences. We suggest that in the final reasons paper the Commission elaborates on the role of consultation to avoid a possible misinterpretation of the draft reasons paper. The Commission should make clear that consultation is an essential component of the Part 4 regulatory framework.

3.7.3 We do not consider that accelerated depreciation is required to avoid intergenerational inequities (such as when some households face fewer lines charges as a result of installing solar panels, for example). As the Commission has set out in the draft reasons paper, "*[t]he industry emerging view would now seem to be that distribution networks will continue to be essential for most customers, and that the prospect of high market share for electric vehicles reinforces this.*"¹⁶

3.7.4 Even if this view does not eventuate, a more appropriate mechanism for managing such inequities is through cost-reflective rather than volumetric pricing. We agree with Meridian that "*a business operating in a competitive market would take other steps to address the issue ... rather than increase its prices. It would restructure its prices so they were more cost-reflective and benefits-based and thereby avoid ... inequities*".¹⁷ An explanation from the Commission's that changes in pricing structure may more effective in mitigating these than accelerated depreciation is important to ensure the issue is well understood, including by international investors

3.7.5 One important aspect of the Vector accelerated depreciation proposal was the suggestion that "*quality regulation becomes 'out-of-step' with customer expectations*"; ie, the Commission might impose quality standards that lead to inefficient – excessive – levels of investment. ERANZ agrees that there is a risk of investment by EDBs being inefficient in as much as the benefits for consumers of line services do not justify the cost. We commend Vector for acknowledging this potential issue.

¹⁶ Reasons Paper, P. 209.

¹⁷ Submission made by Meridian Energy available at, https://comcom.govt.nz/_data/assets/pdf_file/0029/135884/Meridian-Accelerated-depreciation-application-29-March-2019.pdf.

3.7.6 We consider this risk, however, could result from either EDB steps to increase their RAB or excessive Commission requirements for higher quality standards. We consider the use of robust and transparent cost-benefit analysis of potential investments, and strong engagement with consumers about their quality expectations, as the appropriate way to address this issue.

3.8 Other options for future investigation

3.8.1 ERANZ has previously provided the Commission with suggestions for additional regulatory tools that could supplement the DPP in order to drive EDB performance.¹⁸ We briefly outline those options below:

- development of a cost-benefit tool to allow standardised and transparent assessments of investment proposals; and
- improvements to asset management plans to make them more user-friendly, including presentation of network constraints and issues, network criticality and consequence of failure, current and upcoming investment proposals, and investment option selection process and ranking of solutions.

4. Conclusion

4.1.1 We consider that through the DDP3 process the Commission has conducted a comprehensive and inclusive analysis and review of the issues relevant to the DPP3 period. However, we remain concerned that lines prices continue to rise while the efficiency of EDBs' spending on average appears to be falling. We encourage the Commission to continue to analyse the drivers of this. ERANZ is keen to continue to work with the Commission in finding new approaches to promote better long-term outcomes for electricity consumers.

¹⁸ See, for example, ERANZ's [December 2017 letter](#) on the Commerce Commission's priorities for the distribution sector.