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Submission to the Commerce Commission on EDB Expenditure forecasting

The Electricity Networks Association (ENA) appreciates the opportunity to respond to the follow up questions from its Workshop on "forecasting and incentivising efficient expenditure for EDBs" on 7 November 2022. This submission is on behalf of the ENA's members listed in the appendix to this submission, New Zealand's electricity distribution businesses. It is not confidential.

The Commission's review comes at a time of significant change and uncertainty for the industry. The ENA is glad the Commission has sought input on how EBD expenditure forecasts are developed, and that it is giving consideration to making greater use of EDB forecasts in its expenditure allowance setting as part of its price-quality determinations under the default-price path.

The re-examination is importance because EDBs will have different drivers that influence the timing and level expenditure related to decarbonisation. These drivers include geographic, demographic and customer type mixes along with consideration of historical design standards and latent capacity headroom.

The ENA and its members strongly support the Commission in its statement that it could "rely on an EDB's own forecasts because we have sufficient confidence in them, and the supporting evidence in the AMPs and from stakeholder engagement, potentially supplemented with additional information".

The current approach is no longer fit for purpose because:

- future expenditure needs are different from past needs, but the existing expenditure setting process is backwards looking;
- network use is changing to demand more unmeasured outputs; and

- in period uncertainty is poorly accommodated, EDBs are subject to expenditure risks they have little ability to control that must be responded to.

The Commission's letter suggests that "EDBs might have an incentive to inflate costs" but provided no supporting analysis of the presence or strength of these incentives. ENA notes that several EDBs do not price up to the maximum allowable revenue, this illustrates that a desire to maximise revenue is not a material incentive to inflate expenditure forecasts.

Commission's follow-up questions

The Commission has posed questions on the following topics :

- Confidence in forecast requirements
- Step changes and scenarios
- Confidence in expenditure plans
- Confidence in the ability to deliver the expenditure plans

The ENA response to these questions is set out in Appendix A. ENA members will provide details of their forecasting methods and additional information in their submissions.

EDBs have the capability and skills required to respond to uncertainty in their forecasting due to the in-depth knowledge of the network constraints and demand. These forecasts are subject to intense internal scrutiny. The primary vehicle for EDBs forecasts is their AMPs which are subject to director certification. In this context, there is no justification for the Commission to put aside the EDBs' expenditure forecasts to underpin the next DPP reset's expenditure allowances, and instead rather derive its own forecasts.

The Commission's current approach to forecasting is flawed: The DPP3 reset decision capped aggregate capex forecasts for each distributor at 120 percent of its historical average expenditure. This overall cap is intended to reflect the point at which the Commission considers that the cost impact on consumers justifies further scrutiny of expenditure.

The cap is arbitrary and unsupported by any analysis. The Commission instead should consider other approaches, such as uncertainty mechanisms, business plan incentives for efficient and ambitious AMP forecasts, and EDBs forecasts rather than relying on historic trends.

Improving the opex allowance should the Commission continue to use its forecasting methodology.

ENA's view is that the Commission should use its EDB expenditure forecasts as the basis of its expenditure allowance rather than substituting them with its own forecasts developed using its highly mechanistic approach.

A critical shortcoming of the current opex allowance setting process is its narrow use of line length and customer numbers to adjust the opex allowance. However, two key network metrics are equally, if not more important, drivers of opex in a mature electricity network. Peak demand and/or system capacity are increasing faster than line length and connections but EDBs do not receive compensation for the changes in these two key network attributes.

If the Commission does elect to maintain its reliance on its own estimates of efficient operational expenditure, it should at a minimum include peak demand and/or system capacity into its adjustment mechanism.

Other important trends that should be taken into consideration are exports of electricity into the grid and solar panel penetration. Further, the Commission should consider carving out simple to forecast opex (e.g. more traditional opex) from newer and more bespoke opex, such as data and digitisation and flexibility. Appropriate mechanisms such as in-period adjustments or contingent allowances should be included IM regime to mitigate the increased risk of forecast for these new and non-traditional opex.

The Commission should also update the it's model's elasticities to better reflect how network use is changing.

Please don't hesitate to get in touch with ENA if you'd like to discuss our submission. Contact Keith Hutchinson (keith@electricity.org.nz, 021 0849 9419) in the first instance.

Yours sincerely,

Keith Hutchinson

Regulatory Manager

Electricity Networks Association

Area	Confidence in forecast requirements
Primary question	How are EDBs obtaining confidence in establishing the requirements they are forecasting to meet, including but not limited to demand, resilience, and reliability?
Additional questions to help frame responses	i. Are EDBs intending to change the inputs used in forecasting expenditure given key drivers of forecasts may have changed – particularly in the following areas: • Connection growth (e.g., new connections from development, green fields and brown fields) • Large capacity growth, (e.g., decarbonisation, industrial growth) • Incremental demand growth (e.g., EVs, residential technology) • Legislative change ii. With a potentially increased need for resilience-related investment, what are the key inputs for EDB resilience forecasting? iii. What forms of assurance will EDBs use (e.g., external verification) to provide confidence in forecasts, particularly where new forecasting inputs are used?
ENA response	EDBs have proved themselves to have the capability and skills required to respond to uncertainty and incorporate appropriate responses to this into their AMPs and expenditure forecasts. The Commission's three reviews of EDB's AMPs have not identified any material deficiencies in the robustness or accuracy of EDBs expenditure forecasts. The Commission should have confidence in the findings of its reviews and use EDBs' expenditure forecasts for the next DPP reset, rather than derive their own. The AMP development process is rigorous and involves significant internal scrutiny including at governance level. The Commission's Information Disclosure requirements for director certification of the AMP provides confidence that the forecasts can be relied upon by stakeholders including major users, the system operator, grid owner, and regulators. EDBs do not develop their forecasts in isolation. They draw on the most up to date data and research in the public domain, including the System Operator and grid owner forecasts, and MBIE electricity demand and generation scenarios. Regional and local studies and customer engagement also inform forecasts e.g. DETA process heat, climate adaptation reports etc. EDB's expenditure forecasts are not set and forget. EDBs are constantly monitoring the drivers listed, above and others, to ensure that their AMP, capex and opex

	programs and forecasts reflect the most up-to-date information while balancing the energy trilemma of security, sustainability, equity.

Area	Step changes and scenarios
Primary question	Are there specific events or metrics that can be forecast and then observed that indicate that a step change in expenditure is required or an alternate scenario is playing out?
Additional questions to help frame responses	i. What forms of information do EDBs use to build scenarios on the different forecast areas? ii. What are the underlying drivers where EDBs are forecasting a potential significant step change in expenditure requirements compared to previous levels? iii. Are there trigger points where increased certainty on level of spend required may be obtained? iv. What are the key dependencies or risks EDBs have identified which may impact forecast scenarios? v. Do EDBs consider that the expenditure required to address different scenarios may usefully follow proxies or will these be disjointed andnetwork characteristic and network design specific increases? vi. What is the sensitivity of the expenditure plan to out-turn differences in requirements like incremental demand growth, resilience, decarbonisation, and connection growth?
ENA response	EDBs are constantly monitoring the key influences of their expenditure. Some of these include: • legislative changes (national and regional) • government incentives like the GIDI fund • uptake and trigger timing of technologies such as EVs, Solar PV and other distributed generation • population and consenting growth EDBs via the ENA are developing a set of future energy scenarios for use in planning for long-term changes to network use due to decarbonisation. In addition to these overarching scenarios, EDBs develop network and sub-network scenarios with the involvement of local stakeholders and communities as part of developing local area planning for regional decarbonisation. Each network will experience different drivers of expenditure and timing dependent on their geographic, demographic and customer type mixes along with consideration of historical design standards and resultant latent capacity headroom. EDBs are also establishing new demand modelling approaches that will allow for more granular levels of assumptions about the different forecast areas, allowing EDBs to test multiple inputs in scenarios. This

	will integrate with the network development planning for future AMPs.

Area	Confidence in expenditure plan
Primary question	How are EDBs obtaining confidence that their proposed expenditure plan is the most effective and efficient solution for the forecast level of demand, resilience requirements, and reliability levels?
Additional questions to help frame responses	i. In which categories of expenditure do EDBs have greater levels of confidence than others? ii. Where new sources of uncertainty exist related to potential increases in expenditure requirements, is there a particular driver of the uncertainty? iii. How are EDBs accounting for the uncertainty of timing of when non-network solutions may become available or viable (due to technological developments or scale) and able to defer network investment requirements? iv. What forms of assurance do EDBs use, including external verification / challenge to provide confidence in the appropriateness of expenditure plans?
ENA response	Operational expenditure categories relating to preventative maintenance and business support functions are relatively stable and subject to less uncertainty. In comparison to capital expenditure related to system grown, re-active maintenance and system growth expenditure are more uncertain, both in scale in timing. In high growth areas, accurately forecasting connection growth may be more challenging and exacerbated by impacts of infill housing legislation moving forward. Non-network alternatives may not be forecast in an AMP at present but are explored as part of building up more detailed business cases as projects come closer to planning and execution. Where alternatives are viable then this would reflect as in period efficiency (may also be capex to opex substitution) or could be a candidate for an innovation allowance or opex reopener.

Area	Deliverability
Primary question	How are EDBs getting confidence that their expenditure plans are deliverable, particularly if they involve a significant increase from historical levels?
Additional questions to help frame responses	i. How are EDB forecasts accounting for availability of materials and skilled staff to deliver programmes of work if there are significant increases in expenditure forecasted? ii. What are the trade-offs between asset renewal / replacement and significant new connection work that EDBs make in forecasting, particularly where a step change in expenditure is forecasted? iii. How do EDBs assess achievability of delivery under differentscenarios and forecasts?
ENA response	EDBs' have a long history and proven experience in delivering and forecasting 10-year AMPs to the Commerce Commission and delivery of the infrastructure and services outlined in the AMPs. This track record of infrastructure and service delivery is made possible by strong long-standing relationships with key service providers, and suppliers of materials and training organisations that ensure their forecast work programs are deliverable and cost-effective. EDBs recognise that there may be potential labour market constraints that could hinder deliverance of major projects as the war for talent and resources continue. To manage these constrains, EDBs are actively working to develop appropriate operating and procurement models with service and material supply providers and supporting training and competency pipelines.

Appendix A – ENA Members

The Electricity Networks Association makes this submission along with the support of the members, listed below.

Alpine Energy
Aurora Energy
Buller Electricity
CentraLines
Counties Energy
Eastland Network
Electra
EA Networks
Horizon Energy Distribution
Mainpower NZ
Marlborough Lines
Nelson Electricity
Network Tasman
Network Waitaki
Northpower
Orion New Zealand
Powerco
PowerNet
Scanpower
Top Energy
The Lines Company
Unison Networks
Vector
Waipa Networks
WEL Networks
Wellington Electricity Lines
Westpower