

# Workshop on the impact of decarbonisation on electricity lines services

Summary of stakeholder views from workshop held 7 December 2021



# Overview

These slides cover:

- The purpose and structure of the workshop
- An overview of workshop participants
- The top proposed changes to the Part 4 regime from participants
- The key themes from participants expressed in the workshop and in subsequent written submissions

Care has been taken to ensure participants' views are accurately represented, although as this is a summary it will not necessarily convey the full detail of participants' views. Written submissions received following the workshop are available on our [website](#).



# Purpose of workshop

- On 7 December 2021, the Commission held an online workshop on the impact of decarbonisation on electricity lines services. Over 100 participants attended representing a range of organisations including electricity distribution businesses (EDBs), Transpower, third party electricity service providers, industry bodies, and consumer groups.
- The purpose of the workshop was to explore responses to our [open letter](#) published 29 April 2021 calling for views from the sector on emerging issues, particularly in relation to decarbonisation.
- The focus of the session was on exploring how decarbonisation-driven electrification is or is not supported by the Part 4 regime and what work should be prioritised given the Commission's resources and role in the system.



# Structure of workshop

- The workshop was structured in two parts. In the first half of the session, we invited 13 organisations to present their recommended top three changes to the regime. This was followed by an open discussion to explore the themes raised in these presentations.
- The discussion will be used to inform our plans for upcoming projects including the 2023 input methodologies review, a targeted review of information disclosure requirements, and the next EDB default price-quality path reset.
- Participants were also invited to provide written submissions following the workshop. Written submissions were received from Alpine Energy, Vector, and the Electricity Networks Association and have been published alongside this summary.



# Overview of participants

EDBs	
Alpine Energy	Northpower
Aurora Energy	Orion
Counties Energy	Powerco
EA Networks	Scanpower
Eastland	The Lines Company
Electra	Top Energy
Electricity Networks Association	Unison
Horizon Networks	Vector
Mainpower	WEL Networks
Network Tasman	Wellington Electricity
Network Waitaki	

Other	Major electricity users
Energy for Good	Major Electricity Users Group
First Gas	NZ Steel

Other electricity services
Cortexo
Our Energy
solarZero
WMAC Cloud

Electricity transmission
Transpower

Electricity retail / generation
Trustpower

Advisory / legal
Alan Jenkins
ANSA Holdings Limited
BRG NZ Limited
Castalia Advisors
Chapman Tripp
John Hancock
Stout Street
Utility Consultants

Regulators & government agencies
Electricity Authority
Energy Efficiency & Conservation Authority
Gas Industry Company
Ministry of Business Innovation & Employment



# Top proposed changes to Part 4 regime

The main proposed changes to the Part 4 regime raised by workshop participants were:

- Adding explicit consideration of decarbonisation and wider energy sector outcomes to Part 4.
- Using a forward-looking approach to forecasting for price-quality paths rather than historic expenditure.
- Providing more flexibility for uncertainty (eg, pass-throughs, streamlined reopeners, simplified CPPs).
- More / enhanced innovation incentives.
- Customer connection costs should be removed from IRIS.
- Updating information disclosure requirements (eg, greater use of heat maps, alignment with PQ regulation).
- Ensuring greater alignment between energy sector regulators.

# Key themes from EDBs

## Investment

- Forecasting based on historic expenditure is no longer appropriate given the scale of investment that will be required to meet the decarbonisation challenge (*ENA, Aurora, Powerco*). To effectively enable decarbonisation investment may need to occur in advance of customer demand (*Powerco, Transpower, Trustpower*). The Commission should consider creating a new expenses category and allowances for decarbonisation expenditure (*Alpine*).
- A forward-looking approach is required for opex to account for factors like increased cyber security costs, and a general shift from capex to opex in line with the increased uptake of non-network solutions (*Orion, Wellington Electricity, Unison*). The classification of software-as-a-service as an operating cost also causes a step change in opex in the period it first applies (*Orion*).

# Key themes from EDBs

## Investment

- Consumer connection capex is difficult to forecast, is incurred wholly in service of customer needs and is often driven by decarbonisation initiatives. A new approach is required (*Alpine, Aurora, Orion*) and the 120% capex cap should be removed (*Electra*). Customer connection costs should be removed from IRIS (*Alpine, ENA, Unison*) and reflected as pass through costs for EDBs (*ENA, Orion*).
- The Commission should provide guidance to EDBs on certain forecasting assumptions to ensure consistency. For example, the Commission could advise EDBs to follow modelling assumptions regarding electric vehicle uptake made by He Pou a Rangi (Climate Change Commission) (*Powerco*).
- Large uptake of distributed energy resources (DERs) is required to avoid inefficient investment. This will require changes to pricing and incentives for consumers as well as greater coordination and planning for DERs across the electricity sector (*The Lines Company*).



# Key themes from EDBs

## Innovation

- The regulatory framework should encourage collaboration between EDBs (*Aurora*). Collaboration on innovation and pilot implementations and sharing of intellectual property arising from successful innovations should be promoted (*Trustpower*).
- The innovation allowance process needs to be revisited, for example, by increasing the size of funding available, reducing administrative burden, and moving to an ex-ante conditional approval or ‘use it or lose it’ framework (*ENA*).
- The need to invest to achieve decarbonisation will have adverse impacts on EDB incentives. The Commission needs to consider how incentive mechanisms can be flexible to account for this (*ENA*).
- The regime does not reward innovations that have a payback longer than the 5-year regulatory period. (*Unison*).
- The Commission should consider implementing an innovation mechanism akin to the AER’s sandbox initiative (*Electra*).

# Key themes from EDBs

## Flexibility

- Reopeners need to be more dynamic and streamlined (*ENA, Alpine Energy, Unison*) and the Commission needs to have the appropriate resourcing to manage reopeners (*Aurora, Powerco*).
- The standard 5-year regulatory period can be a barrier to efficient investment. There is a need for criteria for when to apply mechanisms for dealing with the step changes in expenditure (*Unison*).
- Uncertainty can be dealt with through various regulatory mechanisms including pass through costs (*ENA*).
- There is uncertainty of the timing of the need for investment in a high growth scenario (*Wellington Electricity*).
- The Net Zero 2050 target makes decarbonisation a known factor, rather than an unknown event (which reopeners are designed for). The Commission should consider a reopener targeted at decarbonisation, as Ofgem has introduced in RIIO-2 (*Alpine*).
- The incremental rolling incentive scheme (IRIS) was established on the assumption that EDBs charge up to their revenue cap, so needs to be more flexible to work properly for EDBs that do not charge up to their cap (*The Lines Company*).

# Key themes from EDBs

## Improved use of information disclosure

- ID can shine a light on successful examples of where the non-network alternatives have been superior to traditional network investments. A measure of capital invested per customer might be used to help identify where non-network alternatives might lead to lowest cost alternatives (*Unison*).
- ID can be improved through alignment with IRIS calculations under DPP3, capturing data on uptake of distributed energy resources, and uncoupling heatmaps from related-party transactions and refocusing them on mapping network congestion (*ENA*).
- The Commission should look to asset management plans to understand EDBs' future expenditure needs (*ENA, Powerco*).
- The forecasting approach for AMPs and DPPs could be improved by more use of templated collection of information and a streamlined verification process to prove the credibility of forecasts under a lower cost regime (*Aurora*).
- ID should not evolve into a direct performance management tool for exempt EDBs who are directly answerable to their consumers being consumer-owned (*Electra*).
- ID requirements should be aligned with the IFRS accounting standards to minimise the need for reconciliation between regulatory reporting and statutory financial reporting (*ENA*).

# Key themes from EDBs

## Regulatory framework and approach

- Climate change obligations need to be appropriately reflected in the Part 4 regime. The Commission must be clear on what it can and cannot achieve regarding decarbonisation within the current framework and, if necessary, advocate for legislative change. The same also applies for energy affordability and whether the regime supports this (*Orion, Vector*). In a period of rapid growth there is a question as to whether Part 4 adequately deals with an investment growth scenario (*Wellington Electricity*).
- The regime must include a pass-through of EDB's carbon abatement costs under the Climate Change Response Act 2002 (*ENA*).
- The timing of our consultations on PQ resets (EDB DPP4 and Transpower IPP4) should be brought forward to allow more time to reflect on any changes that will be required to the approach to the setting of the PQ paths (*Alpine, Unison*).
- As decarbonisation touches on the work of multiple agencies who regulate the electricity sector these agencies need to be aligned (*Aurora*).
- The Commission should adopt a more integrated approach to regulation of energy companies (*Wellington Electricity*).

# Key themes from Transpower

## Investment

- Transpower is receiving an increasing number of connection enquiries on both the demand and generation sides and a corresponding increase in workload and requirement investment.

## Flexibility

- The current reopeners lack flexibility and responsiveness. The Commission should explore options for providing flexibility while sharing risk between Transpower and consumers.

# Key themes from Transpower

## Regulatory framework and approach

- The investment test allows Transpower to take account of decarbonisation through the cost of carbon emissions on the supply side, however, there is no explicit mechanism to account for the benefits of decarbonisation on the demand side.
- The Commission should consider applying a social discount rate to incorporate societal benefits, and / or consider how to value decarbonisation on the demand side. That value may develop over time as electrification progresses, but action may be required in the interim given the long investment horizon.
- There are opportunities to reduce carbon emissions that consumers may support, for example, reducing SF<sub>6</sub> usage and associated emissions. Transpower would like the Commission to reconsider our stance on situations where action to reduce carbon emissions may incur additional cost but Transpower can evidence consumers are willing to support the action anyway.

# Views on innovation from other electricity stakeholders

## Innovation

- Regulatory incentives are needed to encourage EDBs to trial flexibility services and third-party services (*Trustpower, solarZero, Cortexo*). This could be driven by more granular SAIDI/SAIFI monitoring (*Cortexo*).
- Incentives are needed to encourage urgency and action in innovation (*solarZero, Cortexo*) including specific allowances to invest in the transition such a real time LV network monitoring. UK and Australian approaches to incentivising innovation should be considered (*Cortexo*).
- We need to reward the efficient deployment of capital not just the deployment of capital (*solarZero*).
- Incentives can also encourage mass participation in distributed generation alternatives to unlock the estimated large NPV of benefits and stimulate large scale innovation (*John Hancock*).

## Regulatory approach

- The regime was designed for a steady state environment and does not incentivise or encourage risk-taking. The IMs need to be flexible to work in the changing environment (*Cortexo*).

# Other key themes

## Consumer affordability

- Investment needs to be efficient, and decarbonisation cannot place an undue burden on consumers and the industry needs to consider how to communicate and engage effectively with consumers. Different approaches may be needed for rural and remote communities (*Energy for Good, Our Energy, Trustpower, The Lines Company*).
- Consideration needs to be given to how to quantify impacts to consumers, including the social cost of carbon (*Orion*).
- Clear regulatory settings are needed to support distributed energy resources. As demand becomes more elastic with new technologies, prices should come down (*The Lines Company*).

## Data

- There are multiple sources of data, some of which will need to be paid for and others regulated for certain uses (*solarZero*).
- The industry needs to approach data collection efficiently (*Powerco, solarZero*).