

EDB DPP 2015-2020: Quality

Workshop with MEUG and ERANZ

3 July 2018



Purpose

- To provide an overview of the approach taken in the EDB DPP 2015-2020 to quality of service, including
 - The formal quality standards
 - The revenue-linked quality incentive mechanism



Overview of presentation

- Overview of price-quality regulation
- Purpose of a quality standard in PQ regulation
- Measures of quality used in the current DPP
 - SAIDI and SAIFI as measures of reliability
 - how the SAIDI and SAIFI measures are constructed and used
- Compliance
- Revenue-linked quality incentive scheme
- Recent CPPs
- Other dimensions and measures of quality
- Next steps



Overview of Price-Quality Regulation

- Part 4 of the Commerce Act provides for the regulation of goods and services
 - we currently regulate electricity lines services, gas pipeline services and certain specified services at airports
- All 29 electricity distribution businesses (EDBs) are subject to ID regulation, and 'non-exempt' EDBs are also subject to price-quality regulation
- Under PQ regulation, we set price and quality paths for each EDB
 - DPP – relatively low cost 'default' PQ path (current DPP 2015-2020)
 - CPP – 'customised' PQ path

Purpose of a Quality Standard in PQ Regulation

- A DPP must specify the quality standards to be met by a non-exempt EDB (s53M of Commerce Act)
- Quality standards are important to reduce the risk that EDBs will seek to increase profits by cutting costs and compromising quality
- The revenue-linked quality incentive scheme is separate from the formal quality standard, and is intended to place the trade-off between cost and quality in front of EDBs and consumers.

Measures of quality used in current DPP

- The measure of quality used in the current EDB DPP is focused solely on network reliability (frequency and duration of power cuts)
 - most important dimension of quality to consumers
 - consumer surveys by EDBs
 - supported by submissions
- SAIDI and SAIFI measures of reliability (average duration and average frequency of interruptions per customer)

$$SAIDI = \frac{\sum (\text{outage duration} \times \text{customers affected})}{\text{total number of customers}}$$

$$SAIFI = \frac{\sum (\text{customers affected})}{\text{total number of customers}}$$

Measures of quality used in current DPP

- A higher value of SAIDI or SAIFI = deterioration in reliability
- Quality standards are set with reference to historical averages of SAIDI and SAIFI
 - historic data is 'normalised'
 - planned SAIDI and planned SAIFI are given a 50% weighting
 - a margin is added to the 10-year historical average (reference period 2005-2014)



Measures of quality used in current DPP

■ ‘Normalisation’

- applied to unplanned SAIDI and SAIFI to limit the impact of major events such as severe storms on the quality standard
- implemented via ‘boundary values’ which define the maximum SAIDI or SAIFI value
- boundary values set at the 23rd largest unplanned SAIDI or SAIFI event over the 10 year reference period
- for any major event day exceeding the boundary value, the assessed SAIDI or SAIFI value is set at the boundary value

■ Planned and unplanned interruptions

- planned interruptions are weighted at 50% (less inconvenient due to advance notice)



Measures of quality used in current DPP

- Quality limit set at margin above historic average
 - a margin (equivalent to one standard deviation) is added to the historic average
 - the result is the quality limit which is used for compliance
- An EDB is non-compliant with its quality standard if it exceeds the quality limit in 2 of out 3 consecutive years
- Where non-compliant, we may seek pecuniary penalties or compensation under s87

Compliance

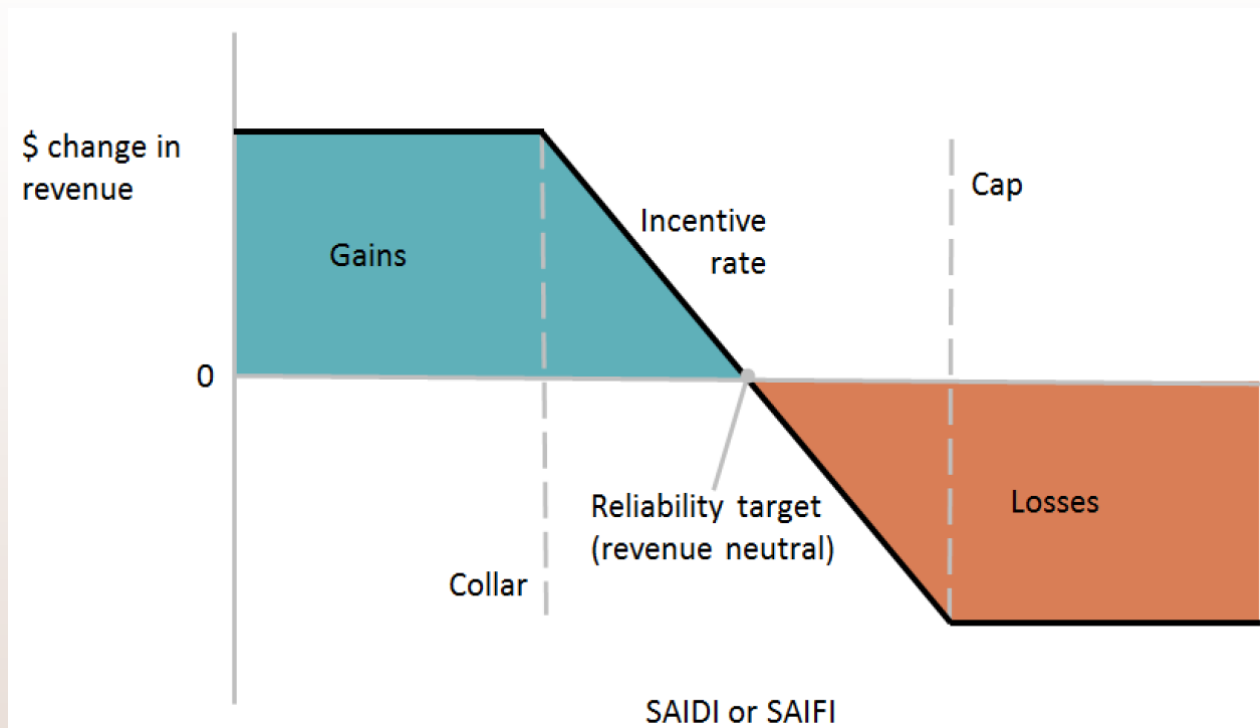
- Monitoring for quality standard compliance
 - EDBs are required to publicly self-report quality standard non-compliance in their annual DPP compliance statement
 - These are reviewed by the Regulation Branch Compliance team
- Consequences of quality standard non-compliance
 - We investigate the nature and cause of the contravention – usually with the help of an independent engineer – to inform our enforcement response.
- Enforcement responses to previous DPP quality standard contraventions
 - No-further action letter: Orion (2012 – 2014)
 - Warning letters: Aurora (2012), Eastland (2012), Electricity Invercargill (2012), Wellington Electricity (2013 & 2014)
 - We are investigating Alpine (2016), Aurora (2016 & 2017), Vector (2015 & 2016)
 - We are in the initial stages of investigating Aurora (2018), Horizon (2018), TLC (2018), Unison (2018), Vector (2017 & 2018) and Wellington Electricity (2018)
 - Our enforcement response can include no-further action letters, warning letters or court proceedings

Revenue-linked quality incentive scheme

- The scheme allows for the EDBs to earn additional revenue for performing better than the reliability target, and to receive less revenue for performing below the reliability target
 - the reliability target (based on the 10-year historic average) is revenue-neutral
 - a reliability 'cap' and 'collar' is set around the target
 - the 'revenue at risk' associated with the cap and collar is currently set at 1% of maximum allowable revenue



Revenue-linked quality incentive scheme



Source: Commerce Commission "Default price-quality paths for electricity distributors from 1 April 2015 to 31 March 2020: Main policy paper" (28 November 2014), Figure 6.1



Recent CPPs

- Powerco: separate quality standard for planned and unplanned interruptions
 - planned SAIDI and SAIFI: based on Powerco forecasts required to undertake CPP work
 - unplanned SAIDI and SAIFI: updated historic average at start of CPP period, with gradual reduction in limits (improvement in quality) over the CPP period.
- WELL: remains subject to DPP reliability quality standards
 - WELL's CPP expenditure focused on resilience rather than reliability
 - additional resilience quality standard introduced



Other dimensions and measures of quality

- Our 2014 policy paper referred to a number of areas where the approach to quality could be further developed in future resets. These could include:
- **Increasing the range of measures** of service quality, eg
 - quality of power supply
 - response times to power cuts
 - telephone response times
 - communications in relation to power cuts
 - notification of planned interruptions



Other dimensions and measures of quality

- **Refining the existing measures** of reliability eg
 - disaggregation of SAIDI and SAIFI measures by customer class or location
- **Strengthening the incentives** of the quality incentive scheme eg
 - increasing the revenue at risk
 - increasing the incentive rate



ENA Quality of Supply Working Group

- in 2013, the ENA established a Quality of Supply and Incentive (QoSI) working group to review possible refinements to the quality path, as an input into the DPP reset for 2015-2020
- the ENA has re-established the working group to participate in the upcoming DPP reset
 - members from EDBs
 - Commission, MEUG, and ERANZ as observers
- Looking at existing quality standards and incentive scheme, what dimensions and level of service quality are important to customers
- Several meetings held so far during H1 2018

Next Steps

- 19 June 2018: process paper released for consultation
 - Submissions due 17 July 2018
- November 2018: DPP Issues Paper to be released
 - six weeks for submissions (due mid-Dec 2018)
 - four weeks for cross-submissions (due mid-Jan 2019)
- Q2 2019: draft DPP decision
 - six weeks for submissions (due July 2019)
 - four weeks for cross-submissions (due Jul/Aug 2019)
- September 2019: updated draft DPP decision
- Late November 2019: final DPP decision

