COMMERCE COMMISSION NEW ZEALAND
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Introduction to the DPP for stakeholders

2020 reset of the DPP for EDBs

5 November 2018

Dane Gunnell – Project manager for DPP3

Housekeeping

WIFI network: DPP
Password: Winter

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Toilets	Access via stairwells either side of the lifts – please see reception for a swipe card to gain entry back to the floor
Fire	Emergency exits via stairwells either side of the lifts – please follow instructions from Commission staff. Assembly area outside St Andrew's church on the Terrace
Earthquake	Drop, cover, and hold. Please do not exit the building until the all-clear is given as there may be danger of falling glass

Overview

- Purpose of today's session
- Agenda for today
- The DPP team
- The Commission's vision

Purpose: knowledge sharing

- ✓ Encourage wider participation and more viewpoints into our process
- ✓ Speed up the learning process for those new to the industry and Part 4 regulation since the 2014 DPP decision
- ⊘ Does not provide views on the development of DPP3, the Issues paper and subsequent workshops are aimed at this

Agenda

Session	Topic	Time
1	**Introduction**	**9.00am – 9.15am**
2	**Default price-quality path framework**	**9.15am – 10.00am**
3	**Revenue path**	**10.00am – 10.30am**
	Morning tea	10.30am – 10.45am
4	**Opex and Capex forecasting**	**10.45am – 12.00pm**
	Lunch	12.00pm – 12.45pm
5	**Efficiency incentives**	**12.45pm – 1.45pm**
6	**Quality standards**	**1.45pm - 2.45pm**
	Afternoon tea	2.45pm – 3.00pm
7	**Compliance**	**3.00pm – 3.30pm**
8	**Wrap up**	**3.30pm – 3.45pm**

DPP team

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Regulation Branch

Telecommunications

Energy, Airports, Dairy

Regulation development

Compliance

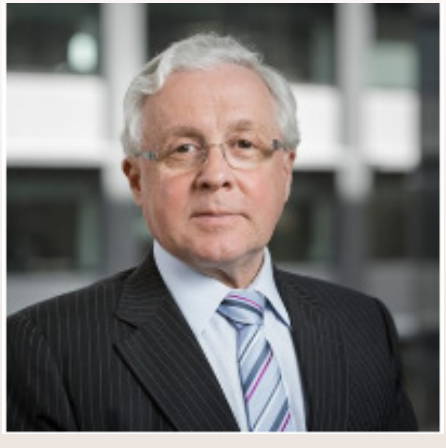
Price-quality regulation

Performance analysis

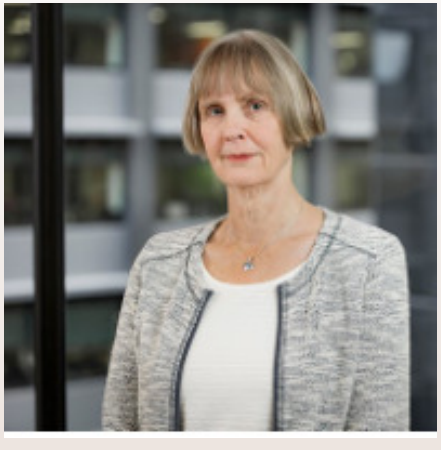
Economics

Legal

Energy Division



Dr Mark Berry
Chairman



Sue Begg
Deputy Chair

Dr Stephen Gale
Telco Commissioner

Dr Jill Walker
Commissioner

The Commission

Our regulatory tools

Sunshine regulation

Non-statutory tools (liaise, advocate, champion, sponsor)

Price-quality regulation … and enforcement

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EDB Default Price-Quality Path Framework

2020 reset of the DPP for EDBs

5 November 2018

Paul Mitchell and James Mulrennan

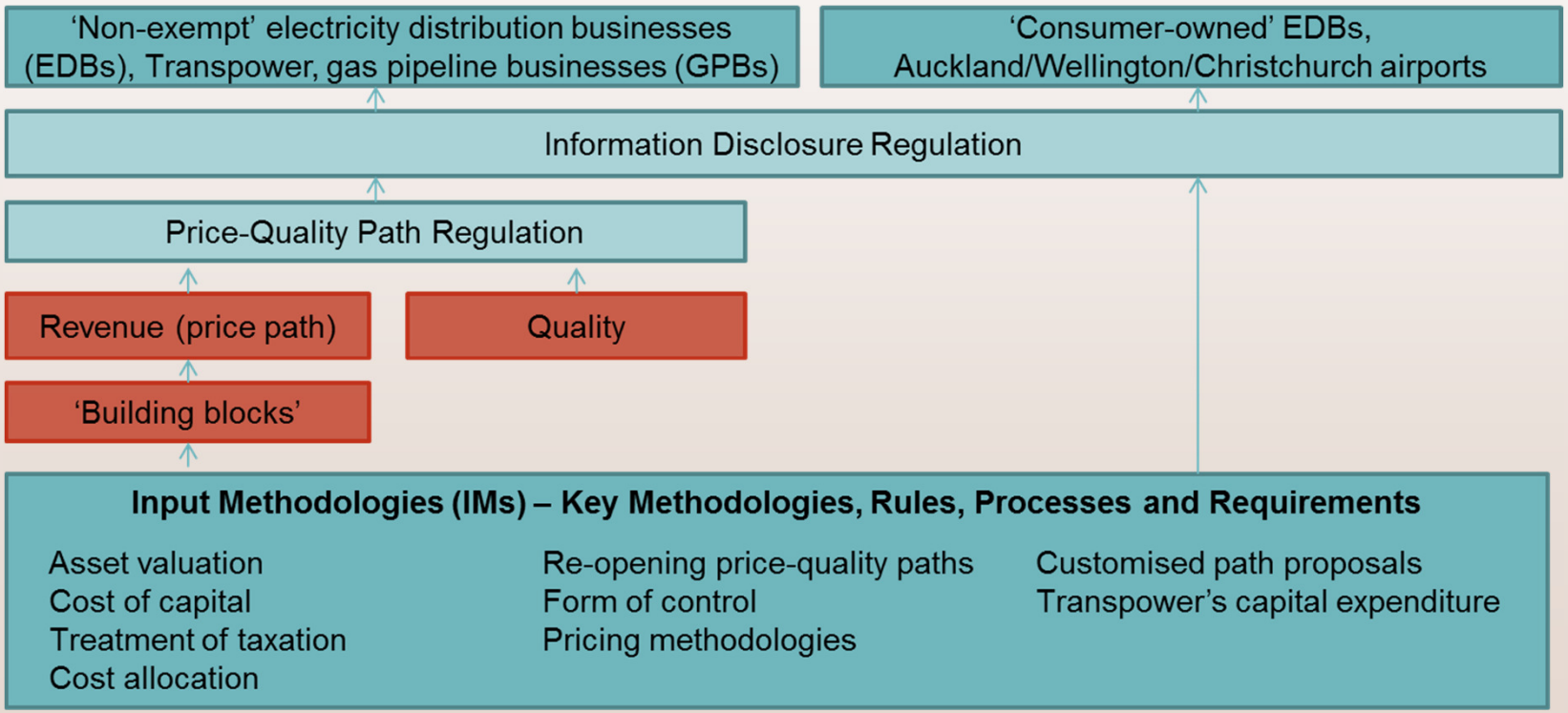
Overview

- Part 4 of the Commerce Act 1986
- Purpose of default/customised price-quality regulation
- Reset process and regulatory period

Part 4 of the Commerce Act 1986

Overview of Part 4 regulation

- Regulation of **price** and **quality** of goods and services in markets where there is **little or no competition** and **little or no likelihood of a substantial increase** in competition



Purpose of Part 4

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Section 52A Purpose of Part 4

To promote the **long-term benefit of consumers** [of regulated services] by promoting outcomes that are consistent with outcomes produced in [workably] competitive markets such that suppliers:

- have incentives to **innovate** and **invest**
- have incentives to improve **efficiency** and provide services at a **quality** that reflects consumer demands
- **share efficiency gains** with consumers, including through lower prices
- are limited in their ability to extract **excessive profits**

Investment	Innovation	Efficiency
Quality	Pricing	Profitability

Purpose of Default/Customised Price-Quality regulation

Section 53K Purpose of default/customised price-quality regulation

Provides a relatively **low-cost** way of setting price-quality paths for regulated suppliers, while allowing the opportunity for individual suppliers to have alternative price-quality paths that better meet their particular circumstances

What goes into a price-quality path

Section 53M Content and timing of price paths

Price paths must specify:

- Maximum price, prices and/or revenue
- Quality standards
- Regulatory period
  - Normally will be 5 years but may be shorter (but at least 4 years) if it would better meet the purposes of Part 4
- May include incentives for a supplier to maintain its quality of supply

Restrictions

The Commerce Act provides that price-quality paths:

- Starting prices for a regulatory period must not be set to recover any excessive profits made during any earlier period
- Must not be set using comparative benchmarking
- Can only be updated mid-period in limited circumstances (described in Act and IMs)

Commerce Act 1986

Other requirements when setting price quality paths

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Section 53P

- The Commission has a requirement to set the next DPP before the end of the current regulatory period, setting out starting prices, rates of change and quality standards.

Section 54Q Energy efficiency

- The Commission also has a statutory requirement to promote incentives, and to avoid imposing disincentives, for suppliers of electricity lines services to invest in energy efficiency and demand side management, and to reduce energy losses.

Input methodologies (IMs)

Input methodologies are the rules, requirements and processes we determine that must be applied to regulation under Part 4 of the Commerce Act. They are important as they provide increased certainty on how price-quality paths will be set for electricity lines and gas pipelines services and how information disclosure requirements will be set for electricity lines, gas pipelines and certain airport services.

- Key methodologies underpin setting allowable revenue under price-quality regulation, or assessing returns under information disclosure
  - asset valuation, depreciation and revaluations
  - cost of capital and tax
  - allocation of common costs
- Set up front, in advance of making information disclosure, price-quality determinations or determining pass-through costs

Input methodologies (IMs)

- Promote certainty for suppliers, investors and consumers in relation to rules, requirements, and processes of regulation
- Regulatory processes and rules (eg re-opener provisions)
- Customised path requirements and evaluation criteria
- Input methodologies do not cover pricing - Electricity Authority's role – or quality
- IMs first set in Dec 2010 and must be reviewed at least every 7 years
- IM decisions subject to merits appeal – Court found in our favour in 56 out of 58 challenges
- First IM review largely completed in Dec 2016 – no appeals of IM amendments
- Regulatory certainty and predictability has increased following merits review judgment and first review of IMs

Information disclosure regulation (ID)

- Ensure sufficient information is readily available to interested persons to assess whether the Part 4 purpose is being met
- Provides incentives for better performance by creating transparency
- Applies to all electricity distribution businesses, both 'consumer-owned' (exempt) and non-exempt electricity distribution businesses
- Suppliers may be required to disclose a range of information
    - eg, financial statements, asset valuation reports, financial and non-financial performance measures, prices and pricing methodologies, quality measures, forecasts, contract terms, asset management plans
- We must undertake a summary and analysis of disclosed information to promote a greater understanding of suppliers performance, their relative performance and changes in performance over time

Overview of default/customised price quality regulation

Purpose of default/customised price-quality regulation (DPP/CPP)

- Price-quality paths limit revenues and provides efficiency incentive to outperform the path, whilst quality standards ensures this does not occur due to excessive cutting of costs
  - Commerce Commission may also prosecute for breaches of price-quality requirements
- Default price-quality paths provide a relatively low cost option suitable for most EDBs, while customised price-quality paths are available to meet specific circumstances

Default price/quality paths

- Set in a relatively low cost way – not intended to meet all circumstances that an EDB may face
- Have used a number of approaches to reduce cost, in past DPPs, including:
  - Applying the same or substantially similar treatment to all suppliers;
  - Setting starting prices and quality standards with reference to historic performance
  - Use existing information disclosure data where available, to reduce cost of forecasting
  - Limiting the circumstances where DPPs will be reopened
- Default price-quality paths have a 4-5 year regulatory period

Customised price-quality paths (CPPs)

- Suppliers on a default path may seek a customised price-quality path, making a proposal to Commerce Commission
  - Customised price-quality path application may be to address variety of circumstances including specific investments
  - Application must comply with requirements for process and content of proposal, and proposal must apply or adopt all relevant input methodologies
- We evaluate a supplier's verified information about forecast capital and operating expenditure, and set a CPP
- Customised price-quality paths have a 3-5 year regulatory period
  - Binding for the period it is set, an EDB can make only one proposal per regulatory period, and a proposal cannot be withdrawn
- We have set 3 CPPs so far

Reset process and regulatory period

Resetting the DPP

- Over time, actual expenditure/demand diverges from forecast demand: costs diverge from revenues
- Reset enables costs and revenues to be realigned
- Also allows efficiency gains/losses to be shared with consumers
- Changes to Input Methodologies do not apply until the path is reset
- Reset enables quality standards, and incentives, to be reconsidered and reset

Reset process

- **Process paper**, detailing approach to reset published
- Information for year ending 31 March 2018 provided to the Commission
- **Issues paper** published for consultation
- Information request for quality of service information
- Asset management plan updates (2019-29) provided to the Commission
- **Draft DPP decision** published for consultation
- Disclosure information for year ending 31 March 2019 provided to the Commission
- **Updated DPP draft** published for consultation
- **Final DPP decision** published

Key dates for stakeholders

Milestone	Indicative date
Issues Paper released - Submissions period closes - Cross submissions period closes	**15 November 2018** - 20 December 2018 - 31 January 2019
DPP issues specific workshops	**February – March 2019**
Asset Management Plan updates	**31 March 2019**
Draft Decision published - Submissions period (8 weeks) closes - Cross submissions period (4 weeks) closes	**May 2019** - June/July 2019 - July/August 2019
Information request on quality of service	**August 2019**
Updated Draft Decision	**September 2019**
Final Decision published	**28 November 2019**
DPP3 commences	**1 April 2020**

Questions?

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Revenue Path

2020 reset of the DPP for EDBs

5 November 2018

Paul Ware

Introduction

Overview

- What is a price path, and revenue path?
- Determining ‘building blocks allowable revenue’
- Smoothing the building blocks allowable revenue (BBAR) to get maximum allowable revenue (MAR)
- X (the one in ‘CPI-X’) and the slope of the price path
- Pass-through and recoverable costs
- Incentives
- Revenue cap with wash-up

What is a price path?

- A price path is the set of annual revenues an EDB is allowed to earn for a regulatory control period. These revenues are the maximum allowable revenues plus pass through and recoverable costs.
- We refer to the next default price-quality path (commencing 1 April 2020) as DPP3, and the price path is the set of annual revenues.

Price path vs revenue path

- The terminology is confusing. Arises from the definition of ‘price’ in Section 52C of the Commerce Act 1986:

  price—

  (a) means any 1 or more of individual prices, aggregate prices, or revenues (whether in the form of specific numbers, or in the form of formulas by which specific numbers are derived); and

  (b) includes any related terms of payment

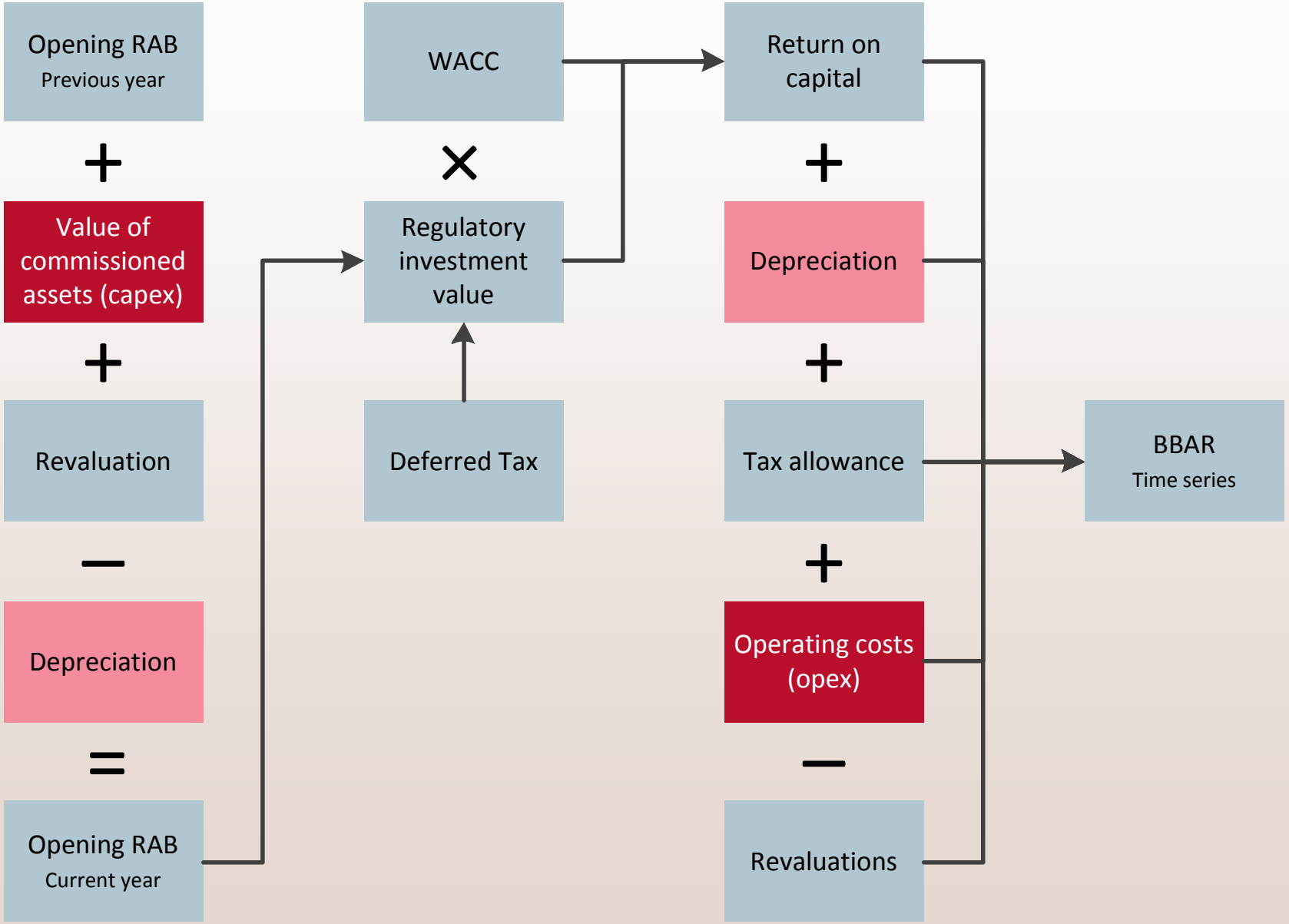
- ‘Price path’ and ‘revenue path’ mean the same thing, especially for DPP3 which will have a revenue cap. The Act consistently refers to ‘price-quality path’, 99 times.

Determining the building blocks allowable revenue

Building blocks allowable revenue

- BBAR means ‘building blocks allowable revenue’
- The BBAR approach is to forecast a supplier’s costs from 5 costs, each of these costs being a building block.
- *Building blocks allowable revenue =*
  - *Return on capital +*
  - *Depreciation +*
  - *Opex +*
  - *Tax -*
  - *Revaluations*
- We set the building blocks allowable **revenue** equal to the total of these forecast **costs** because our approach is to allow suppliers to earn the revenue required to meet their costs, including financing costs.
- The methodology for determining the value of these building blocks is to a large extent covered by the input methodologies, except for forecasting opex and capex.

Determining the BBAR time series



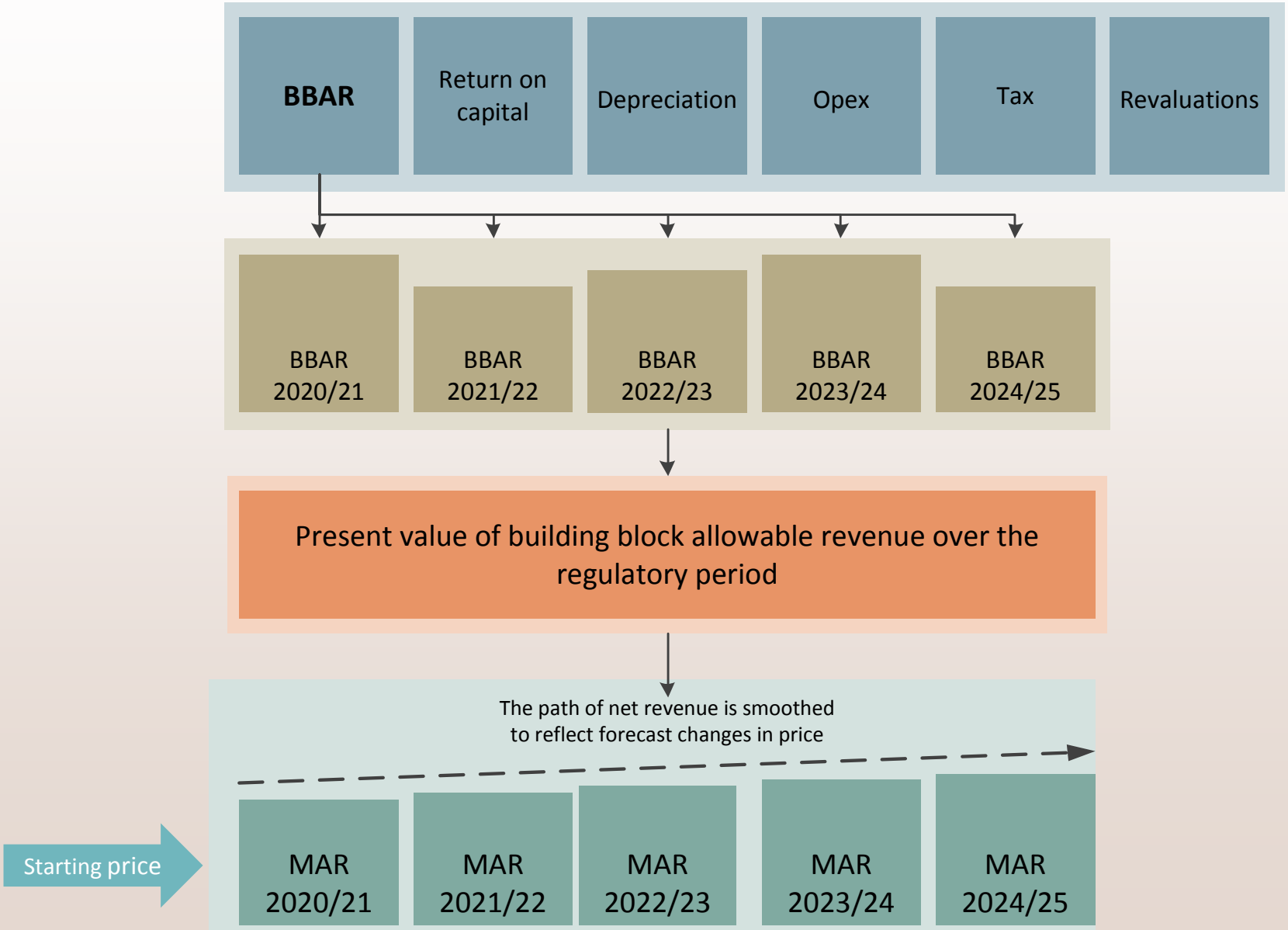
Accelerated depreciation

- The 2016 IM review provided for ‘accelerated depreciation’. An EDB may apply for an accelerated depreciation of its existing assets as from the start of a regulatory period.

- For the purposes of calculating the depreciation building block, the average remaining life of existing assets may be reduced by up to 15%.

Smoothing the BBAR time series to determine the price path

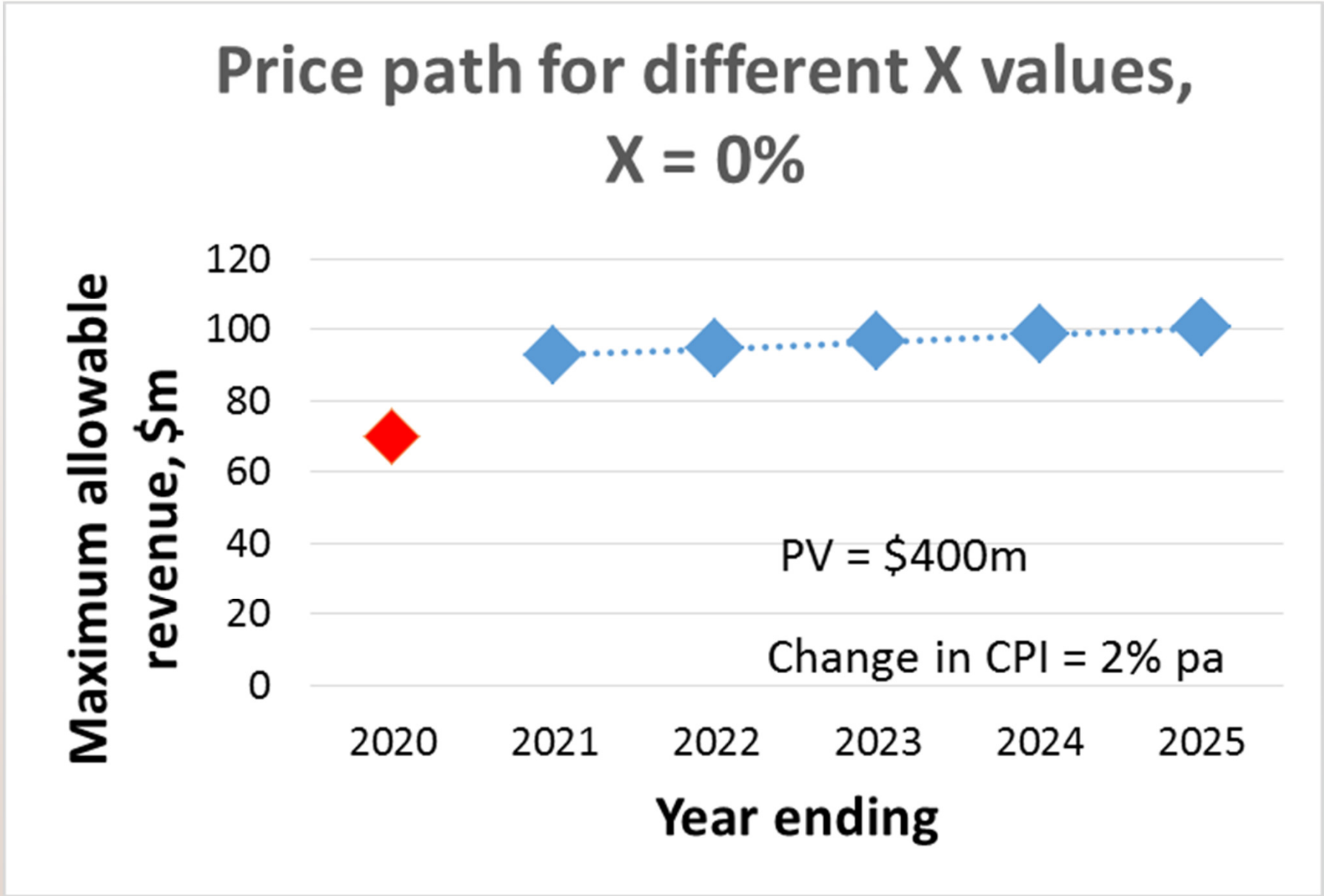
- The five BBAR values may fluctuate up and down from one year to the next, so we smooth out the variations to produce a smoothed price path.
- We refer to each of the five smoothed values as a ‘maximum allowable revenue’ (MAR).
- We set the MAR values such that the present value of the five MAR values is equal to the present value of the five BBAR values.

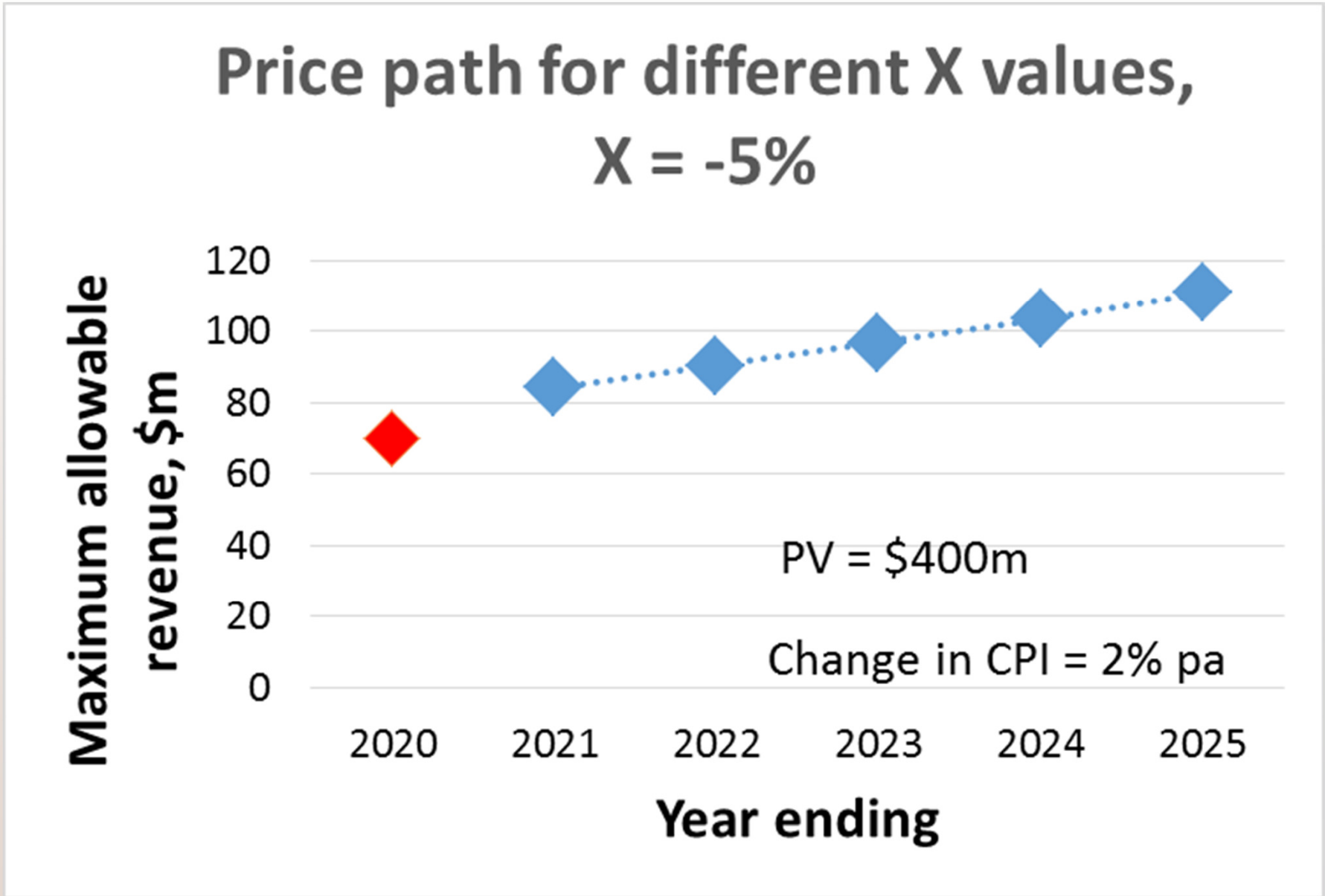

BBAR
Return on capital
Depreciation
Opex
Tax
Revaluations
BBAR 2020/21
BBAR 2021/22
BBAR 2022/23
BBAR 2023/24
BBAR 2024/25
Present value of building block allowable revenue over the regulatory period
The path of net revenue is smoothed to reflect forecast changes in price
Starting price
MAR 2020/21
MAR 2021/22
MAR 2022/23
MAR 2023/24
MAR 2024/25

The MAR time series

We determine the 5 MAR values on the following basis:

- The MAR for each of the second to fifth years is calculated from the previous year's MAR on a 'CPI – X' basis.
- If X = 0, then this means that the MAR values are constant in real terms. For example, if CPI goes up by 2%, then the MAR will go up by 2%.
- If X is say 1%, then MAR will go down in real terms by 1% each year.
- Present value of BBAR = present value of MAR


Price path for different X values,
X = 0%
Maximum allowable revenue, $m
120
100
80
60
40
20
0
PV = $400m
Change in CPI = 2% pa
2020
2021
2022
2023
2024
2025
Year ending


Price path for different X values,
X = -5%
Maximum allowable revenue, $m
120
100
80
60
40
20
0
PV = $400m
Change in CPI = 2% pa
2020
2021
2022
2023
2024
2025
Year ending

Incentives, pass-through costs

Incentives

Price path creates an incentive to control costs

- We fix MAR values in advance of the new regulatory period using our forecasts of opex and capex.
- If a supplier keeps its opex and capex lower than our forecasts, it can keep at least some of its savings. This creates an incentive to be efficient. This applies to both opex and capex.
- In a DPP reset, we often take into account past levels of opex and capex. If these values reflect achieving past efficiencies, then lower future opex and capex allowances will result in a sharing of benefits with consumers.
- Our 'incremental rolling incentive scheme' (IRIS) refines this approach, and will be discussed in a separate session this afternoon.

Pass-through and recoverable costs

- The building blocks approach covers many but not all of a supplier's costs.
- The total amount of pass-through and recoverable costs for a year may be added to the MAR value for a year to determine the maximum revenue an EDB may aim for when setting prices.
- Pass-through and recoverable costs are generally outside a supplier's control, eg Transpower costs, local body rates. The input methodologies specify the pass-through costs and the recoverable costs.
- Some recoverable costs are not liabilities to third parties, but are instead incentive amounts or wash-up amounts set by us. A supplier has at least some control over these incentive amounts.

Revenue cap with wash-up

Overview of revenue cap with wash-up

- The rest of this presentation is about the process for complying with the ‘form of control’, which will be a ‘revenue cap with wash-up’.
- For a revenue cap, if a supplier’s quantities supplied generally go up from the previous year, then the prices must go down to keep within the revenue cap.
- This is different from a weighted average price cap (WAPC), which is the form of control for the period ending in 2020.

Forecast revenue from prices must be no more than forecast allowable revenue

- When an EDB is setting prices, it will not know the exact allowable revenue it will ultimately be allowed. It is not knowable, for example, because pass through and recoverable costs will not be known in advance of them being incurred.

- The EDB will not be able to set prices to accurately achieve a maximum allowable revenue because it will not know the quantities of the services it will supply, eg. cold winter vs warm winter.

The revenue wash-up

- This lack of perfect foresight is dealt with by setting the cap on revenues on a forecast basis, and then doing a revenue wash-up once the information is available after the end of the year.

- The key revenue constraint will be:

  forecast revenue from prices must be no more than ***forecast allowable revenue***

- The wash-up will compare actual revenue with allowable revenue and take into account the time value of money (at WACC), so that is should leave a supplier free of a strong incentive to distort its forecasts to its advantage.

- The wash-up will mitigate forecasting risk for suppliers and consumers. After the wash-up, a supplier and its consumers will be present value neutral to the forecasts made by the supplier when setting prices.

Wash-up timing: 2 years later

- Information required to wash-up the forecasts will not be available for either the allowable revenue or the actual revenue received until after the end of the year to be washed up.
- For example, the first year of the new revenue cap regime will be the year ending 31 March 2021.
- There won't be sufficient information on 31 March 2021 to complete a wash-up, and even then it would be too late for setting prices for the year commencing 1 April 2021.
- A wash-up can therefore only be taken into account in setting the prices for the year that is two years after the year being washed up.

Other sessions today relating to the price-quality path and revenue cap

- Opex and capex forecasting
- IRIS
- Compliance

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Opex and capex forecasting

2020 reset of the DPP for EDBs

5 November 2018

James Mulrennan and Mike Wallace

Overview

- Operating Expenditure
- Capital Expenditure
- Features in common

Operating Expenditure

Opex overview

- Approach in past DPP
- Initial level of opex
- Step changes
- Network scale growth
- Changes in partial productivity
- Changes in input price

Approach in past DPP

To forecast opex:

- Majority of opex typically related to recurring activities
- Projecting forward actual expenditure
- Modelled impact of three factors on projected actual expenditure:
  - Network scale
  - Partial productivity
  - Input price changes

Initial level of operating expenditure

- DPP2 used the average of 2013 and 2014 opex as an initial level
- Averaging approach reflected concerns that 2014 opex was high, and could embed that level of expenditure in DPP2
- Incentive scheme now operates in a way to address that concern

Step changes in operating expenditure

DPP2 criteria for accepting step changes

- The step change must:
  - Be significant
  - Be robustly verifiable
  - Not be captured in other components of the projection
  - Be largely outside the control of the distributor
  - Be applicable to most, or all, distributors (in principle)
- DPP2 did not include step changes, aside from legal costs from the IM "merits" appeal

Network scale growth

- Econometric modelling to understand the impact of changes in network scale on opex
- Found two explanatory factors:
  - Change in network length
  - Change in number of connections
- Network opex: both correlated
- Non-network opex: number of connections correlated

Opex partial productivity changes

- Changes in productivity change the amount of opex required to provide a given level of service. Partial productivity measures are used to estimate these changes in productivity.
- DPP2 used a -0.25% annual change in partial productivity
- Based on quantitative and qualitative factors
  - Historical partial productivity changes
  - Expectations of productivity growth
  - Overseas electricity distributors partial productivity
  - Concern not to weaken incentive to find efficiencies

Input price growth

- Forecast for DPP2 included inflationary element for input prices
- Prices inflated from constant to nominal using a weighted average of forecast changes in:
  - All industries labour costs index (60%)
  - Producer price index (40%)

Capital Expenditure

Outline

- Asset Management Plans and capex cap
- Network and non-network expenditure
- Spur assets
- Value of commissioned assets
- Value of vested assets, cost of finance and capital contributions
- Capex wash-up
- Lessons from 2017 Gas DPP

Use of Asset Management Plans

- Reliance on distributors' AMP forecasts
- Capex more volatile than opex: trend methods not suitable
- Developing our own forecasts is costly, not suitable under a low-cost regime
- Distributors best placed to know
  - State of their assets
  - Current and future demand drivers
  - How to efficiently meet this demand
  - Costs of doing so
- Capex forecast error has less impact over the DPP period than opex: impacts revenue indirectly
- Risk of inaccurate or inflated forecasts

Mitigating risk of forecast bias

- Forecasts done in constant-price terms
- Expenditure forecast disaggregated into network and non-network capex
- Expenditure caps operate differently
  - Network capped at 120% of historical levels
  - Non-network capped at 200% of historical levels.
    - Sliding scale for cap where expenditure greater than 5% of network capex
    - Recognises greater volatility historically seen in non-network capex
- Incentive mechanism uses aggregated capex. EDBs may substitute expenditure between categories
  - Avoid creating an incentive to prefer, for example, a non-network option over a more efficient network option

“Spur” assets

Spur assets refers to Transpower’s transmission grid assets that are/were transferred to the EDB connected to those assets

Under DPP2

- Spur assets are included in capex forecasts, but removed if the purchase is cancelled
  - Ensures EDBs get a return on investment in spur assets if, and only if, the asset is purchased
- Excluded from assessment of forecast capex as purchase a significant increase over historic levels

Capex vs commissioned assets

- Our building blocks model depends on forecasting ‘commissioned assets’
- DPP2 used the value of commissioned assets as a proxy for the forecast capex
- Consistent with low-cost forecasting approach
- In practice, the value of commissioned assets may also include:
  - An uplift or decrease due to change in value of works under construction
  - Acquisitions from regulated suppliers
  - Asset transfers from third parties

Value of vested assets, cost of finance, and capital contributions

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Value of Vested Assets (VVA) and Cost of Finance (COF)

Both the VVA and COF are:

- Included in capex forecasts
- Treated as being network related
    - VVA and COF are seen as low materiality/value in relation to total capex

Capital contributions

- Fenced off from capex – does not increase the size of the Regulatory Asset Base

Capex wash-up

- When setting a price-quality path, one of the factors that determines the revenue an EDB can earn is return on capital. This is dependent, in part, on the size of the regulatory asset base (RAB)
- We must forecast changes to the RAB over the period, from expected capex
- This can lead to a higher or lower return on capital than is appropriate, when compared with the actual size of the RAB
- The capex wash-up corrects for this. The NPV of the difference is spread evenly throughout the following DPP period, starting from the second year

Lessons from gas – the process

- For the current gas DPP (2017-2022) we introduced an approach to forecasting opex and capex expenditure whereby we assessed suppliers AMPs
- Forecasts in line with BAU levels (+ a small % increment) were accepted
- Where BAU levels were exceeded a deeper dive into the AMPs occurred with further info requested as appropriate

Lessons from gas

- The new expenditure process worked well overall
- Forecasts were more tailored while remaining ‘low cost’
- Process reliant on mature AMP practices
- Gas industry smaller and simpler to assess than Electricity
- Question remains as to the feasibility of rolling out for EDB’s and remaining low cost

Features in common

- Cost escalators
- Incentive schemes
- Utilisation of AMP's for capex forecasting

Cost escalators

- Asset Management Plan forecasts and capex caps are constant-price
- Financial model depends on forecasts
- A cost-escalator bridges the gap

Incentive schemes

- Want to incentivise controlling expenditure and finding efficiencies
- EDBs are exposed to some of the cost of exceeding forecast capex or opex
- EDBs similarly retain some of the benefit of cost savings compared to forecast
- The retention rate is:
  - 15% for capex
  - 34% for opex

Questions?


BANK
MEDICAL CLINIC
BANK
GIFT SHOP
MALL
LOANS
Cafe
Cafe
SUPERMARKET
DISCOUNTERS
Hurry everything must go!
COURT HOUSE
PROUD & GOODE PRINTING
PLUMBED IN
SHOP 24
PETROL STATION
Car Wash
PAINTERS 4U

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Expenditure incentives and the Incremental Rolling Incentive Scheme (IRIS)

2020 reset of the DPP for EDBs

5 November 2018

Stephen Hudson and Ben Harris

Overview

Refresher on incentive regulation

- what's the problem?

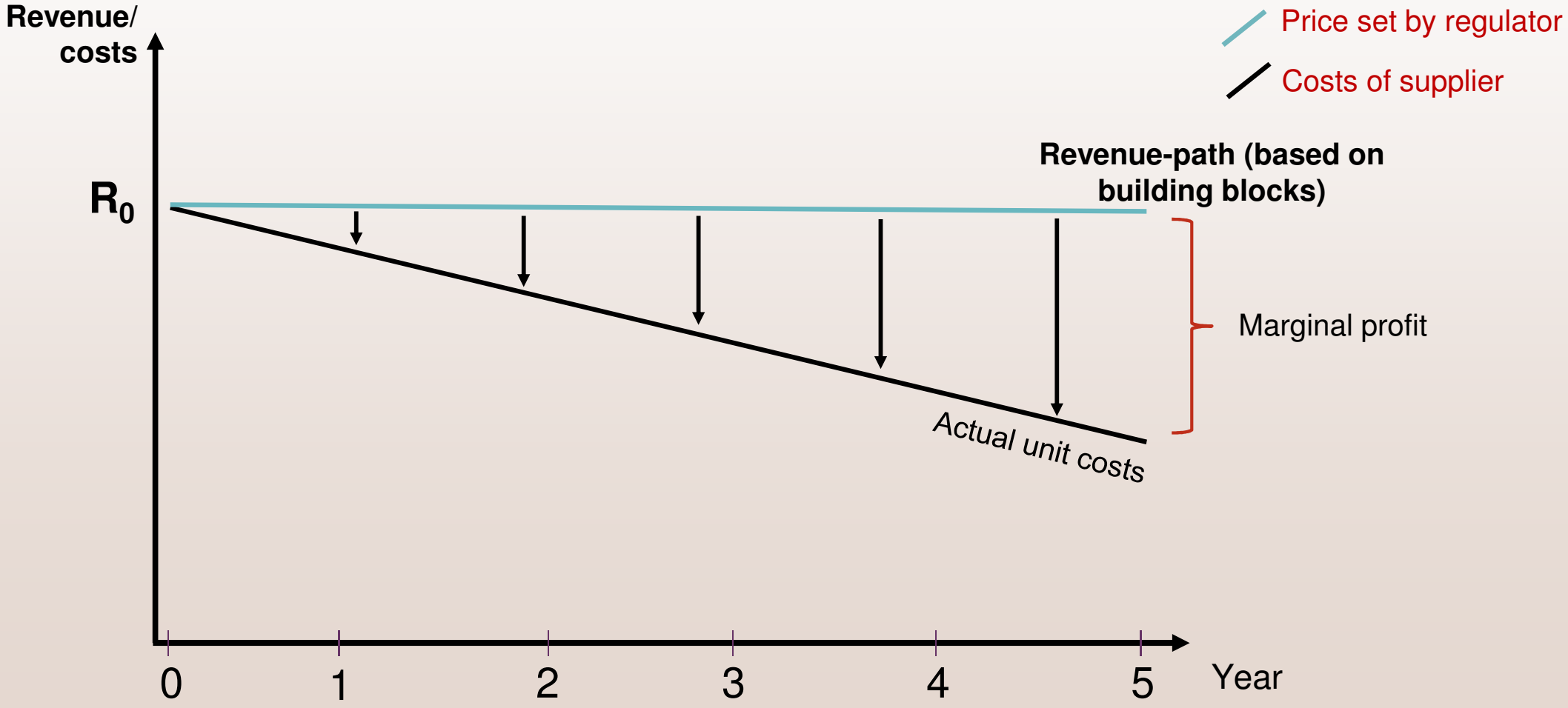
Incremental Rolling Incentive Scheme (IRIS)

- what is IRIS?
- retention factors
- opex and capex

Refresher on incentive regulation

Refresher on incentive regulation

- Recall that regulation caps the prices or revenues that EDBs are able to earn, which creates incentives to find efficiency gains



Refresher on incentive regulation

- At each periodic reset of the DPP, rebuilding the revenue cap passes cost savings through to consumers
- Passing cost savings from efficiency gains on to consumers is consistent with the Part 4 purpose:

  (c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices

- The extent to which cost savings are shared with consumers is set by 'retention factors' (more on this later)
  - balancing incentives on regulated businesses – to seek genuine efficiency gains vs inflating expenditure forecasts

Refresher on incentive regulation – what's the problem?

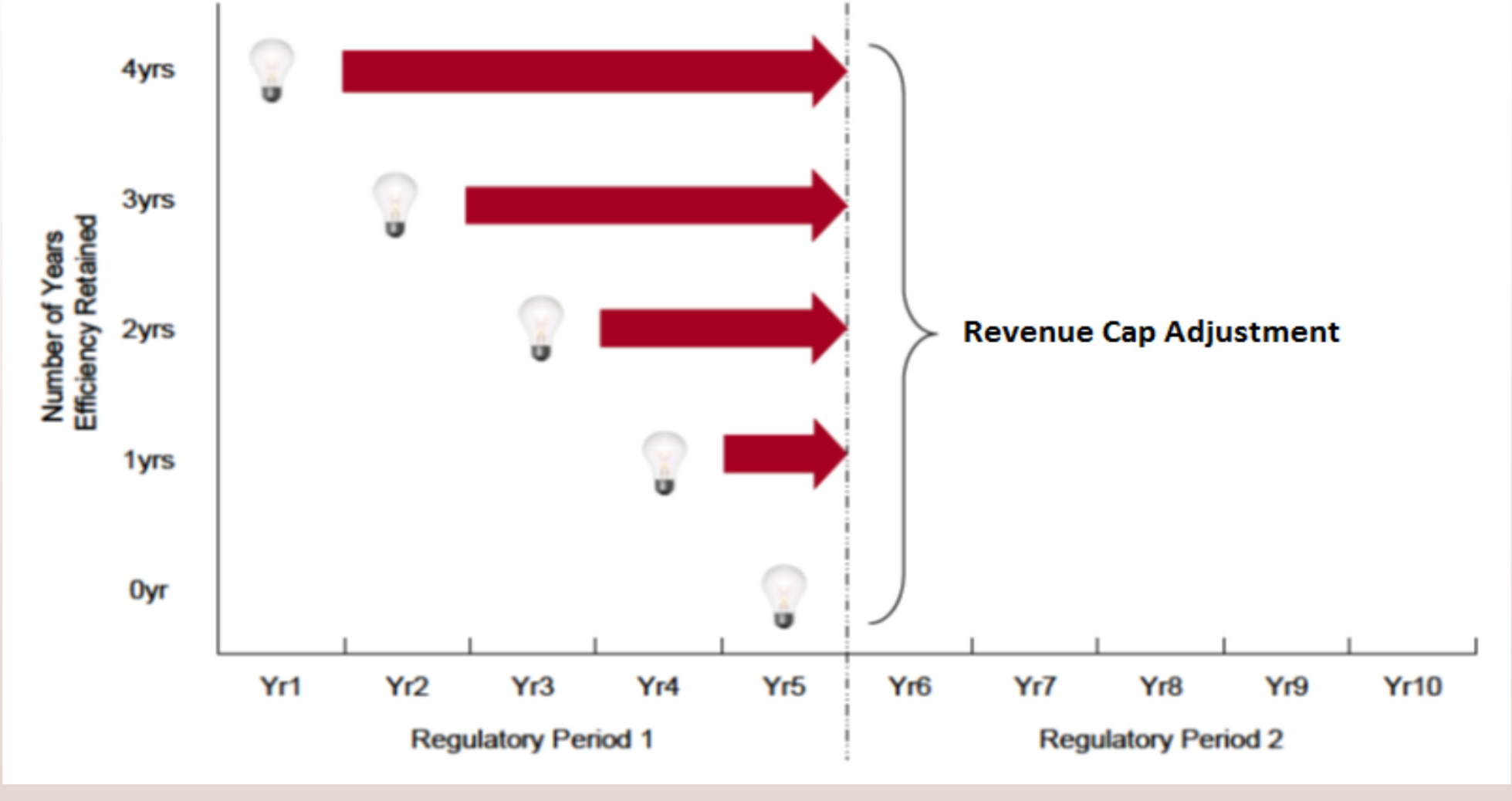
- Sharing gains each reset creates another issue - in the absence of other mechanisms, the incentive to find efficiency gains varies over time
- The natural incentive to save money is greater at the start of the regulatory period than it is at the end of period.
  - therefore the incentive to control expenditure is not constant over time
- Why is this important?
  - creates a focus on optimising the timing of expenditure rather than making expenditure savings
  - this is not in the long-term interests of consumers – suppliers should be incentivised to make efficiency savings as soon as they are identified

Temporary vs permanent savings

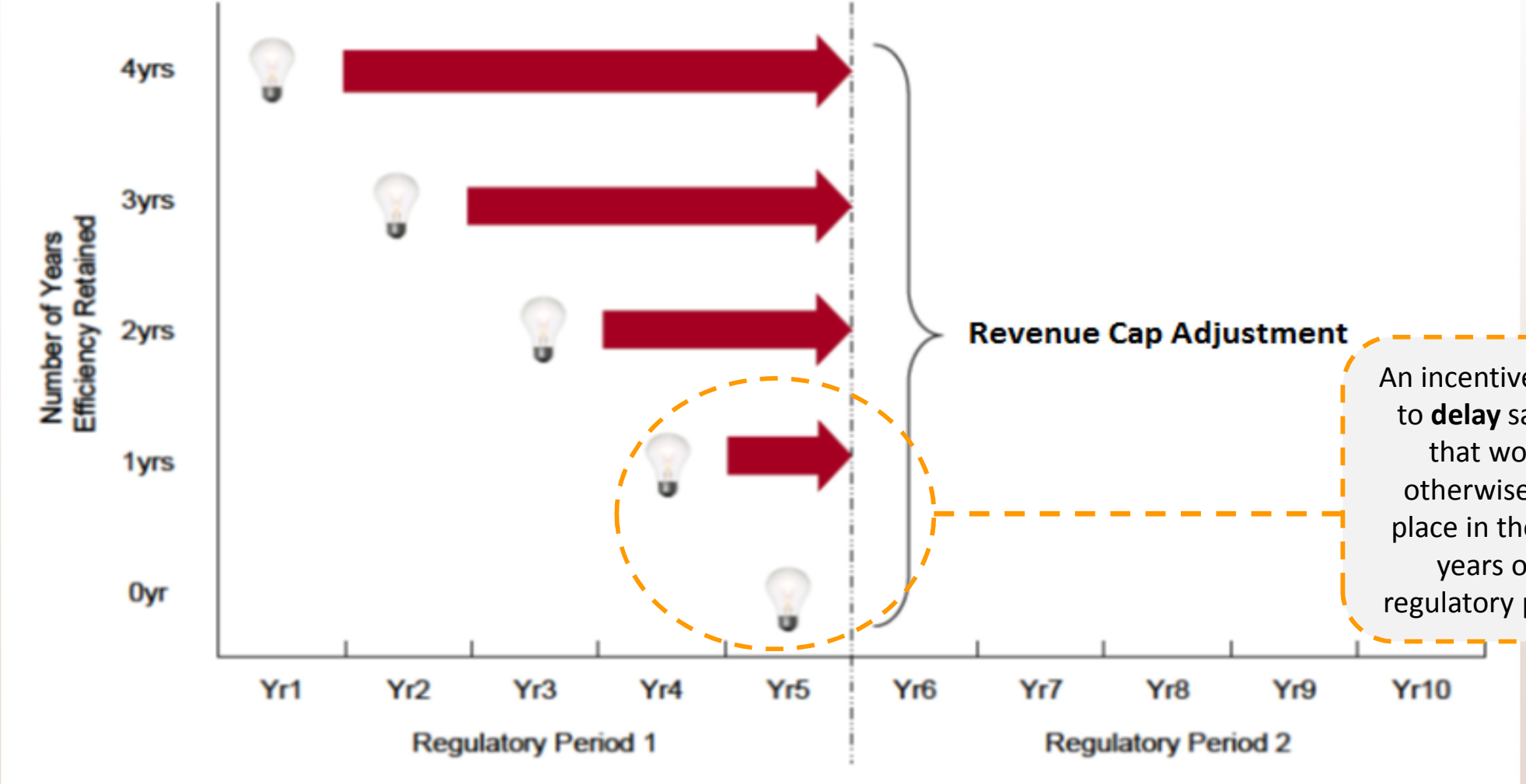
Without IRIS, one-off cost impacts are treated differently to permanent cost impacts.

- Thinking in terms of ‘permanent’ and ‘temporary’ savings helps when considering IRIS from a conceptual basis
- A permanent saving – which we describe as a saving that is maintained in every year after it is first achieved, ie, in perpetuity
- A temporary saving – which we describe as a saving that only occurs in a single year
- Without an IRIS permanent savings are shared with consumers, while temporary savings are retained by EDBs

Refresher on incentive regulation – what's the problem?

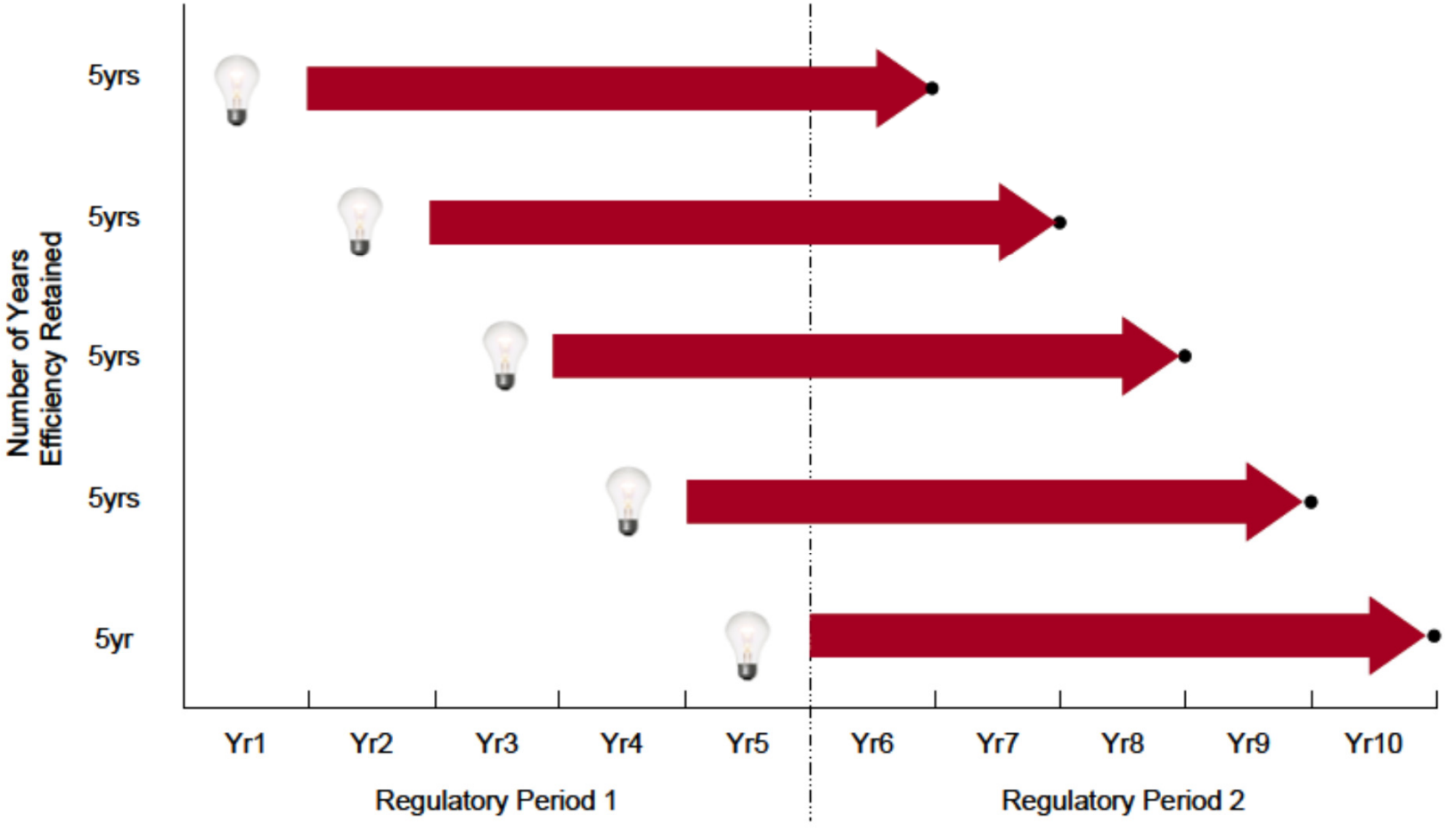


Refresher on incentive regulation – what's the problem?

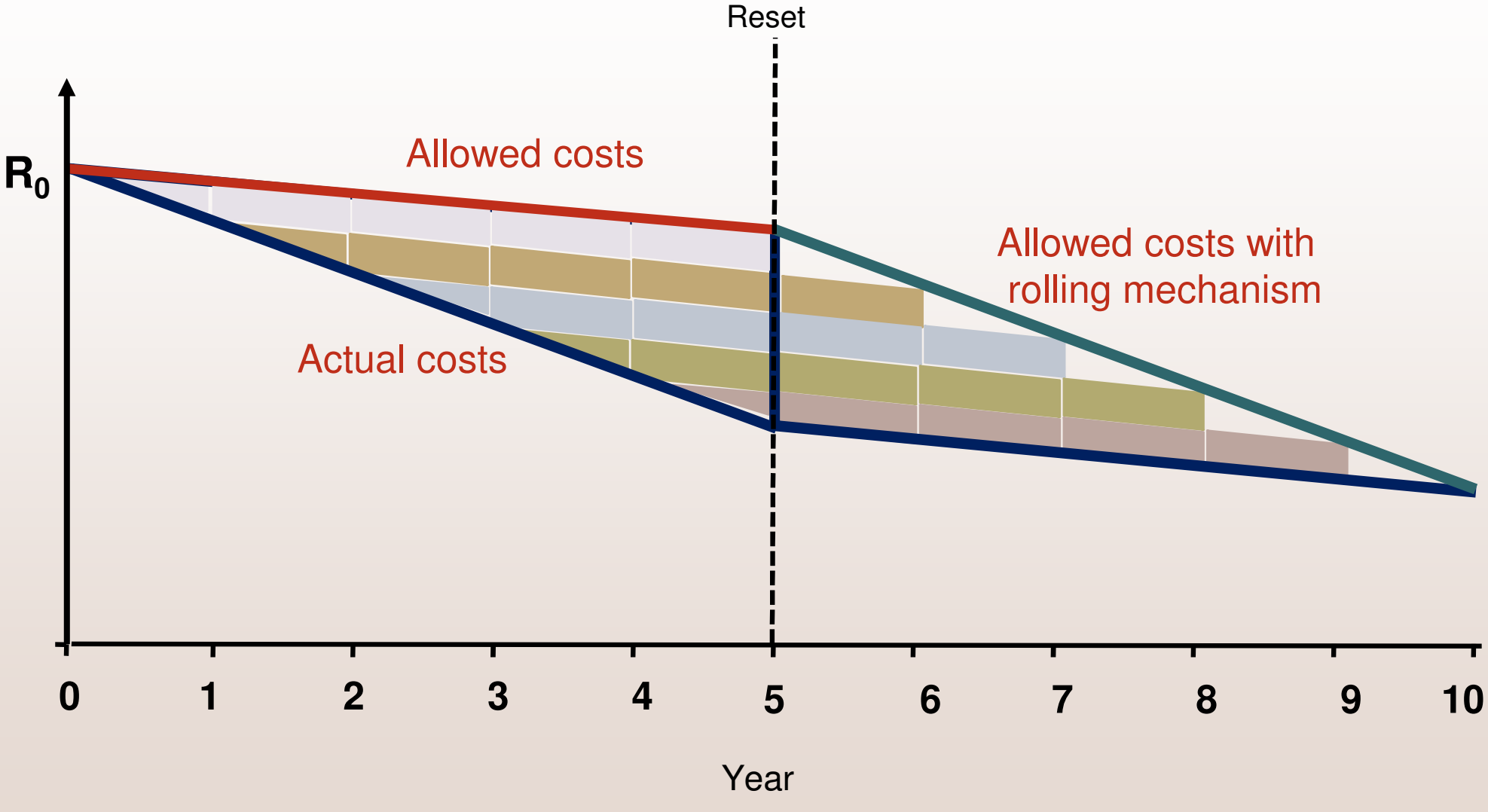


Incremental Rolling Incentive Scheme

What is an IRIS?



Effect of an IRIS



Retention factor

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Opex

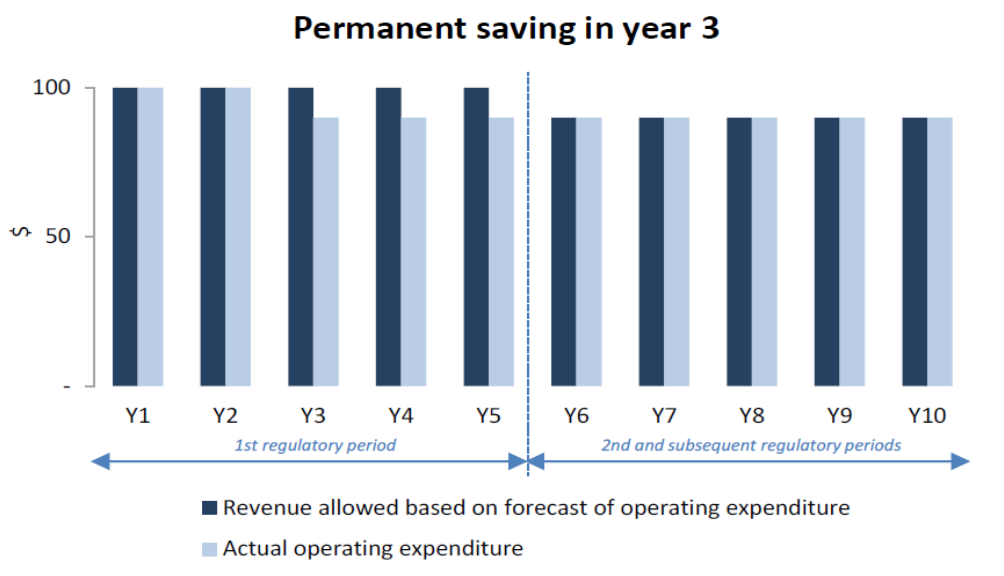
- The retention factor for opex is currently approx. 34%, determined by the Input Methodologies and based in part on the WACC and length of regulatory period
- It is calculated as follows:

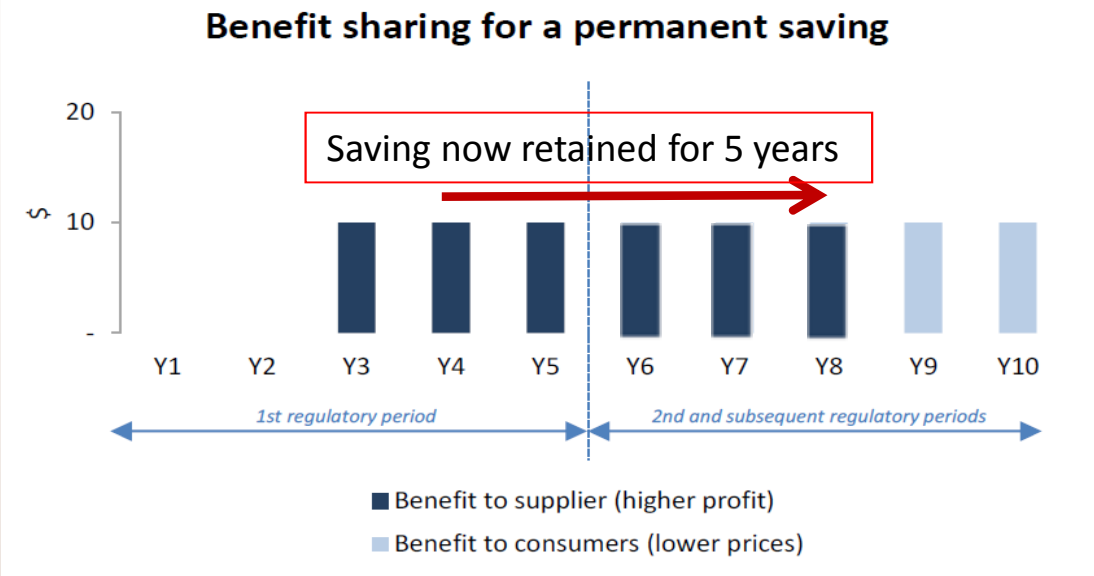
$$\frac{NPV\ of\ benefit\ to\ the\ supplier}{NPV\ of\ cost\ saving\ in\ perpetuity}$$

Capex

- The retention factor for capex is currently 15%, broadly in line with the average natural incentive rate for capital investment
- Reflects concerns that the low-cost forecasting approach relies on EDB's own capex forecasts – that it provides an incentive to systemically overestimate, and that DPP1 forecasts were higher than actual expenditure for many EDBs
- A high capex incentive rate may result in the overall incentive to defer expenditure being greater than the incentive to maintain quality

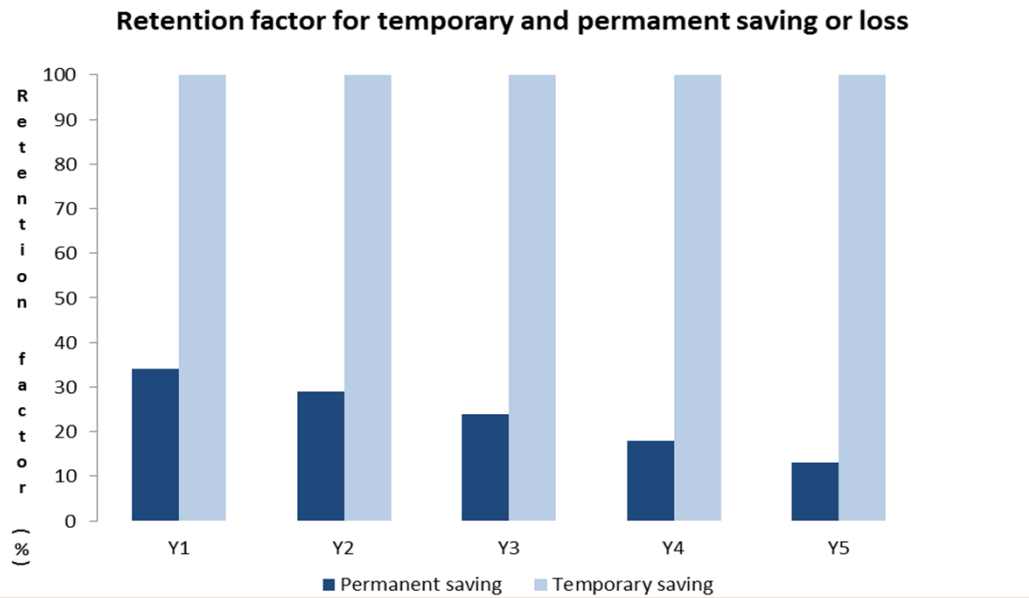
Opex – effect of IRIS



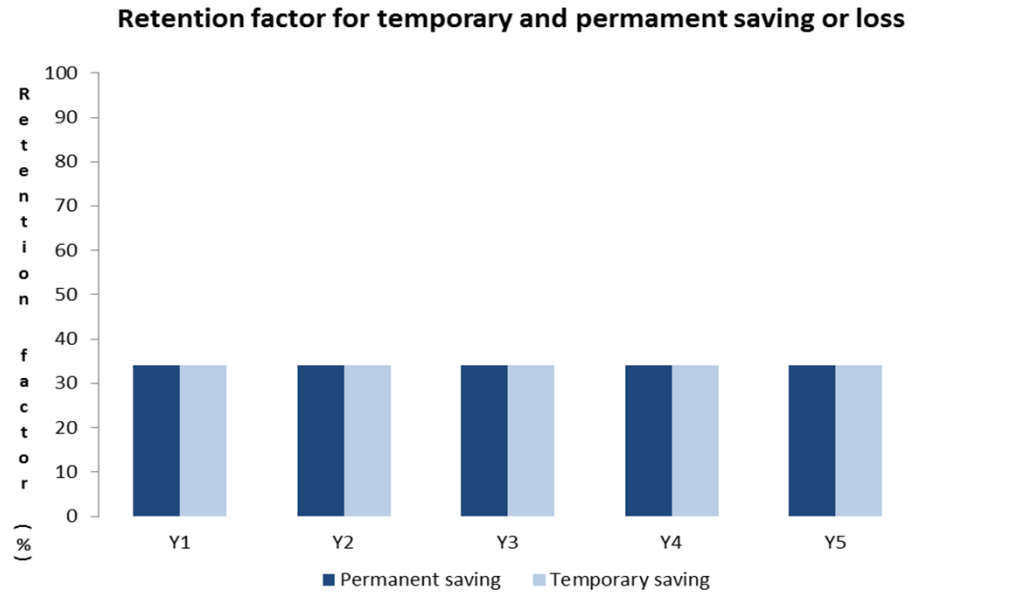


Opex – effect of IRIS

No IRIS



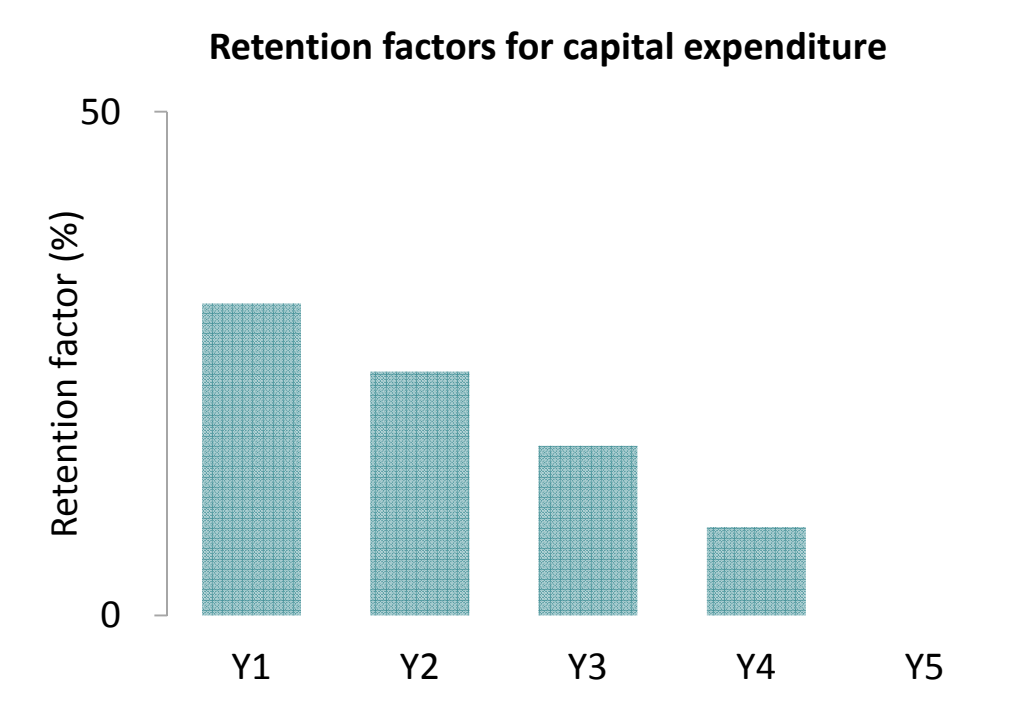
IRIS



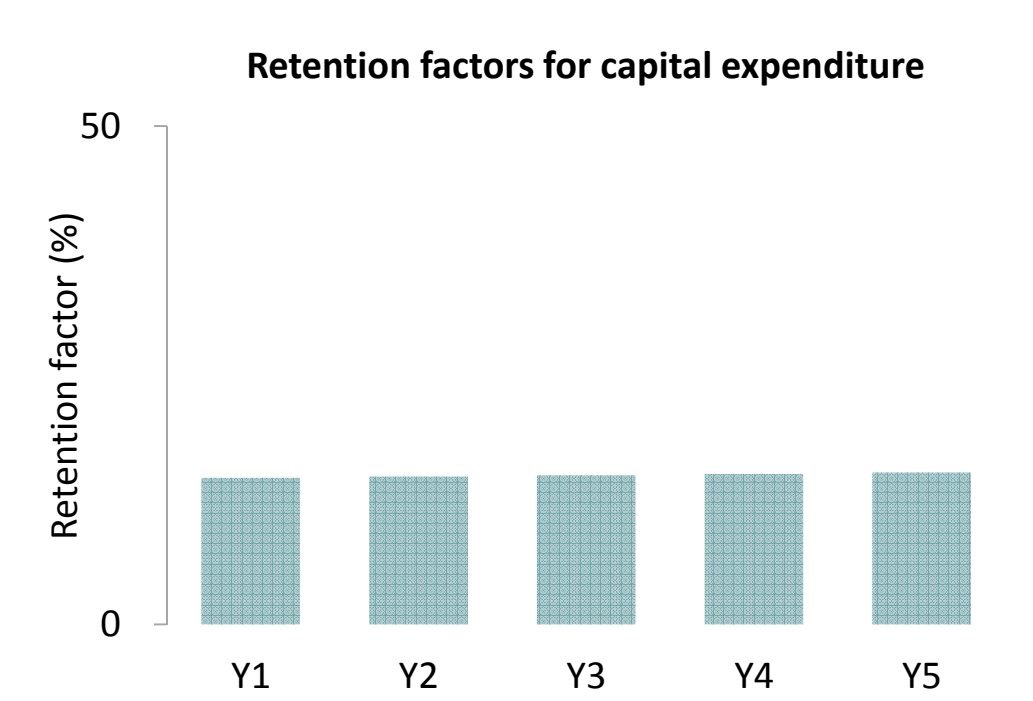
- Temporary savings are not reflected in a DPP reset, so have a natural incentive rate of 100% (also applied to temporary costs)

Capex – effect of IRIS

No IRIS

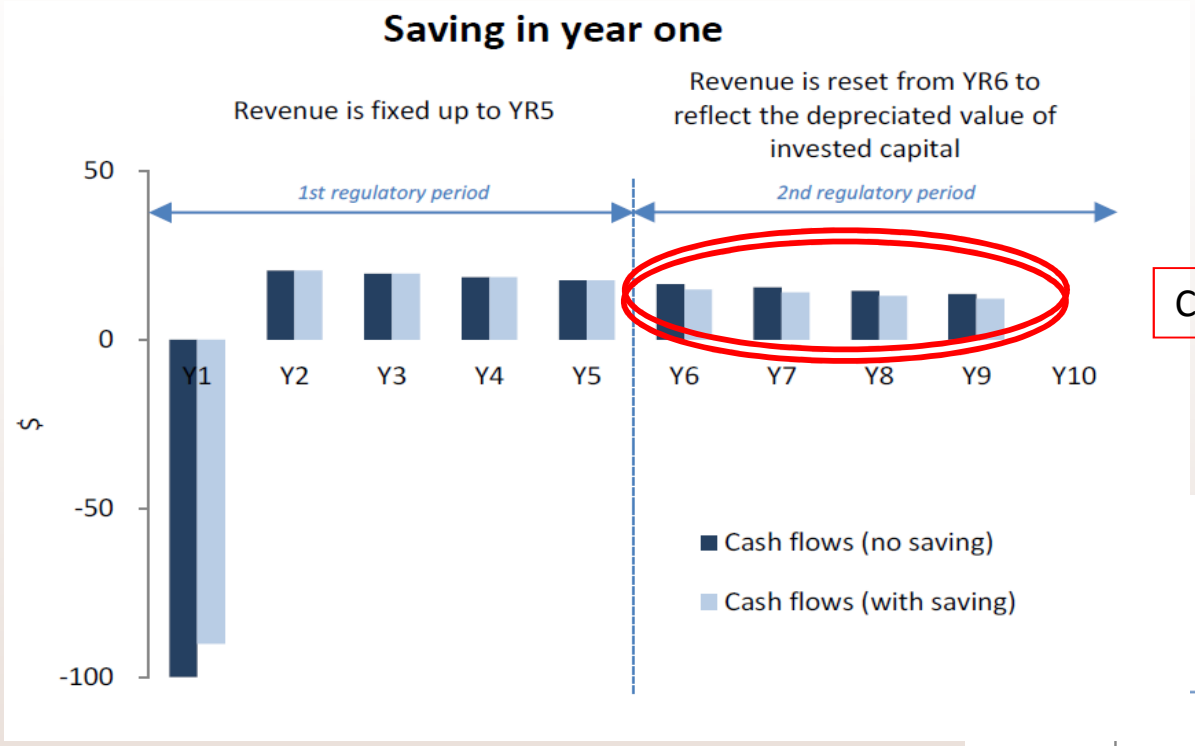


IRIS

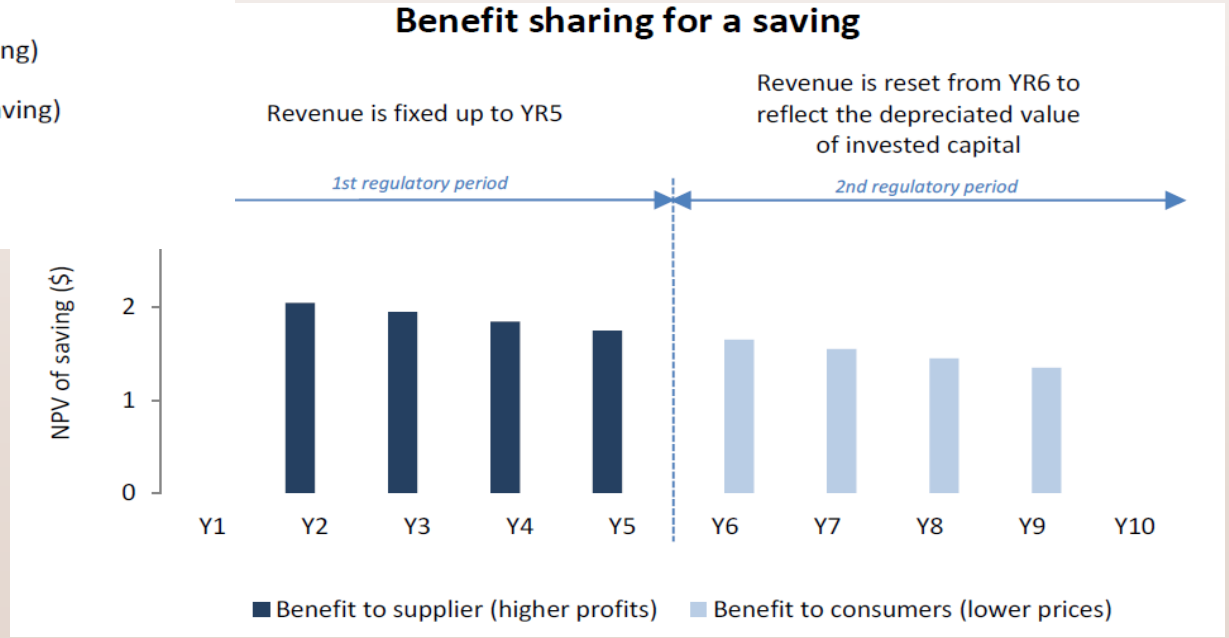


Similar to opex there is a strong natural incentive for suppliers to make any capex saving earlier in the period

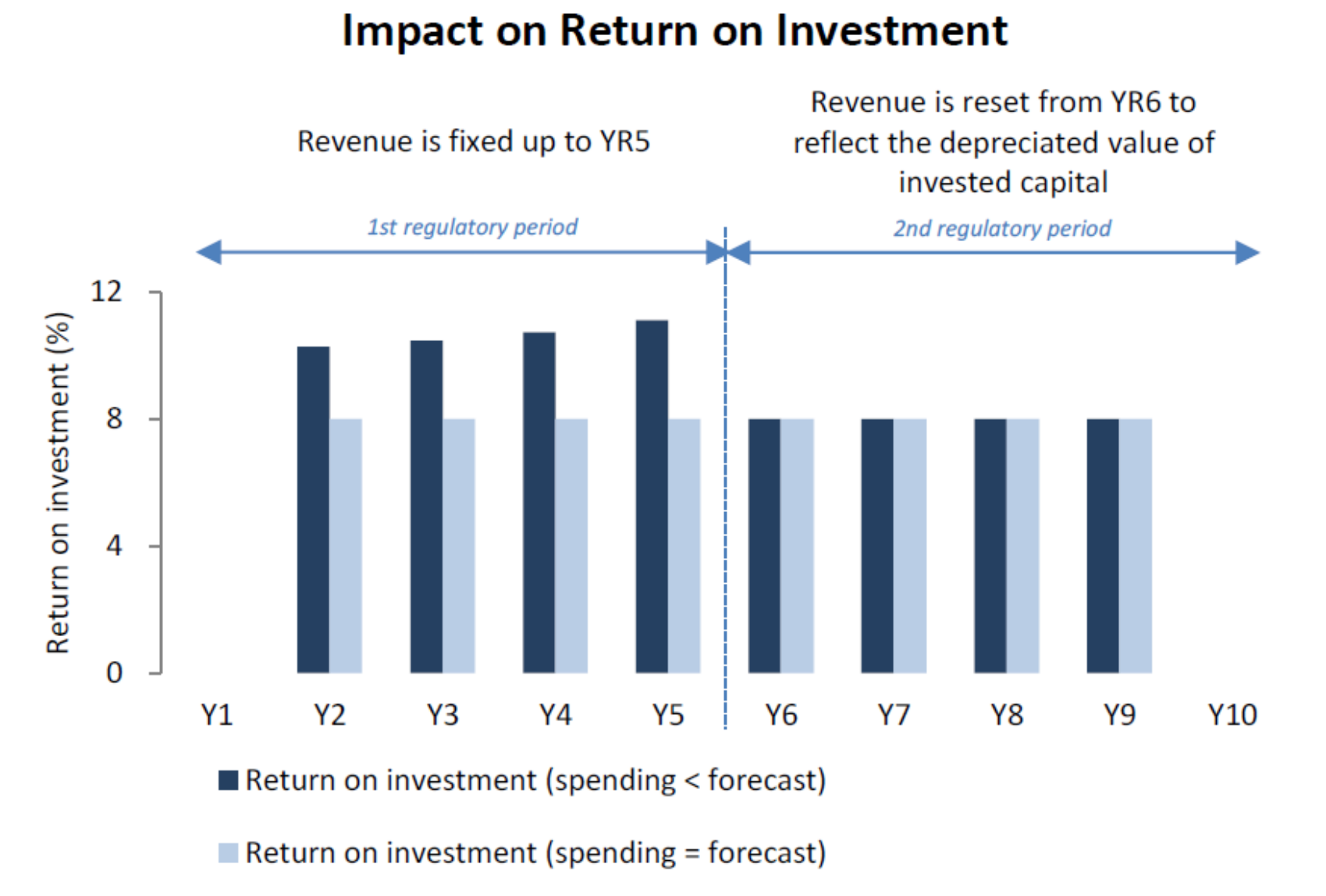
Capex – effect of IRIS



Cash flows reduce after reset benefitting consumers



Capex – effect of IRIS



Key features of the IRIS

- EDBs retain efficiency gains from opex or capex savings for the same period, regardless of when in an RCP an investment was made
- Ensures specified retention factors apply by making revenue adjustments in the subsequent regulatory period
  - IRIS payments are a recoverable cost
- Where an EDB spends more than its forecast, it will only bear some of the cost
  - The proportion of the cost it bears is the same as the incentive rate, ie, the mechanism is symmetric

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Quality

2020 reset of the DPP for EDBs

5 November 2018

Mike Wallace and Stephen Hudson

Overview

- Purpose of Quality Standard and Quality Incentive Scheme
- How we currently measure quality
- Quality Standard in current EDB DPP
- Quality Incentive Scheme in current EDB DPP
- Other dimensions of quality

Purpose of Quality Standard and Quality Incentive Scheme

Purpose of Quality Standard

- Quality standards are intended to incentivise EDBs to provide services at a quality that reflects consumer demands.
- Quality standards are important to reduce the risk that EDBs will seek to increase profits by cutting costs and compromising quality.
- The Commerce Act requires the Commerce Commission to specify quality standards in a DPP (s 53M).
- The Commerce Commission can prescribe quality standards in any way it considers appropriate.

Purpose of Quality Incentive Scheme

- 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.
- The quality incentive scheme allows EDBs to earn additional revenue for performing better than the quality target, and to receive less revenue for performing below the quality target.

How do we currently measure quality?

SAIDI and SAIFI

System Average Interruption Duration Index (SAIDI)

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

- ie, the average duration per customer

System Average Interruption Frequency Index (SAIFI)

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

- ie, the average number of interruptions per customer

SAIDI and SAIFI

These measures of quality used in the current DPP are focussed on network reliability (frequency and duration of power cuts)

- most important dimension of quality to consumers
- consumer surveys by EDBs
- supported by submissions

A higher value of SAIDI or SAIFI = deterioration in reliability

Normalised SAIDI and SAIFI

‘Normalising’ for major events

- applied to unplanned SAIDI and SAIFI to limit the impact of **major events** such as severe storms on assessed reliability
- implemented via **‘boundary values’** which limits daily SAIDI or SAIFI to a maximum 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 replaced with the boundary value

Planned interruptions

- SAIDI and SAIFI from planned interruptions are weighted at 50%

Quality Standard in current EDB DPP

What is the quality standard?

The quality standard is currently set with reference to the historical performance of normalised SAIDI and SAIFI

- Annual SAIDI and SAIFI 'limits' are currently set one standard deviation above the historical average (a 10-year reference period from 1 April 2004 to 31 March 2014).
- An EDB is non-compliant with the quality standard if it exceeds the SAIDI or SAIFI limit in two out of three consecutive years.

Quality Incentive Scheme in current EDB DPP

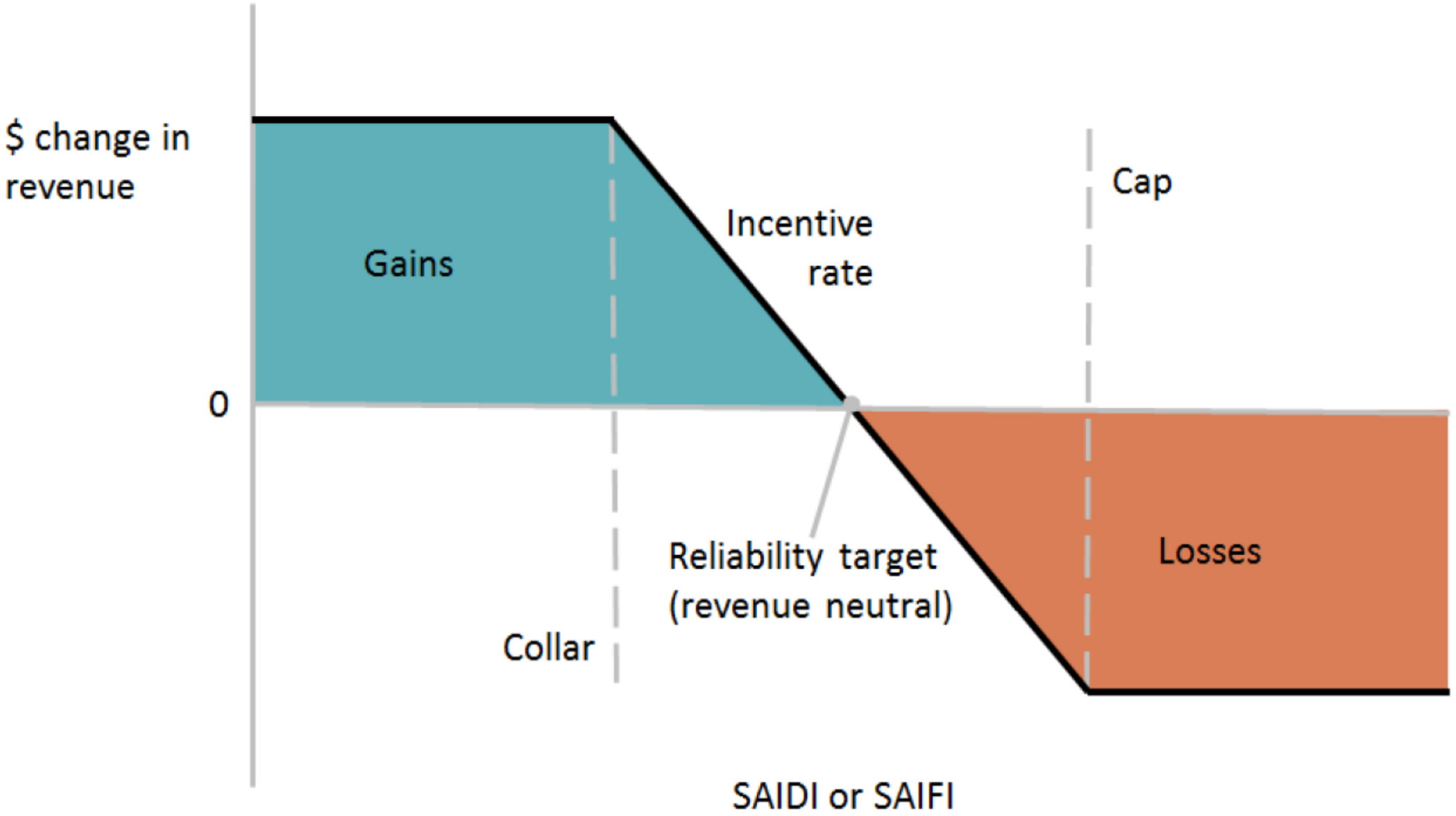
Revenue-linked quality incentive scheme

The incentive scheme allows EDBs to earn additional revenue for improved reliability performance relative to historical performance, and to receive less revenue for a deterioration in reliability

- incentive for EDBs to better reflect cost/quality trade-offs
- provides some flexibility for adjusting reliability performance
- rewards EDBs for better quality and compensates consumers for poorer quality

Rewards and penalties are relative to a reliability target (average of reference period), and is symmetric

- a reliability 'cap' and 'collar' is set one standard deviation above/below the target
- Total 'revenue at risk' is set at 1% of revenue
- Incentive rates implied by settings for revenue at risk and caps and collars



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

Other dimensions of quality of electricity distribution services

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
- **Refining the existing measures** of reliability eg
  - disaggregation of SAIDI and SAIFI measures by customer class or location
- **Reviewing the effectiveness** of the quality incentive scheme

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.
  - annual delivery reporting
- Wellington Electricity: remains subject to DPP reliability quality standards
  - Wellington Electricity's CPP expenditure focused on resilience rather than reliability
  - additional resilience quality standard introduced

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Our approach to compliance

2020 reset of the DPP for EDBs

5 November 2018

Stephen Bass

Introduction

- Early days but happy Movember!
- Started at ComCom on 3 September as Compliance Manager – new team
- ‘Broad spectrum’ view of compliance
- Here to work with you to deliver our vision and strategy

Our vision and strategy

Compliance steer

- Through constructive engagement we seek:
  - proactive communication and transparency from suppliers; and
  - suppliers to take a consumer-centric view to their operations;
  - We look to regulated companies to own compliance – through QA, risk assessment and remedy

Challenging environment

- Clearly there are a number of challenges facing industry at the moment, such as
  - aging assets and
  - significant weather events.
- We are looking at the industry to respond to and work through these issues, to understand the their asset risks and ensure resilience.
- We would look to you to provide feasible, practical and justifiable solutions to these challenges being faced by industry.

Requirements of Commerce Act

- Our s52P Determinations set out price-quality path.
- Suppliers are required to comply with our price and quality requirements and will be liable under s87 if they do not.
- In order to monitor compliance with the requirements, in terms of s53N we set compliance reporting requirements which are to be fulfilled and disclosed within a suppliers' Annual Compliance statement.

Compliance Statement disclosure

- We monitor EDB compliance with price-quality paths, including price, quality standards, and also information disclosure.
- EDBs are required to self-report breaches of their price-quality path in their Compliance Statement.
- These are reviewed by the Regulation Branch Compliance team.
- We also have broad information collection powers under s53ZD and s98 in order to assist us in monitoring compliance and carrying out our functions.

Revenue cap compliance reporting

- There are a number of touch-points for compliance under the proposed revenue cap mechanism. These include:
  - Ex-ante price path compliance reporting when setting prices; and
  - Ex-post compliance reporting in relation to both price and quality.

Compliance expectations

- Our expectations in relation to compliance reporting are that suppliers:
  - will **communicate upfront with us if they are likely to breach their quality standard**; and
  - **get in contact with the Commission if they are uncertain on the application of a certain provision or requirement**.
- Ambition is to deal with issues quickly before to prevent harm or reduce consumer impact.
- We will work constructively with suppliers – taking a proportionate approach from the consumer perspective.
- We encourage suppliers to own and develop credible solutions.

Compliance and Enforcement

Approach	Purpose
Formal or informal guidance	Working with the supplier to provide further information to drive compliance
Informal information gathering	Additional scrutiny through engagement and informal information gathering
Formal information gathering	Greater scrutiny through the use of our statutory information gathering powers
Enforceable undertakings *	Require supplier to commit to certain actions by deadlines, eg to rectify poor outcomes
Opening of investigation	To seek rectification and penalty through formal proceedings, and allow for consumer claims. Deterrence of poor conduct.

* Enforceable undertakings were included in the Commerce Amendment Act which received Royal assent on 25 October, 2018.

Enforcement

- The high-level enforcement criteria that we consider when deciding on an appropriate enforcement response are:
  - Conduct;
  - Detriment; and
  - Public interest.
- Our focus has been on breaches of the price and quality standards:
  - Ensuring EDBs do not benefit from breaches of the price path, and that over-recovered revenues are returned to consumers; and
  - Reviewing circumstances that led to quality standard breaches, including asset management practices.

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