Customer and Consumer Panel

19 November 2015

Introductions

Gerard Reilly

Meeting overview

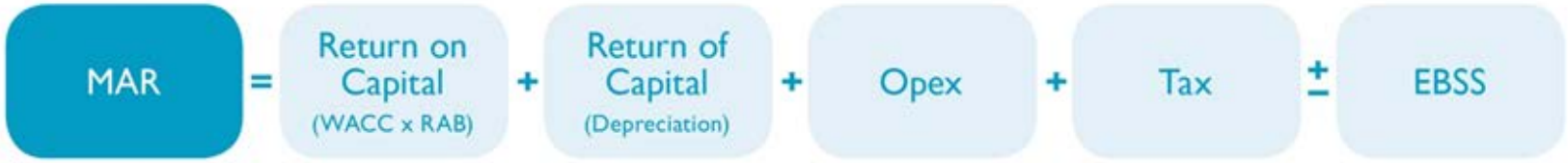
- Depreciation update – Paul Reynolds
- STPIS update – Gary Edwards
- Afternoon tea (10 mins)
- Building Blocks of Revenue Proposal – Ian Lowry
- How feedback has influenced the Revenue Proposal – Ian Lowry, Gerard Reilly, Jenny Harris
- Meeting Recap

Depreciation Update

Paul Reynolds– Revenue Reset Stream Leader

Depreciation

- Depreciation reflects the reduction in asset value through use over time and is referred to as “Return of Capital (RofC)”;
- Depreciation is one of the key building-blocks used to calculate Powerlink’s Maximum Allowable Revenue (MAR) and represents approximately 8%-10% of the MAR in Powerlink’s current regulatory period (2013-17);
- Depreciation reduces the Regulated Asset Base (RAB)



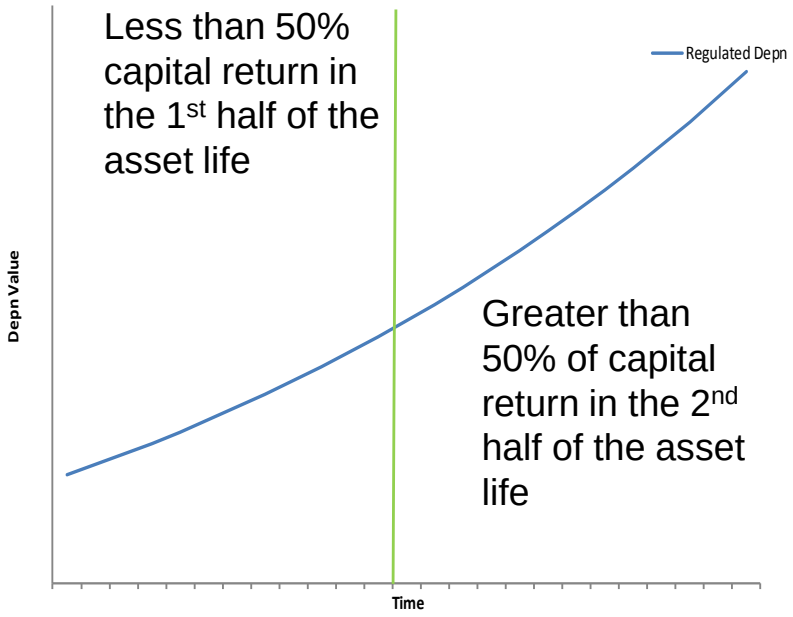
Return on Capital = a measure of return on investments (capex)
Return of Capital = annual regulatory depreciation allowance
Opex = annual operating and maintenance cost allowance
Tax = calculated effective company tax payable
EBSS = carryover amounts for the Efficiency Benefit Sharing Scheme from the previous regulatory period

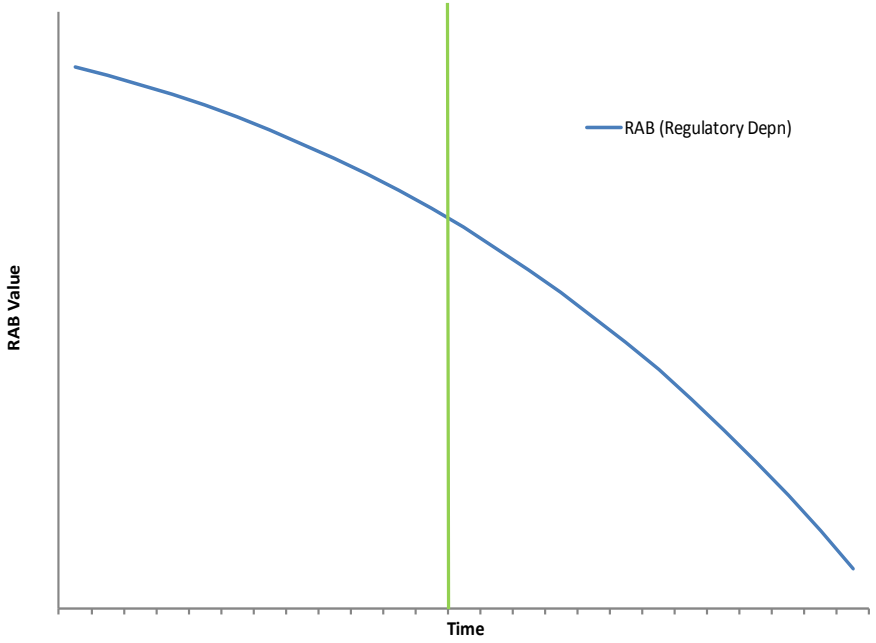
Desired Outcomes from Depreciation

- Two accepted principles from the use of depreciation for regulatory purposes
  1. High degree of certainty that Capital cost are returned over time
     - This provides network owners investors with some safeguard from stranded asset risk and encourages on-going investment.
  2. Encourage the efficient use of assets.
     - Seeks to align revenue allowances and use of assets over the life of the asset i.e. increasing utilisation into the future
- If it is to achieve these principles the depreciation method for regulatory purposes relies on stable demand growth.

AER's Current Approach

- AER employs an Economic Depreciation methodology (Regulatory Depreciation)
  - Calculates straight-line depreciation to the opening Regulatory Asset Base (RAB) which has been indexed for inflation;
  - The calculated depreciation charge is reduced by the indexation value for inflation





- Regulatory depreciation weights the RofC to the 2nd half of the assets useful life;
- The regulatory depreciation method maintains a higher RAB value in the first half of the assets life thereby weighting the Return on Capital (RonC) to the first half of the assets life.

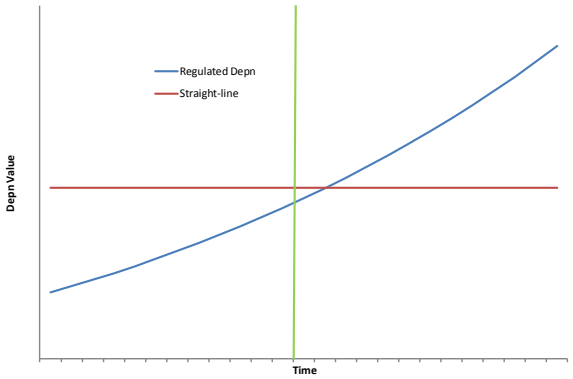
Current and Future Conditions

- Network service providers face declining utilisation as a result of the
  - Downturn in economic conditions;
  - Self-generation capability eg. the up-take of solar PV;
  - Consumer behaviour;
  - Energy efficiencies;
  - Improvements in energy storage solutions; and
  - Advancement in distributive generation (power generated at point of consumption).
- An environment in which levels of utilisation are declining is inconsistent with the key fundamental assumption of the economic depreciation methodology which implicitly assumes a steady utilisation growth;
- Under these circumstances consumers and network owners face the following risks;
  - Upward pressure and instability on long term electricity prices;
  - Increase in prices may encourage further consumer migration away from the network, further exacerbating the pricing issues; and
  - Network owners face increasing “Stranded Asset” risk – may need to reassess the rate of return required to compensate for increased risk exposure.

Alternate Depreciation Approaches

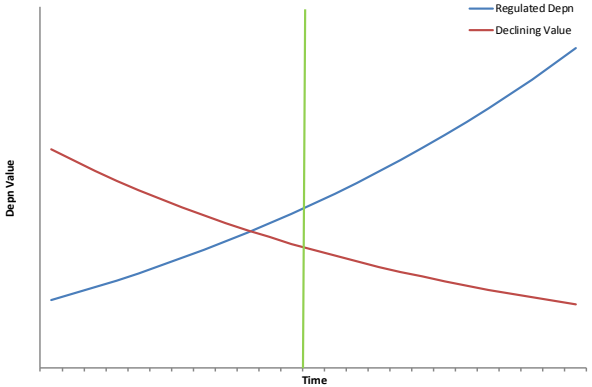
- Pricing issues would be addressed by aligning the recovery of capital to usage levels through a greater level of flexibility with the timing of the RofC;
- Alternate depreciation methods may help to mitigate some of the perceived risk.

Straight-Line



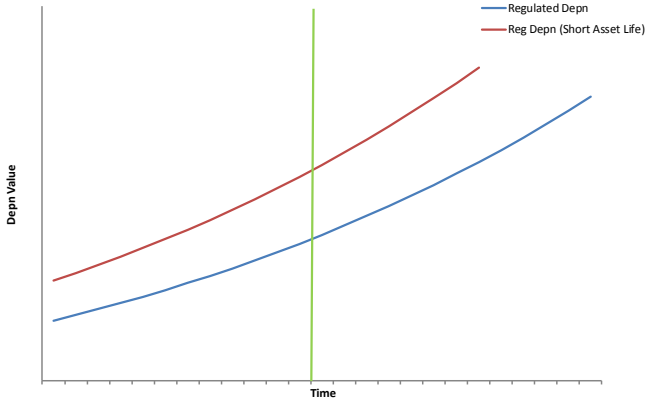
- Straight-line depreciation reduces the asset value evenly over the life of the asset
- Better suited to steady utilisation growth levels

Declining Balance



- Declining balance depreciation method accelerates depreciation in the early part of the assets life and then declines over time.
- Better aligned to a declining utilisation environment

Reduce Asset Life



- Reducing the length of the asset life over which the RofC is recovered
- Various depreciation methods could then be employed to reflect the expected utilisation
- Accelerates the RofC over a shorter life

Powerlink's Approach

- Revenue Proposal for the 2018-22 regulatory period, Powerlink's initial view is to continue applying economic depreciation for regulatory purposes in accordance with the Australian Energy Regulator's (AER) current approach.
  - a change in depreciation approach may be required in the future
- The approach to depreciation for regulatory purposes for declining network utilisation in the future is complex, and this issue requires broader consultation with industry, consumers and regulators to inform any broader changes to the regulatory framework.

Feedback and Discussion

- Powerlink is seeking feedback from stakeholders on the following questions, in order to assist in determining the future focus of investigations and consultation on depreciation for regulatory purposes:
  1. How much value do you place on the user pays principle and the longer term stability of electricity price?
  2. In an environment of static or declining transfer of electricity over the transmission network, what is the most appropriate depreciation approach for regulatory purposes for Powerlink to use for the long term interests of consumers and why?

STPIS Update

Gary Edwards– Revenue Reset Stream Leader

What is the Service Target Performance Incentive Scheme (STPIS)?

- The scheme is designed to provide performance incentives for TNSPs to improve or maintain a high level of service for the benefit of participants in the National Electricity Market and end users of electricity.
- The AER develops and publishes a STPIS in accordance with the NER.
- Powerlink commenced its participation in the scheme in 2007, and the scheme has been progressively expanded since then – currently on Version 3.
- Version 5 of the STPIS will be applied to Powerlink from 1 July 2017.

STPIS (Version 5) Components

- **Service Component** (SC) measures network reliability;
- **Market Impact Component** (MIC) aims to improve network availability at times of most importance to the market; and
- **Network Capability Component** (NCC) is designed to deliver improved capability from existing network assets to benefit customers and wholesale market outcomes.

STPIS – Version Changes

	From (Version 3)	$ at risk	To (Version 5)	$ at risk*	Change Summary
SC	• Revenue at risk is ±1.0% MAR • Network availability and reliability focus • Loss of Supply Event Frequency	±$9.4m	• Revenue at risk is ±1.25% MAR • Network reliability focus • Loss of Supply Event Frequency	±$10.0m	Greater emphasis on network reliability – unplanned outages only
MIC	• Revenue at risk +2.0% MAR (bonus only) • Target based on fixed 5-year history	+$18.8m	• Revenue at risk ±1.0% MAR (bonus/penalty) • Target based on fixed 5 median years from past 7 year history	±$8.0m	Materially stronger incentive to deliver improvements in network availability
NCC	• Not applicable	-	• NCIPAP projects - pro-rata based allowance up to 1% MAR each year • Incentive of 1.5 times average annual project cost • Penalty clawback arrangement up to 3.5% final year MAR	+$20.0m** -$28.0m**	Opportunity for Powerlink to deliver market benefits to customers

* Assuming an average indicative annual MAR of $800m

** $ at risk are total for the 5 year regulatory period

MAR = Maximum Allowed Revenue

NCIPAP = Network Capability Incentive Parameter Action Plan

STPIS Key Messages

- Increased emphasis on network reliability drivers under the service component to benefit market participants and customers.
- During the recent revision of the STPIS, Powerlink initiated a review of its loss of supply event frequency thresholds, and proposed targets to improve network performance.
- The symmetrical (bonus/penalty) scheme for the MIC will further incentivise Powerlink to deliver further improvements in network performance.
- Powerlink's past good performance will be used to set higher targets and be more onerous to achieve in Version 5.
- Powerlink will be proposing only a small number of NCC priority projects.

Building Blocks of Revenue Proposal

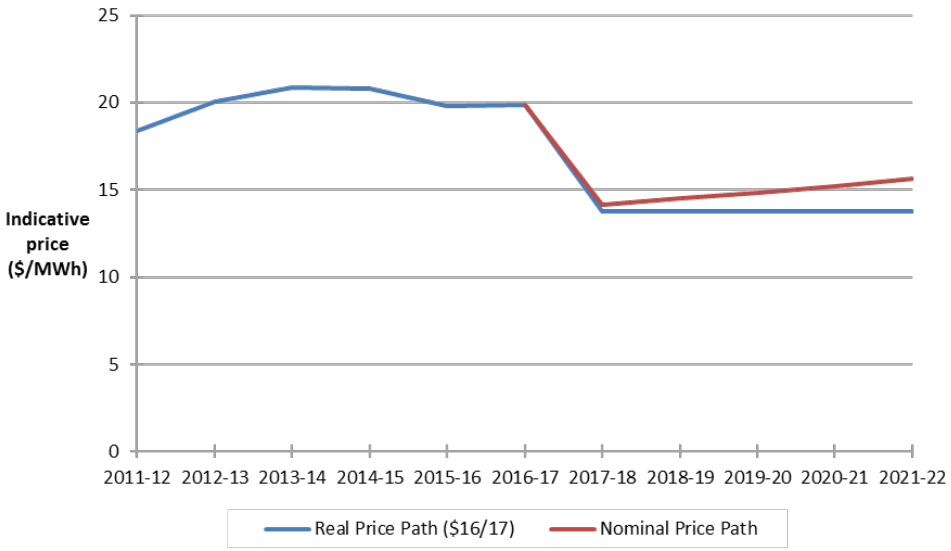
Ian Lowry– Revenue Reset Leader

Overview

- Update on Revenue Proposal – last discussed with panel in August 2015
- Discussion on key building blocks – indicative
  - Rate of return
  - Forecast capital expenditure
  - Forecast operating expenditure
- Application of AER Benchmarking
- Questions & discussion

Revenue & Indicative Price

~30% real reduction in regulated revenue in the first year of the next regulatory period.
Revenue increases expected to remain within CPI for the remaining years of the five year regulatory control period.



- **Indicative price is simply revenue/energy** – note this is not the same as TUOS collection as it does not include variations eg. due to undercollections within period.
- **~30% reduction** in indicative transmission prices in the first year, growth over balance of period within CPI based on current energy forecasts.
- First year of period delivers **2.5% ($48) reduction** in the average residential households annual electricity bill with CPI increase in following years.

Key drivers

WACC

- Significant reduction.
- 8.61% to ~ 5.90% (the basis of Powerlink's current revenue modelling).

Capex

- Current period expenditure ~50% lower than 2012 allowance.
- Next period expenditure a further 35% lower than expenditure in current period.

Opex

- Forecast total opex lower (~5%) than allowance in current period.
- Essentially no real growth in opex over next period.

Changes since August update

- **Rate of return**
  - Stable.
  - Consistent with AER's approach in its Rate of Return guideline and recent decisions.
  - NSW merits review decision expected mid-late December 2015.
- **Capital expenditure**
  - Stable.
  - Incremental changes in repex model assumptions and asset management plan.
- **Operating expenditure**
  - Reduction.
  - Reduced labour price growth and increased productivity growth.
  - No step changes proposed in operating expenditure.

INDICATIVE FORECAST OPERATING EXPENDITURE

Approach

Controllable

- Field maintenance, operations, refurbishments and support functions, Revenue Reset
- Trended
- AER's base step trend methodology

Non-controllable

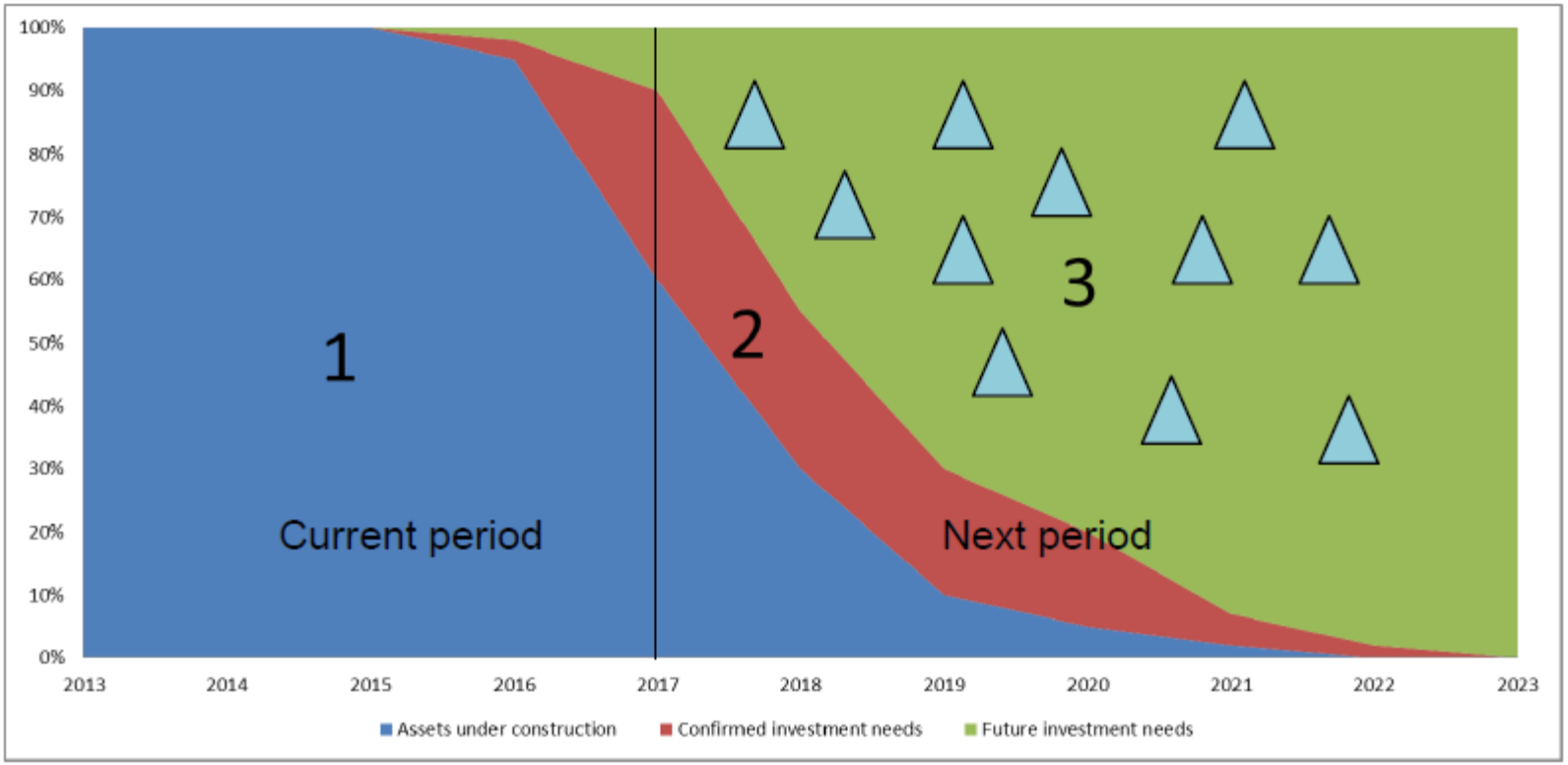
- Insurances (including self-insurance), debt raising costs, AEMC Levy
- Not trended
- Bottom up cost estimate

- **Base-step-trend methodology** approach:
  - Determine an efficient base year
  - Rates of change applied annually to base year for trending
  - Step changes above this trend separately identified and justified

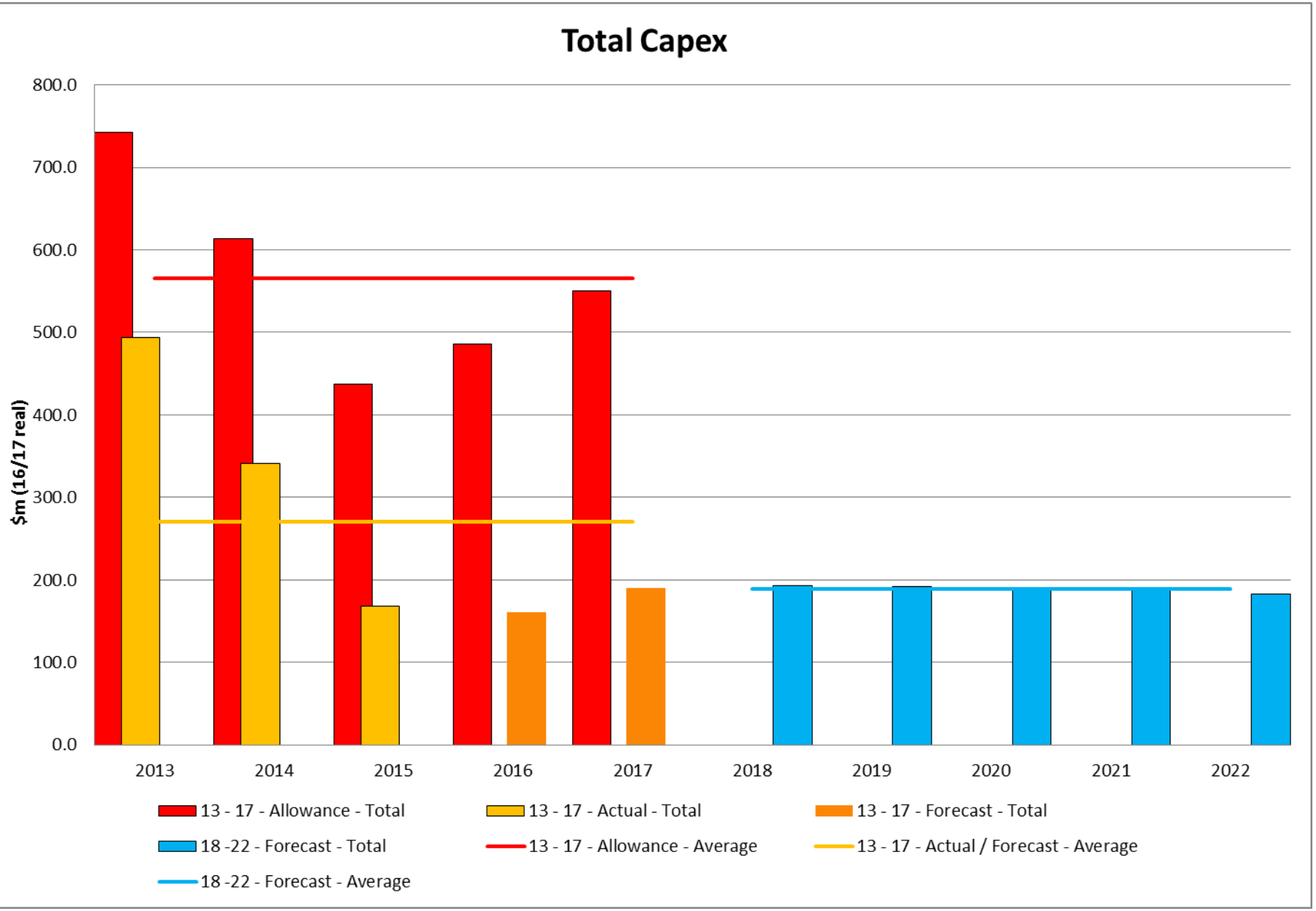
Total Operating Expenditure

INDICATIVE FORECAST CAPITAL EXPENDITURE

Approach to forecasting



Forecast significant investment need


Total Capex
$m (16/17 real)
800.0
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
13 - 17 - Allowance - Total
13 - 17 - Actual - Total
13 - 17 - Forecast - Total
18 -22 - Forecast - Total
13 - 17 - Allowance - Average
13 - 17 - Actual / Forecast - Average
18 -22 - Forecast - Average

AER 2015 ANNUAL BENCHMARKING REPORT

Background

- First Annual Benchmarking Report for transmission published in 2014, next report due November 2015.

- Greater emphasis following AEMC Rule Change in November 2012 – Economic Regulation of Service Providers
  - AER required to publish annual benchmarking reports setting out relative efficiencies of network businesses
  - Benchmarking is one of a number of factors considered when assessing in the determination of capital and operating expenditure allowances

- AER's benchmarking analysis and techniques in early stages of development for TNSPs.

Application to Revenue Proposal

- Powerlink has applied benchmarking with respect to forecast operating expenditure:
  - Assessment of efficient base year
  - Determining annual productivity growth

- AER will use benchmarking to inform their assessment of operating and capital expenditure.
  - in recent transmission revenue determinations, AER used trend analysis, partial productivity indicators and productivity factors as context for assessment of efficiency adjustments

AER approach

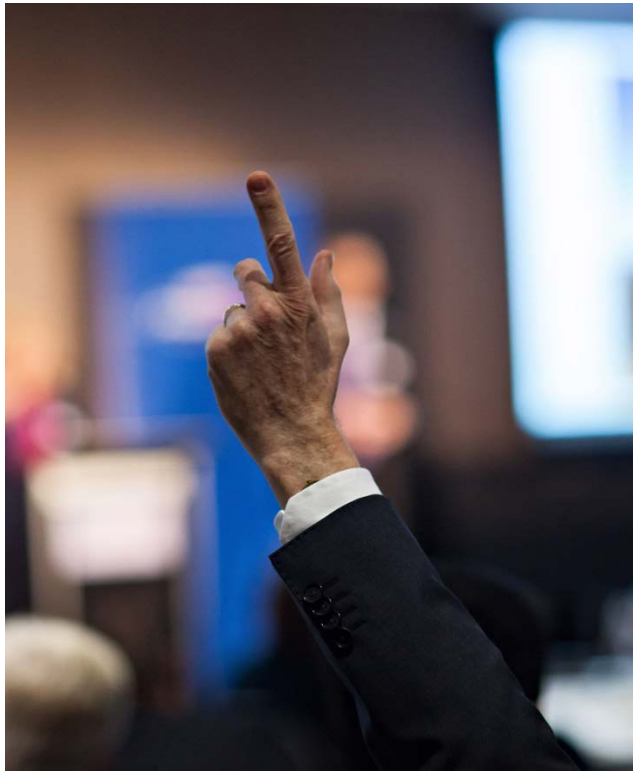
- Powerlink has been working with the AER to address data consistency issues in annual benchmarking reports.
- Differences exist between how TNSPs have prepared data provided to the AER under the annual Regulatory Information Notice (RIN).
- Issues identified impact physical data related to transformer capacity and connection point counts.
- Powerlink has made submissions to the AER's 2014 and draft 2015 Annual Benchmarking Report to highlight these issues and proposed adjusted data sets.
- Current benchmarking data presents Powerlink in a very poor light, particularly for opex.
- Adjusted data indicates Powerlink is mid-range compared to other TNSPs.

Feedback influence on Revenue Proposal

Ian Lowry– Revenue Reset Leader
Gerard Reilly – Revenue Reset Stream Leader
Jenny Harris – Group Manager, NW Regulation

Key engagement activities

- Customer & Consumer Panel
- Demand & Energy Forecasting Forum
- Powerlink Transmission Network Forum
- CQ/SQ Area Plan Forum
- Transmission Pricing webinar
- Stakeholder briefings
- Stakeholder pulse survey



Capex

Feedback received	How Powerlink used the feedback
Use a more detailed analysis of bottom-up information for reinvestment expenditure where there is less certainty of the ongoing need for the asset	• Area Plans that investigate the enduring needs for assets in detail provided as supporting information
Bottom-up information to supplement top-down capital expenditure should not be based on capital expenditure alone	• Criteria was expanded to projects expected to cost more than $10 million or where a technically feasible option may include network reconfiguration or a non-network solution
Repex modelling needs to be robust to ensure an efficient rate of return and unit costs	• Introduced geographical zones into the repex model to reflect that different environments have a different impact on assets • Excluded assets from model where there may not be an enduring need • Analysed model input data to ensure repex forecast is aligned with flat demand growth outlook • Obtained third party benchmarking of unit costs applied in repex model

Opex

Feedback received	How Powerlink used the feedback
Should undertake a 'deep dive' to identify operational efficiencies	• Reviewed opex and will propose efficiencies at an individual line item level
Use benchmarking or external review to gain a better understanding of efficient base year	• Engaged independent consultant to review Powerlink's efficient base year and future productivity growth
Demonstrate that Powerlink has considered alternative efficient base years	• Have undertaken long-term opex modelling using different base years to determine most efficient base year

Demand & Energy Forecasts

Feedback received	How Powerlink used the feedback
Gain a better understanding of new technologies, consumer behaviour, government policies and overseas case studies	• Powerlink developed a new approach to its demand and energy forecasting model assessing the impacts of battery storage and energy efficiency for the first time

- Demand and Energy Forecasting Model is available on the Powerlink website

Rate of Return

Feedback received	How Powerlink used the feedback
Need to engage early on potential WACC outcome to assist customers in their decision making	• Communicated upfront that AER Rate of Return Guideline approach would be applied in Powerlink's Revenue Proposal • Published overview sheet on rate of return in July 2015 • Conveyed early indicative WACC estimate in engagement forums and meetings
Investigate the need to remove assets from the existing asset base where the ongoing need for the asset is at risk	• Area Plans that investigate the enduring needs for assets in detail provided as supporting information
There is an opportunity to manage the potential impact of depreciation costs and other offsets such as an adjustment to the rate of return applied to those assets	• Undertaking engagement with stakeholders on depreciation

Pricing Update

- August - put forward potential changes to Powerlink's pricing arrangements to Customer & Consumer Panel
- Early October – released Transmission Pricing Consultation Paper
- Mid-October – Pricing Webinar
  – Submissions on Consultation Paper
- October/November – customer interactions

Transmission Pricing

Feedback received	How Powerlink used the feedback
Nominated/Contract Demand only locational TUOS prices **- mixed views**	Considering whether to amend Pricing Methodology to allow customers to opt-in
CRNP or Modified CRNP **- no strong support from customers**	Continue to apply CRNP
50/50 locational/non-locational revenue split **- mixed views**	Continue to apply 50/50 split
Price Predictability **- some interest**	Commit to further investigate and engage with interested customers as BAU
Other changes **- investigate kVA based transmission charges** **- common services/entry/exit services**	Commit to further investigate as BAU
CRNP to LRMC **- mixed views**	Commit to further investigate as BAU

Network Planning

Feedback received	How Powerlink used the feedback
If trading off network resilience with cost savings, need to ensure the savings are material to the consumer	• Involved customers and consumers in Area Plan Forums to discuss cost v reliability trade-offs for the Greater Brisbane and Central Queensland to Southern Queensland areas
Take a longer-term view with regards to network resilience and strategic value of easements.	• Decided to retain assets in Greater Brisbane area to maintain flexibility and lowest costs in the short to medium term (not step change for decommissioning)
Ensure scenarios to remove network assets are subject to joint planning with Energex and Ergon	• Powerlink has engaged with Ergon and Energex to discuss potential impacts of Area Plans

Engagement Approach

Feedback received	How Powerlink used the feedback
High prices is the main consumer issue	• Engagement focused on aspects of Powerlink operations that have greatest impact on electricity prices
Want more information about future network investments to ensure a reliable service and sustainable prices	• Engaged on Powerlink's demand and energy forecasting methodologies and formalised process to involve stakeholders in Area Plan Forums to discuss long-term network planning decisions.
Preference for face-to-face engagement with the majority preferring techniques such as workshops and meetings	• Provided multiple opportunities for stakeholders to interact face-to-face with Powerlink and have interactive discussions
Directly engage with consumer advocates about role of transmission in price setting and educate about the trade-off between price and reliability	• Identified consumer advocacy groups as key stakeholders and involved them in discussions on price/reliability trade-offs.

Questions?

Meeting Recap

- Action items
- Where to from here
- Other business