Powerlink Customer & Consumer Panel

27 October 2016

Agenda

- Welcome and introductions
- AER's Draft Decision overview
- Powerlink's Revised Revenue Proposal:
  - Capital expenditure forecast
  - STPIS
- Afternoon tea
- What would a more customer focused Powerlink look like?
- Panel membership and 2017 focus
- Close

AER Draft Decision Overview

Overview

- Background
- Summary of outcomes
- Questions and discussion

Revenue Proposal

Electricity Prices

28% drop in indicative transmission price in the first year of the 2018-22 regulatory period

Between **$22 and $37** savings for the average Queensland residential household annual electricity bill

Rate of Return

8.61% in 2013-17 regulatory period

6.04% estimate for start of 2018-22 regulatory period

Forecast Capital Expenditure

31% lower compared to actual capital expenditure in the 2013-17 regulatory period

Forecast Operating Expenditure

7% lower compared to actual operating expenditure in the 2013-17 regulatory period

Summary of Draft Decision

Key component	Powerlink Revenue Proposal	AER Draft Decision	% change
Total Revenue ($m, nominal)	4,017.2	3,720.8	-7.4%
Total capital expenditure ($m, 2016/17)	957.1	772.6	-19.3%
Total operating expenditure ($m, 2016/17)	976.7	976.7	No change
Rate of return (%)	6.04	5.48	-0.56%

- The AER's Draft Decision reduces indicative transmission price by 32% in 2017/18, with price growth remaining within CPI over the balance of the regulatory period
- This equates to savings of between $29 and $46 per annum for the average residential electricity bill.

Key drivers of reduced revenue

WACC

- Reduced from 6.04% to 5.48% (to be updated in Final Decision).
- Due to reduction in risk free rate (return on equity) and cost of debt.

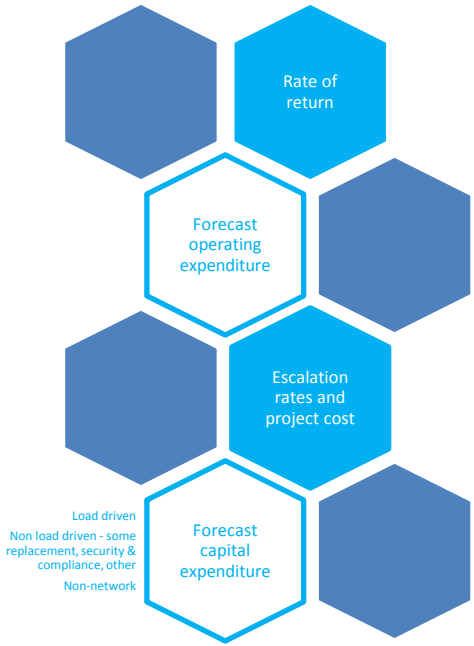
RAB

- Opening RAB reduced by 1% ($73m) due predominantly to adjustment for actual 2015/16 CPI.

Capex

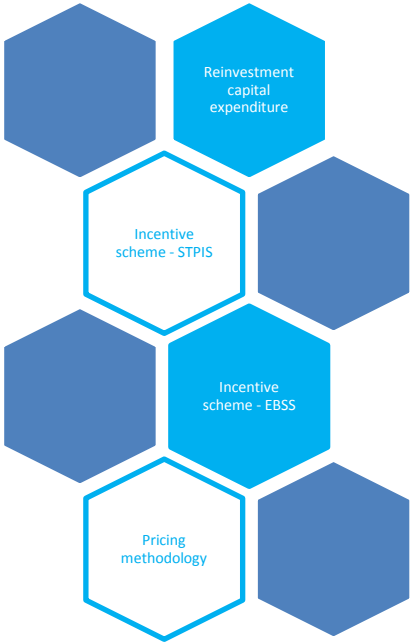
- Total forecast capex reduced by 19.3%
- Forecast reinvestment capex reduced by 23.2%.
- All other capex (eg. security/compliance, IT, buildings, fleet) accepted.

Areas of alignment with Draft Decision



- Consistent with our objective to put forward a proposal capable of acceptance by AER.
- Applied AER's Rate of Return Guideline
  - Propose any changes in the AER's approach apply to Powerlink's Final Determination.
- Total operating expenditure accepted
  - Reflects Powerlink's focus on increased efficiency and cost reduction.
- Unit costs and escalation rates accepted
  - Aligned with AER's approach.
  - Supported by benchmarking.
- Forecast capital expenditure
  - All categories, except reinvestment, accepted.

Concerns with Draft Decision



- Key issue relates to AER's decision to reduce forecast reinvestment expenditure by 23.2%
- Incentive schemes
  - STPIS –MIC exclusions
  - EBSS – additional exclusions
- Pricing Methodology
  - interim TUOS locational price

AER Pre-determination conference

- AER recognised that Powerlink had been reasonable in its approach and sought to align with the AER's approach in many areas
- AER noted CCP4's concerns regarding indexation of the RAB and consistency with approach to rate of return and gearing. AER undertook its own detailed analysis and concluded that what is was doing was not incorrect.
- CCP4 and other attendees expressed concern about regulatory framework
  - Concern that framework delivers excessive returns
  - Call for AER to undertake ex-post review of business profitability
- CCP4 questioned AER's assessment of Powerlink's forecast operating expenditure
  - AER's alternative forecast was higher than Powerlink's proposal
  - Assessment of efficiency of base year
- CCP4 commented that level of reinvestment capital expenditure in AER's Draft Decision was still too high.

Next steps

- Key milestone – **by 1 December 2016**
  - lodgement of the Revised Revenue Proposal with the AER

Step	Timing
Powerlink Customer and Consumer Panel Meeting	27 October 2016
Submit Revised Revenue Proposal	By 1 December 2016
Submissions on Revised Proposal	By 23 December 2016
AER Final Decision	By end April 2017
New regulatory period commences	1 July 2017

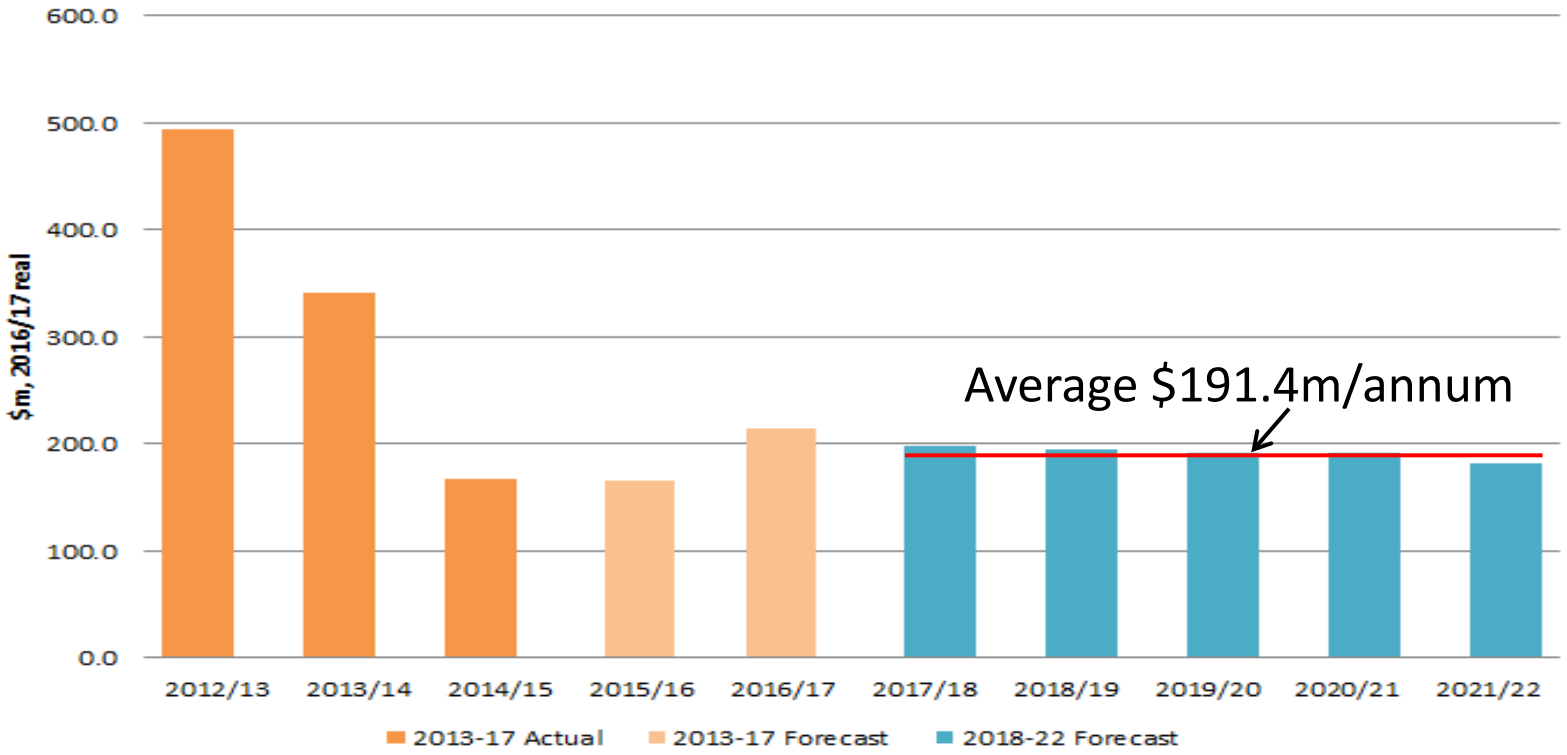
Questions & discussion

Powerlink’s Revised Revenue Proposal – Key Issues

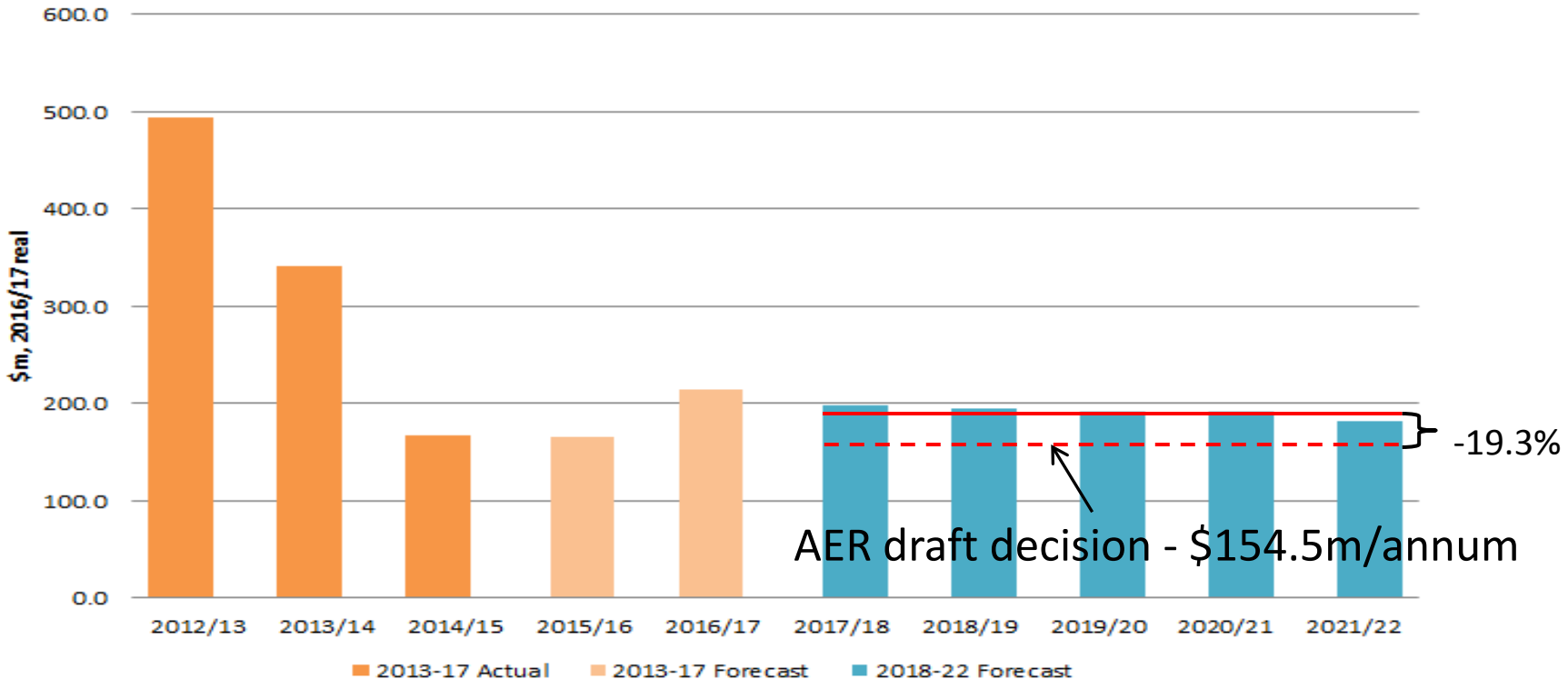
Capital Expenditure Forecast - Outline

- The AER's Draft Decision and Powerlink's program of work
- Impact of extended replacement lives on cost / service outcomes
- C&CP feedback on key issues
  - Feedback will help Powerlink weigh the balance between cost / service outcomes and our broader obligations under regulation and legislation

Powerlink's Revenue Proposal - $957.1m



AER's Draft Decision - $772.6m



Draft Decision – Capex Summary

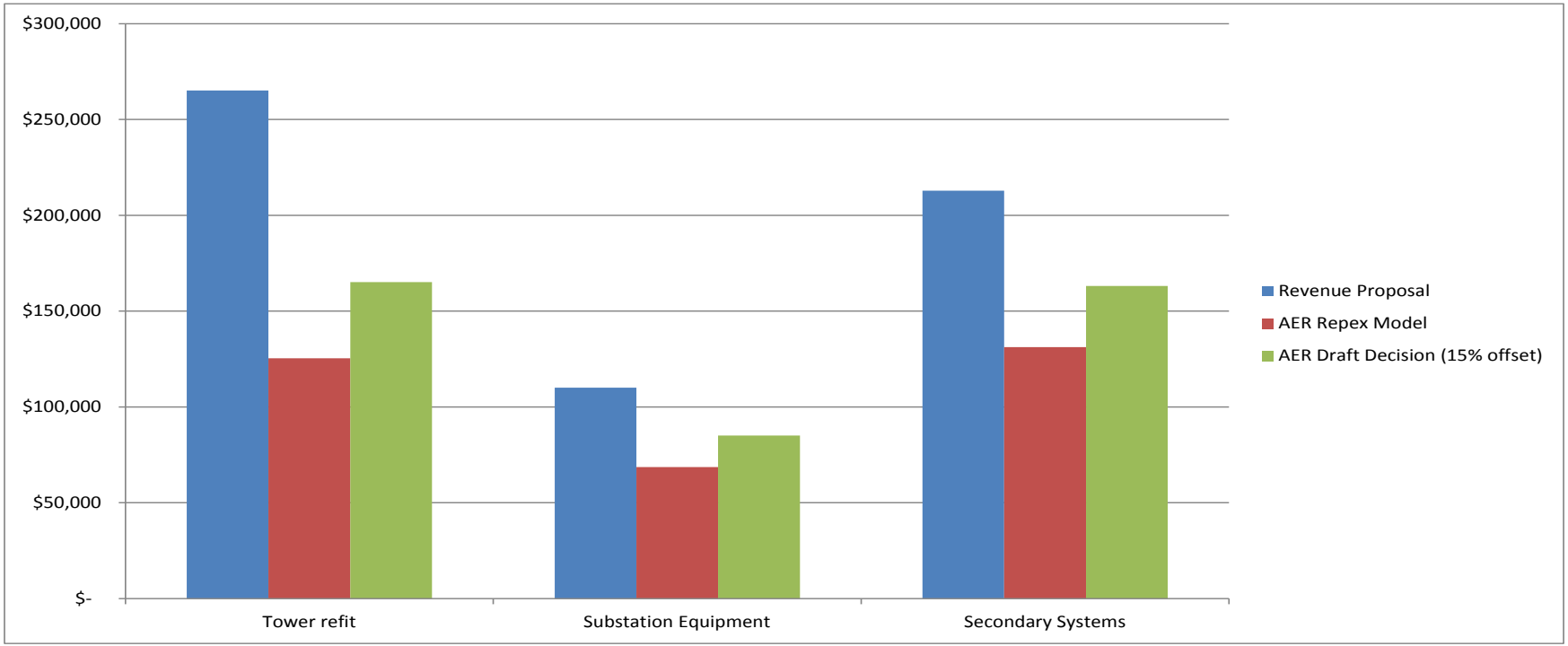
Category	Proposal ($m)	Draft Decision ($m)	AER Accept / Reject
Augmentations	3.1	3.1	Accept
Easements	7.7	7.7	Accept
Reinvestments	794.3	609.8	Reject
Security / Compliance	18.8	18.8	Accept
Other	30.1	30.1	Accept
Non-network	105.8	105.8	Accept
Total	**959.7**	**775.2**	**Reject**

* This table excludes disposals

Draft Decision – Repex Model

- AER has increased the mean replacement life by one standard deviation for the major asset categories in the Repex Model (transmission towers, substation switchgear and secondary systems)
  - Mean replacement lives increase 13% - 22%
  - Repex Model outputs reduce 31% - 87%
  - Aggregate forecast reduction of 44% in the affected asset categories
- AER has then included an “offset” of 15% of the Revenue Proposal forecast for those adjusted asset categories
  - Provides for an “increase in preventative and corrective asset reinvestment”

Draft Decision – Repex Model



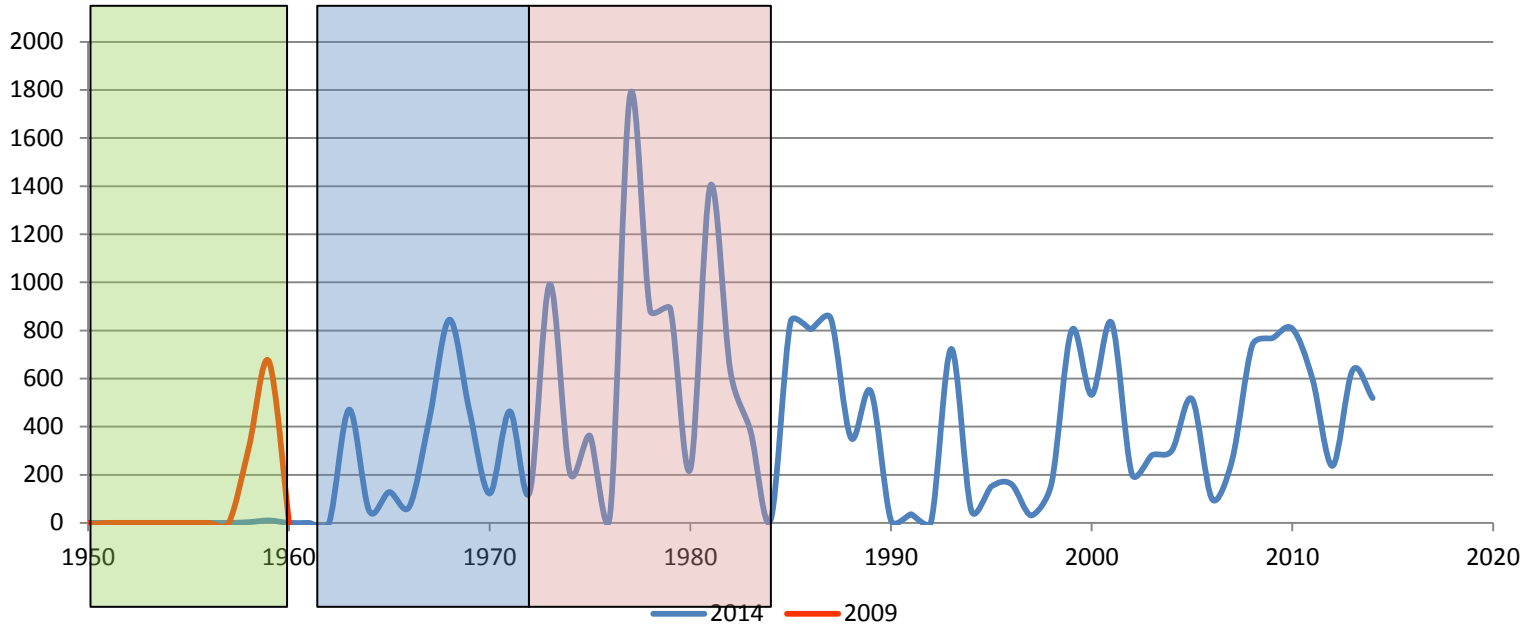
Impact of AER's extended replacement lives

Asset category	Sub-category	Powerlink mean replacement life (years)	Powerlink Repex Model forecast ($m)	AER mean replacement life (years)	AER Repex Model forecast ($m)	Percentage change in forecast
Transmission towers (rebuild)	All corrosion zones	40.3 – 71.4	$14.1	40.3 – 71.4	$14.1	0%
Transmission towers (refit)	Corrosion zone DEF	35.3	$129.3	41.6	$89.8	-31%
	Corrosion zone C	52.9	$128.3	60.5	$34.6	-73%
	Corrosion zone B	66.4	$7.6	74.9	$1.0	-87%
Transmission towers	Miscellaneous adjustments		-$12.3		-$12.3	0%
Substation primary plant	Circuit breakers	34.2	$36.9	40.2	$22.3	-40%
	Isolators / earth switches	39.8	$31.0	45.8	$18.6	-40%
	Voltage transformers	34.6	$9.6	40.6	$6.0	-60%
	Current transformers	33.2	$32.5	39.2	$21.7	-33%
Secondary systems	Bay and non-bay	20.2	$182.6	24.7	$112.5	-38%
	Metering		$30.2		$18.6	-38%
Telecommunications		10.7	$44.6	10.7	$44.6	0%
Buildings and infrastructure		34.3 – 50.6	$35.8	34.3 – 50.6	$35.8	0%
Repex Model Total			**$670.1**		**$407.3**	**-39%**

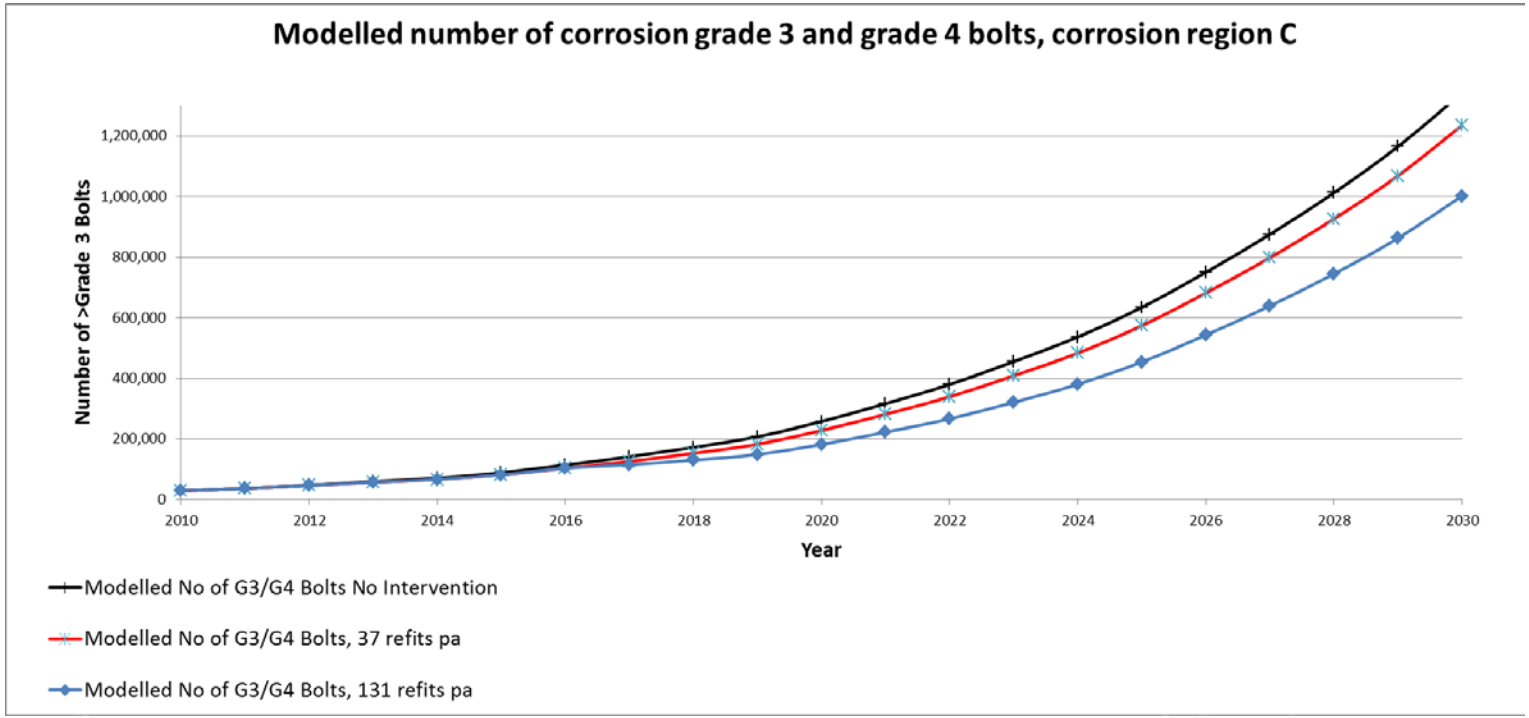
Impact of extended replacement lives

- AER has increased mean replacement lives by 13% - 22% based on a sample of observed replacement ages
- To derive equivalent lives through Repex Model calibration (based on a sample of projects) infers a substantial reduction in historical quantities
  - 40% - 50% for substation primary and secondary equipment
  - 43% for zone DEF transmission towers
  - 82% for zone C transmission towers

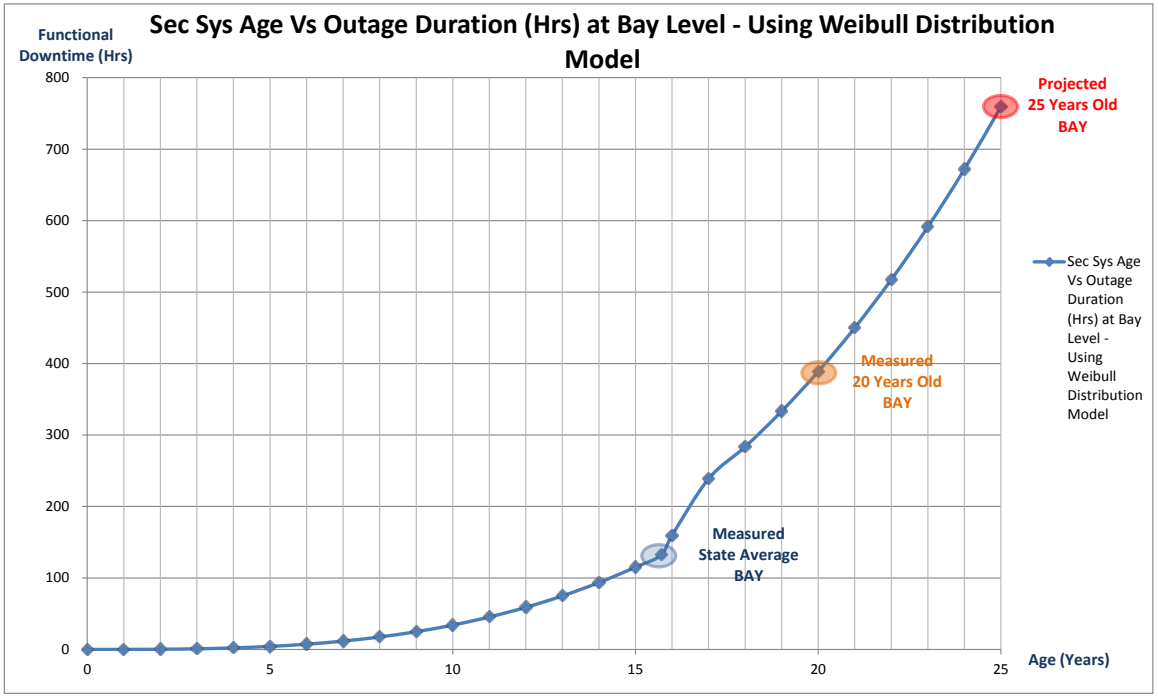
Impact of extended replacement lives



Impact of extended replacement lives



Impact of extended replacement lives



Summary of potential cost/service outcomes

- Reductions in forecast reinvestment capex are unlikely to impact customer reliability in the short-term
- Powerlink will not allow reduced reinvestment capex to compromise safety – will be managed over regulatory period
- First impact of reduced reinvestment capex is increasing opex to rectify more functional failures, need to work under operational constraints
- Increasing functional failures -> increasing network outages -> greater exposure to supply interruption
- May result in an increasing risk of a material number of asset failures in the medium term

Feedback and input

- *Powerlink seeks feedback and input from panel members on the potential impacts of a reduced program of reinvestment.*
- *Powerlink is interested in the Panel's views on these areas where Powerlink has identified concerns with the AER's approach.*
- *Are there other areas of the Draft Decision on forecast capex about which Panel members wish to provide feedback or input?*

Service Target Performance Incentive Scheme

- 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.
- Version 5 of the STPIS will be applied to Powerlink from 1 July 2017.
- 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 AER's Draft Decision and Powerlink's Current Position

	AER's Draft Decision	Powerlink's Current Position
SC	• accepted all target, cap and floor values that Powerlink proposed as they were compliant with Version 5.	• Powerlink reviewed the AER's Draft Decision and is likely to accept the decision.
MIC	• accepted the methodology that Powerlink used. • did not accept Powerlink's proposed values. AER adjustments on exclusions and categorisation:	• After reviewing the AER's Draft Decision, Powerlink is likely to contest where the application of the exclusion definitions differ.
	o Excluded 38 counts associated with generator constraints that were invoked as part of AEMO generator directions in Oct 2015.	o Accepting the AER's Draft Decision, in which AER clarified that "directive" (reclassification) does not include "direction constraints".
	o Excluded 99 counts in 2012 and 1 count in 2015 of Powerlink initiated generator outages.	o May contest the AER's Draft Decision. The MIC V5 guideline confirms that Powerlink initiated generator outages should be included.
	o Changed 1 count in 2011 from an unplanned outage to a planned outage.	o May contest the AER's Draft Decision. Further information being sought from AEMO.

STPIS AER's Draft Decision and Powerlink's Current Position

	AER's Draft Decision	Powerlink's Current Position

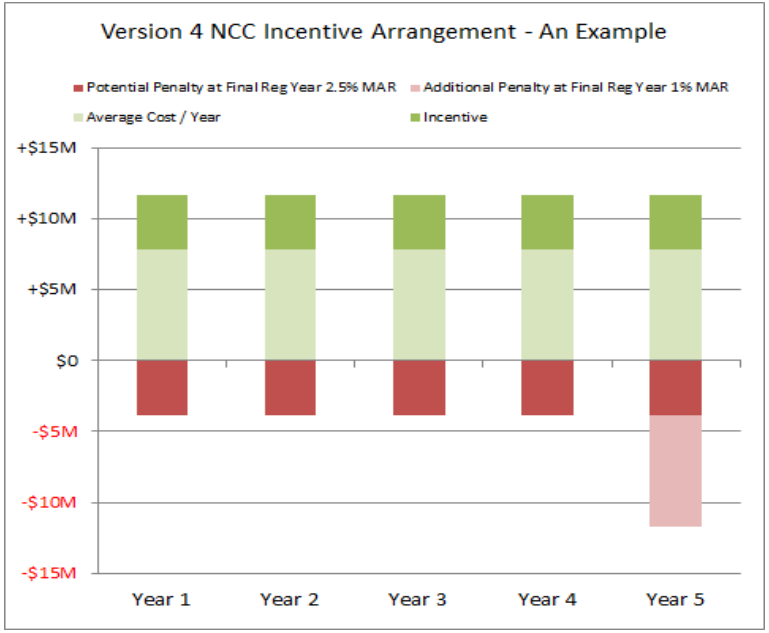
NCC	• accepted one of the three priority projects that Powerlink proposed:
	  ◦ accepted increase design temperature of two 275kV transmission lines ($506k).
	  ◦ did not accept Greenbank system integrity protection scheme ($1.8m).
	  ◦ did not accept Load model enhancement and validation ($877k)
		• Powerlink is reviewing the projects and is likely to accept the AER's Draft Decision with some qualifications.
		
		• Additionally Powerlink intends to raise concerns regarding the disproportionate arrangements under NCC between the maximum allowable rewards and the maximum allowable penalties, in particular when the quantum and value of priority projects is small.
		The rewards and penalties are calculated using the two different base values – approved project value vs. MAR.

STPIS V4 vs. V5 NCC Incentive Payment Arrangement

Version 4 NCC

Both bonus and penalty were based on MAR

“Balanced” incentive payment arrangement

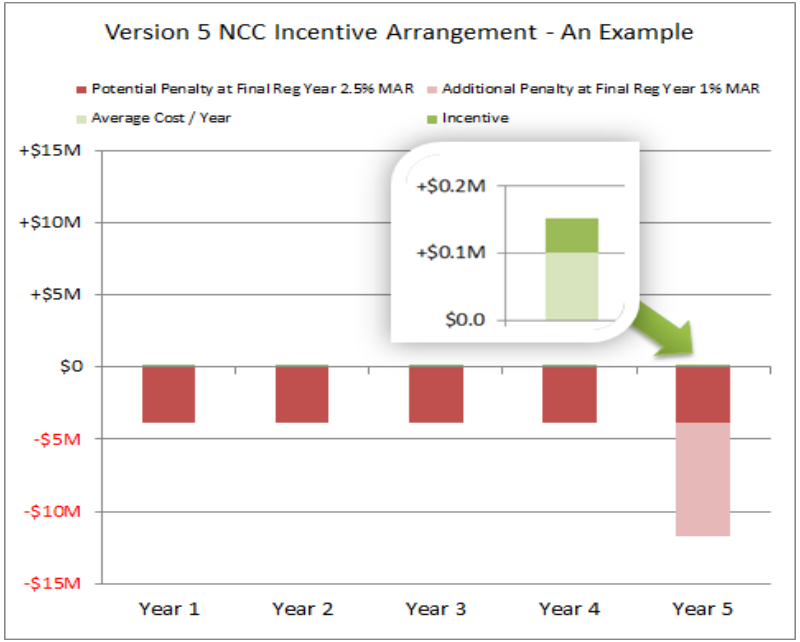


Version 5 NCC

Bonus is based on the total approved project value

Penalty remains to be based on MAR

“Disproportionate” incentive payment arrangement



STPIS Key Outcomes

- Powerlink's past good performance of service and market impact components will be used to set higher targets and be more onerous to achieve in Version 5.
  - Loss of supply event thresholds will be reduced from 0.75 and 0.1 system minutes of the current regulatory period to 0.4 and 0.05 system minutes.
  - MIC performance target will be reduced from 1,420 dispatch intervals (DIs) of the current period to 361 DIs (333 DIs per AER Draft Decision). The component will be symmetrical with a penalty up to 1% of MAR.
- One NCC priority project ($506k) has been accepted by the AER, which will be Powerlink's first priority project to deliver under the component.
  - Powerlink's business-as-usual asset management practices resulted in very few opportunities to further improve network capability.

STPIS

Questions?

Powerlink seeks feedback and input from the panel regarding the positions outlined, and also any other aspects to consider regarding STPIS in our Revised Revenue Proposal.

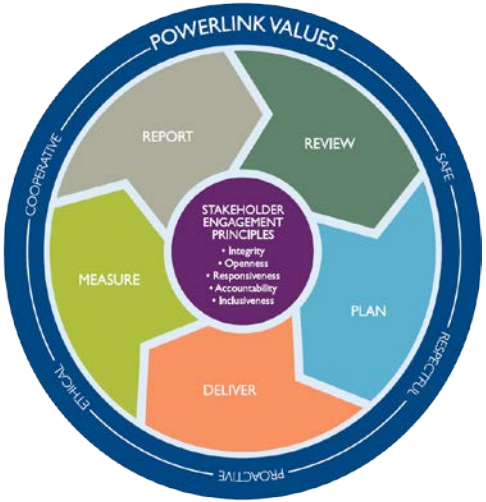
Afternoon Tea

Powerlink’s customer focus

Powerlink's customer focus

Current customer-focused initiatives:

- Customer & Consumer Panel
- Transmission Network Forum
- Area Plan Forums
- PQConnect
- Stakeholder Engagement Framework
- Corporate Citizenship Framework
- Dedicated team to service directly-connected customers



Powerlink wants to build on these activities to improve the way we deliver value to our customers

Powerlink's customer focus

So what does a more customer-focused Powerlink look like?

- We understand the importance of providing our services at the lowest long-run cost

Powerlink's customer focus

So what does a more customer-focused Powerlink look like?

- Information – what information can we share that adds value?
- Interaction – how can we improve the way we interact with customers? How can we be more proactive?
- Understanding – how can we gain a better understanding of what customers value?
- Innovation – how should we approach innovation to meet customer needs?

Panel membership and focus

Panel membership and 2017 focus

Customer & Consumer Panel Terms of Reference:

Membership:

- 1 x Chair/independent facilitator
- 3 x Powerlink representatives
- 1 x Energex representative
- 1 x Ergon representative
- 3 x Directly-connected customer representatives
- 3 x consumer advocates
- 5 x industry associations

Panel membership and 2017 focus

Customer & Consumer Panel Terms of Reference:

Membership:

- Members will be asked to serve on the panel for a period of two years.
- If a member cannot make a meeting, they will be responsible for organising an appropriate proxy from their organisation to attend.
- Members can join meetings via teleconference.

Panel membership and 2017 focus

Potential areas of focus for 2017:

- AER Final Determination
- Customer Service
- Increasing knowledge levels
- Reinvestment decision-making
- Network planning
- Safety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