

**AER Public Forum - 8<sup>th</sup> December 2014**

**CCP Perspectives on the  
TransGrid Draft Determination**

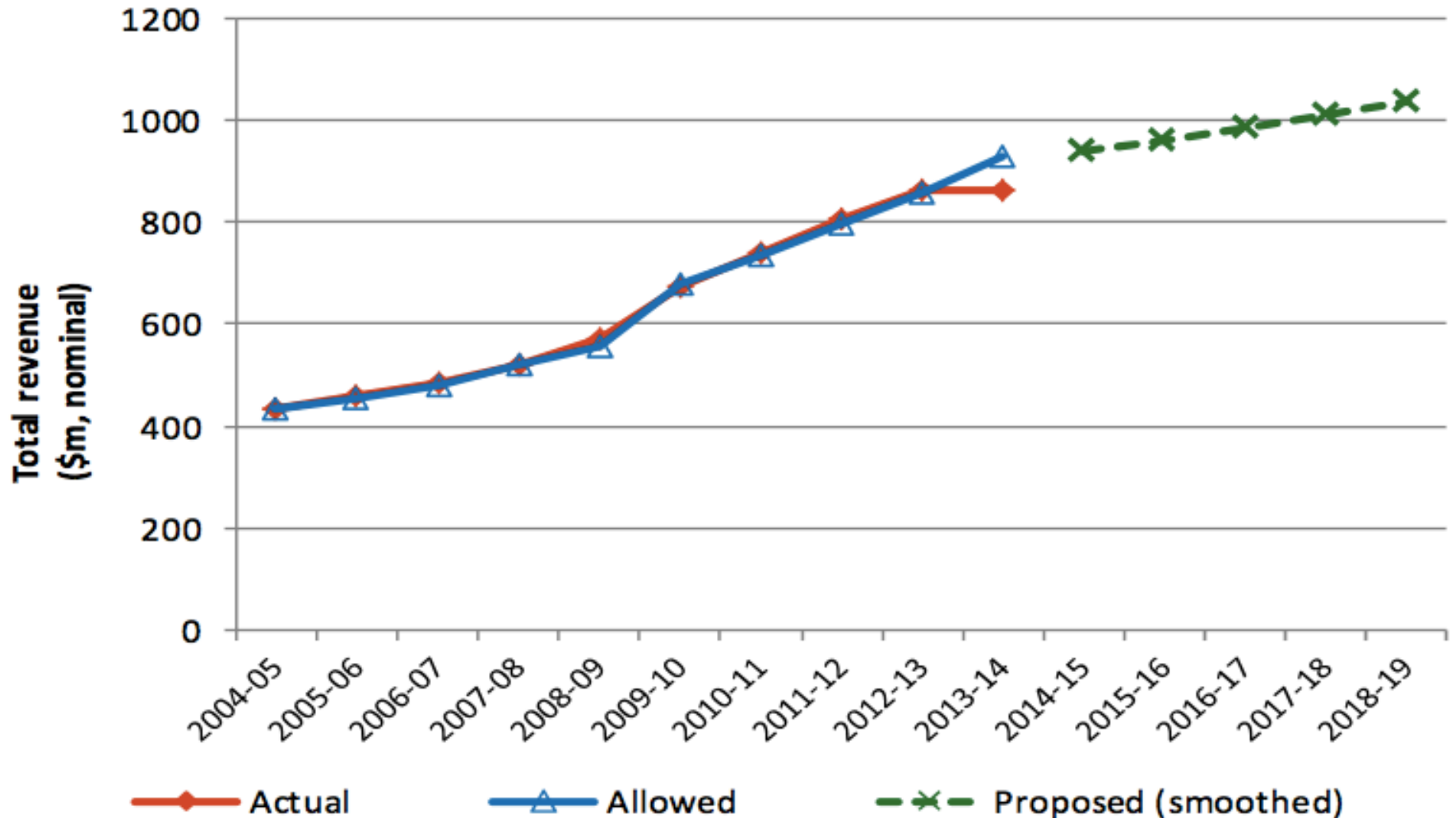
**Hugh Grant**

**AER Consumer Challenge Panel Member**

# REVENUE

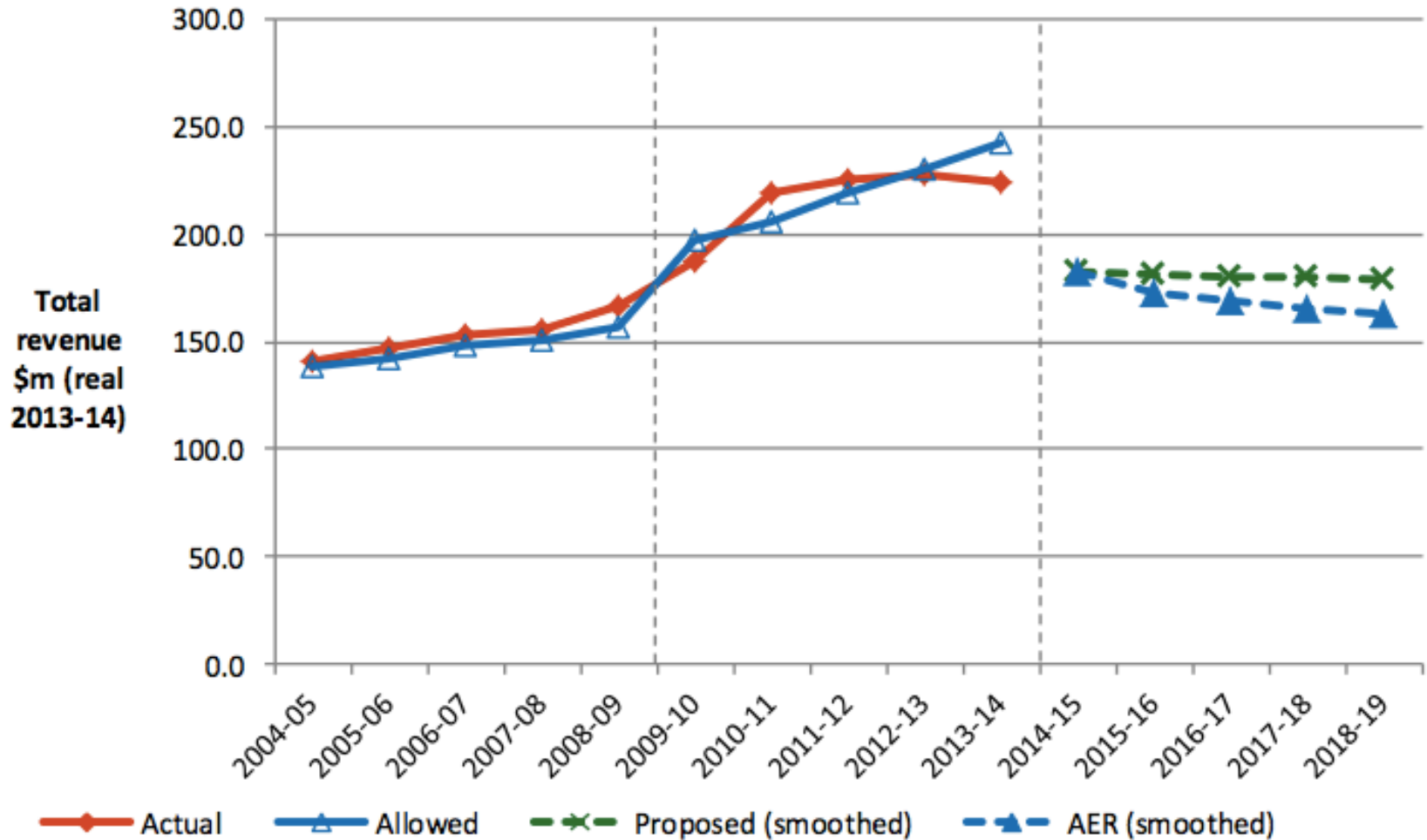
# TransGrid Historical/Proposed Revenue

Figure 7 TransGrid regulated transmission revenue (\$m, nominal)



# Comparison – Transend Proposed Revenue

Figure 1-1 TasNetworks' past total revenue, proposed total revenue and AER draft decision revenue allowance (\$ million, 2013–14)



# AER Draft Revenue Determination for TranGrid (4 yrs)

Building Block Component	TransGrid Proposal	AER Draft Decision	Reduction
Return on Capital	\$2,322 M	\$1,844 M	20.6 %
Depreciation	\$428 M	\$441 M	(3.1 %)
Opex	\$836 M	\$702 M	16 %
Efficiency Payments	\$71 M	\$65 M	9.2 %
Tax Allowance	\$230 M	\$ 118 M	48.6%
<b>Total Revenue (2014/15-17/18)</b>	<b>\$3,887 M</b>	<b>\$ 3,170 M</b>	<b>18%</b>

Source: AER Draft Decision (Nominal Dollars)

# Comparison - Draft Determinations for NSW/ACT DNSPs

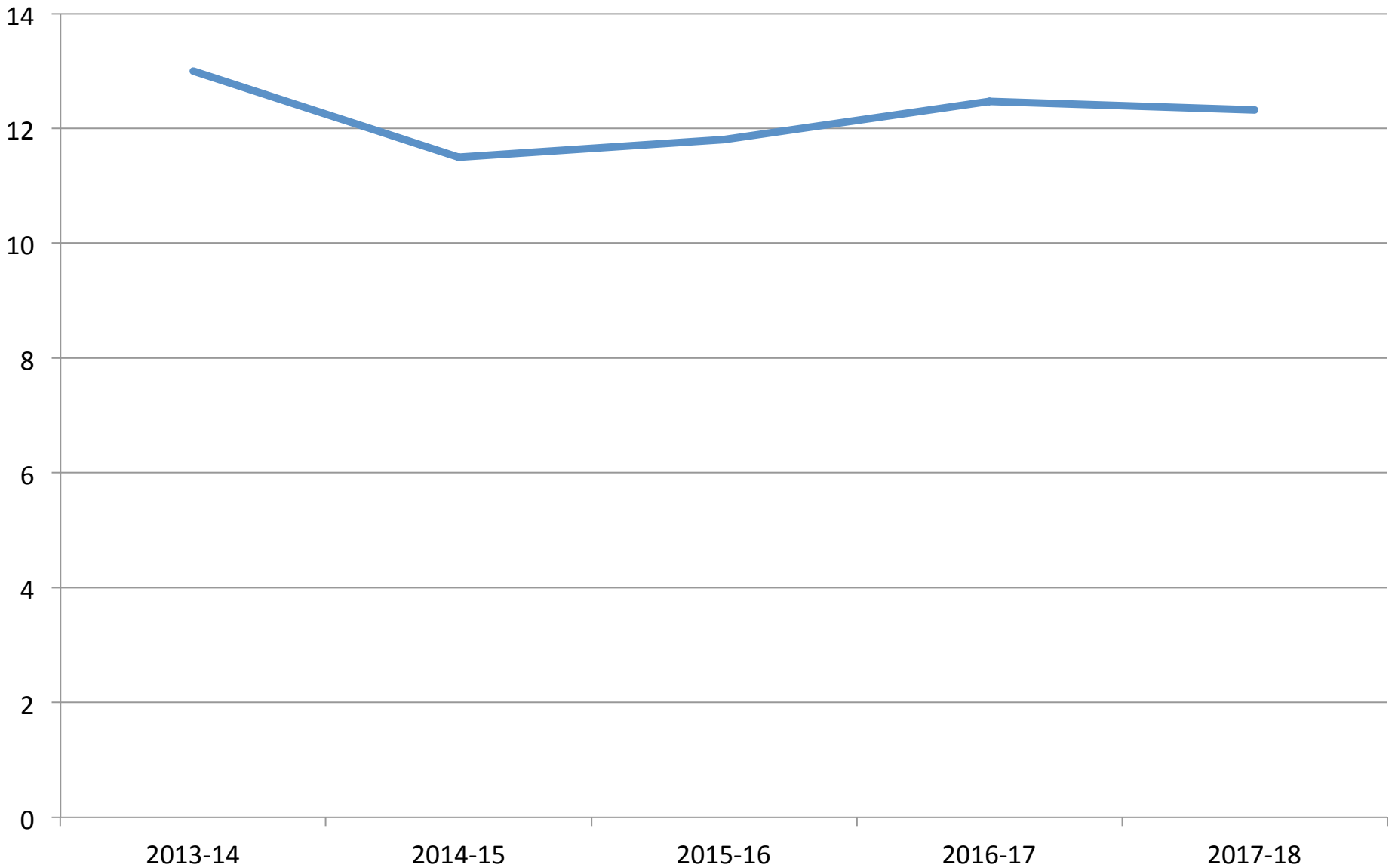
Building Block Component	TransGrid Reductions	DNSPs' Reductions
Return on Capital	20.6 %	23.1 - 27.8%
Depreciation	(3.1 %)	1.6 - (0.2)%
Opex	16 %	22.6 – 42%
Efficiency Payments	9.2 %	39.2 - 100%
Tax Allowance	48.6%	41.6 - 45%
Total Reduction	<b>18%</b>	<b>26% (average)</b>

Source: AER Draft Decisions (Nominal Dollars)

# TRANSGRID DRAFT DECISION PRICE IMPACTS

# TransGrid Draft Decision - Estimated Price Impacts

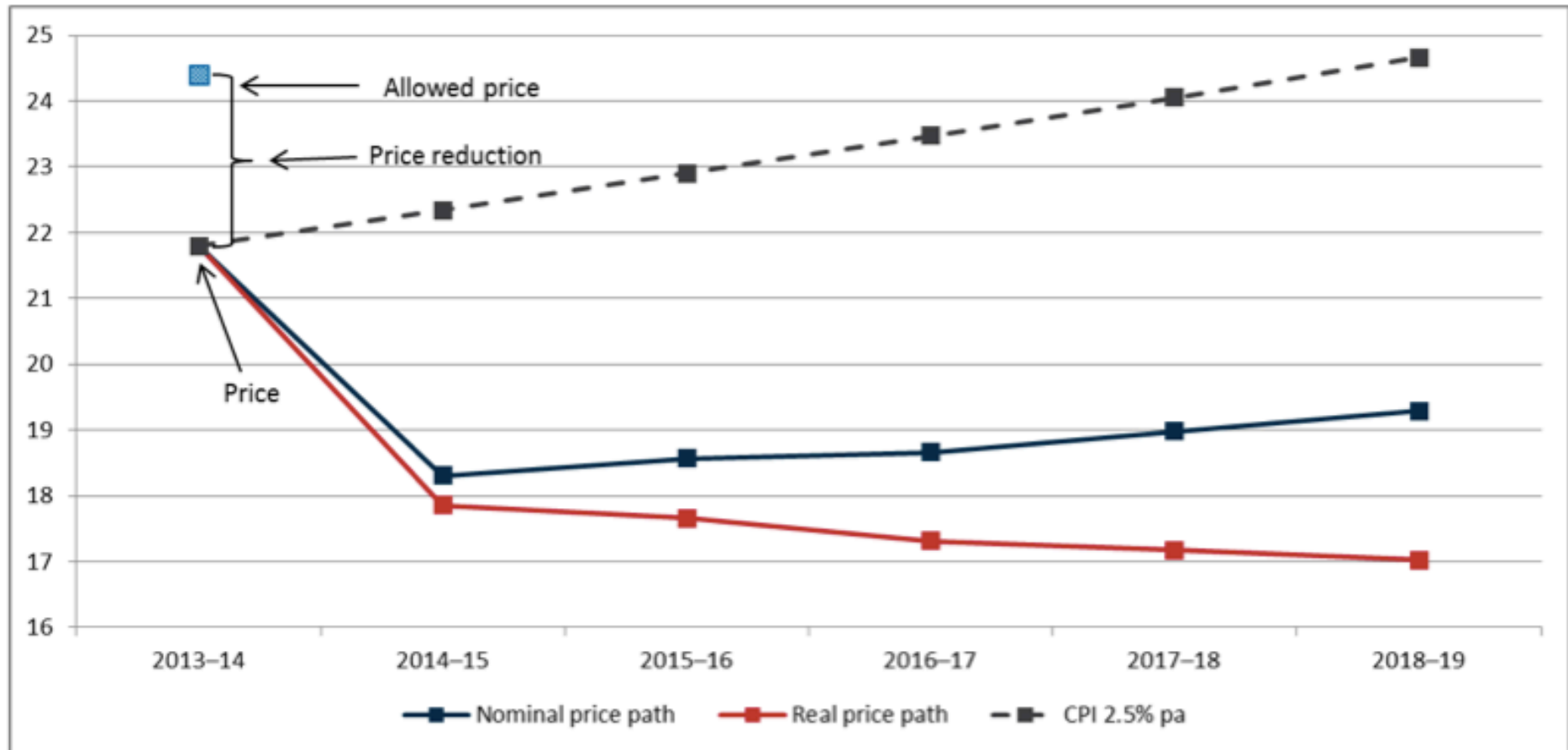
TransGrid Prices - Unsmoothed (\$/MWhr)





# Comparison: **Transend** - Estimated Price Impacts

Figure E.5 Average price impact of Revenue Proposal (\$/MWh)



# Impact of TransGrid's "Revenue Freeze" Clawback

- TransGrid has confirmed that it intends to recover the revenue associated with its 2013/14 "revenue freeze" (over \$70 million)
- That will further increase TransGrid's prices by around 2.3% per annum if recovered over 4 years

# RETURN ON CAPITAL

# Return on Capital (WACC)

WACC Component	TransGrid's Proposal	AER Draft Decision
<b>Cost of Equity</b>		
Risk Free Rate	-	3.55 %
Market Risk Premium	-	6.5%
Equity Beta	-	0.7
<b>Total Cost of Equity</b>	<b>10.5 %</b>	<b>8.1 %</b>
<b>Cost of Debt</b>	<b>7.72 %</b>	<b>6.67 %</b>
<b>Total WACC</b>	<b>8.83 %</b>	<b>7.24 %</b>

Source: AER Draft Determination

# Return on Capital (WACC)

- Refer to CCP Papers to the AER on the AER's approach to determining the Rate of Return

<http://www.aer.gov.au/sites/default/files/CCP%20Letter%20to%20the%20AER%20Board%20-%20Rate%20of%20Return%20Paper.PDF>

<http://www.aer.gov.au/sites/default/files/CCP%20report%20prepared%20for%20AER%20Board%20-%20Rate%20of%20Return.pdf>

- **Applying the CCPs' recommendations should result in an overall WACC of below 6%**
- That would still deliver generous returns to TransGrid and better reflect consumers' long term interest

**CAPEX**

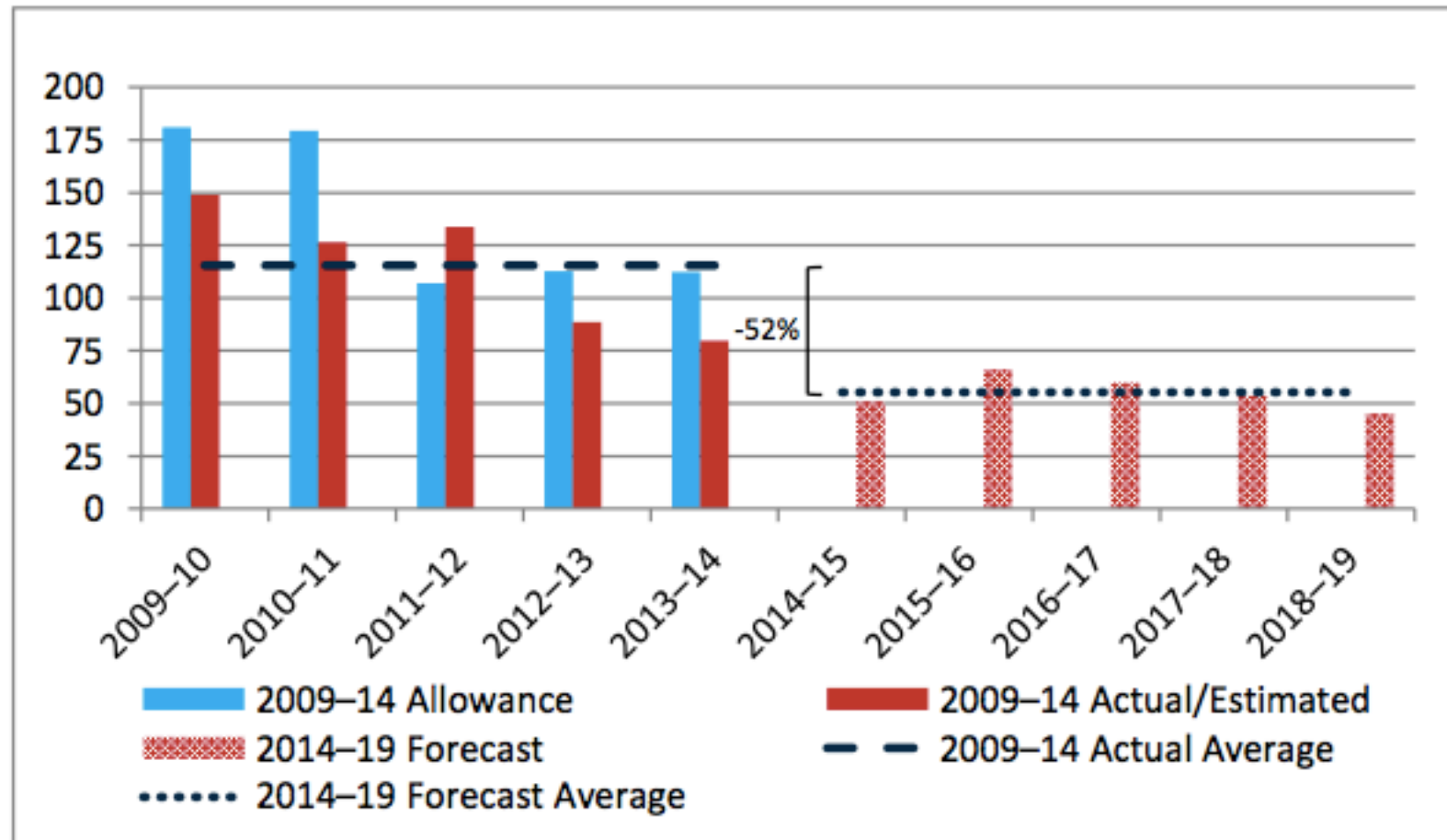
# TransGrid - Proposed Capital Expenditure

	Previous 4 Years 2010/11- 2013/14	Next 4 Years 2014/15 - 2017/18	Change
Augmentation	\$432 M	\$77M	82% decrease
Replacement	\$606 M	\$984 M	62% increase
Security Compliance	\$36 M	\$139 M	3.8 times previous period
Support the Business	\$283 M	\$275 M	3% decrease
<b>Total</b>	<b>\$1,358 Million</b>	<b>\$1,475 Million</b>	<b>9% increase</b>

Source: TransGrid Revenue Proposals (all figures are nominal dollars)

# Comparison – Transend's Proposed Capex

Figure 5.4 Overview of forecast and actual capital expenditure (\$m 2013–14)





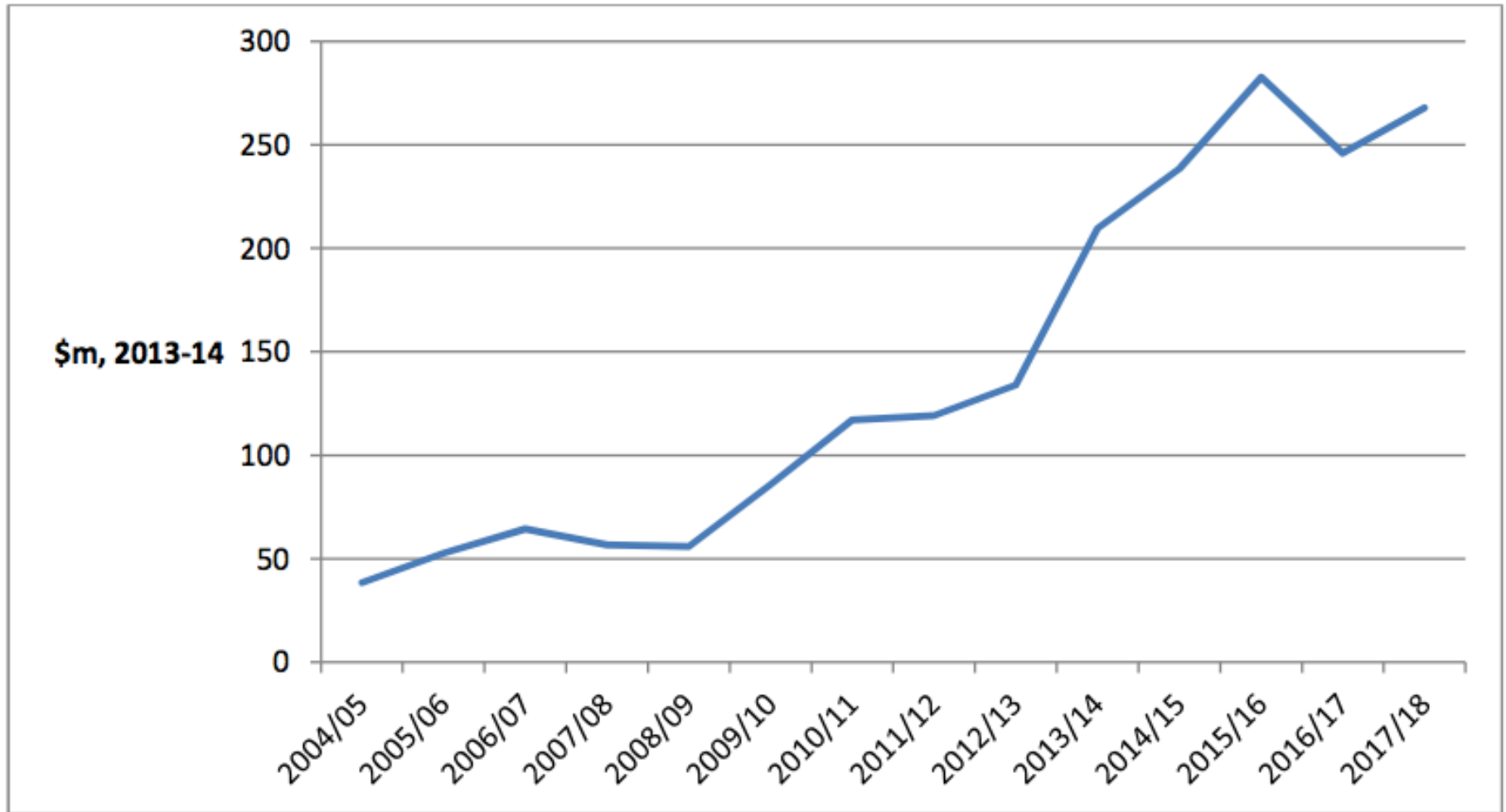
# Augmentation and Customer Connection CapEx

- The AER has accepted TransGrid's proposed \$72.1M in augmentation and connection capex - subject to a potential downward revision based on the updated demand forecasts
- This appears reasonable to the CCP

# REPLACEMENT CAPEX

# Transgrid Replacement Capex Trend

**Figure A-2: Repex actual and forecast trend from 2004-05, (inflation adjusted)**



Source: AER analysis; TransGrid, *Revenue proposal 2014/15-2018/19*, May 2014, pp. 70 & 98.

# Replacement Capex - Overspend in Previous Period

- TransGrid overspent its replacement capex allowance by over \$140 million during the previous period – thereby ‘pre-installing’ a good deal of replacement capex for the next period
- As identified by EMCa:

***“It is only prudent to increase repex above what was previously approved to the extent that there is an unanticipated increase in some program driver or a realisation of additional unanticipated asset risk. Neither of these factors can be shown to exist”***

***“Different drivers between repex and augex mean that these expenditure categories are not substitutable. Decisions to increase spending on asset replacement need to be made on the basis of criteria related to asset condition and risk analysis”***

# Systemic Over-Assessment of Risks

“Found a **systemic overestimation in the project risk cost** with an **estimated bias in the order of at least two, if not three, orders of magnitude** in the expected value of this risk”

“TransGrid has **systemically overstated the risks** associated with its assets and as a result its proposal is unjustifiably biased upwards”

“The application of TransGrid's risk assessment tools exhibits a **strong bias to overstate risk**”

“Transgrid’s forecasting methodology is largely based on a bottom up assessment approach that is **excessively risk-averse**”

“**Bias towards** the selection of **options** that **seek to eliminate the hazard**”

“The existence and effectiveness of current risk mitigation controls and measures is not included in the risk assessment.... the **risk assessments are based on the unmitigated** (inherent risk) **without consideration of current controls** (residual risk)”

# Inadequate Project Justifications due to Forecasting/Scope Bias

“**Biases in terms of scope and risk** that have led to an **overestimate** of communications upgrades expenditure **in the order of 50-60 per cent**”

“Overall, EMCa found **evidence of forecasting and scope bias** including projects that could be reasonably deferred or reduced in scope”

“There were **substantial gaps in the analysis of the need for a project** including the identification and assessment of options, risks, costs and benefits”

“There are **biases in terms of scope and risk that have led to an overestimate of expenditure**.....this means that the cost of the project is higher than necessary as a result of an overly risk averse design”

# Replacements not justified on Asset Condition

**“Documentation of asset condition, options and options evaluation were sparse”**

**“There were no details of specific performance issues associated with the secondary equipment at each site.....instead the number of secondary assets to be replaced at the site is based on technology replacement strategies”**

**“Some assets are targeted for replacement based on replacement technology strategies rather than on asset condition grounds”**

**“There is no evidence of performance issues for specific assets that would support a substantial increase in replacement need”**

# Inadequate consideration of alternative options

**“Consideration of lower cost options to address risks have not been demonstrated”**

**“Insufficient consideration of the option to defer the major renewals by undertaking interim work and the use of spares”**

**“It was not evident that there was a consideration of alternatives to the complete replacement or options to delay the timing of these major projects”**

**“A single option to implement the OPGW strategy is presented”**

**“Other risk mitigation options such as pole reinforcement (or nailing) should be considered for application to some lines and line sections, as undertaken by other TNSPs”**



# Inappropriate Consideration of Timings and Deferrals

**“Didn’t appropriately consider timings and deferrals”**

**“All of the reviewed projects contain considerable expenditure which could be deferred”**

**“The benefits and significance of timing of the expenditure are not adequately justified”**

# Unsubstantiated Claims Regarding Reliability Drivers

**“Network reliability performance has been improving since 2009 – this does not support TransGrid's significant increase in repex”**

**“TransGrid submitted that the increase in forecast repex is consistent with maintaining the current level of risk. However, TransGrid did not explain how it determines or how it justifies this current level of risk”**

**“Nor did it establish that if the current level of risk was not maintained, how this would adversely impact network reliability and security”**

**“The information provided by TransGrid was insufficient to conclude there was a reasonable expectation of increasing levels of pole defects and an increased risk to reliability of supply”**

Note - TransGrid has consistently received bonuses of around \$10 million per annum under the *Service Target Performance Incentive Scheme (STPIS)*

# Unjustified & Inappropriate 'Portfolio Level' Approach

“The proposed OPGW work has been **aggregated at too high a level** with a single risk assessment and options analysis, **rather than considering the justification of individual projects**”

“Transgrid’s **risk assessments are undertaken at too high a level** to identify meaningful risk mitigation actions, **resulting in unnecessarily large investment projects**”

“**The risks are not detailed for each project**”

“TransGrid's strategy for secondary systems renewal results in an **aggressive technology driven replacement program....the strategy does not take into account the specific risks associated with each site**”

“**Investment decisions are based more on an overarching technology driven strategy and implementation goals rather than a disciplined investment decision**”

# Systemic Replacement of Relatively New Assets

“Many of the **projects are now being driven by the replacement of other equipment** at the substation, e.g.:

- The Wagga 132kV project includes the **complete demolition** and rebuilding of 132kV switch bays - **notwithstanding that 9 out of 10 circuit breakers are relatively new**
- Many of the substation circuit breakers at Cooma have previously been replaced resulting in **65 per cent of the fleet being less than 20 years old”**

“TransGrid's proposal **makes no mention of any option to reuse** these components”

“There are **examples of replacement of relatively new assets** as part of a broader asset replacement project for some assets”

# Inadequate Consideration of Life Extension or Re-Use

**“Many opportunities exist to use some of the assets being replaced as spares in order to extend the life of schemes at other stations”**

**“TransGrid made no mention of this in the strategies nor did it consider a life extension option”**

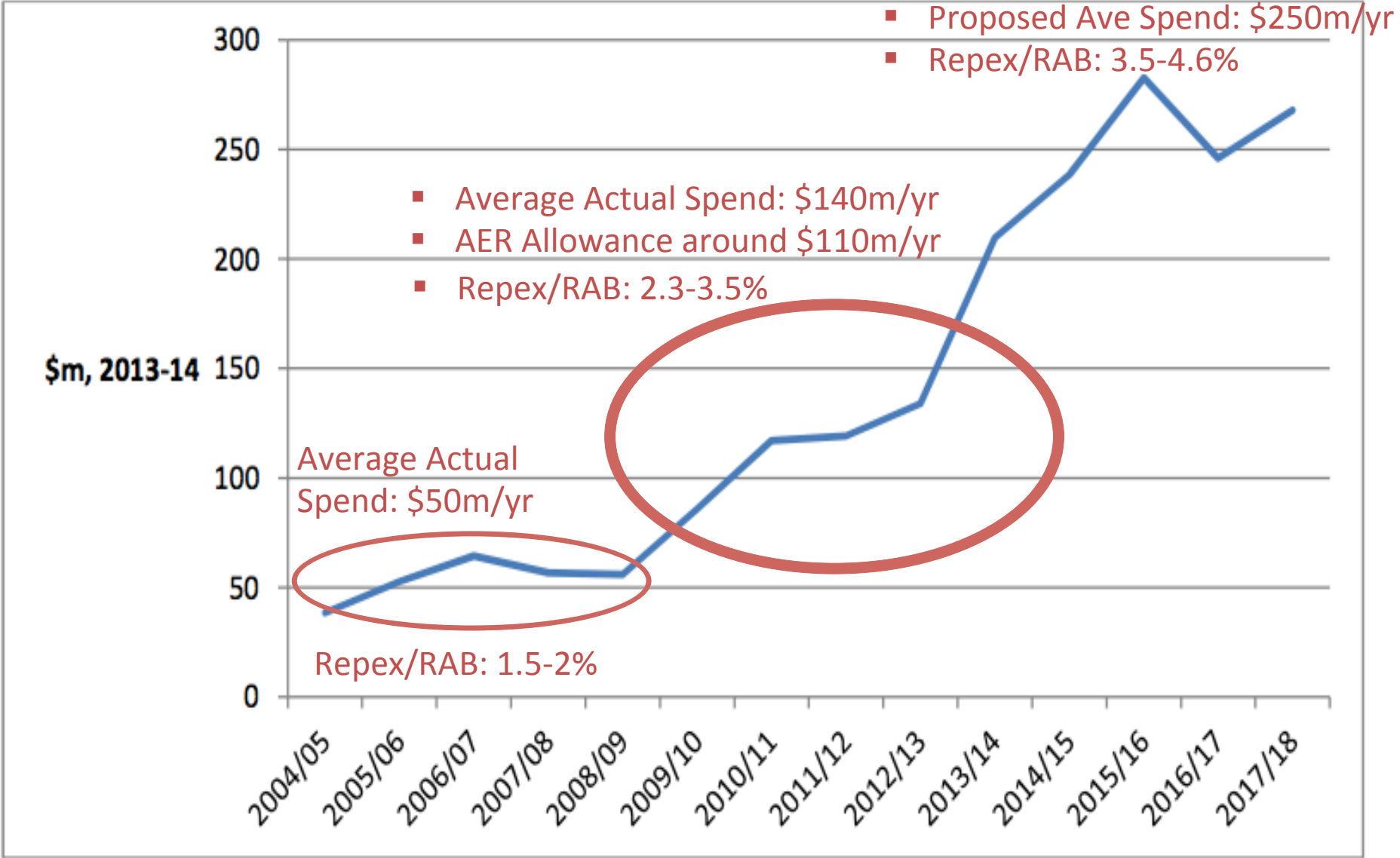
**“There is likely to be the potential to extend the life of some assets by using existing assets as spare”**

**“Insufficient consideration of the continued use of relatively new assets”**

# Replacement Capex - Key Findings

- The AER and EMCa identified major flaws in TransGrid's replacement capex proposal – including **systemic deficiencies in TransGrid's governance, risk assessment and project justification processes**
- In essence, EMCa concluded that:
  - **TransGrid's \$140 million overspend** of its replacement capex allowance for the previous period was **not not justified**
  - TransGrid has **pre-installed** a large proportion of its replacement capex **requirements for the next period**
  - Transgrid' proposed capex is **highly excessive, based on a systemic bias to the overestimation of needs**
  - **Historical replacement capex levels** are a **better indicator** of a **prudent level of expenditure**

**Figure A-2: Repex actual and forecast trend from 2004-05, (inflation adjusted)**



Source: AER analysis; TransGrid, *Revenue proposal 2014/15-2018/19*, May 2014, pp. 70 & 98.

# Replacement Capex - Conclusions

- There is **overwhelming evidence** that TransGrid's **previous and proposed replacement capex expenditure are excessive**
- The AER provided TransGrid with a replacement capex **allowance** of around **\$110m/annum for the previous period** - over **twice the level** of TransGrid's actual spend for the **prior period**
- The **AER's Draft Determination** allowance of around **\$160m/annum is not supported by the evidence**
- The **AER's Draft Determination** has **failed to take account** of TransGrid's **unjustified \$140m overspend in the previous period**

Note - the AER applied a 45% reduction to Ausgrid's replacement capex, even though AusGrid significantly underspent its previous repex allowance

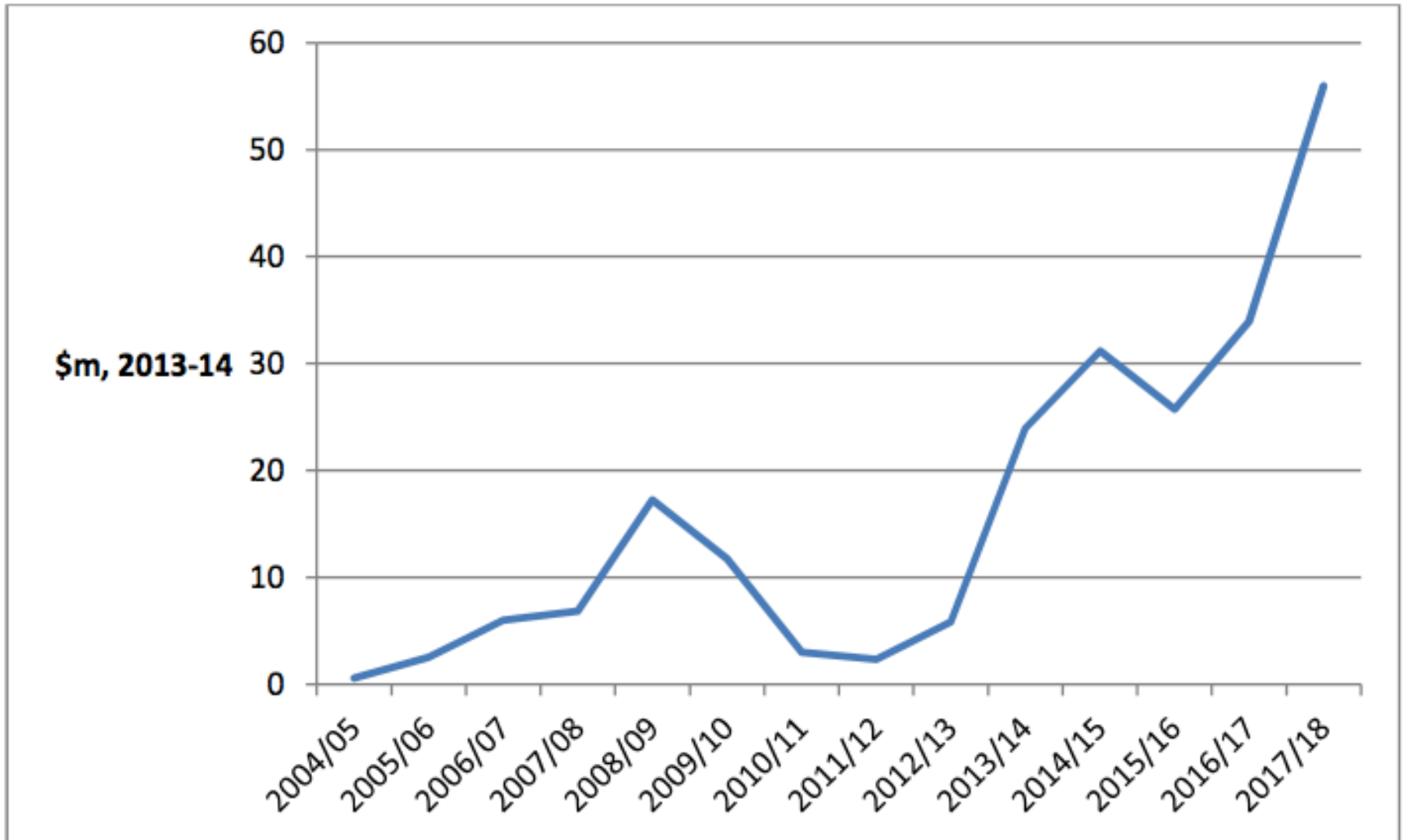


# Replacement Capex - Recommendation

- There is **compelling evidence** that a **replacement capex allowance of around \$60m/annum is more appropriate**
- **An allowance of \$100 million/annum would be generous**
- Taking into account Transgrid's \$140m overspend in the previous period, a \$100m/annum allowance **equates to a total allowance of \$260 million for the next 4 years**

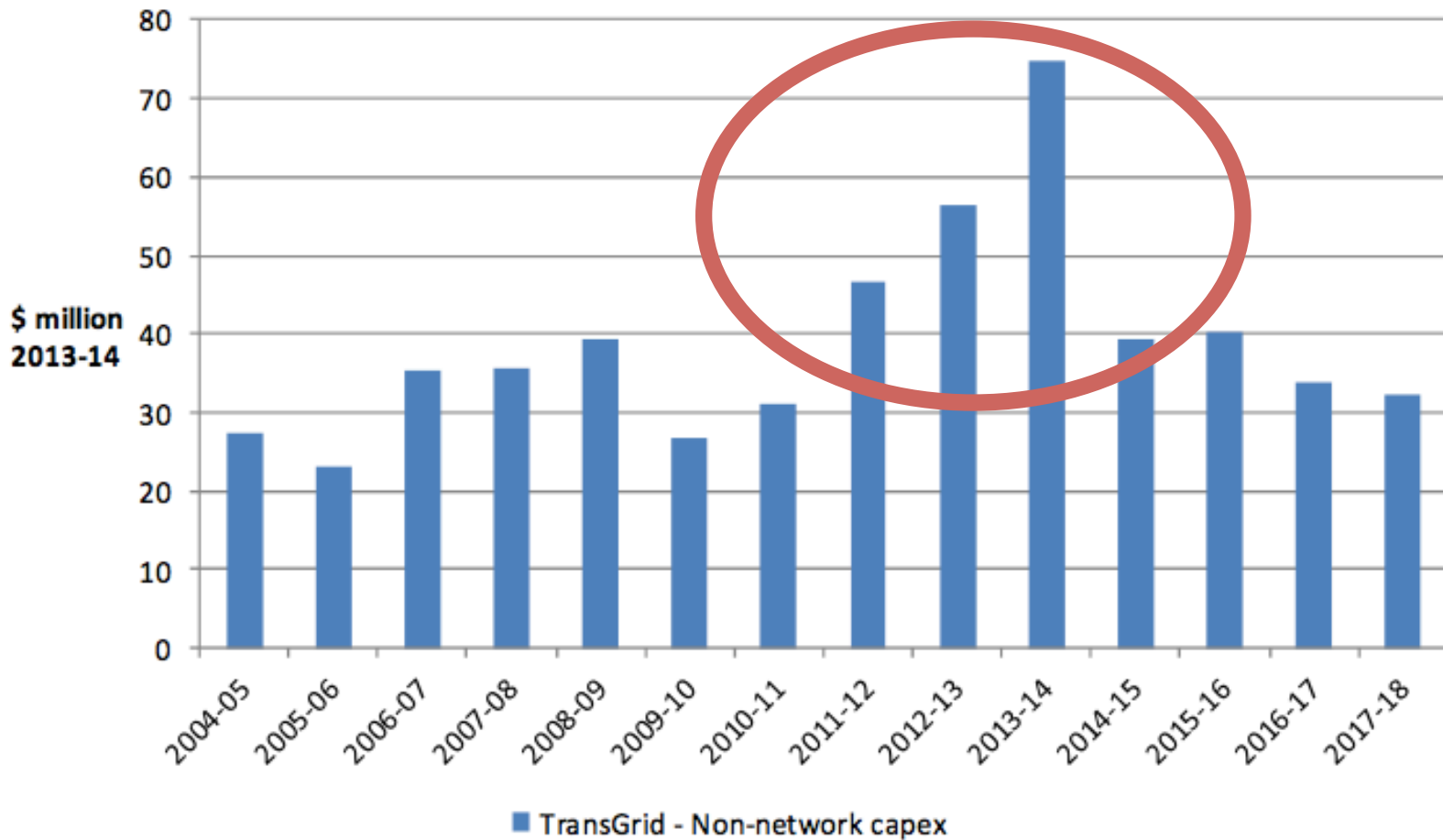
# Security and Compliance Capex

**Figure A-5** Trend in TransGrid's security/compliance expenditure



# Non-Network Capex

**Figure A-7** TransGrid's non-network capex 2004-05 to 2017-18 (\$million, 2013-14)



# Recommendation

	AER Draft Determination	Recommended Allowance	Comments
Augmentation (inc. customer connections)	\$72.1 M	\$72.1 M	Subject to justifications of updated load forecasts
Replacement	\$648 M	\$260 M	<ul style="list-style-type: none"> <li>- Provides a generous \$100m/annum allowance</li> <li>- Accounts for \$140m overspend in previous period</li> </ul>
Security/ Compliance	\$46.1 M	\$46.1 M	-
Strategic Property Acquisitions	\$10.9 M	\$10.9 M	-
Non Network Capex	\$146 M	\$103 M	30% reduction
<b>Total</b>	<b>\$922 Million</b>	<b>\$492 Million</b>	

**OPEX**

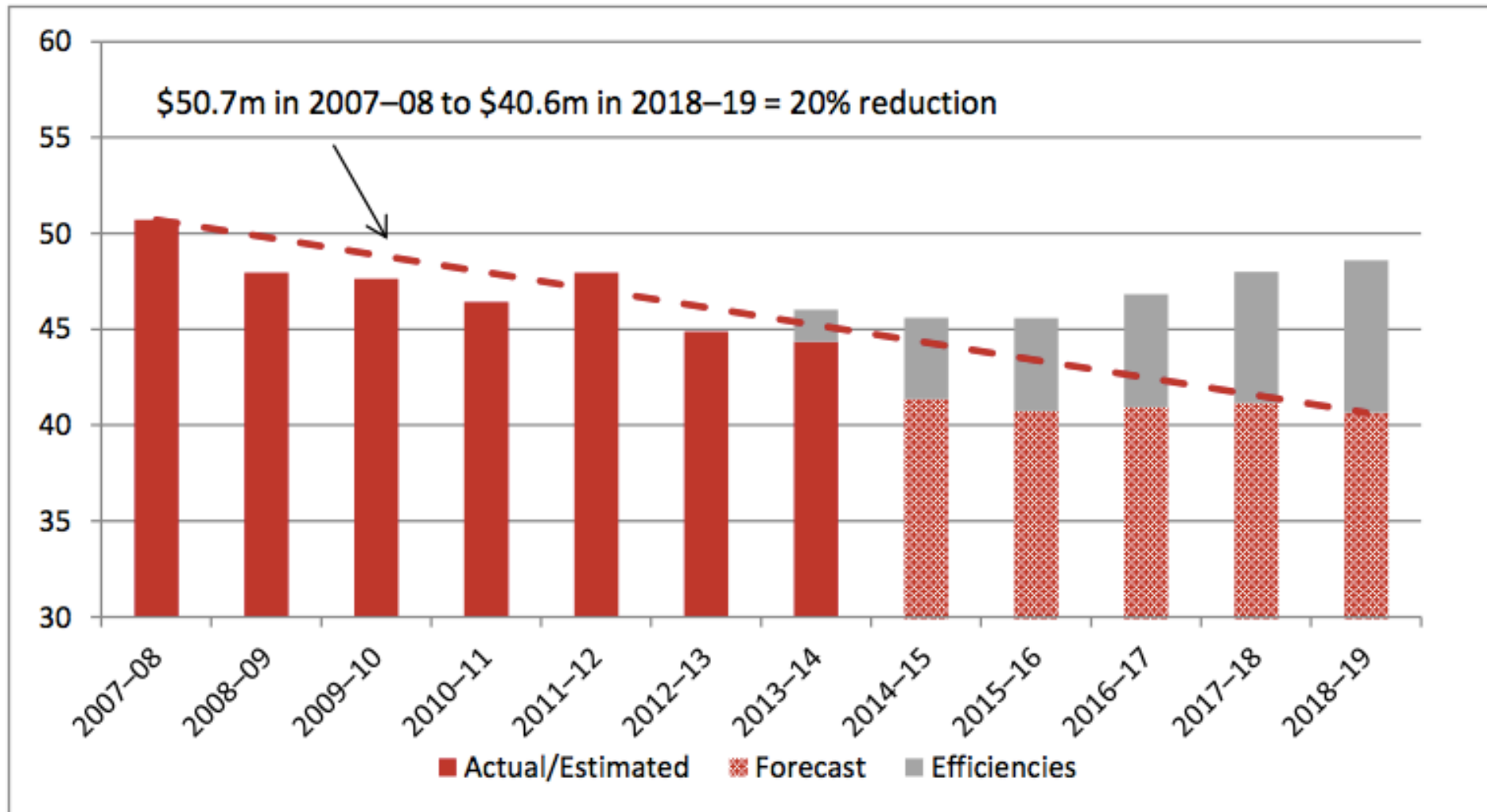
# TransGrid – Proposed Opex Increases (5 yrs)

	2009/10 - 2013/14	2014/15 - 2018/19	% Change
Controllable Opex	\$691 M	\$945 M	37% increase
Debt Raising Costs	-	\$41 M	-
Insurance	\$33 M	\$39 M	15% increase
Self Insurance	\$8 M	-	-
Network Support	\$22 M	\$38M	71% increase
<b>Total (5 yrs)</b>	<b>\$755 Million</b>	<b>\$1,062 Million</b>	<b>41% increase</b>

Source: TransGrid Revenue Proposal (Nominal Dollars)

# Comparison – Transend Controllable Opex Trend

Figure 6.5 Controllable operating expenditure 2007-08 to 2018-19 (\$m 2013-14)



# Efficiency of TransGrid's base year opex?

- The CCP's previous submissions:
  - Outlined major concerns with TransGrid's proposed opex
  - Urged the AER to determine TransGrid's opex based on benchmarking
- The AER's Draft Determination has addressed the most obvious excessive claims in TransGrid's proposal (inappropriate step changes, labour escalation rates, etc.)
- However, the CCP expects the AER to determine TransGrid's opex allowance based on benchmarking



# BENCHMARKING

# The AER's Lack of Benchmarking in Previous Determinations

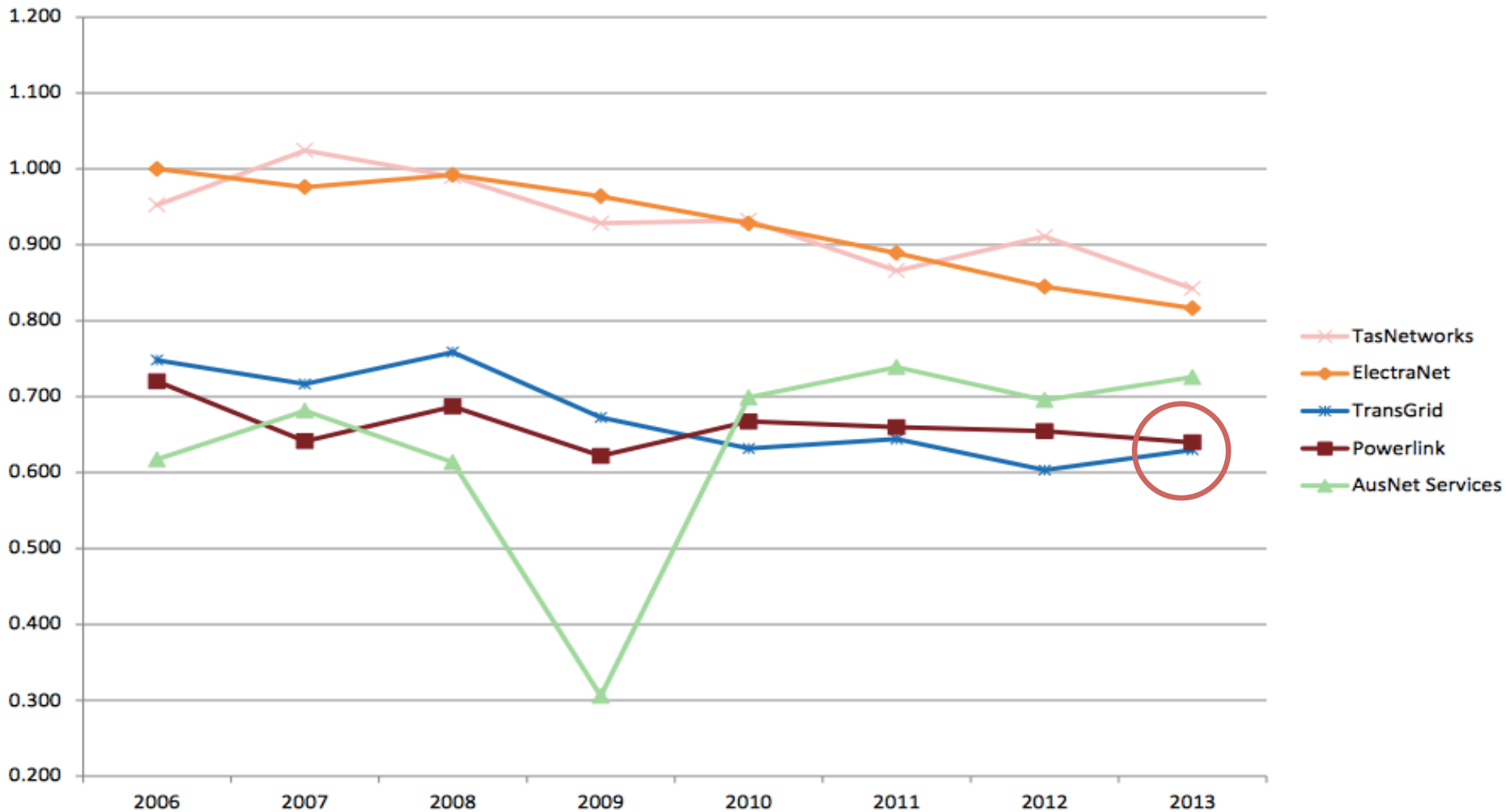
- Consumers have advocated for many years that the AER should have applied benchmarking to its previous determinations, and that **the AER was required to under the previous Rules**
- Consumers believe that the data has been available, and that the AER had the information gathering powers under the previous Rules
- The AER does not appear to have accepted those views, and **predominantly based its previous opex allowances on historical costs**
- Consumers are very disappointed that **the AER has not applied benchmarking to date** - despite the overwhelming **evidence of major differences in efficiency between the networks**
- **Benchmarking is an accepted and proven technique in regulatory practice** - Ofgem (UK) has applied it effectively for over 20 years, and commenced it without a perfect data set

# The AER's Obligations to Apply Benchmarking

- **Benchmarking was one of the major promises of the recent Rule changes**
- The new Rules formally require the AER to:
  - Undertake benchmarking to assess the relative efficiencies of network businesses
  - Apply the outcomes to determine efficient costs for the networks
- The AER's first benchmarking reports were released last week
- The AER has applied benchmarking to determine the opex allowances for the DNSPs - **but not for the TNSPs**
- **This is a major omission** in the AER's Draft Determination
- There is extensive information available for the AER to apply benchmarking to its assessment of efficient costs for TransGrid

# AER TNSP Benchmarking Report - MTFP

Figure 10 Relative MTFP performance of transmission networks



# The Need to Apply benchmarking to TransGrid's Opex Assessment

- The TNSPs have used benchmarking reports to make claims regarding their relative efficiencies over many years
- For example, TransGrid's current revenue proposal selectively referred to the outcomes of 4 opex benchmarking reports:
  - International Transmission Operations and Maintenance Study (ITOMS)
  - International Transmission Asset Management Study (ITAMS)
  - Mercer Human Resource Effectiveness Monitor 2012
  - UMS Corporate Overheads High Level Comparative Assessment
- As previously outlined by the CCP, there is **extensive information** in those reports that **demonstrates that TransGrid's base year opex is inefficient**
- This is strongly reinforced in other benchmarking reports – e.g. the *EUAA's TNSP Benchmarking Report (October 2012)*
- The CCP urges the AER to seek out and apply the extensive information available to determine an efficient opex allowance for TransGrid

# AER Draft Determinations - Opex

	<b>Proposal</b>	<b>AER Draft Determination 2014/15 - 2017/18</b>	<b>Reduction</b>
<b>TransGrid</b>	<b>\$836 Million</b>	<b>\$702 Million</b>	<b>16 %</b>

	<b>Proposal</b>	<b>AER Draft Determination 2014/15 - 2018/19</b>	<b>Reduction</b>
<b>Ausgrid</b>	<b>\$3,113 Million</b>	<b>\$1,901 Million</b>	<b>39 %</b>
<b>Essential Energy</b>	<b>\$2,515 Million</b>	<b>\$1,552 Million</b>	<b>38.3%</b>
<b>ActewAGL</b>	<b>\$414 Million</b>	<b>\$241 Million</b>	<b>42%</b>

Source: AER Draft Determinations (Nominal Dollars)

# Transgrid Opex - Recommendation

- TransGrid's average **opex spend during the previous period** was around **\$150 million/annum**
- **The AER's Draft Determination** proposes to provide an allowance of **\$175 million/annum – i.e. a 17% increase**
- There is **extensive evidence** that TransGrid's **base year opex is inefficient**
- In light of this evidence, an allowance of **around \$150m/annum would be very generous**

# Opex Allowance Recommendation

	<b>AER Draft Determination 2014/15 - 2017/18</b>	<b>Recommendation</b>	<b>Reduction</b>
<b>TransGrid</b>	<b>\$702 Million</b>	<b>\$600 Million</b>	<b>14.5 %</b>



# PERFORMANCE INCENTIVE SCHEMES

# Incentive Scheme Outcomes

- As previously outlined by the CCP, the outcomes of the AER's incentive schemes to date suggest that the AER is consistently setting allowances and targets above the efficient level
- The AER needs to negotiate targets that deliver genuine efficiency improvements and incentivise best practice

# Transgrid Revenue - Recommendations

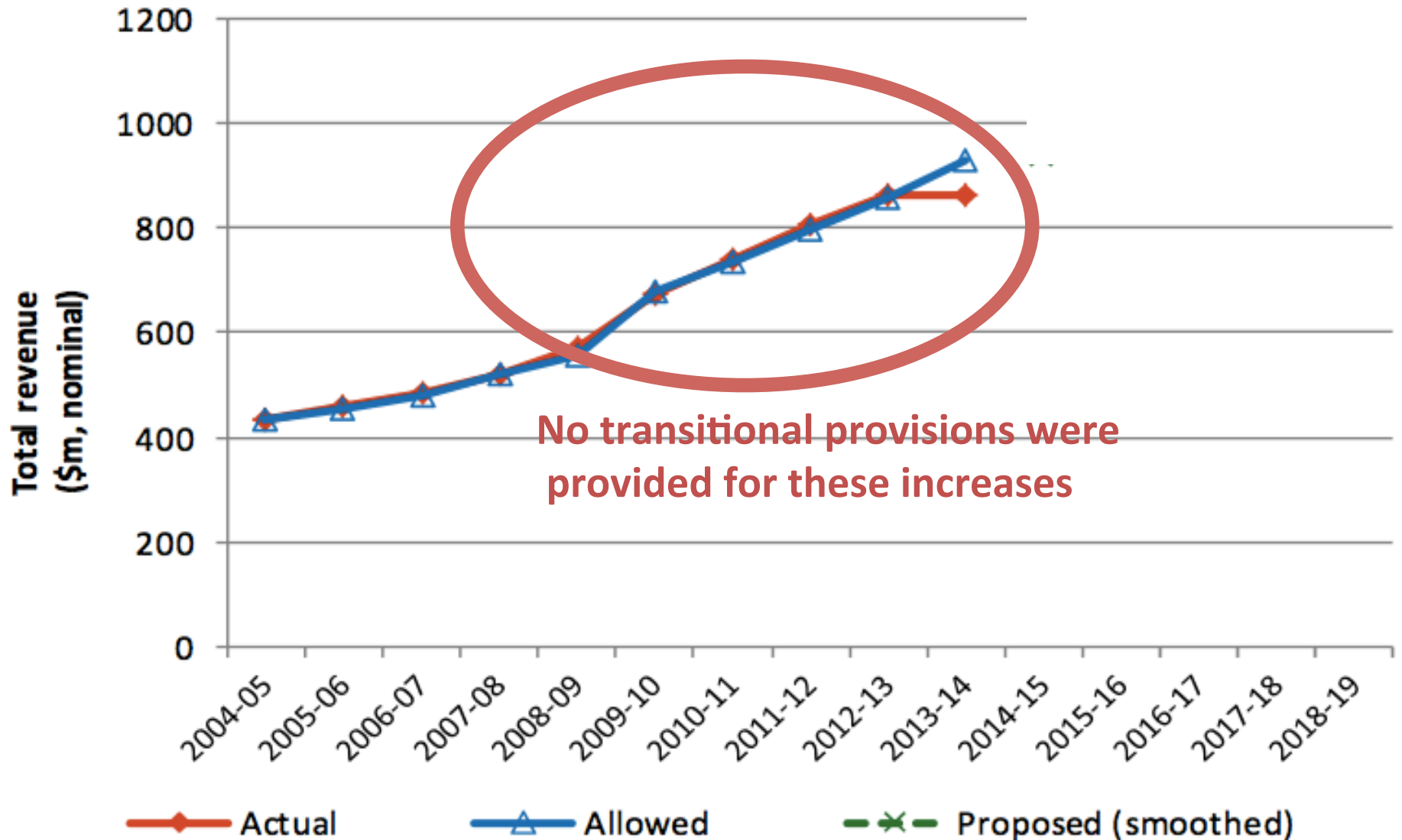
	AER DD	Recommendation	Assumptions
Return on Capital	\$1,844 M	\$1,444 M	<ul style="list-style-type: none"> <li>➤ 6% WACC</li> <li>- Applying the CCPs' previous recommendations</li> <li>- \$492M Total Capex</li> </ul>
Depreciation	\$441 M	\$406 M	\$492M Total Capex
Opex	\$702 M	\$600 M	\$150m/yr as per previous period
Efficiency Payments	\$65 M	\$65 M	-
Tax Allowance	\$ 118 M	\$118 M	-
<b>Total Revenue (2014/15-17/18)</b>	<b>\$ 3,170 M</b>	<b>\$2,634 M</b>	<b>17% Reduction</b>

# Concluding Comments

- The AER's Draft Determination for TransGrid is a step in the right direction, but **needs to go much further**
- There is **extensive evidence** to support **further reductions to WACC, Capex and Opex**
- Those reductions would still deliver **generous returns to TransGrid** and **better reflect consumers' long term interest**
- There is **no need to apply "transitional arrangements"**
- The AER did not provide consumers with "transitional arrangements" for the major price increases in the previous period

# TransGrid Historical Revenue

Figure 7 TransGrid regulated transmission revenue (\$m, nominal)



**Thank You**

**Hugh Grant**

**AER Consumer Challenge Panel Member**