Transend Networks Revenue Proposal

AER Public Forum – 6 August 2008

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TRANSEND

Our mission is transmission

Presentation outline

- Transend – brief overview
- Overview of the current period
- Overview of the revenue proposal and cost drivers
- Revenue proposal details

Vision

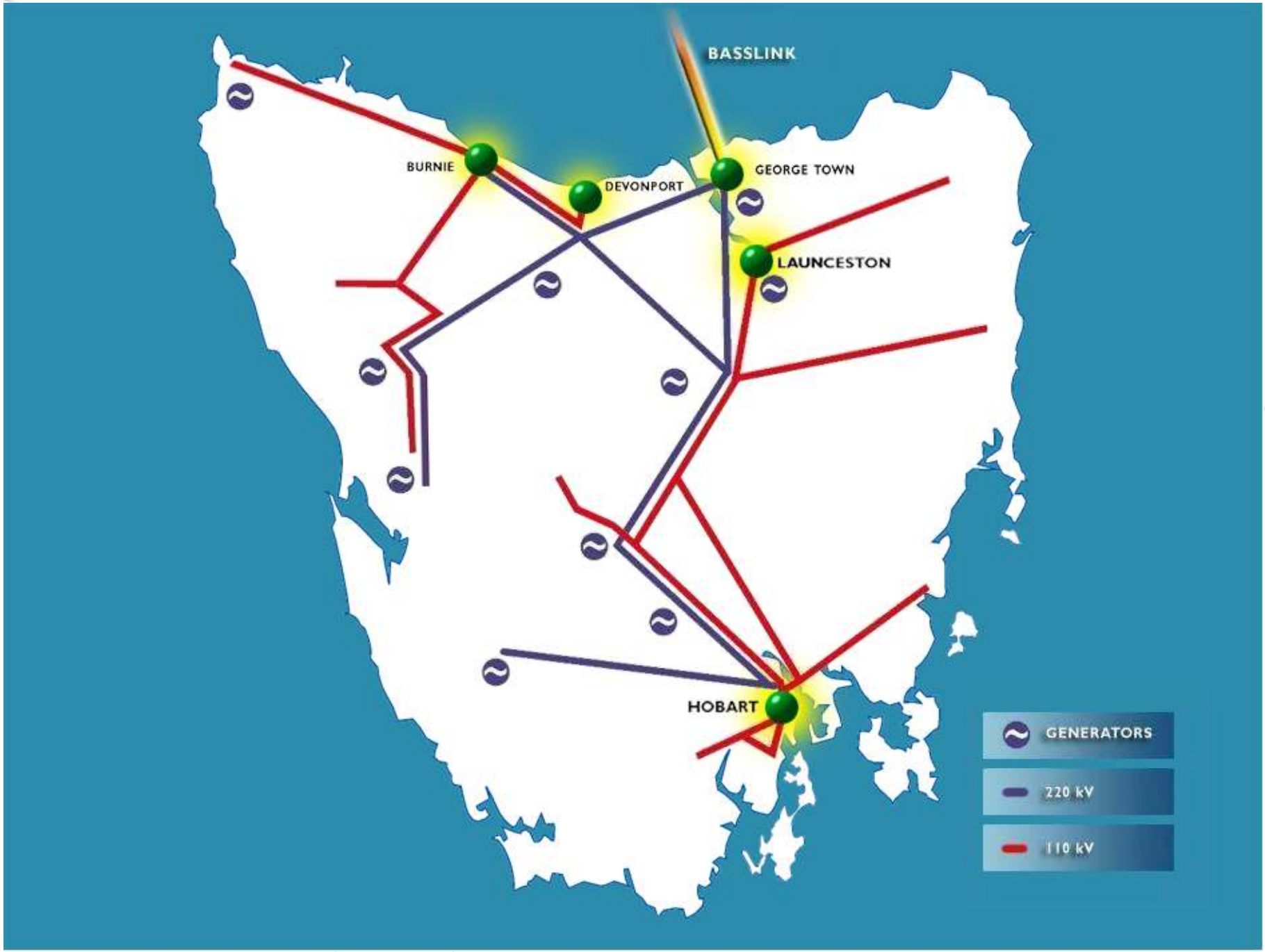
- Transend's vision is to be a leader in developing and maintaining sustainable networks.

Overview

- Smallest (conventional) TNSP
- Operating in the NEM since May 2005
- Operational agreement with NEMMCO
- Requirement to maintain residual power system security
- Licensed by the Tasmanian Energy Regulator
- State owned corporation

Overview - transmission system characteristics

- Backbone network 220 kV
- Network 110 kV provides connection – some generation, regional load centres
- Includes sub-transmission assets 6.6 kV to 44 kV
- System accessibility is challenging in Tasmania
- Real-time operation


BASSLINK
BURNIE
DEVONPORT
GEORGE TOWN
LAUNCESTON
HOBART
GENERATORS
220 kV
110 kV

Overview - transmission system characteristics

- Connected to the mainland grid via Basslink
- Current major local generation source is hydro
- Other sources of generation: wind, gas
- Energy constrained not capacity constrained
- Peak demand 1874 MW (Tas) and 2415 MW (with Basslink export)

Customers

- 19 customers comprising generators, Basslink, Aurora and major industrial customers
- Transend's key strategic objective is to strive to provide a quality service and create value for customers

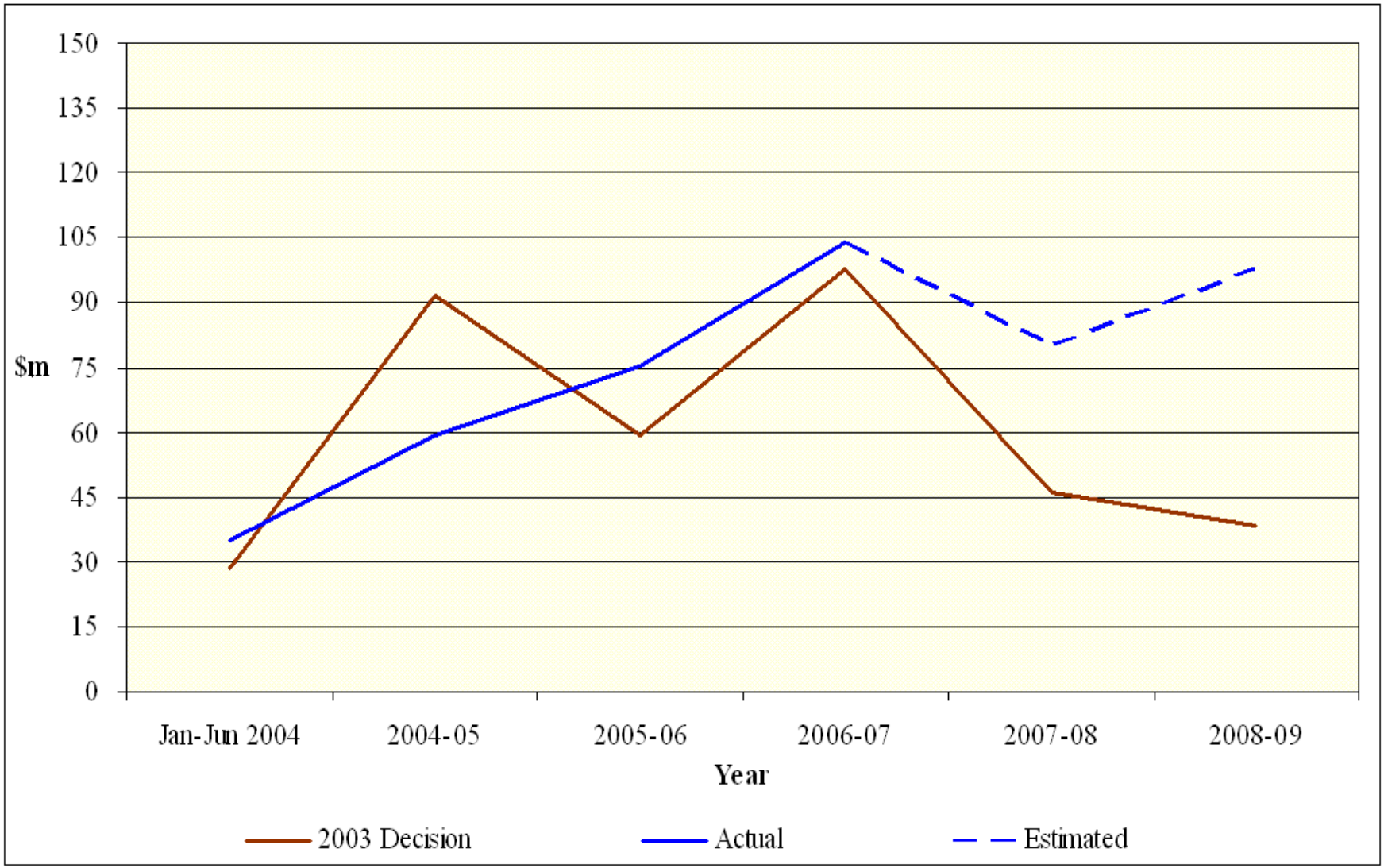
Customers

- Cost effective solutions that meet the required connection point performance
- Plan for future load growth as part of the annual planning review process
- Consultations such as Grid Vision
- Assists Transend in managing and developing the Tasmanian transmission system

Current period – capital expenditure

- Forecasting to commission $451 million
- Robust capital governance framework
- Larger than previously undertaken
- Demonstrated delivery capability
- Prudent and efficient

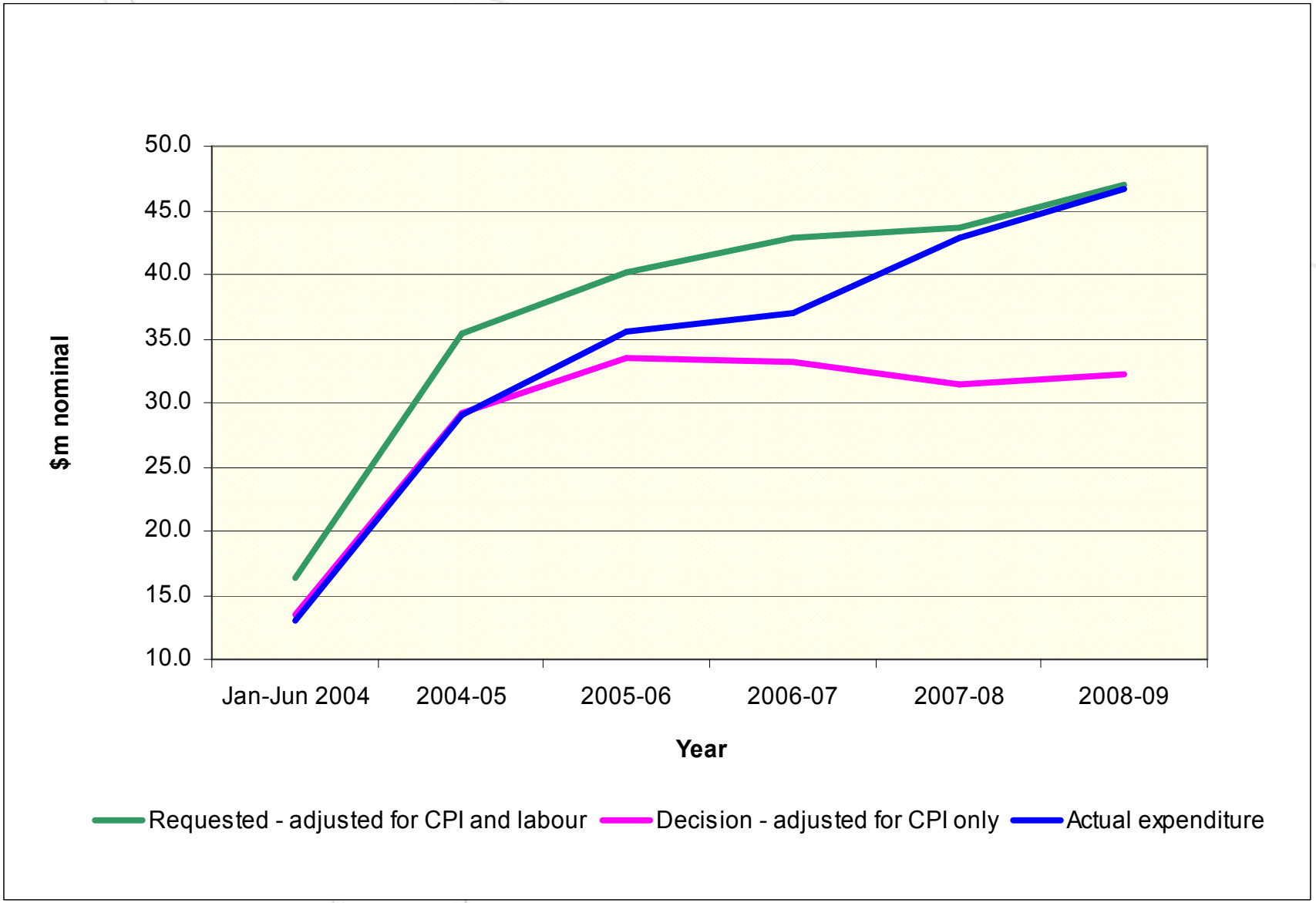
Current period – capital expenditure



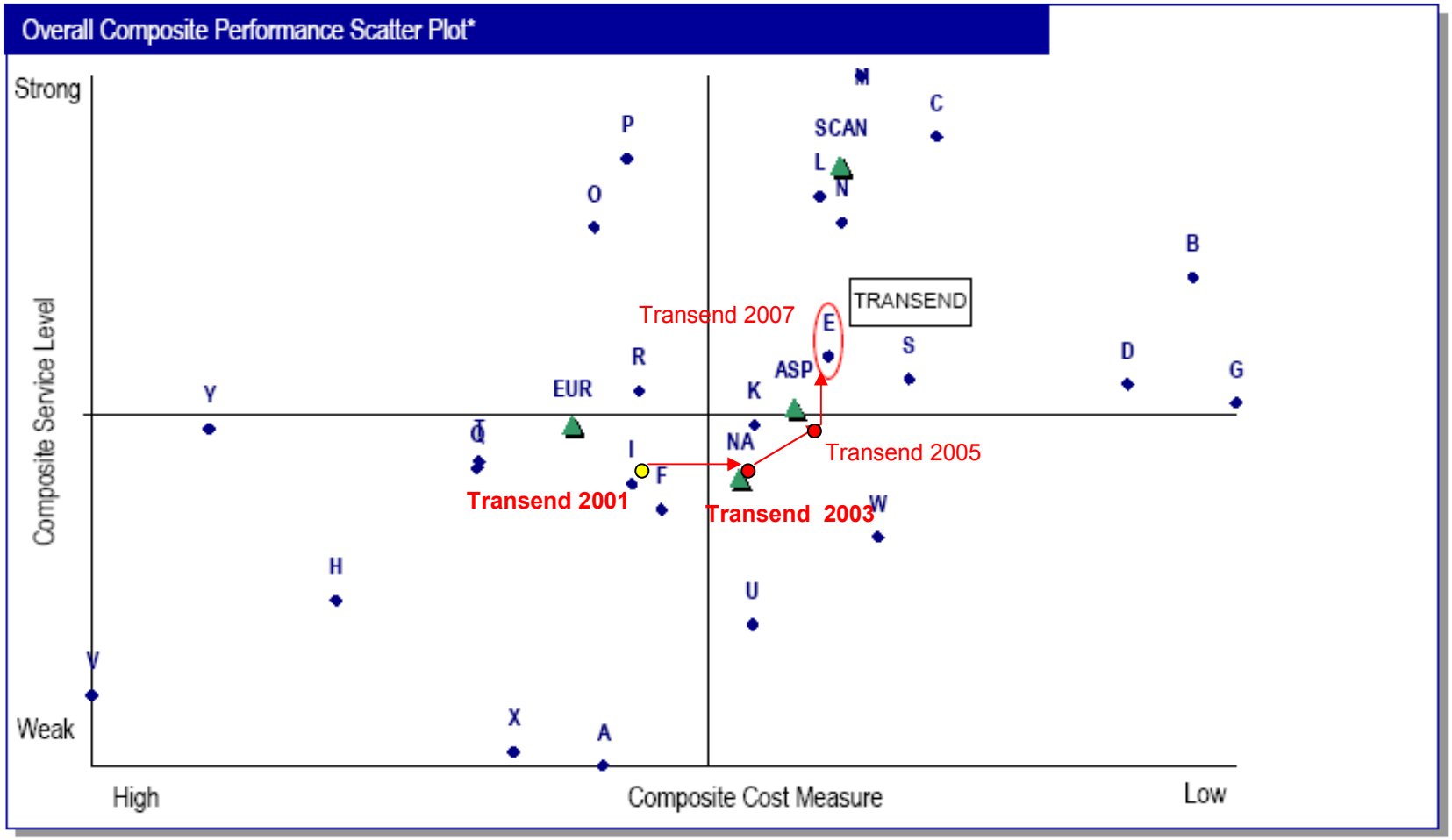
Current period - Operating expenditure

- In determining Transend's current operating expenditure, ACCC
  - Applied a 2% efficiency improvement factor
  - Arbitrary cuts without justification
  - Used a CPI escalator only
- Transend is tracking to its originally proposed opex allowance for the current period

Current period - Operating expenditure



Transend's ITOMS benchmarking



- Better than average in both cost and service performance
- In same quadrant as best performers
- Best performer in circuit breaker maintenance and easement management

Innovations in the current period

- Dynamic real-time ratings
  - leaders in the NEM
  - releases capacity
- Installation of high temperature conductor
  - least cost solution
  - increased the capacity of the line by 50%
- Asset Management Information System (AMIS)
  - works planning module
  - outage management coordination
  - ratings information system

Highlights of the current period

- Transend joined the NEM in May 2005
- Basslink connected the Tasmania power system with the mainland grid in April 2006
- Capital expenditure program has continued to meet Transend's obligations as a TNSP

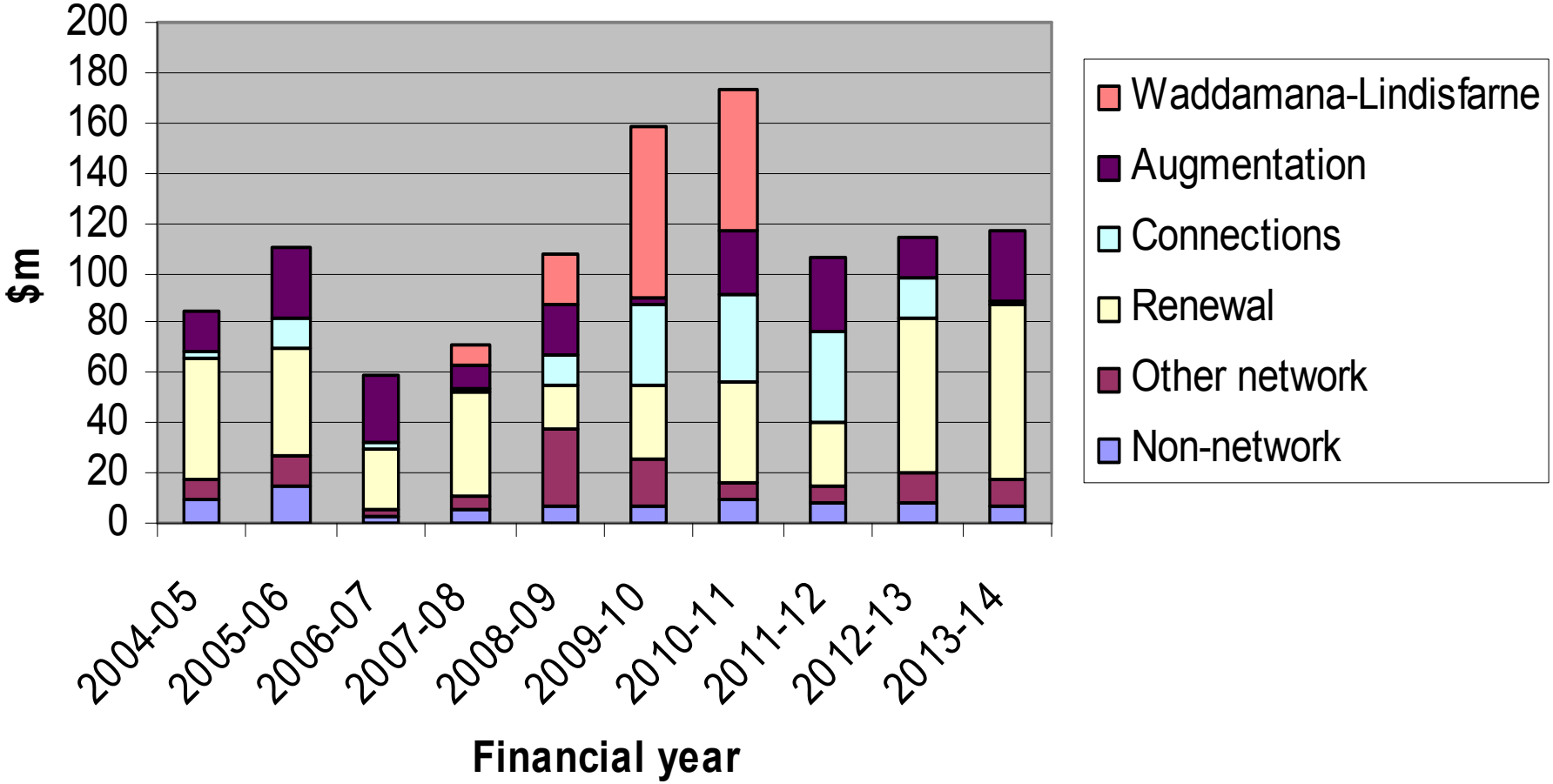
Overview of revenue proposal

- Capital expenditure of $680 million (2008/09) proposed for the transmission system from 1 July 2009 to 30 June 2014
- Significant increase in capital expenditure required to:
  - meet growing customer demand
  - new network performance requirements
  - replace assets that are unreliable or in poor condition
  - meet higher input costs

Capital expenditure cost drivers

Cost Driver	Comments
Grid vision	Guides solution development to ensure short-term network constraints are consistent with long-term needs and procurement of easements for long-term planning needs
New mandated network performance requirements	Network performance requirements introduced by Tasmanian Government in December 2007
Demand forecasts	Capital investment required to meet growing demand while maintaining mandated reliability standards
Replacement of assets that are unreliable or are in poor condition	Only the highest priority assets based on condition, technical compliance and performance
Higher input costs	Labour, plant, equipment and land costs are all rising above inflation

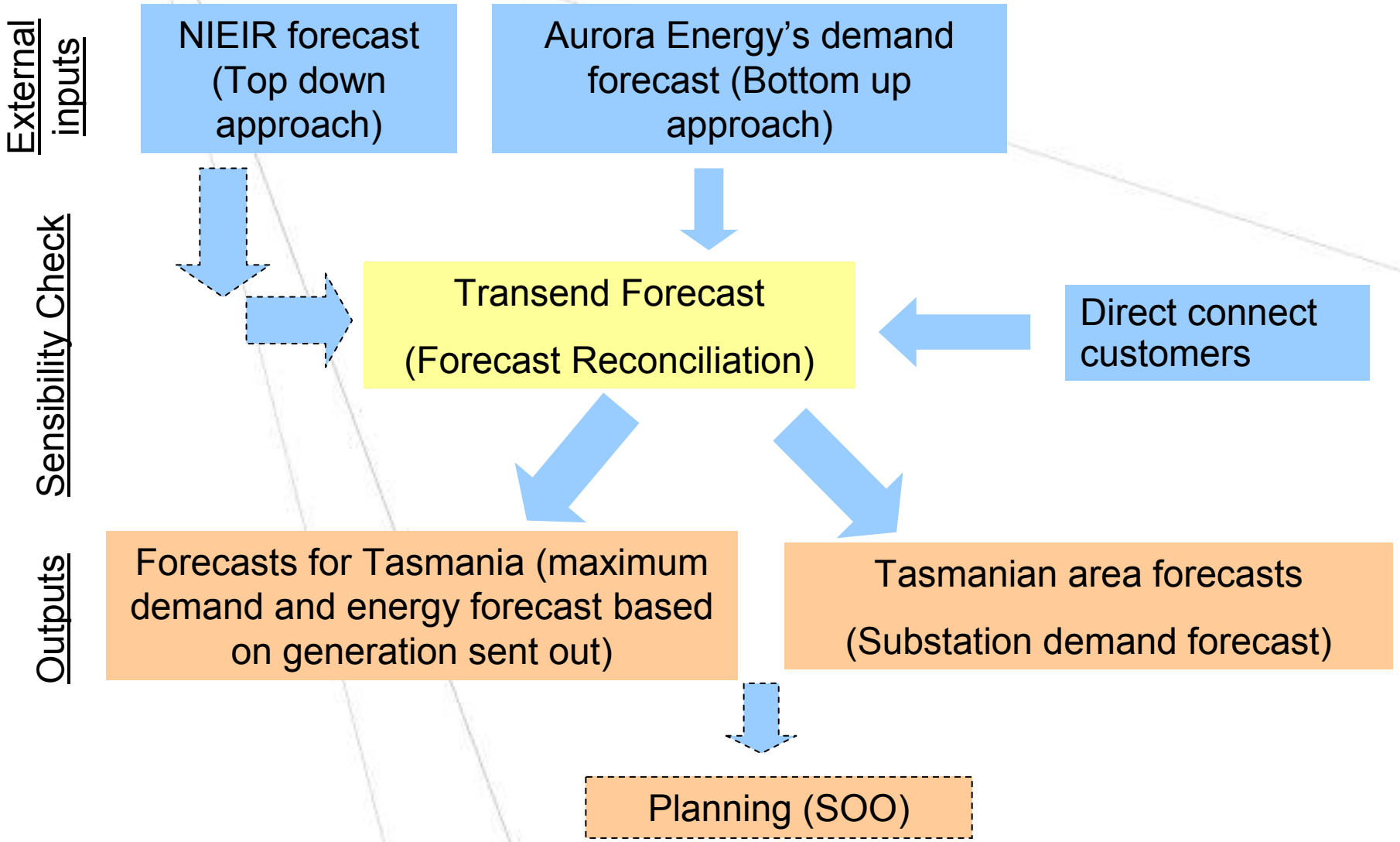
Comparison of forecast and annual historical capital expenditure ($m 2008-09)



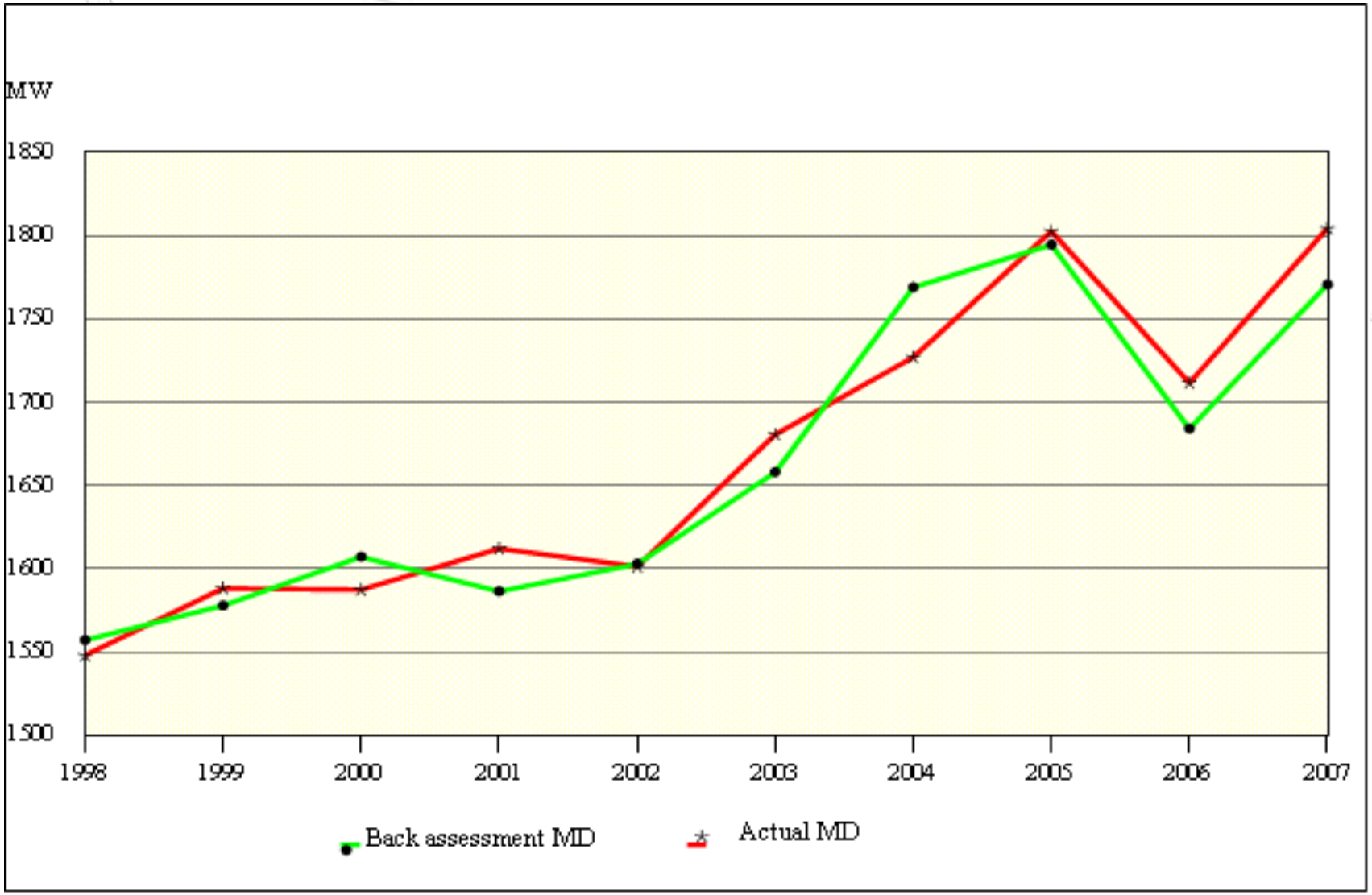
Grid vision

- Input to developing long-term planning
- Ongoing review of forecast capital expenditure
- Highlights future strategic land and easement

Demand forecast methodology



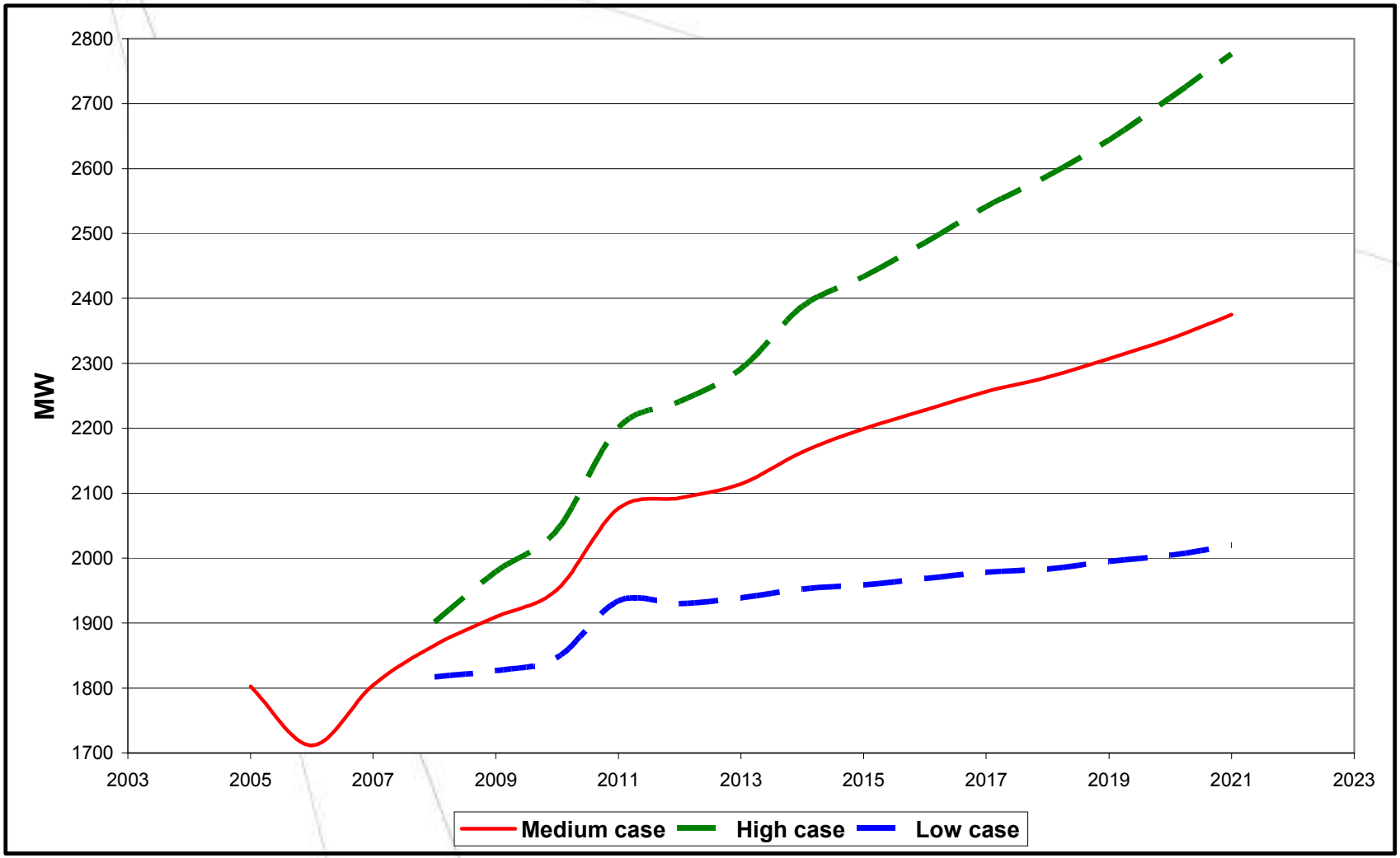
Back assessment of maximum demand



Forecast winter maximum demand

- Forecast growth rate of 1.94% per annum from 2008-2022
- Higher than forecast growth of 1.44% identified in the 2007 Annual Planning Report
- Increase attributed to:
  - Improved State economic conditions
  - Slower than anticipated natural gas take-up

Forecast winter maximum demand



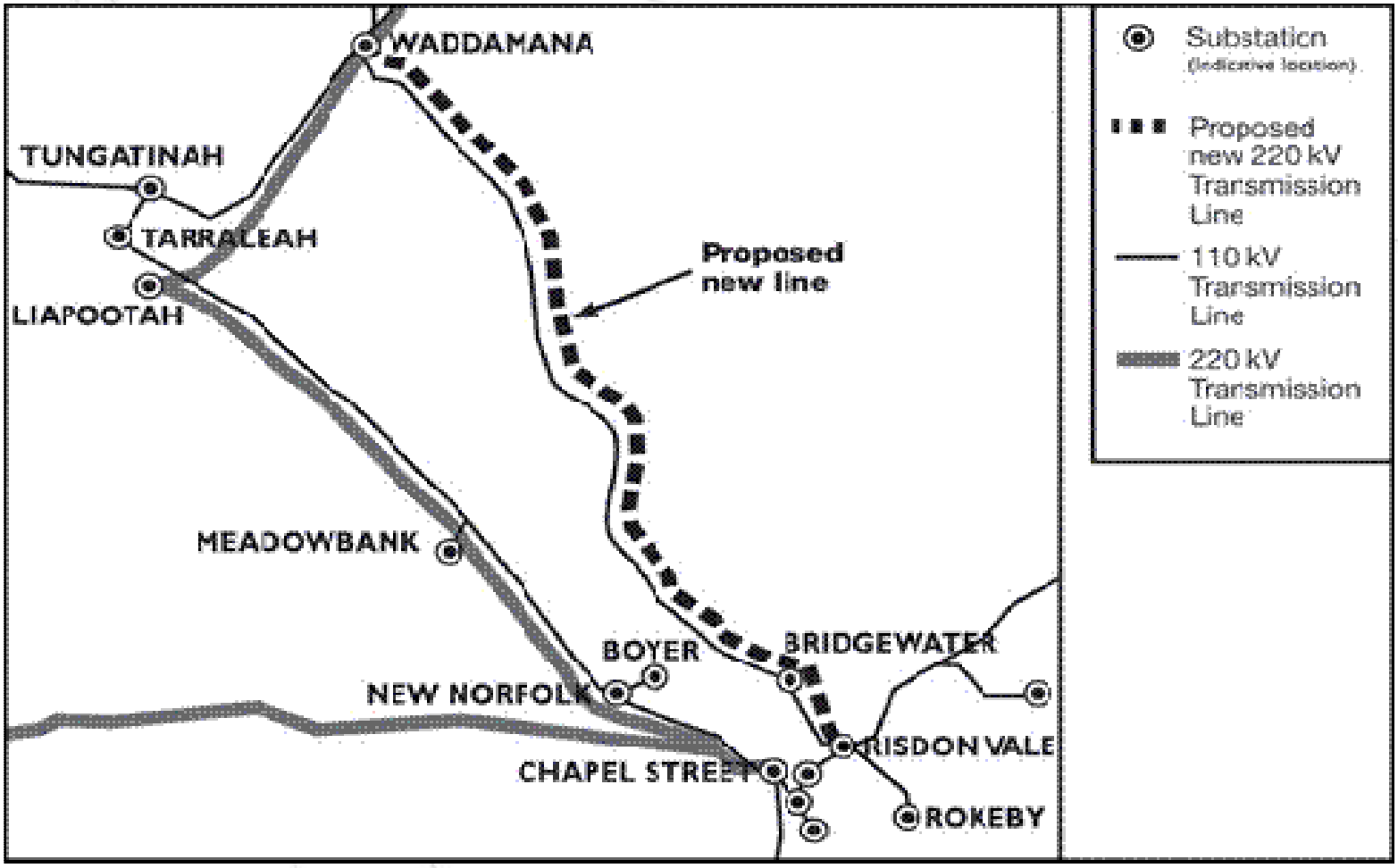
Asset renewal investment drivers

- Asset condition
- Asset performance
- Spares availability and product support
- Technical obsolescence
- Physical security
- Technical, safety and environmental compliance
- Operational support systems

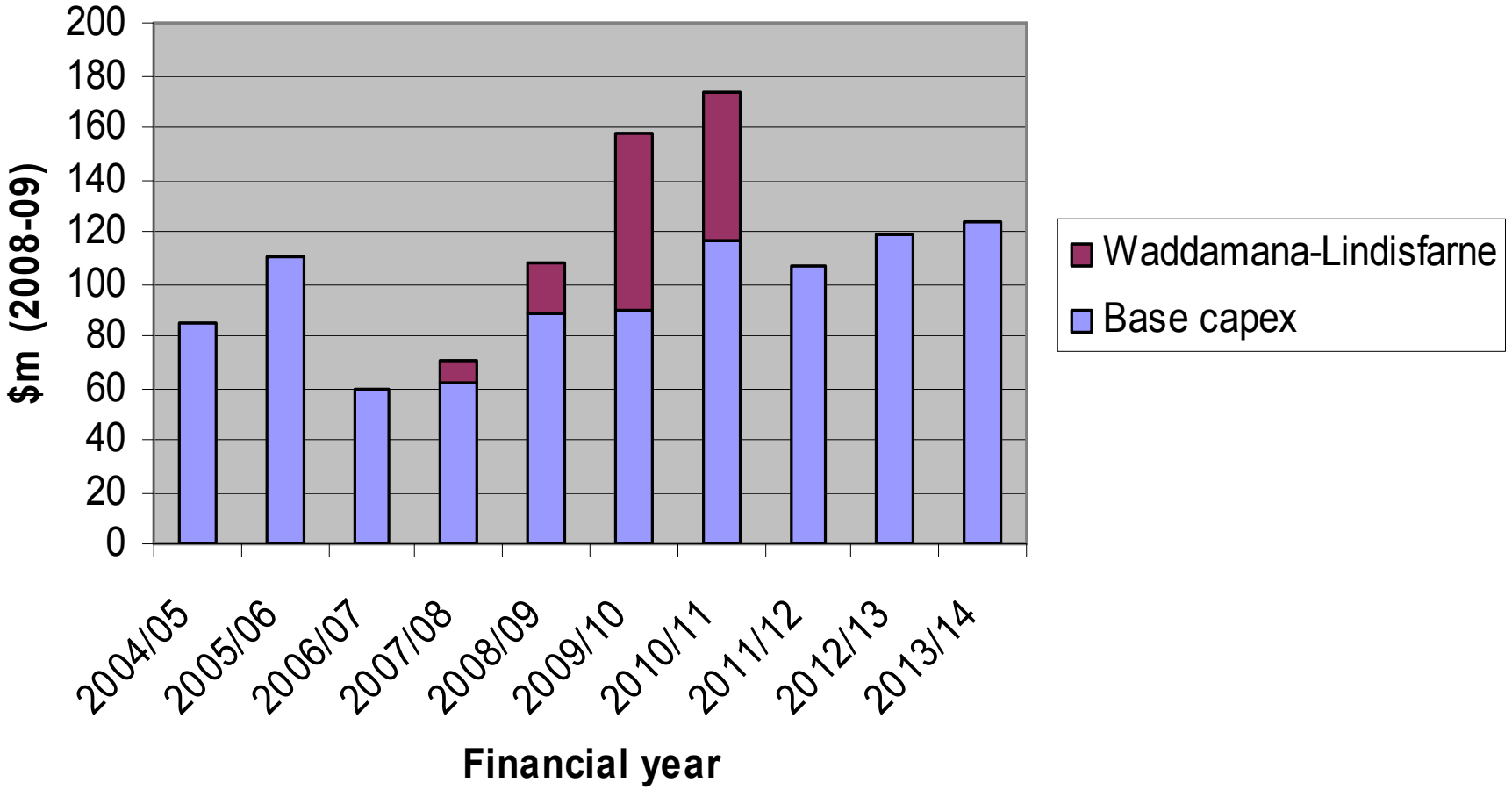
Asset renewal strategies

- Significant performance issues with a number of asset types
- Continuation of asset renewal programs
- Asset renewal programs coordinated with development projects

Waddamana-Lindisfarne Project



Capital expenditure - current and forthcoming period



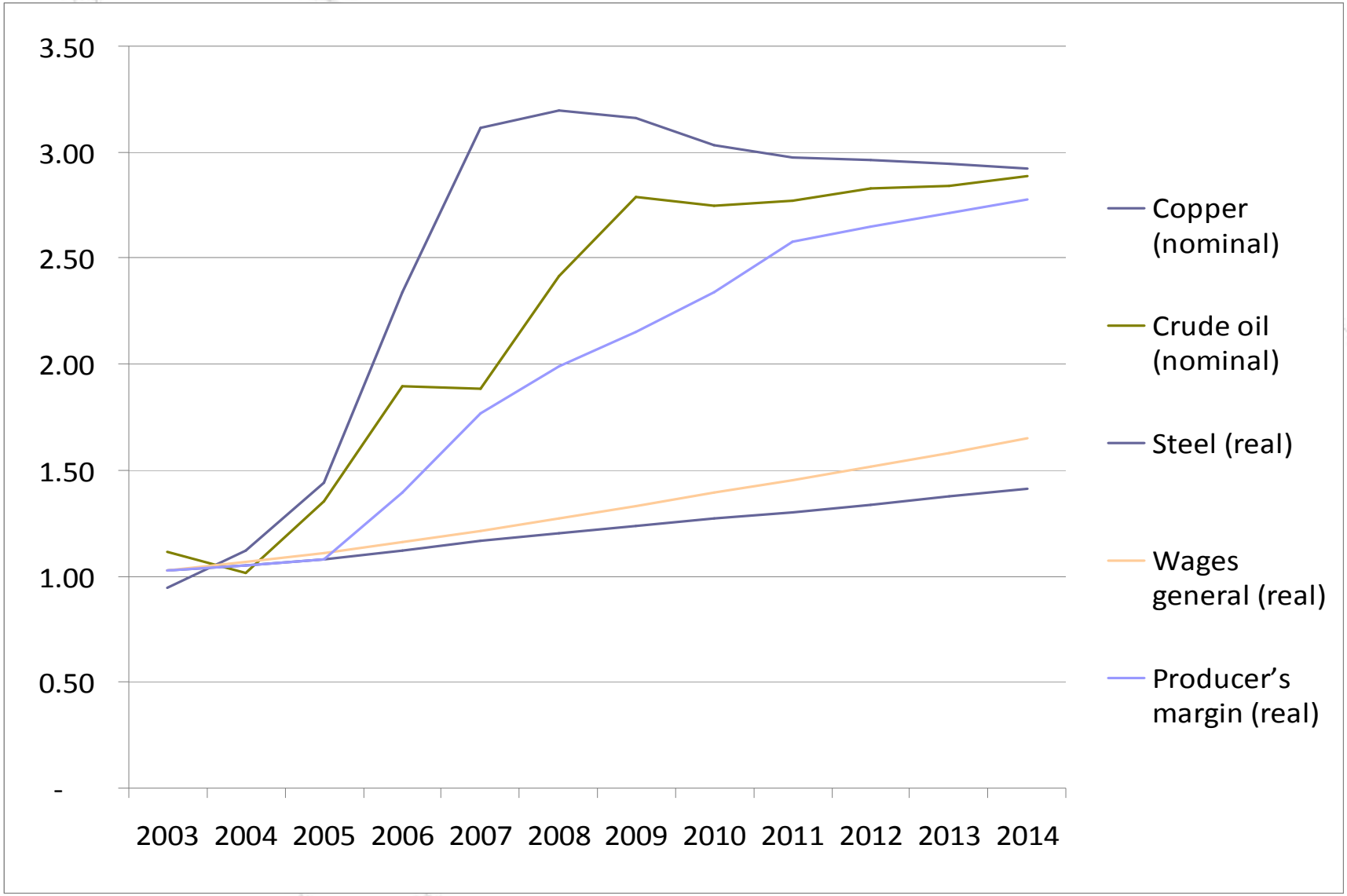
Proposed Norwood-Mowbray 110 kV transmission line project

- Project will provide firm supply
- Address compliance issues associated with tower failure

George Town Substation 220 kV security upgrade

- Reconfigure the 220 kV switchyard to comply with the network performance requirements
- Replace assets that are in poor condition
- Coordination of works

Cost escalations



Cost impacts to current projects e.g.

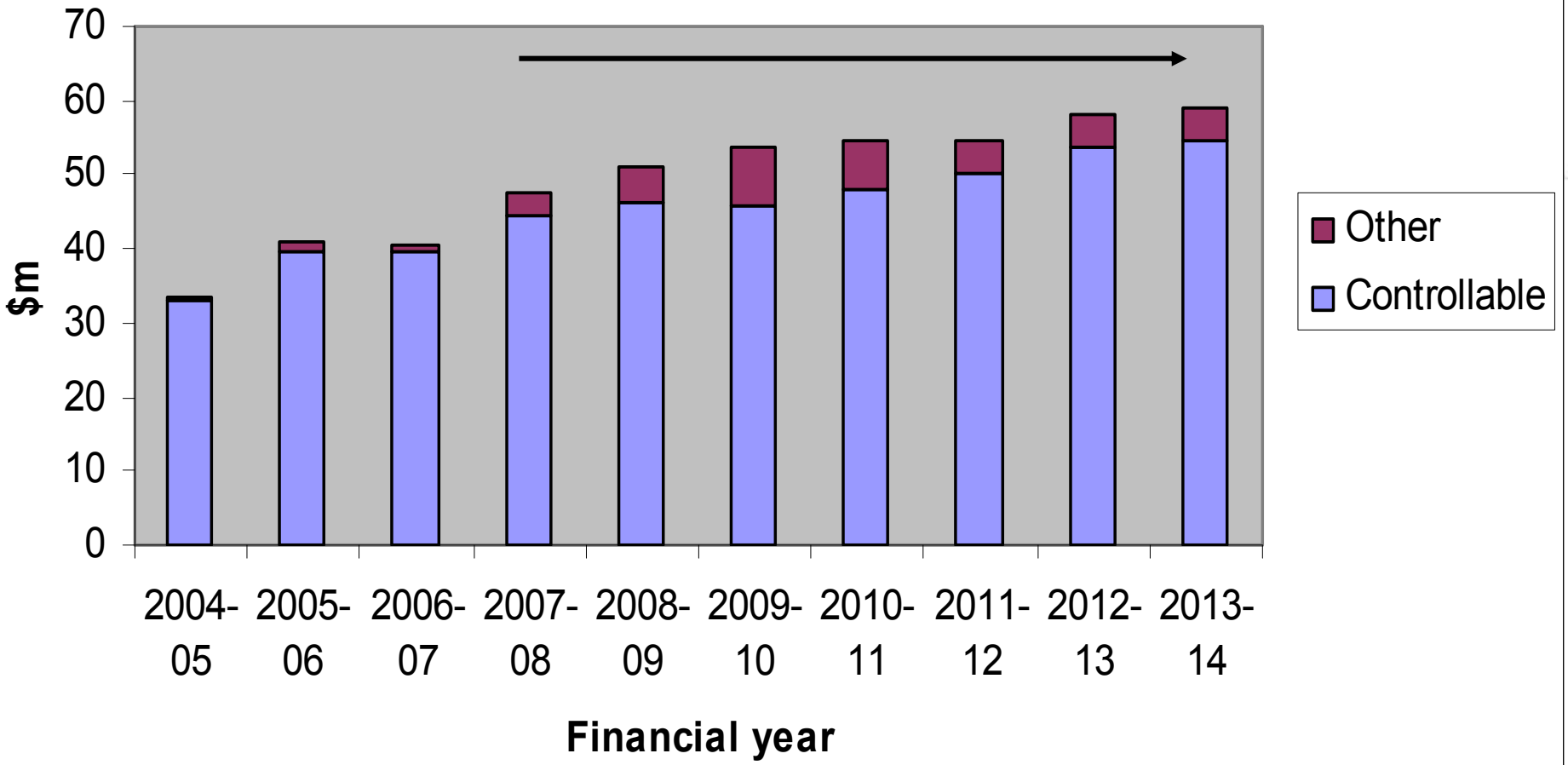
- Network transformers – 220/110 kV, 200MVA
  - $1.5 million (2004) to $3.8 million (2008)
- Supply transformers – 110/22 kV, 50 MVA
  - $0.76 million (2004) to $1.4 million (2007)

Future operating expenditure

- Higher operating expenditure requirement of $280 million (2008/09)
- Base year for calculating operating expenditure is 06/07
  - First complete year post NEM entry/Basslink
- Input costs increasing above inflation

Comparison of forecast and historical controllable expenditure ($m 2008-09)

Increased operating expenditure to address asset growth, scope changes and higher input costs



Future opex – key scope changes

Works program support

- Support strategic system planning
- Mid-term system planning
- Improved project definition, scoping and estimation
- Dedicated contract account managers
- Inventory and works program management
- Increase in compliance monitoring

Future opex – key scope changes

Skills development and training

- Nationally recognised issue
- Recruitment of skilled resources is challenging
- Attract, develop and retain
- Graduates and technical trainees

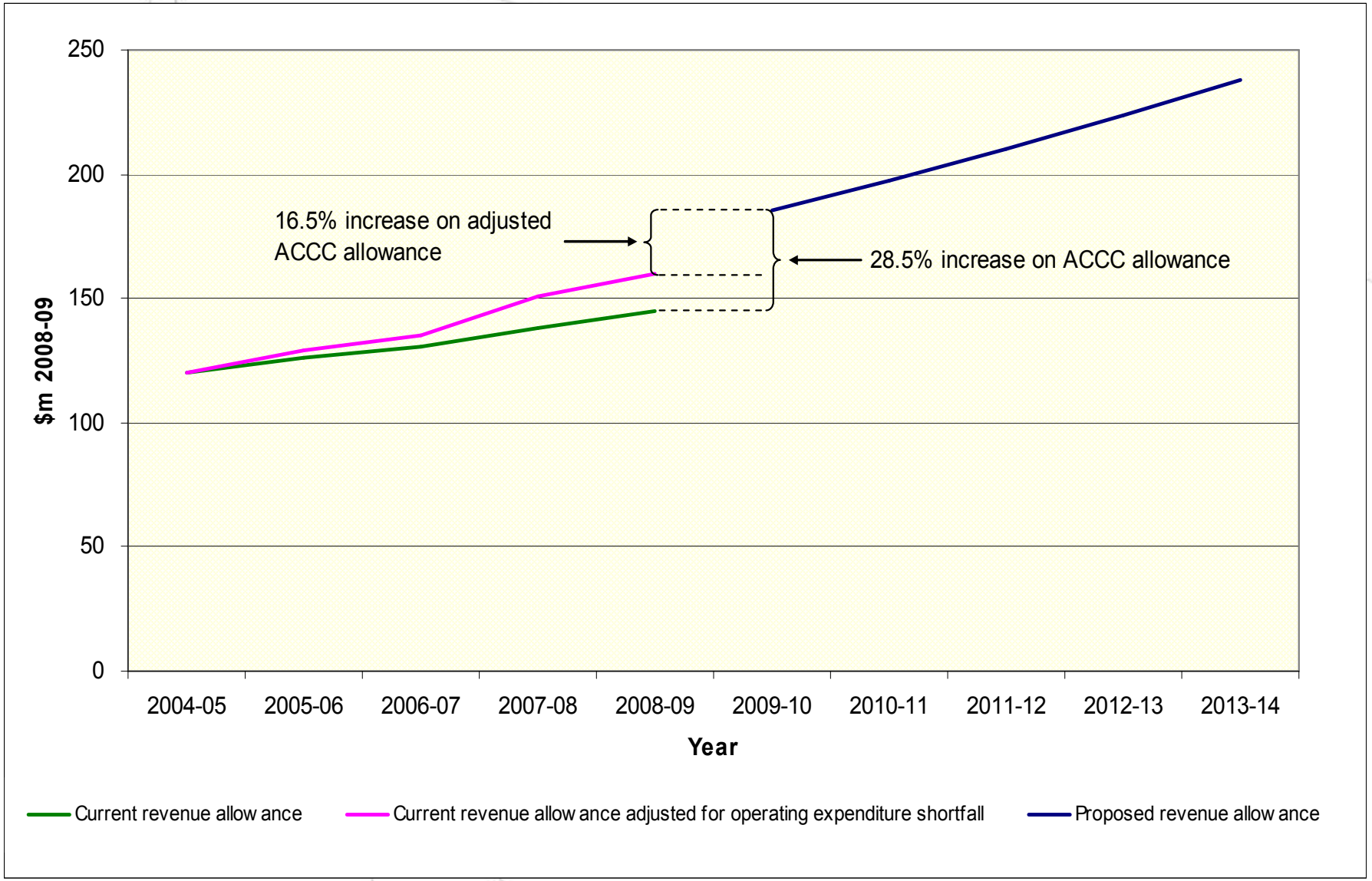
Resourcing and deliverability strategies

- Clear accountabilities and responsibilities
- Strengthen the in-house capability and capacity
- Panel arrangements for contracted services
- In-house capability for secondary systems fault response and corrective maintenance
- Strengthen contract account management capability
- Strengthen period contract arrangements

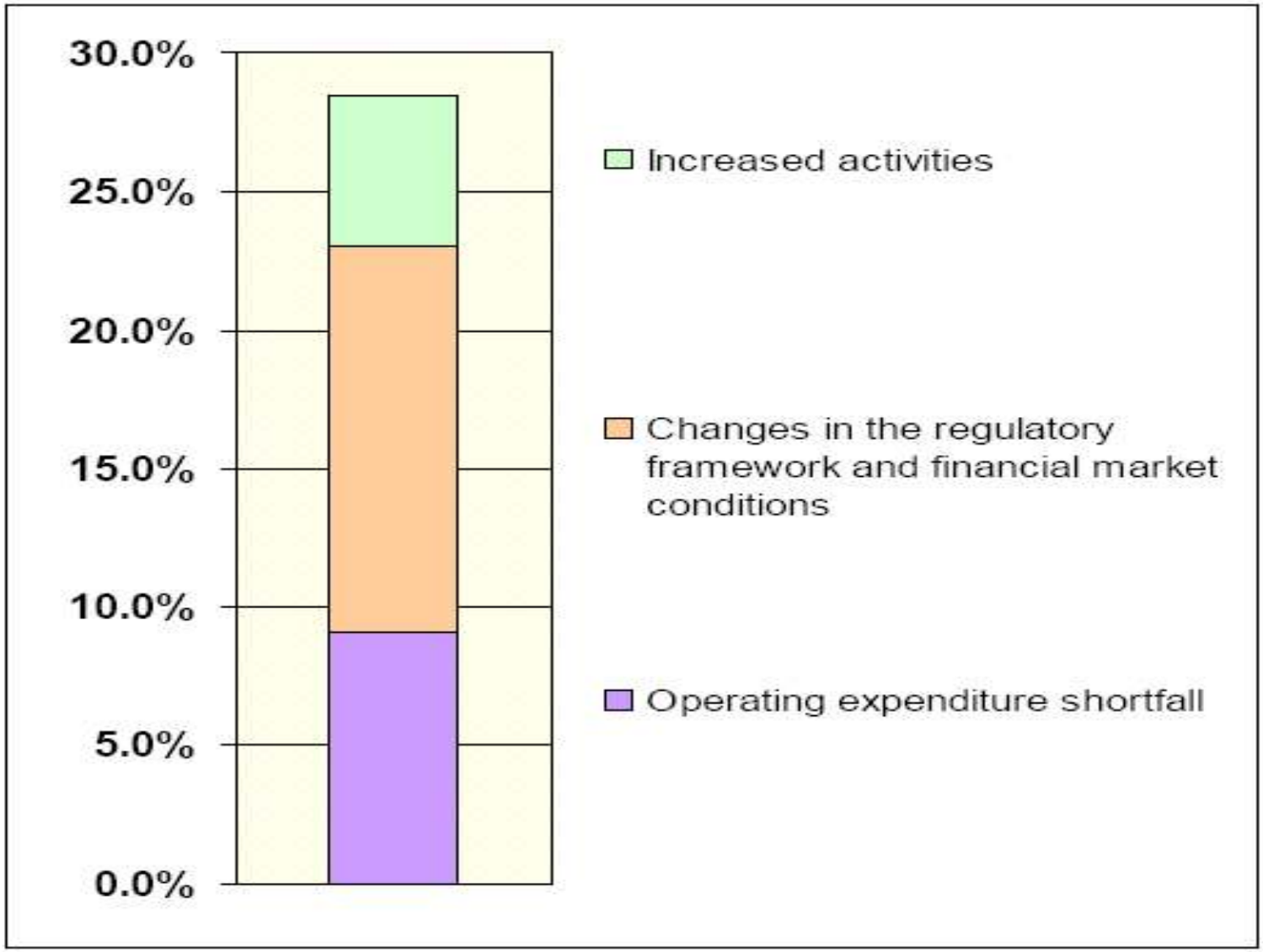
Revenue requirement ($m 2008-09)

Building block	2009-10	2010-11	2011-12	2012-13	2013-14
Return on capital	102.5	114.5	127.8	133.9	140.8
Return of capital	24.3	24.8	21.0	25.3	27.5
Operating expenses	53.7	54.7	54.6	58.0	59.2
Tax allowance	5.3	6.0	6.3	7.0	7.6
Unsmoothed revenue requirement	**185.8**	**199.9**	**209.7**	**224.3**	**235.0**
X Factor (per cent)	**-28.5**	**-6.4**	**-6.4**	**-6.4**	**-6.4**

Transend's total revenue requirement



Components of increase



Challenges

- Unprecedented levels of investment in Australian electricity networks
- Tight market conditions
- Input costs have increased significantly
- Environmental policies and conditions

Summary

- Robust investment governance framework
- Strengthened asset management processes
- Prudent and efficient investment to provide appropriate levels of service to customers
- Enhance work program support functions to continue to deliver the capital and operating works program
- Proven ability to deliver the level of capital investment required

Conclusion

- Transend has delivered
- High quality service performance
- Increasing obligations and input costs
- Revenue proposal focused on long term needs of the network and customers

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