AUSTRALIAN ENERGY REGULATOR

Transmission Network Service Providers Electricity Regulatory Report for 2004/05

April 2006

Foreword

The role of the Australian Energy Regulator

The Australian Energy Regulator has been established as the national economic regulator in the energy sector. Regulation of the non-competitive energy sector – transmission and distribution wires and pipelines – was previously addressed by a combination of Commonwealth, State and Territory measures. However, different approaches to regulating utilities across jurisdictions can distort investment decisions and create unnecessary costs and barriers for utilities operating across jurisdictional boundaries. The AER has been established with the guiding principle that a national energy market needs regulation undertaken on a national basis. This will ensure a consistent approach to encouraging efficient investment and operating practices and will reduce business costs across the markets.

At present the AER has responsibility for:

- price regulation for electricity transmission in the National Electricity Market (NEM), previously undertaken by the ACCC
- monitoring of the NEM wholesale electricity market
- enforcing the National Electricity Law, Regulations and Rules.

From January 2007, the AER will also assume responsibility for:

- gas transmission regulation for all jurisdictions except Western Australia
- electricity and gas distribution regulation in the NEM.

This will complete the transition process from jurisdictional to national energy regulation for gas and electricity transmission and distribution, with the AER regulating a total of about forty businesses. The AER aims for transparent, predictable and stable regulation. The AER will also endeavour to engage regulated businesses, end users and other interested parties as much as possible. This report represents an important part of that endeavour.

This report

This is the first electricity regulatory report published by the AER following two previous reports issued by the Australian Competition and Consumer Commission. This report covers the performance of eight transmission network service providers for the 2004/05 regulatory year: ElectraNet SA, EnergyAustralia, Murraylink Transmission Company (Murraylink), Powerlink, SPI PowerNet (now part of the SP AusNet group), Transend, TransGrid and VENCorp. The regulatory cycle has now reached the point where TransGrid and EnergyAustralia have recently had their revenue caps re-set for a second five year period. The other businesses detailed in this report are at various stages of their first regulatory period.

The report provides an overview of the operating environment of the transmission businesses and summarises their performance against the financial assumptions and service standards underlying their respective revenue caps.

While caution should be exercised in drawing conclusions from a single year's data, there are some emerging trends after three years of reporting TNSP performance:

- capital expenditure – aggregate actual spending is significant at more than $1.6 billion over the past three years, although lower than forecast in the revenue caps
- value of networks – reflecting this continued investment in infrastructure, the aggregate value of the TNSPs' regulated assets has increased by almost 12 per cent over the past three years and now stands at almost $10.3 billion
- demand – much of the spending is in response to rising peak demand, with total energy transported annually relatively static
- operating and maintenance expenditure – TNSPs have been spending close to forecast levels with aggregate spending over the past three years approaching $1 billion
- service standards – most TNSPs continue to exceed the reliability standards specified in their revenue caps, with incentive payments totalling almost $4.5 million for the 2004 calendar year.

The AER will continue to monitor and report on these trends. During 2006 the AER also intends to consult with TSNPs and other stakeholders to review the Information Requirements Guidelines under which this information is gathered.

The AER is also pleased to include information on the TNSPs' current service standard measures in this report, and details on the operation of the present service standards incentive schemes that apply to six of the eight TNSPs covered in this report.

Feedback

I hope that this report will provide interested parties with information to enable critical evaluation of TNSPs' performance under their existing revenue caps. I encourage you to read this report and provide feedback to the AER.

Steve Edwell
Chairman

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Glossary

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
capex	capital expenditure
EBIT	earnings before interest and taxes
GWh	Gigawatt hours
IRG	Information Requirements Guidelines
kV	kilovolt
MAR	maximum allowed revenue
MCC	Marginal Cost of Constraints
MW	Megawatts
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NER	National Electricity Rules
NPAT	net profit after taxes
ODRC	optimised depreciated replacement cost
opex	operating and maintenance expenditure
PI Scheme	performance incentive scheme
PS	prescribed services
RAB	regulated asset base
regulatory compendium	*Compendium of Electricity Transmission Regulatory Guidelines*, AER, August 2005
SKM	Sinclair Knight Merz
SRP	*Statement of Principles for the Regulation of Electricity Transmission Revenues,* ACCC, December 2004
TCC	Total Cost of Constraints
TNSP	transmission network service provider

Summary

This is the first annual electricity transmission regulatory report published by the Australian Energy Regulator (AER). The AER is the economic regulator of transmission networks in the National Electricity Market (NEM), assuming those responsibilities from the Australian Competition and Consumer Commission (ACCC). This report follows on from two previous reports published by the ACCC, for the years 2002/03 and 2003/04.

The report reviews the performance of transmission network service providers (TNSPs) regulated by the AER. The report provides stakeholders with access to comparative data on the financial performance of the TNSPs and includes a comparison with the forecasts incorporated in the regulatory revenue cap decisions.

Information regarding the following TNSPs is included in this report:

- ElectraNet SA[1]
- EnergyAustralia
- The Murraylink Transmission Company (Murraylink)
- Powerlink
- SPI PowerNet[2]
- Transend
- TransGrid
- VENCorp.

The TNSPs regulated by the AER are required to provide certified annual statements containing details of their financial performance. This information is submitted in accordance with the AER's Information Requirements Guidelines. This is the first year that EnergyAustralia and Murraylink are included in the report.

Service quality information is submitted in accordance with the AER's Service Standards Guidelines. The 2004 calendar year is the first year that performance standards have applied to TransGrid, EnergyAustralia, Transend and Murraylink under the AER's performance incentive scheme (PI scheme). SPI PowerNet and ElectraNet SA have participated in the scheme since the 2003 calendar year.

Chapter 1 contains an introduction to the AER's methodology for setting revenue caps and its information gathering functions under the National Electricity Rules (NER).

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1 Now known as ElectraNet

2 SPI PowerNet is now part of the SP AusNet group. However, as SPI PowerNet submitted the regulatory accounts for the period 2004/05, SPI PowerNet is used throughout this report.

Chapter 2 provides an overview of the physical characteristics of each TNSP's network. In considering the information presented in the report it is important to remember that differing network characteristics and operating environments will affect the financial and physical performance of each TNSP.

Chapter 3 sets out the industry's overall performance and each TNSP's financial performance.

Chapter 4 shows details of the TNSPs' revenue.

Chapters 5 and 6 show capital expenditure (capex) and operating and maintenance expenditure (opex) respectively, including information on variations between actual expenditure and that assumed in the TNSPs' revenue caps.

Chapter 7 sets out information on service standards for the TNSPs.

Revenue cap outcomes

Table A compares the actual revenue and expenditure outcomes against the forecast revenue (MAR), opex and capex allowances in the TNSPs' revenue cap decisions. The summary figures are presented to provide an overall view of the average variations from forecast amounts. However, the outcomes for individual TNSPs may differ markedly from the average due to the influence of regional factors, and should therefore be assessed in that context. These individual variations are not a regulatory issue provided they do not constitute systemic under- or over-spending, and should be examined over the full five year period of the revenue cap before any conclusions are drawn.

Table A: TNSPs' revenue cap outcomes, 2004/05

	Actual	Forecast	Difference	
	$m	$m	$m	%
MAR	1851.6	1749.2	102.4	5.5
Opex*	353.8	362.2	(8.4)	(2.3)
Capex	555.2	673.0	(117.8)	(17.5)

Source: 2004/05 Regulatory Accounts and the ACCC's revenue cap decisions.
*Excludes grid support

Table A shows that the aggregate and forecast revenue (MAR) of the TNSPs differed by 5.5% in 2004/05, mainly due to an increase in VENCorp's revenue requirements as a result of easement land tax expense and increased settlement residues revenue. Excluding VENCorp, which operates on a full cost recovery but no operating surplus basis, the difference between actual and forecast revenue was 1%. Differences in 2002/03 and 2003/04 were 1.7% and -0.7% respectively.

Table A also shows a significant difference between actual and forecast aggregate capex. Each TNSP's contribution to the overall difference is discussed in Chapter 5.

While there was little difference between aggregate actual and forecast opex, some TNSP's opex did vary significantly from the amount forecast in their revenue cap decision. These variations are discussed in Chapter 6.

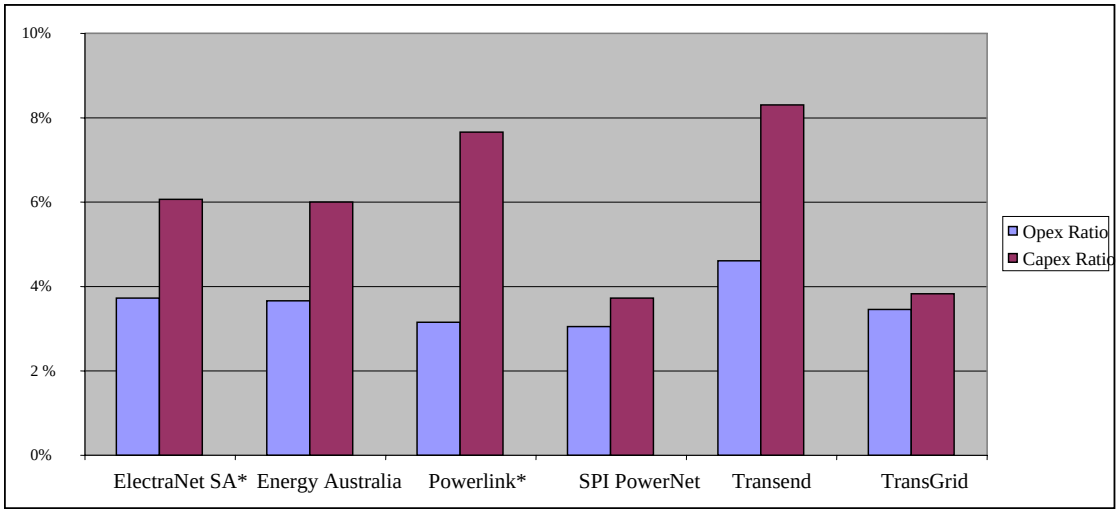
Table B and Figure A compare the TNSPs' capex and opex as a percentage of their regulated asset base (RAB). The data demonstrates that expenditure as a percentage of RAB varied amongst the TNSPs, particularly the capex ratio. This may be explained by key drivers of expenditure such as load growth and the ageing of assets.

Table B: TNSP's expenditure as a proportion of the regulated asset base 2004/05

	Average RAB ($m)	Opex/RAB Ratio* (%)	Capex/RAB Ratio** (%)
ElectraNet SA	877.7	3.7	6.1
EnergyAustralia	631.0	3.6	6.0
Murraylink	101.5	3.0	0.0
Powerlink	2762.4	3.2	7.7
SPI PowerNet	1860.8	3.0	3.7
Transend	630.4	4.6	8.3
TransGrid	3394.6	3.5	3.8

*Opex/RAB Ratios for ElectraNet SA and Powerlink exclude grid support.
**Due to the regulatory arrangements in Victoria, SPI PowerNet's capex does not include augmentation work. VENCorp does not have a RAB as it does not own transmission assets. Murraylink does not have a capex allowance as part of its revenue cap.

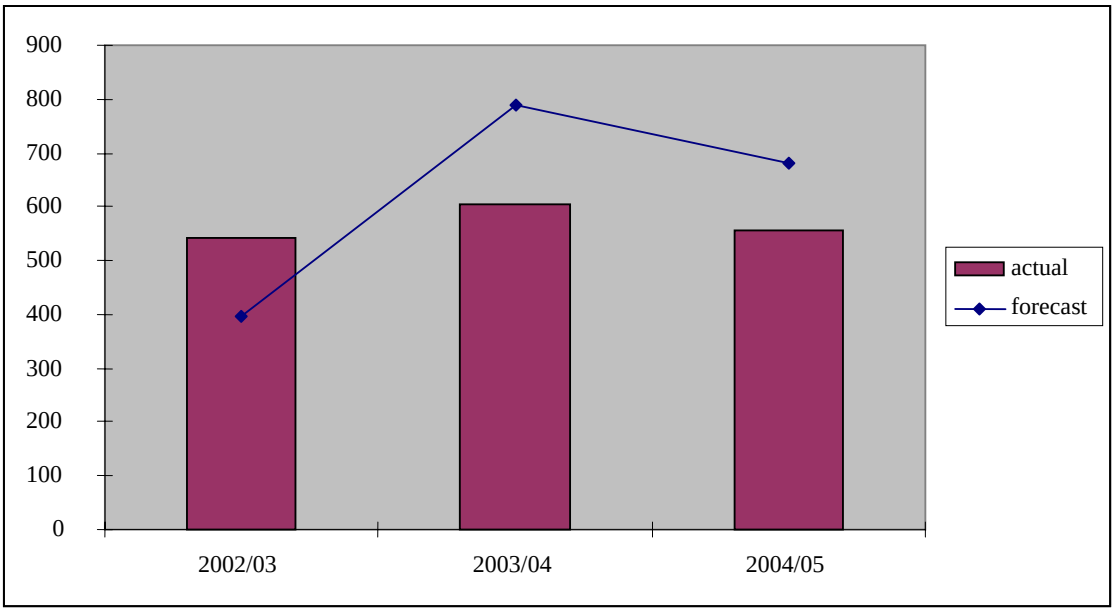
Figure A: TNSP's expenditure as a proportion of the regulated asset base 2004/05



Source: 2004/05 Regulatory Accounts.
*Opex Ratio excludes grid support.

Figures B and C illustrate the TNSPs' aggregate actual capex and opex against the forecasts contained in their revenue caps. Figure B shows that actual spending, although lower than forecast, has exceeded $1.6b over the past three years as TNSPs upgrade and extend their networks to meet demand and reliability requirements.

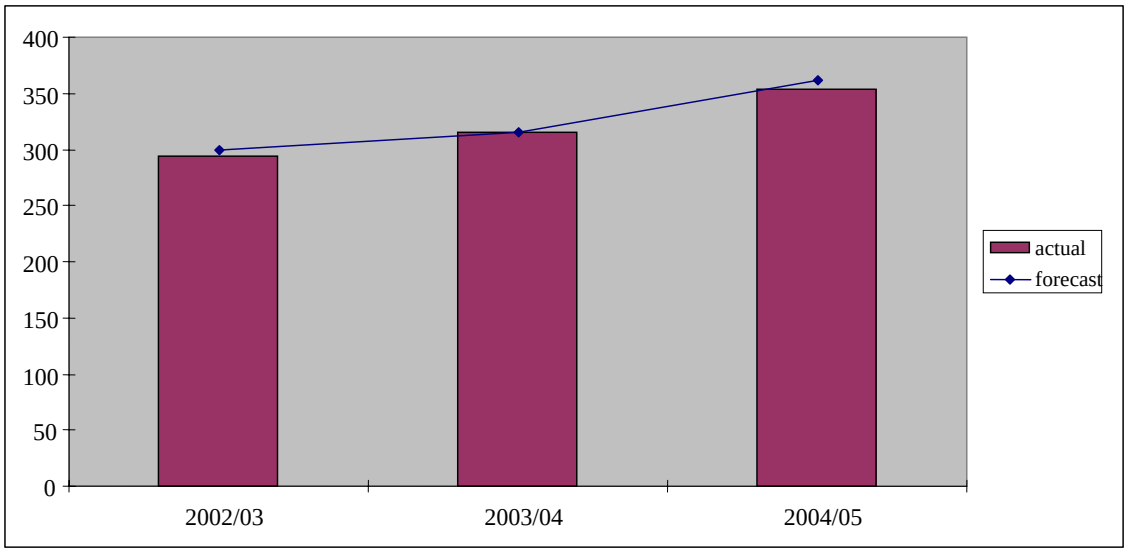
Figure B: Aggregate actual and forecast capex, 2002/03 – 2004/05* ($04/05m)



*Excludes EnergyAustralia in 2002/03 and 2003/04. Transend commenced reporting data for inclusion in this report from 2003/04. Murraylink does not have a capex allowance in its revenue cap.

Figure C shows that TNSPs as a group have spent close to the forecast opex levels on maintaining their networks.

Figure C: Aggregate actual and forecast opex, 2002/03 – 2004/05* ($04/05m)



*Excludes EnergyAustralia and Murraylink in 2002/03 and 2003/04. Transend commenced reporting data for inclusion in this report from 2003/04. Opex figures exclude grid support.

Service standards performance

The AER applies its Performance Incentive (PI) Scheme to encourage TNSPs to continually improve the standard of service provided to customers through efficiency gains. The PI Scheme provides financial bonuses for improvements in service performance and financial penalties for deteriorations in service performance against specified measures. These financial results impact the TNSP's annual MAR calculation. The PI Scheme also ensures that TNSPs consider how their operations are valued by the NEM. Chapter 7 deals with the PI Scheme in more detail and Appendix B gives details of individual TNSP service standards performance.

The PI Scheme has been implemented through TNSP revenue caps set under clause 6.2.4(b) of the NER. In setting a revenue cap, clause 6.2.4(c) requires the regulator to take into account the TNSP's revenue requirement, having regard for, amongst other things, the service standards applicable to the TNSP (see clauses 6.2.4(c)(2) and (3)).

The PI Scheme has been implemented in the revenue caps for the following TNSPs:

- ElectraNet SA
- EnergyAustralia
- Murraylink
- SPI PowerNet

- Transend
- TransGrid.

Table C shows the financial incentive based on performance outcomes for each relevant TNSP for the 2003 and 2004 calendar years.

Table C: Financial incentives for 2003 and 2004

	2004 calendar year ($000s)	2004 s-factor* %	2003 calendar year ($000s)	2003 s-factor* %
ElectraNet SA	997.7	0.63	1,118.7	0.74
EnergyAustralia	456.4	1.00	N/A	N/A
Murraylink	(87.8)	(0.80)	N/A	N/A
SPI PowerNet	609.8	0.22	(75.0)	(0.03)
Transend	573.9	0.55	N/A	N/A
TransGrid	2,007.3	0.93	N/A	N/A

*Financial incentives are capped at $\pm$ 1.0% of the TNSP's annual revenue. An s-factor of 0.50, for example, would result in a payment of 0.5% of the TNSP's annual revenue, or half of the potential maximum payment available under the PI Scheme.

The results above show that service performance in the NEM remains high, with TNSPs generally continuing to exceed the performance levels specified in their revenue caps. Aggregate incentive payments for 2004 totalled almost $4.5m.

1 Introduction

1.1 Scope of the report

This report provides information on the physical characteristics, financial and operational performance of TNSPs in the NEM.

Changes to the governance arrangements for the NEM were introduced on 1 July 2005, and include:

- the establishment of the AER
- the creation of the NER to replace the National Electricity Code
- the transfer of the ACCC's economic regulation functions in the NEM to the AER
- the transfer of the National Electricity Code Administrator's enforcement functions in the NEM to the AER.

The TNSPs are subject to regulation by way of a revenue cap, which includes measures of service standards. The information in this report relates to the financial years 2002/03, 2003/04 and 2004/05 and includes a comparison with the forecasts incorporated in the TNSPs' revenue caps.

The report aims to provide customers and interested parties with information and comparative data on expenditure and service levels of the TNSPs. In particular, it details overall financial performance, capital expenditure, operating expenditure, and service standards performance.

1.2 Sources of information

The report draws upon information from the following sources:

- annual regulatory financial statements and service standards data provided by the TNSPs in accordance with the AER's *Compendium of electricity transmission regulatory guidelines* (regulatory compendium)[3]
- revenue cap applications made by the TNSPs
- annual statutory reports and reviews published by the TNSPs
- current revenue cap determinations made by the ACCC.

[3] *Compendium of electricity transmission regulatory guidelines,* AER, August 2005.

1.3 The AER's role in compliance monitoring

As part of its regulatory functions, the AER is required to collect a wide range of regulatory, financial and operational information from the TNSPs each year. This is done for a variety of reasons, including:

- monitoring compliance with revenue caps
- identifying cross-subsidisation of costs between the regulated and unregulated parts of the TNSP's business
- using the information as an input for setting future revenue caps
- monitoring performance against service standards
- assessing whether the NER objectives are being achieved through the revenue cap determination.

Collection of data under the Information Requirements Guidelines

Clause 6.2.5 of the NER requires TNSPs to submit certified annual financial statements to the AER. This is done in accordance with the AER's Information Requirements Guidelines (IRG). The IRG contains information templates which provide the source data for this report.

The types of information collected may be categorised as:

- Financial information – mainly sourced from the TNSP's statements of financial performance and financial position. This information is used in Chapter 3 of the report and provides general indicators of profitability and efficiency; and
- Revenue cap related information – actual revenue, opex and capex outcomes are gathered and compared to the underlying assumptions in the TNSP's revenue cap determination. This information is presented in Chapters 4, 5 and 6 of this report. TNSPs are able to comment on any variances between actual and forecast figures.

This information should be read as a whole and, when combined with the service standards data in the report, is intended to present an overall picture of the TNSPs' performance.

Presentation of data

The following points should be taken into account when considering the data presented in this report:

- Capex - there are two alternatives under which capex data may be reported by TNSPs:
  - on an as-commissioned basis: the expenditure is not reported until the project is completed; or
  - on an as-incurred basis: the expenditure is reported on a progressive basis as it is made by the TNSP.
- Opex – some TNSPs' opex allowances include an amount for network or grid support. Grid support figures are shown separately from opex in the report as it is essentially a substitute for capex and volatile in nature. This change enhances the comparability of TNSPs' opex outcomes.

- Regulatory framework – there have been changes in recent years to the regulatory framework under which TNSPs' revenue caps are set. For example, the ex ante approach to determining capex allowances was introduced in the AER's Statement of Regulatory Principles (released December 2004).
- The calculations that appear in this report, such as the financial indicators and operating ratios detailed in Chapter 3, are made by the AER and not the TNSPs. The AER uses data provided by the TNSPs in the calculations.

Review of the IRG

The IRG was designed to evolve over time to keep pace with developments in regulatory practice and the AER's experience in setting revenue caps. As the original guidelines were finalised in 2002, the AER believes the time is now appropriate to re-examine their purpose and usefulness.

In particular, the AER considers that the IRG would benefit from changes to better align it with the inputs required for its Post-Tax Revenue Model – Electricity Module (released August 2005). This model is used to calculate a TNSP's cash flow over the period of the revenue cap.

Accordingly, the AER intends to consult with TNSPs and other interested parties during 2006. The objectives of the review will include:

- Assessing the effectiveness of the current information reporting regime – both for revenue cap resets and for annual reporting purposes
- More closely aligning the information templates with the AER's approach to effective price regulation and the inputs required for its Post-Tax Revenue Model
- Developing expenditure templates with increased focus on costs and cost drivers
- Achieving greater consistency in the basis of reporting by TNSPs, including the reporting of capex data.

1.4 The benefits of publication

The AER's objective in monitoring and publishing the performance of TNSPs is to increase accountability for performance through transparency. In particular, the AER considers that there are significant benefits in publishing information it collects under the NER, including:

- facilitating informed public input into future decisions by the AER
- allowing public scrutiny of performance against revenue caps
- enhancing transparency of the regulatory process.

The AER is aware that there are valid confidentiality concerns held by TNSPs which must be recognised. These concerns have been assessed against the overall benefits of publication. The TNSPs have all been given the opportunity to comment on the information shown in this report, and have given their permission for the information to be published.

This is the first electricity regulatory report the AER has published, and it follows on from two earlier reports published by the ACCC.[4] Comments from interested parties regarding the contents and format of the report are welcomed. Comments can be submitted via email to aerinquiry@aer.gov.au, or by mail to:

General Manager
Transition Branch
Australian Energy Regulator
GPO Box 520
Melbourne Victoria 3001

[4] The earlier reports by the ACCC are available on the AER's website (www.aer.gov.au).

2 Network characteristics

2.1 The National Electricity Market

The NEM commenced operation on 13 December 1998 and currently consists of six jurisdictions: South Australia, Victoria, the Australian Capital Territory, New South Wales, Queensland and Tasmania. Tasmania joined the market in May 2005, and is expected to link to mainland Australia by May 2006, when the Basslink interconnector is commissioned.

The National Electricity Market Management Company (NEMMCO) collects volume and price bids from all participating generators and stacks the bids in a merit order from lowest to highest. The generators are then dispatched according to this merit order, subject to transmission ramp rates and other relevant constraints. Interconnectors between regions allow trade to occur, and where there are no constraints on the network they ensure that the lowest priced generators (taking into account transmission losses) are dispatched first, regardless of the region in which they are located.

The high voltage transmission networks operated by TNSPs carry the electricity from the generators to the distribution networks in the metropolitan and regional areas and, in some cases, directly to customers. The differing geographical and demographic characteristics of each region impact on the operations of the TNSPs. These impacts and their primary causes are described below.

2.2 The TNSPs in this report

2.2.1 ElectraNet SA (South Australia)

ElectraNet SA is owned by a group of four companies which includes a subsidiary of the Queensland TNSP, Powerlink. ElectraNet SA is the principal TNSP in South Australia, operating and maintaining the high voltage network throughout the state. The network comprises over 5,600 km of transmission lines with 76 substations and switching stations.

The South Australian network is characterised by long distances, a low energy density and a small customer base compared to other mainland states. It also has a peaky demand profile mainly due to air conditioning load over summer.

ElectraNet's average RAB for 2004/05 was almost $878m and its regulated revenue from electricity transmission services was $163.9m. Maximum summer demand was 2,659 MW with 12,137 GWh of electricity transmitted for 2004/05.

2.2.2 EnergyAustralia (New South Wales)

EnergyAustralia owns and operates a part of the transmission network in NSW. It is a state-owned corporation with a network that extends from south of Sydney to north of Newcastle and into the upper Hunter Valley. Its network includes 19 substations and 1040 km of lines categorised either as part of EnergyAustralia's parallel or non-parallel transmission network.

EnergyAustralia's network is almost entirely within urban and CBD environments. Unlike most TNSPs, a significant portion of its assets are located underground. The combination of these factors means that a relatively higher proportion of its costs are incurred in areas such as traffic control, reinstatement and requirements for undergrounding.

EnergyAustralia is predominantly an electricity distribution and retail business with total assets in excess of $5.6b and total annual revenues exceeding $2.5b. Within these totals, for 2004/05 it reported an average RAB for assets classified as transmission assets of $631.1m, and regulated revenues from transmission services of $91.3m.

Over 30,700GWh of electricity was transmitted by EnergyAustralia this year with a peak demand of 5,165 MW recorded.

2.2.3 Murraylink (Victoria/South Australia)

Murraylink operates as a regulated DC interconnector between Victoria and South Australia. It is owned by a group of companies: Murraylink HQI Australia Pty Ltd (49.5%), SNC-Lavalin Investment Australia Pty Ltd (49.5%), and Murraylink Transmission Company Pty Ltd (1%). Murraylink consists of approximately 180 km of transmission line, with the majority of the cable being underground, and a converter terminal station at either end (to convert the direct current flow to alternating current, compatible with the transmission networks in Victoria and South Australia). Murraylink's average RAB for 2004/05 was $101.5m, and its regulated revenue from transmission services was $12.4m.

2.2.4 Powerlink (Queensland)

Powerlink is a state-owned corporation that now operates close to 11,902 km of transmission lines and has 98 substations throughout Queensland. Its network stretches over 1700 km from the far north to the major load centre in the south east corner of the state. The main sources of generation in Queensland are located at considerable distances (500km to 1,000km) from the major load centres and distance plays a large part in determining transmission costs in Queensland.

Powerlink had an average RAB for 2004/05 of almost $2.8b and regulated network charges of $416.3m.

The network continues to experience rapid load growth demand and in 2004/05 had a maximum demand for electricity of 8,232 MW (which was 3.8% higher than the maximum demand in the previous period). Queensland's hot and humid climate produces high and constant air conditioning load throughout the summer months. Total electricity transmitted for 2004/05 was 46,170 GWh.

2.2.5 SPI PowerNet (Victoria)

SPI PowerNet is a privately owned transmission business in Victoria. It owns, operates and maintains over 6,500 km of lines as well as 44 switching and transformation facilities throughout Victoria. The network is built around a 500 kV backbone running from the major generating source in the Latrobe Valley, through Melbourne and across the southern part of the state to Heywood near the South Australian border. The network provides key physical links in the NEM, connecting with networks in South Australia, New South Wales and Tasmania.

SPI PowerNet's average RAB was almost $1.9b for 2004/05 and its regulated revenue from network fees was $281.2m (excluding the pass through of easement land tax).

Summer demand peaked at more than 8,535 MW, which was similar to the previous year's figure of 8,572 MW. SPI PowerNet reported a figure of 45,467 GWh of energy sent out. This is a slight increase from the previous year's figure of 45,006 GWh.

2.2.6 Transend (Tasmania)

Transend is a state-owned corporation which owns and operates the electricity transmission system in Tasmania. Transend transmits electricity from 29 power stations to substations around the State. It owns over 3,500 circuit kilometres of transmission lines, comprising of 54 substations and switching stations. Over 90% of the generation in Tasmania is hydro-electric, characterised by a comparatively large number of small generators which are widely dispersed. Tasmania's generators are usually energy constrained rather than capacity constrained. Hydro generation's variable nature (with a requirement for more transmission network to deliver the same amount of generation to customers) has also been a major contributor to the evolution of the network.

Tasmania joined the NEM in May 2005 and is expected to link to mainland Australia by May 2006, when the Basslink interconnector is commissioned.

Transend's average RAB for the period was close to $630m with reported revenue from network charges of $108m. Demand for the year peaked at 1,780 MW, which is an increase from the previous year's maximum demand of 1,691 MW.

2.2.7 TransGrid (New South Wales)

TransGrid is a state-owned corporation responsible for the management of the high voltage electricity transmission network in NSW and the ACT. Its system comprises 82 substations and switching stations, and 12,485 km of transmission lines operating up to 500 kV. It occupies a central position in the NEM with links to the networks in Queensland, Victoria and South Australia.

TransGrid's average RAB was valued at almost $3.4b. It received regulated revenue from network charges of $435.3m.

Summer demand peaked at just over 13,100 MW. Electricity sent out for the year exceeded 70,000 GWh.

2.2.8 VENCorp (Victoria)

The Victorian Energy Networks Corporation (VENCorp) is wholly owned by the Victorian government. It is the monopoly provider of shared transmission network services in Victoria, acquiring bulk network services from SPI PowerNet under a network agreement. As noted earlier, SPI PowerNet owns and operates the transmission network in Victoria. VENCorp also plays a major role in the gas market in Victoria.

VENCorp operates on a full cost recovery but no operating surplus basis, recovering its costs through transmission use of system charges. VENCorp plans and directs the augmentation of the shared network but does not own those assets itself. The separation of the network asset ownership from the investment decision maker is unique within the NEM. VENCorp's gross regulated revenue for 2004/05 was $303.7m of which only $4.8m related to VENCorp's direct operating costs.[5] Its network charges for the year were $323.3m. Most of VENCorp's costs were incurred through the network agreement with SPI PowerNet.

2.3 Network data

Table 2.1 Growth in annual maximum demand and electricity sent out

	Max demand (03/04) MW	Max demand (04/05) MW	Growth in max demand %	Energy sent out (03/04) GWh	Energy sent out (04/05) GWh	Growth in energy sent out* %
ElectraNet SA	2,607	2,659	2.0	12,336	12,137	(1.6)
EnergyAustralia		5,165			30,713	
Powerlink	7,934	8,232	3.8	45,625	46,170	0.1
SPI PowerNet	8,572	8,535	0.0	45,006	45,467	0.0
Transend**	1,691	1,780	5.2	10,186	10,266	0.8
TransGrid	12,476	13,126	5.2	69,736	70,538	1.2

*Some regional figures for years prior to 2003/04 were calculated using different methodologies to those used now.
**Energy transmitted.

The peak in maximum demand in some regions is due to weather conditions where in hot summer months there is an increase in the use of air conditioners. Growth in maximum demand is related to general economic growth and increased penetration of air conditioning. NEMMCO publishes energy and demand projections for the NEM regions each year which show that extreme summers affect maximum demand most in South Australia, Victoria and New South Wales. The peak demand in Queensland also occurs in summer.

[5] VENCorp's revenues and costs referred to in this report exclude its gas retail and gas market operation functions.

Table 2.2 Average regulated asset base and line length for 2004/05

	Average RAB $m	Line length km
ElectraNet SA	877.7	5,663
EnergyAustralia	631.0	1,040
Powerlink	2,762.4	11,902
SPI PowerNet	1,860.8	6,553
Transend	630.4	3,580
TransGrid	3,394.6	12,485

Tables 2.1 and 2.2 provide an overview of the network characteristics and loads experienced by the TNSPs in their respective regions. Table 2.1 shows load growth experienced by each of the TNSPs, with maximum demand increasing by over 5 % in some regions. This increase represents a general trend experienced by most TNSPs over recent years. Volatile load growth presents challenges for network planners in the timing and size of augmentations to the grid.

Table 2.2 provides a comparison of the average RAB for the last financial year, together with a comparison of line length. All things being equal, a higher growth in demand or electricity transmitted will require a larger growth in the RAB of the TNSP over the period to service the increased demand. Individual characteristics of TNSPs such as line length, the extent and density of customer load and undergrounding will affect the underlying cost structure.

Taking into account Australia's economic and population growth, the following observations may be made:

- the maximum peak demand that the TNSP must handle is increasing
- the total amount of electricity which is being transmitted is stable.

However, caution should be exercised in drawing conclusions from these results. Changing weather conditions from year to year (eg hot or mild summers) can have a substantial impact on actual demand and peak demand in any given year. A time series of data over several years is required in order to identify trends with any accuracy.

The infrastructure to support the increase in peak demand has grown with significant capital expenditure over recent years contributing to an aggregate regulated asset value of almost $10.3b for 2004/05, up from about $9.8b the previous year when differences in the composition of the reporting groups are taken into account (see Chapter 5 for further details on capex outcomes).

2.4 Factors affecting TNSP costs

There is substantial focus in this report on TNSP costs. Chapters 5 and 6 deal with capex and opex outcomes respectively, detailing the actual and forecast expenditure of TNSPs. The following list provides examples of factors that affect the configuration and operation of the transmission network and result in differences between individual TNSPs:

- the *age and quality of the capital stock*
- *Government regulations* - companies which must control noise emissions may face higher average costs than those which do not
- *environmental factors* - companies in regions with high temperatures or a greater propensity to electrical storms may have to take more precautions than those in more temperate areas
- the *number, density, load factor and size distribution of customers* -companies which have a higher load factor or customer density may have lower average cost than those companies which do not. Companies which have to transmit over larger distances may have higher costs than those operating in a relatively compact geography.
- the *volume of services* provided (a company carrying smaller volumes may have a higher average cost if there are economies of scale)
- the *scope of services* provided – in Victoria, a separate entity incurs the costs of network planning.
- the *quality of services* provided (a company which offers *n-2* reliability may have a higher average cost than a company which offers *n-1* reliability)
- the *price of inputs* (a company servicing a large rural network may have to pay more to attract particular labour skills).

Accordingly, caution must be exercised in making comparisons between TNSPs due to the influence of these factors.

3. Financial indicators

3.1 Financial performance

This chapter deals with the financial performance of the TNSPs. It compares the TNSPs' actual financial performance against performance in previous years.[6] Financial information for each TNSP is also contained in Appendix A.

TNSPs have a measure of control over their financial performance. The AER sets the revenue they may earn, but the TNSPs can control their profitability through efficient cost management. TNSPs must comply with a variety of regulatory requirements including defined service and network performance and security outcomes, and licence conditions. These obligations (costings for which are deliberated on in revenue cap decisions) can impact on both capex and opex and therefore will impact on profits.

Capex and opex are two key factors in determining the profit of TNSPs. The TNSPs' capex and opex performance is discussed in Chapters 5 and 6.

Depreciation is also a significant expense as asset bases grow and, while it does not affect the cash position of the businesses, it will impact on profits and return on equity.

TNSPs must take a number of matters into account when making investment and maintenance decisions, including:

- reliability and availability of the network
- safety of the public and the TNSPs' employees
- environmental concerns
- obligations in the NEM
- customer expectations
- relevant legislation in each region
- NER requirements including application of the Regulatory Test.

Figure 3.1 shows that opex, interest payments and depreciation account for about 80% of TNSPs' total expenses. The percentage breakdown of TNSPs' expenses for the 2004/05 reporting period was very similar to that of 2003/04.

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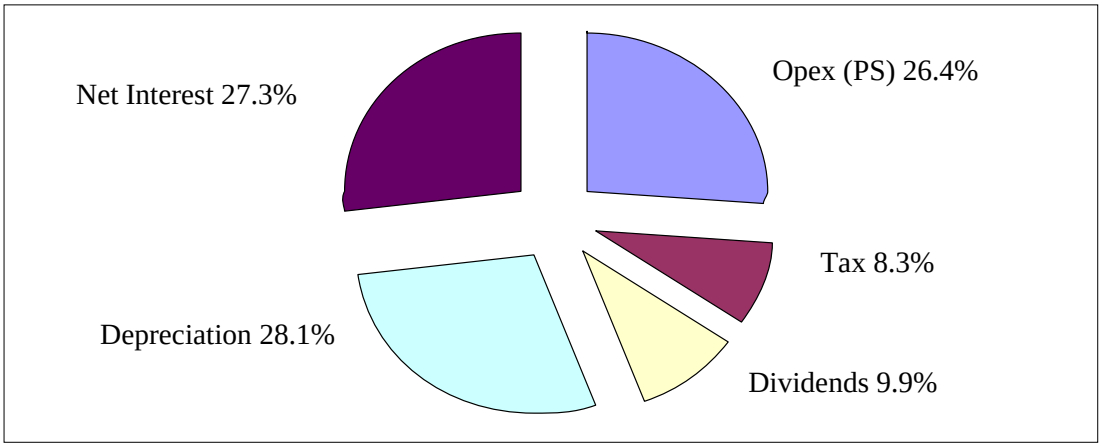
[6] VENCorp's data was not included in these aggregate figures as it is a non-profit business that operates on a full cost-recovery but no operating surplus basis. Importantly, unlike the other TNSPs, VENCorp does not have a RAB upon which to earn a rate of return or which is subject to depreciation. Its financial performance data was therefore omitted from the aggregate figures.

Figure 3.1: Aggregate TNSP expenses, 2004/05



Source: Regulatory Accounts 2004/05

3.1.1 Financial performance

Regulated TNSPs experience relatively low business risk under current pricing arrangements as they have a consistent cash flow, independent of seasonal fluctuations or volume changes, with which to finance their operations and capital investments, as well as service debt. Currently, the Australian Energy Market Commission is reviewing the pricing arrangements contained in Chapter 6 of the NER. To allow a comparative analysis of the TNSP's performance, this report has focussed on well established financial indicators such as the returns on assets and equity, and key operating ratios including the opex/RAB ratio.

This report uses ratios such as return on equity and return on capital to measure the TNSPs' profitability. Year on year figures are provided to aid analysis of trends and sustainability in financial performance. However, as an increased number of TNSPs are included in this report, compared to earlier reports, caution is needed when looking for trends in aggregate performance over the three year period. Table 3.1 lists the entities included in the aggregate financial indicators.

Table 3.1: Comparison of entities comprising aggregate financial indicators

ACCC Report 2002/03	**ACCC Report** 2003/04	**AER Report** 2004/05
ElectraNet SA	ElectraNet SA	ElectraNet SA
Powerlink	Powerlink	EnergyAustralia
SPI PowerNet	SPI PowerNet	Murraylink
TransGrid	Transend	Powerlink
	TransGrid	SPI PowerNet
		Transend
		TransGrid

3.2 Aggregate TNSP performance

3.2.1 Prescribed Services

Revenue caps apply only to prescribed services (PS) that are services provided by the TNSPs that are not reasonably expected to be offered on a contestable basis. Prescribed services revenue typically makes up about 95% of a TNSP's total revenue. Table 3.2 provides aggregate figures for the TNSPs.

Total prescribed services revenue of just over $1.5b was recorded for the 2004/05 financial year. The aggregate financial performance and indicators which are discussed below highlight the significant effect of opex and depreciation on the operating profits of the businesses, while interest payments and taxes finally determine their net profit. The items of interest are listed below.

Table 3.2: Aggregate TNSP financial performance, 2004/05

	$m
Financial performance	
Transmission revenue(PS)	1508.3
Opex(PS)	349.0
Grid support	19.9
Depreciation(PS)	392.3
EBIT(PS)	756.4
Interest paid	397.7
Tax	115.7
NPAT	291.3
Dividends	138.3
Financial position	
Property, plant & equipment (average RAB)	10258.4
Total assets	12236.1
Total debt	5903.2
Total liabilities	7045.9
Total shareholders' equity and notes	5192.3

Source: Regulatory Accounts 2004/05

EBIT (earnings before interest and tax)

EBIT measures the operating profit of the TNSPs before interest and income tax are paid. After major expenses were deducted - opex(PS) of $349.0m and depreciation(PS) of $392.3m - aggregate operating profit or EBIT(PS) was $756.4m. This represents an increase of about $110m over the previous year. Around half of this difference can be explained by the inclusion of Murraylink and EnergyAustralia for the first time this year.

NPAT (net profit after tax)

NPAT measures the net profit of the businesses after tax. The aggregate figure for the TNSPs, after interest payments of $397.7m and taxes of $115.7m were deducted, was $291.3m ($264.1m in 2003/04). Total dividends of $138.3m were paid to owners from this amount. This figure compares to $166.1m last year. Most of the increase in NPAT is explained by the addition of EnergyAustralia and Murraylink to the reporting group.

RAB (regulated asset base)

The RAB is the value of the assets covered by the revenue cap. Most values assigned to the asset bases of the TNSPs were originally determined by state regulators prior to the ACCC assuming responsibility for setting the TNSPs' revenue caps under the NER. An ODRC (optimised, depreciated, replacement cost) valuation methodology was generally employed by the states for this purpose. The value of the RAB will vary over time due to the net effect of capex, depreciation and asset disposals on the asset base.

The aggregate average RAB for the TNSPs for 2004/05 approached $10.3b, an increase of nearly $1.2b over the previous year. Approximately $730m of this increase reflects the inclusion of EnergyAustralia and Murraylink's figures in this reporting group.

Almost $4b in capex is accommodated in existing ACCC revenue cap decisions. These approvals are reflected in the significant growth in the RABs of the businesses over the last five years and a corresponding increase in the depreciation expense incurred.

3.2.2 Financial indicators

Trends in financial indicators allow assessment of the performance of the TNSPs. Profitability indicators such as return on assets and return on equity provide a consistent basis for presenting information.

Only one TNSP is currently listed on the Australian Stock Exchange (as part of the SP AusNet group) and hence the indicators provide a guide to the financial performance and operating efficiency of TNSPs in the absence of market valuations.

The indicators listed were employed for their usefulness in assessing the financial performance of the businesses. Differences from one year to the next are noted and over time trends in performance may emerge.

Table 3.3: Aggregate financial indicators*

	2002/03	2003/04	2004/05
EBIT(PS)/interest cover	1.6x	1.9x	1.9x
Return on assets (%)	7.4	7.1	7.4
Return on equity** (%)	4.9	6.1	5.6
Gearing ratio (%)	61.7	55.5	53.2

Source: AER calculations based on Regulatory Accounts for 2002/03, 2003/04 and 2004/05
*See Table 3.1 for a list of the TNSPs included in each year's aggregate data.
**This figure differs from the forecasts in the revenue cap decisions as it is calculated on the basis of a TNSP's actual equity, not the benchmark 40% figure used in the AER's Post Tax Revenue Model.

EBIT(PS)/interest expense

The interest coverage ratio provides a measure of a TNSP's ability to service debt. It is important to understand the reasons for changes in the cash position of the business. For example, higher or lower than forecast capex or opex will affect the TNSP's cash flow position. An appropriate level of cover may vary from industry to industry and business to business, but higher numbers are to be preferred. The interest coverage ratio is influenced by the financial structure of the businesses. For the TNSPs as a whole in 2004/05 the ratio was 1.9 times, which is unchanged from 2003/04. In 2002/03 the figure was 1.6 times mainly due to a different mix of businesses in the reporting group.

Return on assets

(EBIT(PS)/average RAB) - this ratio measures efficiency in the use of the business's assets to produce profits. Revenue caps with higher x-factors may tend to result in an increasing return on assets ratio. With smaller x-factors affecting the rate of change in revenue, the ratio will mainly vary according to changes in opex and/or RAB. The aggregate figure was 7.4% for this year, up from 7.1% last year. The 2004/05 figure was higher despite the inclusion in the data of the two additional TNSPs whose return on assets was both lower than the industry average. The five TNSPs reported on last year all recorded an increased return on assets figure.

Return on equity

(NPAT/equity) – this ratio measures profitability, providing shareholders with a comparable figure to the return provided by alternative investments of similar risk. The 2004/05 figure is 5.6%, down from 6.1% in the previous period. This decrease can in part be explained by an increase in aggregate shareholder equity over the two periods of $862m (return on equity fell despite an increase in NPAT of $27.2m). It should be noted that this figure relates to the entire business, regulated and non-regulated, but is considered relevant as the regulated portion accounts for approximately 95% of the total business.

Gearing ratio

(total debt/total debt + equity**)** – this ratio reflects the capital structure of the business and is affected by changes in liabilities. For 2004/05 the gearing ratio was 53.2%, down from 55.5% for 2003/04, and 61.7% in 2002/03. The reduction in this figure between 2002/03 and 2004/05 has been influenced by the addition of Transend to the reporting group from 2003/04 and by the inclusion of EnergyAustralia this year. Both of these TNSPs have relatively low gearing ratios. As noted for the return on equity figures, the gearing ratio relates to the entire business.

3.2.3 Operating ratios

Consistent with previous reports, Table 3.4 reports on a number of operating ratios. Care needs to be taken when comparing ratios across businesses and over time as there are many environmental and geographic factors that influence them (see Chapter 2). In particular, as electricity transmission is essentially a transport activity, geographical distance is a significant influence, and should be considered when comparing ratios which are quoted on a per MW or per km basis. Also, as noted earlier, care must be taken when making comparisons across years as different TNSPs are included in each year's aggregate figure.

Table 3.4: Aggregate operating ratios

	2002/03	**2003/04**	**2004/05**
*Opex/line length ($/km)	7649	7793	8466
*Opex/RAB (%)	3.5	3.4	3.4
*Opex/MW peak ($/MW)	9049	9294	8836
Capex/RAB (%)	6.6	6.3	5.4
Capex/MW peak ($m/MW)	16929	17214	17113
Revenue/MW peak ($/MW)	37866	39301	37941
RAB/MW peak ($m/MW)	255008	273278	258048

Source: AER calculations based on TNSP annual reports and Regulatory Accounts for 2002/03, 2003/04 and 2004/05.
*Opex excludes grid support.

The 2004/05 figures show a further decrease in the aggregate capex/RAB ratio. There was also a decrease in the capex/MW peak, RAB/MW peak and revenue/MW ratios. The opex/RAB ratio was constant at 3.4% as the aggregate of both opex and the average RAB increased.

3.2.4 Taxes and dividends paid

The TNSPs pay taxes and dividends from the profits of the business as a whole, regulated and non-regulated. State-owned TNSPs pay income tax equivalents to their state treasuries to emulate privately owned businesses.

State-owned TNSPs also pay dividends to their owners on the same principle as privately owned companies – as a return on equity invested by government. This policy aims to facilitate competitive neutrality and give the businesses a commercial focus.

Table 3.5 shows dividends paid in 2004/05 totalled $138.3m, which was down from $166.1m the previous year. A large portion of the change over the previous year may be attributed to $70m dividend payout by TransGrid in 2003/04, which decreased to $38m for the 2004/05 period.

Table 3.5: Aggregate tax and dividends paid* ($m)

	2002/03	2003/04	2004/05
Income tax (or equivalent)	95.2	93.2	115.7
Dividends	119.1	166.1	138.3
Total	214.3	259.3	254.0

Source: Regulatory Accounts for 2002/03, 2003/04 and 2004/05
*Relates to whole of business, regulated and non-regulated

3.3 Individual TNSP performance

Each TNSP operates in a distinctly different environment which will have a direct bearing on its financial and operational performance.

The AER has established an ongoing monitoring and compliance program through the collection and analysis of specified information. The information is mainly sourced from the Regulatory Accounts provided annually by the TNSPs.

The AER's IRG detail the information required to be reported and set out pro-formas to ensure consistency. The information includes data relating to the TNSPs' financial performance and financial position on a disaggregated and prescribed services basis.

The ratio analysis below enables the relative financial performance of the TNSPs to be compared.

3.3.1 ElectraNet SA

Financial indicators

Over the three year reporting period ElectraNet SA's EBIT(PS) has increased from $70.7m to $86.6m, while its NPAT has fluctuated between -$16m and $0.6m, see figure 3.2. No dividends were reported for the three years.

The financial ratios are shown in table 3.8. The ratios show an increasing return on assets, at the same time as a decreasing return on equity. The gearing ratio has also decreased slightly over the three year reporting period and now stands at 70.7%.

Figure 3.2: ElectraNet SA EBIT(PS) and NPAT, 2002/03 - 2004/05 ($m)

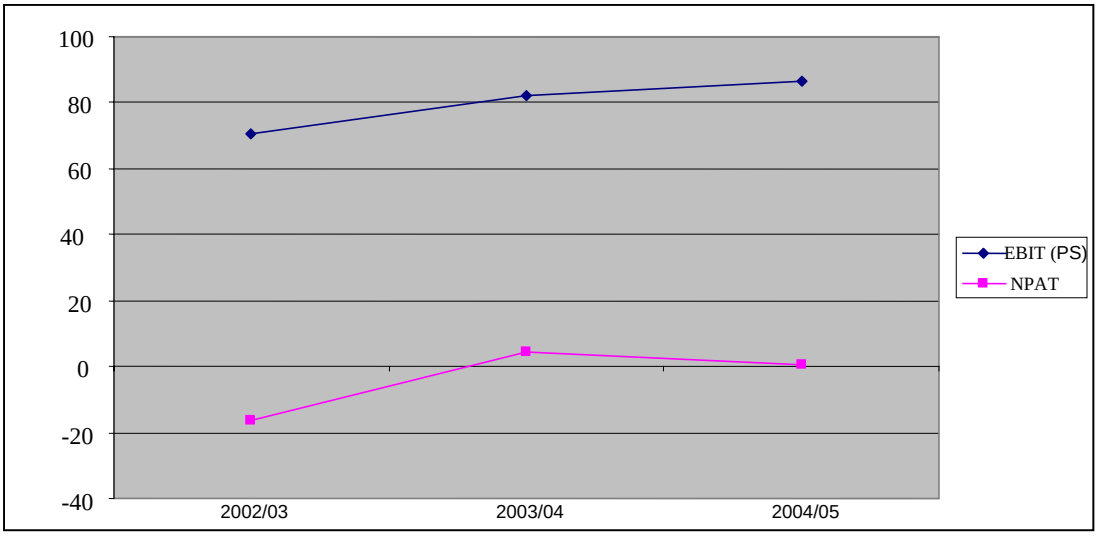


Table 3.6: ElectraNet SA financial ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
EBIT(PS)/interest cover (times)	1.2x	1.6x	1.0x
Return on assets (%)	8.6	9.7	9.9
Return on equity (%)	(5.3)	1.4	0.2
Gearing ratio* (%)	72.6	71.9	70.7

* ElectraNet SA advises that credit rating agencies treat shareholder loan notes as equity rather than debt for the purpose of determining its credit rating. If treated as debt, ElectraNet's gearing ratio would be 91.7% for 2002/03, 90.5% for 2003/04 and 88.8% for 2004/05.

Operating ratios

In calculating ElectraNet SA's opex ratios, grid support costs have been excluded from the calculations. This is because these costs are essentially a substitute for augmentation capex, and can be very volatile from year to year. ElectraNet SA has experienced decreases in its three opex ratios, which measure opex against line length, RAB and MW peak. The Opex(PS)/line length ratio has decreased slightly – from $6005/km to $5757/km, and the Opex(PS)/RAB ratio has decreased from 4.0% to 3.7%. However, the capex/MW peak demand ratio has increased by over $7,000/MW between 2003/04 and 2004/05. Similarly the assets/MW peak demand ratio has also increased. This has happened at a time of increasing maximum demand in South Australia.

Table 3.7: ElectraNet SA operating ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
*Opex (PS)/line length ($/km)	6775	6005	5757
*Opex (PS)/MW peak ($/MW)	13529	12850	12260
*Opex (PS)/RAB (%)	4.6	4.0	3.7
Capex/RAB (%)	4.2	4.0	6.1
Capex/MW peak ($/MW)	12312	12932	20055
Revenue/MW peak ($/MW)	53747	60031	61627
Assets/MW peak ($/MW)	294918	322889	330084

*Opex excludes grid support.

3.3.2 EnergyAustralia

EnergyAustralia's data is included in the regulatory report for the first time this year.

Financial indicators

EnergyAustralia's return on assets was 7.0% and return on equity was 5.6%. Its EBIT was around $44m and its NPAT was $16.7m. EnergyAustralia paid dividends of $7.7m in 2004/05.

Table 3.8: EnergyAustralia financial ratios, 2004/05

	2004/05
EBIT(PS)/interest cover (times)	2.1x
Return on assets (%)	7.0
Return on equity (%)	5.6
Gearing ratio* (%)	51.4

Operating ratios

EnergyAustralia's operating ratios are shown in Table 3.9.

Table 3.9: EnergyAustralia operating ratios, 2004/05

	2004/05
Opex (PS)/line length ($/km)	22115
Opex (PS)/MW peak ($/MW)	4453
Opex (PS)/RAB (%)	3.6
Capex(PS)/RAB (%)	6.0
Capex(PS)/MW peak ($/MW)	7319
Revenue (PS)/MW peak ($/MW)	17677
Assets/MW peak ($/MW)	122159

3.3.3 Murraylink

This is the first year that Murraylink's data has been included in the regulatory report.

Financial indicators

Murraylink' EBIT for 2004/05 was $5.0m and it had an EBIT(PS)/interest cover of 23.5 times. This is due to minimal interest payments of just over $0.2m resulting in the relatively high EBIT(PS)/interest cover. The high return on equity reflects the low level of equity held by shareholders, which has also resulted in a high gearing ratio.

Table 3.10: Murraylink financial ratios, 2004/05

	2004/05
EBIT(PS)/interest cover (times)	23.5x
Return on assets (%)	4.9
Return on equity (%)	120000
Gearing ratio* (%)	100.0

Operating ratios

Murraylink's operating ratios are shown in table 3.13. Murraylink's revenue cap does not contain an allowance for capex, hence no capex-related ratios are calculated.

Table 3.11: Murraylink operating ratios, 2004/05

	2004/05
Opex (PS)/line length ($/km)	17078
Opex (PS)/RAB (%)	3.0
Opex (PS)/MW peak ($/MW)	13973
Revenue (PS)/MW peak ($/MW)	56150
Assets/MW peak ($/MW)	461559

3.3.4 Powerlink

Financial indicators

Powerlink's EBIT(PS) has increased almost 8% to $199.2m compared to 2003/04, reflecting the revenue smoothing profile adopted in its regulatory determination. NPAT has increased by more than 11% to $103.3m in 2004/05, showing a steady increase over the reporting period. Powerlink's dividend payments have fallen despite the increased profit, to $82.6m in 2004/05, down from nearly $88m the previous year.

Powerlink's gearing ratio decreased slightly this period to just over 48%. The return on equity and return on assets have both increased over the reporting period.

Figure 3.3: Powerlink EBIT(PS), NPAT, dividends paid, 2002/03 - 2004/05 ($m)

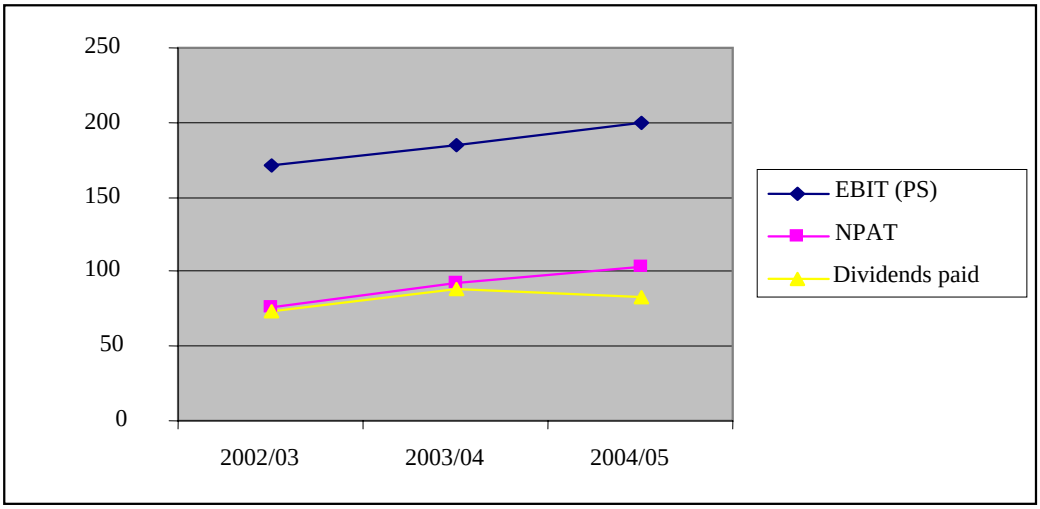


Table 3.12: Powerlink financial ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
EBIT(PS)/interest cover (times)	2.2x	2.3x	2.3x
Return on assets (%)	6.9	7.0	7.2
Return on equity (%)	5.5	6.3	6.6
Gearing ratio (%)	49.3	49.1	48.4

Operating ratios

In calculating Powerlink's opex ratios, grid support costs have been excluded from the calculations. This is because these costs are essentially a substitute for augmentation capex, and are very volatile from year to year. Powerlink's opex and capex ratios increased from the last financial year. The opex(PS)/line length ratio was $7,351/km an increase of 8.8% from 2003/04. There has been a substantial increase in maximum demand from 2002/03 to 2004/05 which amounts to a 29% increase over the last three years.

Table 3.13: Powerlink operating ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
*Opex (PS)/line length ($/km)	6390	6756	7351
*Opex (PS)/MW peak ($/MW)	10338	9869	10629
*Opex (PS)/RAB (%)	2.9	3.0	3.2
Capex/RAB (%)	8.1	6.2	7.7
Capex/MW peak ($/MW)	28301	20683	25705
Revenue/MW peak ($/MW)	49252	48364	50564
Assets/MW peak ($/MW)	351222	331543	335572

*Opex excludes grid support.

3.3.5 SPI PowerNet

Financial indicators

SPI PowerNet's EBIT(PS) increased by more than 9% over the previous year to $179.5m, while its NPAT decreased slightly to $61.2m. Return on equity increased from 9.3% to 11.4% for the year. Return on assets also increased from 8.9% to 9.7%. No dividends were paid by SPI PowerNet in 2004/05.

Figure 3.4: SPI PowerNet EBIT(PS) and NPAT 2002/03 - 2004/05 ($m)

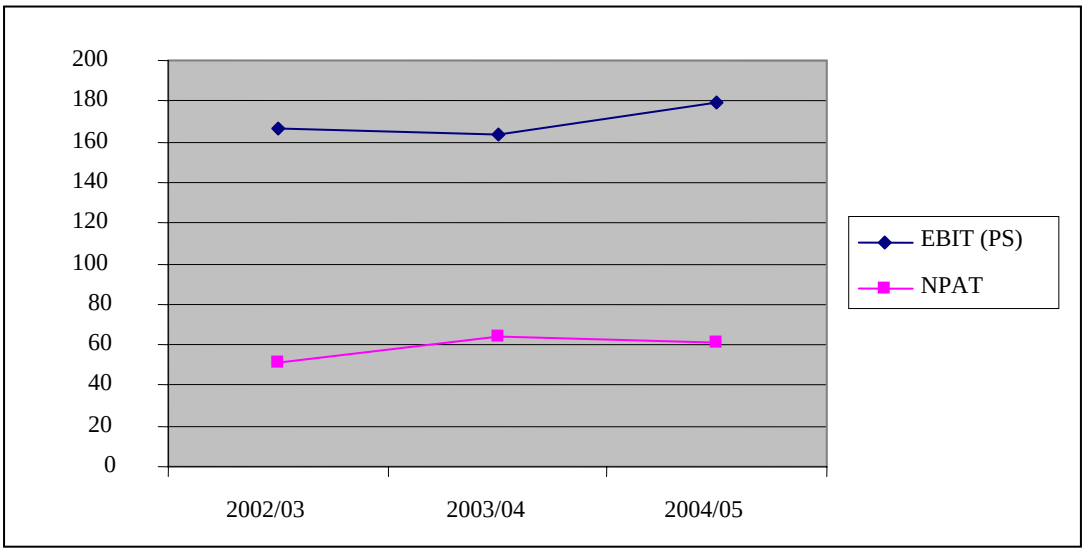


Table 3.14: SPI PowerNet financial ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
EBIT(PS)/interest cover (times)	1.8x	1.9x	2.0x
Return on assets (%)	9.2	8.9	9.7
Return on equity (%)	8.3	9.3	11.4
Gearing ratio (%)	69.8	66.8	73.9

Operating ratios

SPI PowerNet's operating ratios were fairly constant compared to the previous year. The largest change was in its capex/RAB ratio, which increased to 3.7%, from 2.8% in 2003/04.

Table 3.15: SPI PowerNet operating ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
Opex (PS)/line length ($/km)	7890	8668	8622
Opex (PS)/MW peak ($/MW)	6303	6675	6591
Opex (PS)/RAB (%)	2.9	3.1	3.0
Capex/RAB (%)	2.0	2.8	3.7
Capex/MW peak ($/MW)	4437	6104	6913
Revenue/MW peak ($/MW)	32025	31904	32809
Assets/MW peak ($/MW)	220773	215389	217080

3.3.6 Transend

Financial indicators

Transend's EBIT(PS) and NPAT both increased. Its EBIT(PS) was up by almost 34% to $42.6m, while its NPAT was 38% higher at $27.5m for 2004/05. Transend's return on assets was 6.8%, up from 5.4% the previous year. Its EBIT(PS)/interest cover increased from 15.5x to 17.4x this year. Transend's gearing ratio also rose from 6% in 2003/04 to 8.5% in 2004/05.

Figure 3.5: Transend EBIT(PS), NPAT, dividends paid, 2002/03 - 2004/05 ($m)

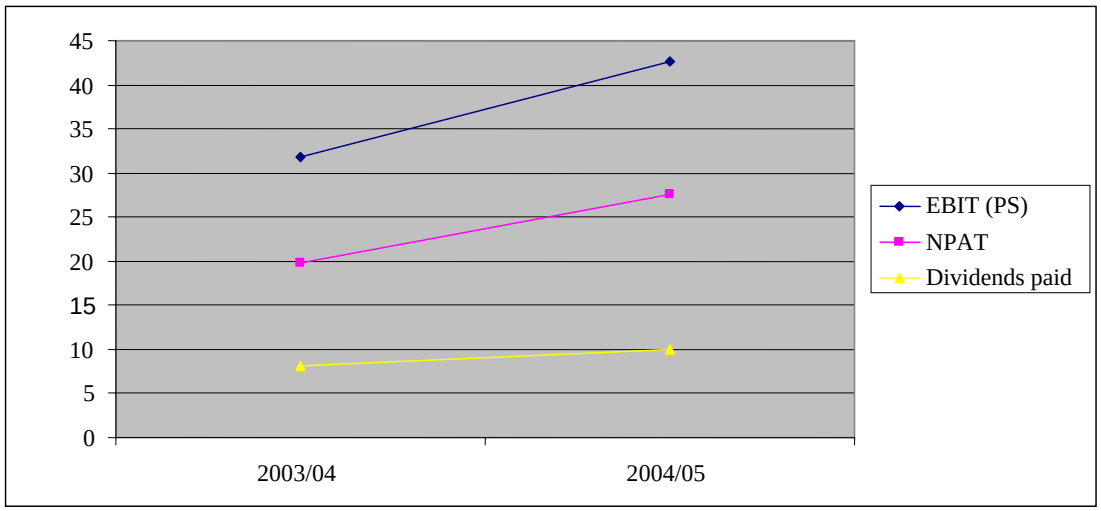


Table 3.16: Transend financial ratios, 2003/04 – 2004/05

	2003/04	2004/05
EBIT(PS)/interest cover (times)	15.5x	17.4x
Return on assets (%)	5.4	6.8
Return on equity (%)	3.6	4.8
Gearing ratio (%)	6.0	8.5

Operating ratios

Transend's opex/RAB ratio rose from 4.2% to 4.6% for the year. Its capex/RAB ratio decreased from 9.5% to 8.3%.

Table 3.17: Transend operating ratios, 2003/04 – 2004/05

	2003/04	2004/05
Opex (PS)/line length ($/km)	7064	8109
Opex (PS)/MW peak ($/MW)	14774	16312
Opex (PS)/RAB (%)	4.2	4.6
Capex/RAB (%)	9.5	8.3
Capex/MW peak ($/MW)	33435	29368
Revenue/MW peak ($/MW)	50820	60697
Assets/MW peak ($/MW)	350530	354198

3.3.7 TransGrid

Financial indicators

TransGrid's EBIT(PS) increased by 9% to $199.4m for 2004/05, while its NPAT decreased from $83.2m to $77.1m for the year. Its return on equity also decreased to 4.1% (5.5% in 2003/04) and its gearing ratio was just under 45% (compared to 50.1% in 2003/04). $38m in dividends were paid.

Figure 3.6: TransGrid EBIT(PS), NPAT, dividends paid 2002/03 - 2004/05 ($m)

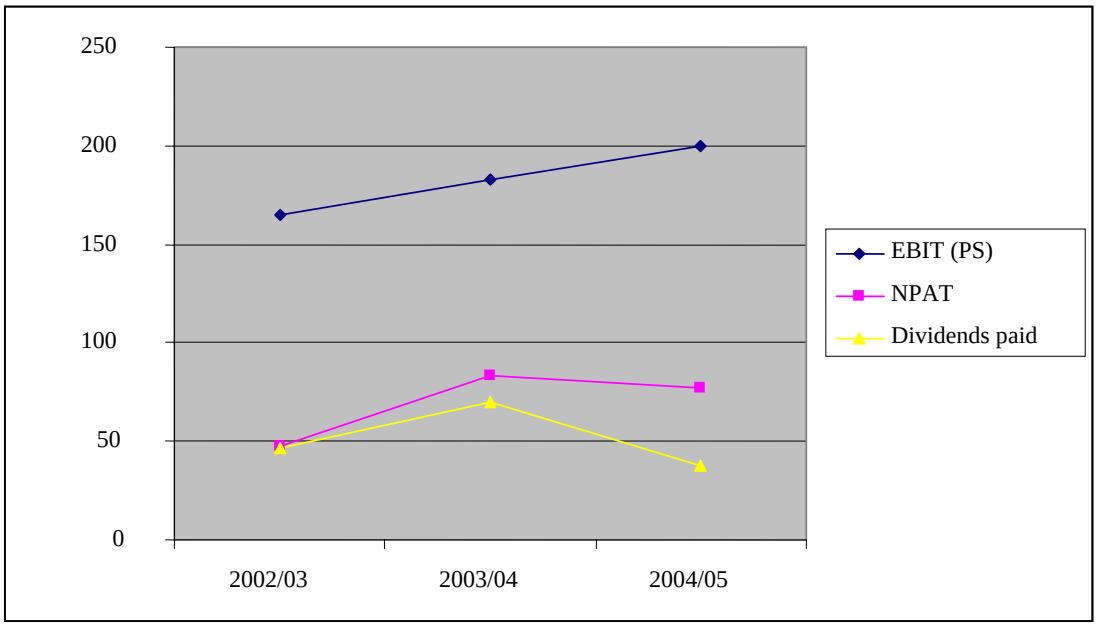


Table 3.18: TransGrid financial ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
EBIT(PS)/interest cover (times)	1.9x	2.1x	1.9x
Return on assets (%)	6.3	5.8	5.9
Return on equity (%)	4.2	5.5	4.1
Gearing ratio (%)	55.3	50.1	44.9

Operating ratios

TransGrid's opex ratios have remained steady over the last period. The opex/RAB ratio decreased slightly to 3.4%. However, the capex/RAB ratio was significantly less at 3.8% (compared to 8.4% in 2003/04).

Table 3.19: TransGrid operating ratios, 2002/03 – 2004/05

	2002/03	2003/04	2004/05
Opex (PS)/line length ($/km)	9177	9402	9398
Opex (PS)/MW peak ($/MW)	9228	9379	8939
Opex (PS)/RAB (%)	4.3	3.7	3.5
Capex/RAB (%)	9.3	8.3	3.8
Capex/MW peak ($/MW)	19753	21282	9947
Revenue/MW peak ($/MW)	31625	32686	33160
Assets/MW peak ($/MW)	213465	254871	258613

4. Revenue

4.1 Introduction

The AER has issued a regulatory compendium containing a *Statement of Principles for the Regulation of Electricity Transmission Revenues* (SRP). The SRP describes the processes and framework the AER will use to set a revenue cap. The AER will use an accrual building block approach to set revenue caps, which calculates the MAR as the sum of the return on capital, the return of capital, an allowance for operating and maintenance (non-capital) expenditure and income tax allowance. The Australian Energy Market Commission (AEMC) is currently reviewing Chapter 6 of the NER in relation to these matters.

In this way, efficient forecast costs are provided for in the decision as well as a reasonable rate of return on assets employed to provide the transmission service. The AER is aware of the need to minimise compliance costs and ensure the regulatory process is objective, transparent and as light handed as possible.

When setting a revenue cap the AER aims to satisfy the NEM objective as set out in the National Electricity Law, that is:

> To promote efficient investment in, and efficient use of, electricity services for the long term interests of consumers….[7]

The NER requires the AER to set a revenue cap (which determines the maximum allowed revenue) to apply to each TNSP. The MAR is then used by the TNSP to determine transmission prices in accordance with Part C of Chapter 6 of the NER.

There are small annual variances from the MAR that commonly occur. If the TNSP exceeds its revenue cap, it must adjust its transmission prices in the following year. Under the terms of the revenue cap, the MAR is adjusted annually for changes in the Consumer Price Index (CPI) thereby preserving the real value of the revenue stream. This is a major reason for differences between forecast and actual MAR reported by TNSPs. Payments and penalties under the AER's Performance Incentive Scheme also affect the actual MAR.

4.2 Aggregate TNSP performance

The TNSPs' revenues are largely determined by the value of their RAB. This is due to the capital intensive nature of electricity transmission. TNSPs receive a return on the value of the RAB established by the revenue cap decision. Altogether, this return on capital plus the return of capital (depreciation) represents about 70% of the TNSPs' revenue. Opex constitutes around 25% of their revenue with an allowance for income tax expense making up the balance.

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[7] Part 7, *National Electricity Law* (South Australia) 2005

Where efficiency carryover arrangements have been agreed upon with the AER, the TNSPs may keep any cost savings achieved within the current regulatory period and a proportion thereafter in the following period.

Transmission revenue (through network charges) of $1.5bn accounted for the overwhelming majority (99%) of revenue that TNSPs earned in respect of prescribed services.

Table 4.1 shows the actual and forecast aggregate revenue of the TNSPs. In 2002/03 and 2003/04 there is only a slight variation between actual and forecast revenue, but this difference was 5.5% in 2004/05, mainly due to an increase in VENCorp's revenue requirements as a result of easement land tax expense and increased settlement residues revenue. Excluding VENCorp, which operates on a full cost recovery but no operating surplus basis, the difference between actual and forecast revenue was 1%.

Table 4.1: Aggregate Revenue, 2002/03-2004/05 ($nominal m)

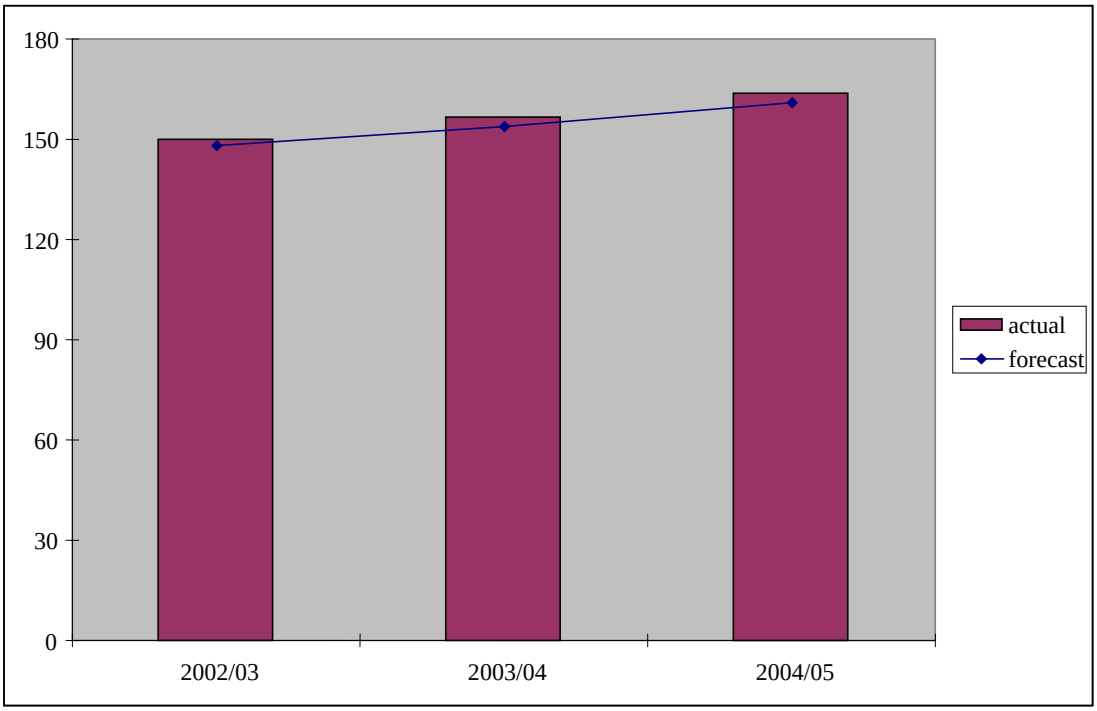
	2002/03	2003/04	2004/05
Actual MAR ($m)	1489.1	1605.0	1851.6
Forecast MAR ($m)	1464.2	1615.6	1749.2
Difference ($m)	24.9	-10.6	102.4
Difference (%)	1.7	-0.7	5.5

4.3 Individual TNSP performance

4.3.1 ElectraNet SA

The revenue outcome for ElectraNet SA was 1.6% above forecast. This is similar to previous years' performance. A major reason for the difference is the payment received under the AER's PI Scheme for outperforming the specified service standards set out in its revenue cap.

Figure 4.1: ElectraNet SA actual and forecast MAR, 2002/03 – 2004/05 ($nominal m)



4.3.2 EnergyAustralia

EnergyAustralia's actual revenue in 2004/05 was $91.3m, the same as its forecast revenue for the year. The 2004/05 financial year is the first year of its new five year regulatory period.

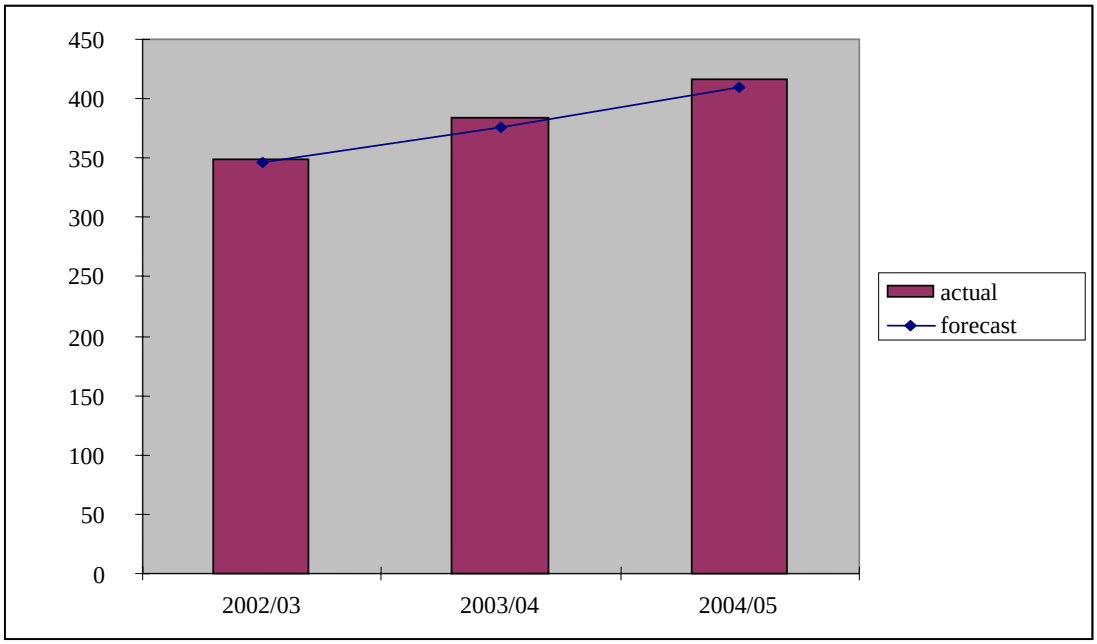
4.3.3 Murraylink

Murraylink's actual revenue was very close to forecast at $12.4m for the year.

4.3.4 Powerlink

Powerlink's actual revenue has only slightly exceeded its forecast revenue over the reporting period, reflecting a higher actual CPI than the forecast estimate adopted in its regulatory determination.

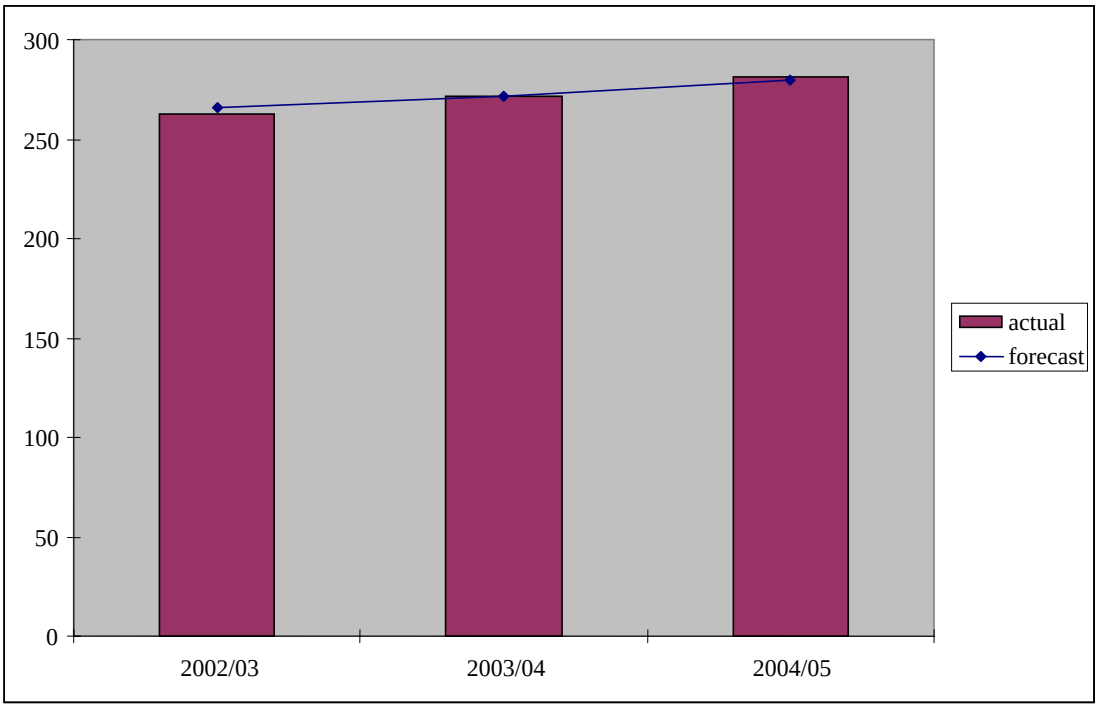
Figure 4.2: Powerlink actual and forecast MAR, 2002/03 – 2004/05 ($nominal m)



4.3.5 SPI PowerNet

SPI PowerNet's forecast and actual revenue have differed by less than 1% in the reporting period. The growth in revenue over the period was around 3.5% per year (the pass through of easement land tax of $31m has been excluded from the 2004/05 revenue and opex figures as it was a revenue neutral event for SPI PowerNet).

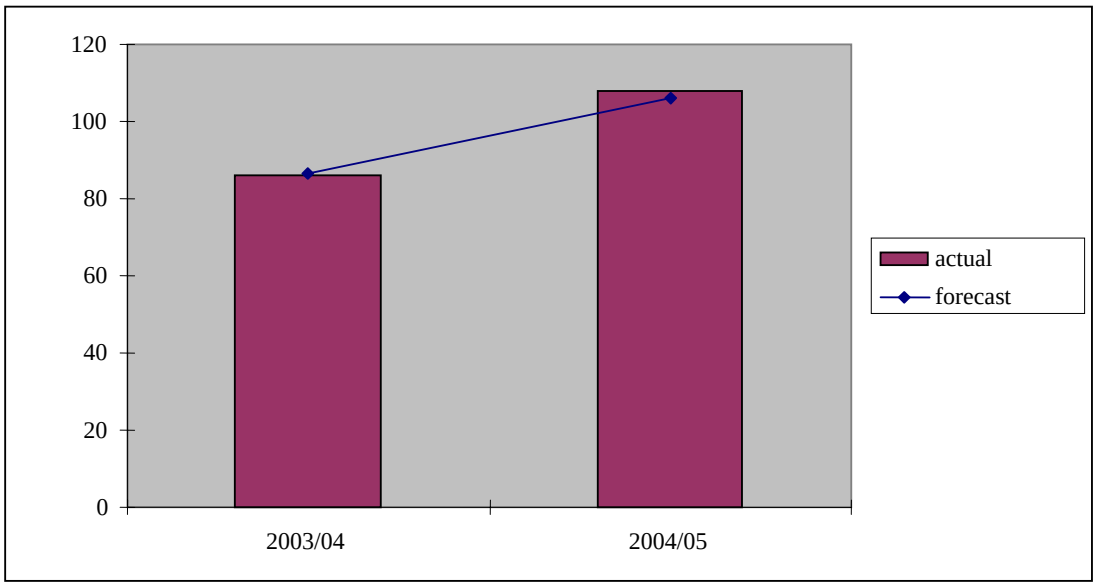
Figure 4.3: SPI PowerNet actual and forecast MAR, 2002/03 – 2004/05 ($nominal m)



4.3.6 Transend

Transend's actual and forecast revenue are closely aligned in the two years for which regulatory accounts have been received. The growth in actual revenue between 2003/04 and 2004/05 is of the order of $22m or 26%. This is attributable to the increased allowance provided for under the revenue cap set by the ACCC, effective from 1 January 2004, with 2004/05 being the first full year under that decision.

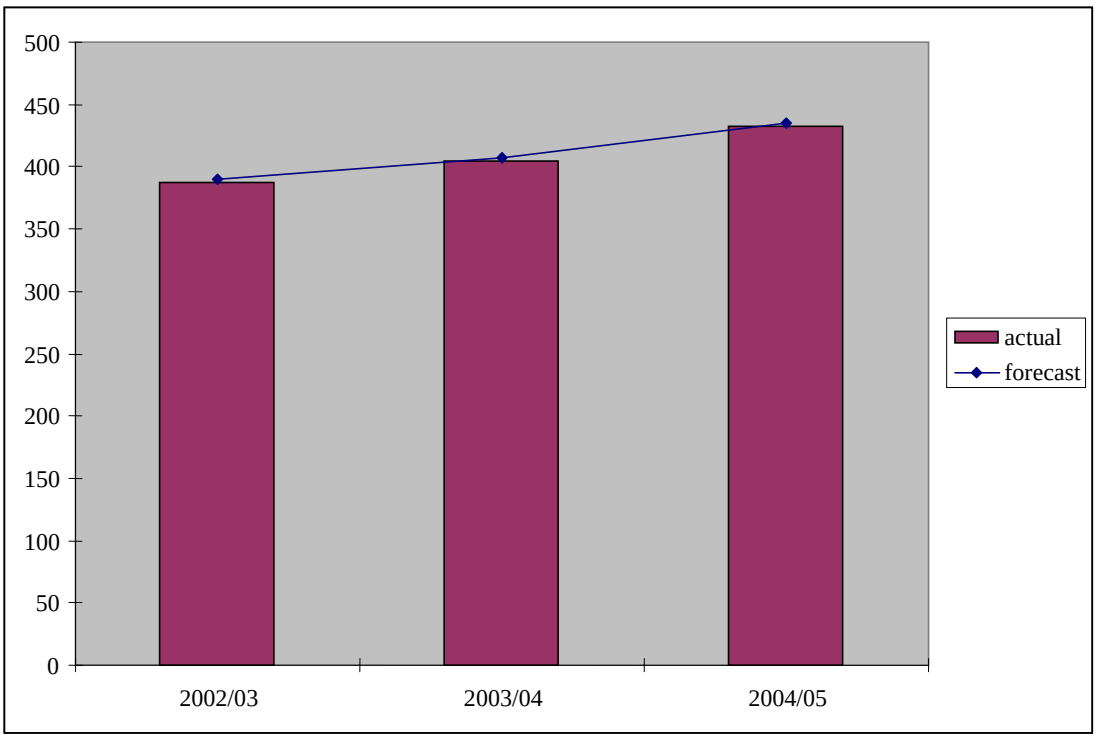
Figure 4.4: Transend actual and forecast MAR, 2003/04 – 2004/05 ($nominal m)



4.3.7 TransGrid

TransGrid's actual revenue has been close to forecast levels over the past three years. Its actual revenue has increased from $390m to $435m over that time. The 2004/05 financial year is the first year of its new five year regulatory period.

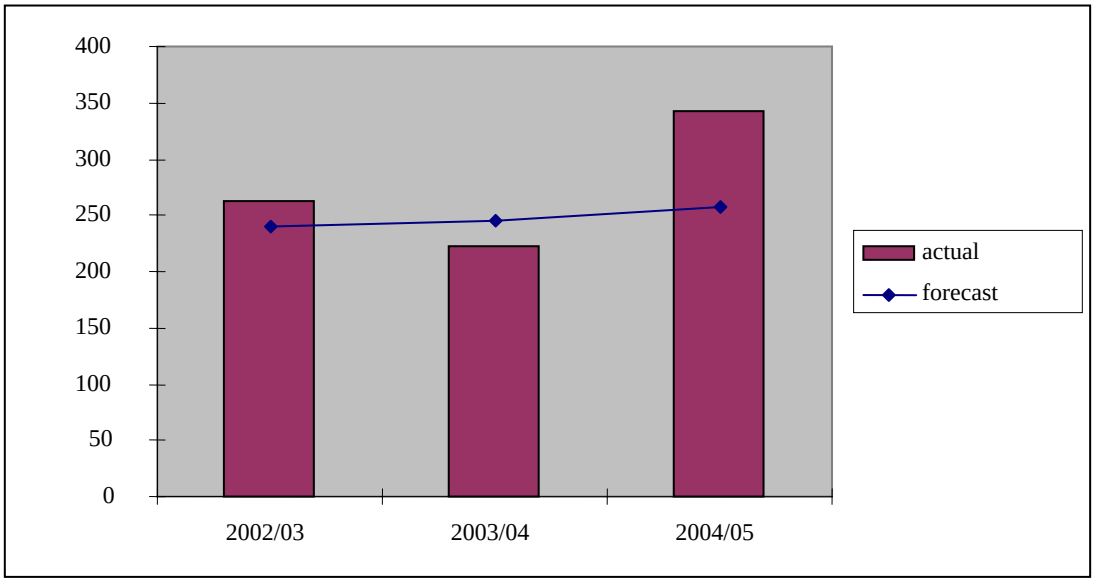
Figure 4.5: TransGrid actual and forecast MAR, 2002/03 – 2004/05 ($nominal m)



4.3.8 VENCorp

The forecast revenue for VENCorp has risen from $240m in 2002/03 to $255m in 2004/05, but actual revenue has fluctuated substantially. In 2004/05, VENCorp's actual revenue of $343m was $88m greater than forecast largely due to the effects of the pass through of easement land tax and settlement residues revenue.

Figure 4.6: VENCorp actual and forecast MAR, 2002/03 – 2004/05 ($nominal m)



5. Capital expenditure

5.1 Introduction

Capex is used to augment a TNSP's transmission system or to replace or refurbish existing assets. In setting a revenue cap, the AER forms a view on the efficiency of the proposed capex program having regard to future demand and service quality. The AER's approach to assessing capex in a revenue cap is set out in the SRP. Under the SRP, capex to be included in the revenue cap of a TNSP is assessed on an ex ante basis. The NER also requires the AER to foster an efficient level of investment by the TNSPs. It should be noted that some TNSPs continue to operate under an ex post capex approach until their next regulatory determination. As noted earlier, the AEMC is currently reviewing Chapter 6 of the NER in relation to these matters.

This chapter presents the TNSPs' reported capex compared with the forecasts that were included in the ACCC's revenue cap decisions for the 2004/05 financial year. The information on the TNSPs' actual capex for 2004/05 was obtained from the regulatory accounts provided to the AER, as required by section 6.2.5 of the NER.

As noted earlier, capex may vary substantially from year to year and it is therefore necessary to consider a number of years of expenditure before attempting to identify trends.

There are two general exclusions from the aggregate capex measures:

- Murraylink is a DC interconnector between Victoria and South Australia. It commenced operating in October 2002 and the bulk of its assets are underground. It has no capex forecast in the current regulatory period and is not included in this chapter on capex.

- VENCorp's accounts are structured to reflect the regulatory arrangements under which it does not own, build or maintain electricity transmission assets. However, it does pay augmentation charges under network services agreements to successful tenderers who build/own/operate additions to the transmission network in Victoria. VENCcorp's augmentation payments for 2004/05 were $11.3m, compared to forecast expenditure of $19.1m. VENCorp is not included in the aggregate measures of capex below.

5.2 Aggregate TNSP performance

The TNSPs' reported actual total capex for the period 2004/05 is shown in Table 5.1. These figures denote total capex, including both network augmentation and replacement/refurbishment capex.

Table 5.1 Capex - aggregate TNSP performance, 2004/05

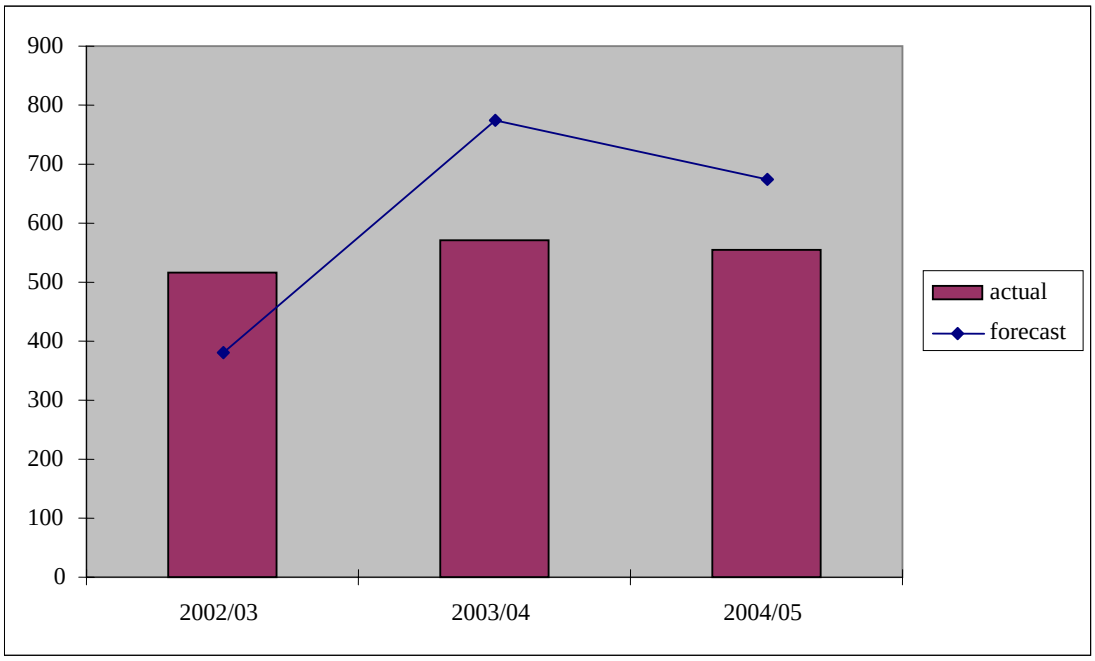
	Actual capex $m	Forecast Capex $m	Difference $m / %
ElectraNet SA	53.3	87.8	(34.5) / (39.3)
EnergyAustralia	37.8	48.4	(10.6) / (21.9)
Powerlink	211.6	230.1	(18.5) / (8.0)
SPI PowerNet	69.6	68.5	1.1 / 1.6
Transend	52.3	80.8	(28.5) / (35.3)
TransGrid*	130.6	157.4	(26.8) / (17.0)
Total 2004/05	555.2	673.0	(117.8) / (17.5)
Total 2003/04**	571.8	773.0	(201.2) / (26.0)
Total 2002/03***	514.8	380.3	135.5 / 35.4

Source: Regulatory Accounts 2002/03, 2003/04 and 2004/05 and the revenue caps set by the ACCC.
*Excludes capitalised interest
**Excludes EnergyAustralia
***Excludes EnergyAustralia and Transend.

Table 5.1 shows that investment levels in the NEM remain robust at approximately 6% of the aggregate regulated asset base of $10.3b. Considered together with TNSPs' opex, the level of expenditure on replacing, extending and maintaining the transmission networks is significant, although lower than forecast.

Table 5.1 also shows that individual results vary among the TNSPs. The reasons for difference from the forecasts vary but may be due to the age of the assets, load growth, climate and natural disasters. The expenditure of each TNSP and the reasons for the differences between actual and forecast expenditure are discussed below.

Figure 5.1: Aggregate* actual and forecast capex, 2002/03 – 2004/05 ($nominal m)

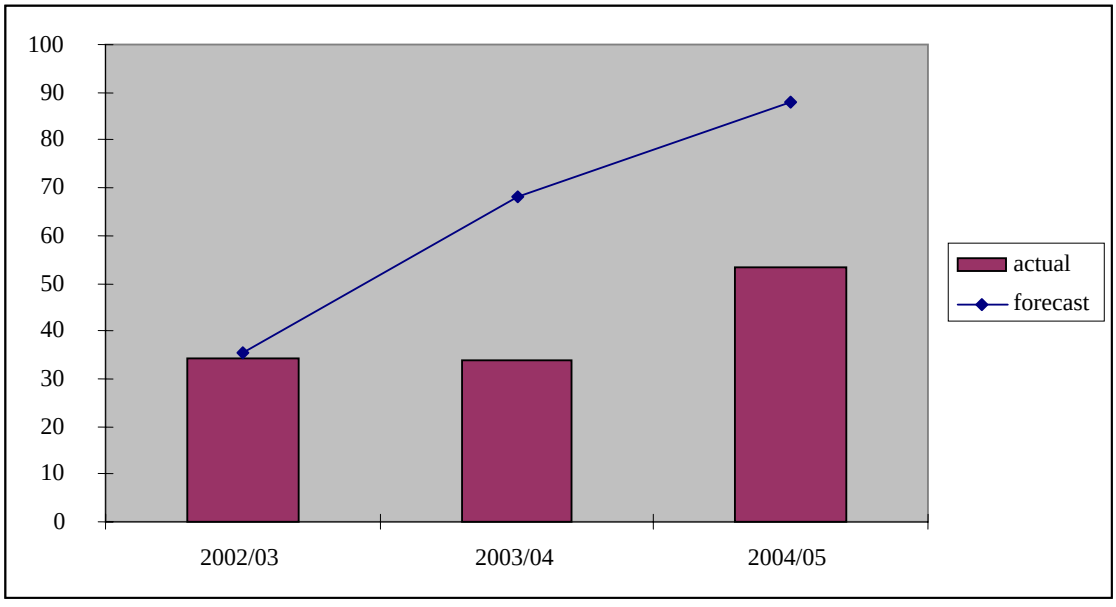


5.3 Individual TNSP performance

5.3.1 ElectraNet SA

ElectraNet's recorded capex of $53.3m was $34.5m (39 %) lower than the forecast figure. However, both actual and forecast capex have increased significantly in comparison to the 2003/04 levels of $33.7m and $68.2m respectively.

Figure 5.2: ElectraNet SA actual and forecast capex, 2002/03 - 2004/05 ($nominal m)



ElectraNet commented that it is focussed on achieving its capex program for the regulatory period, but has experienced delays caused by a number of factors including:

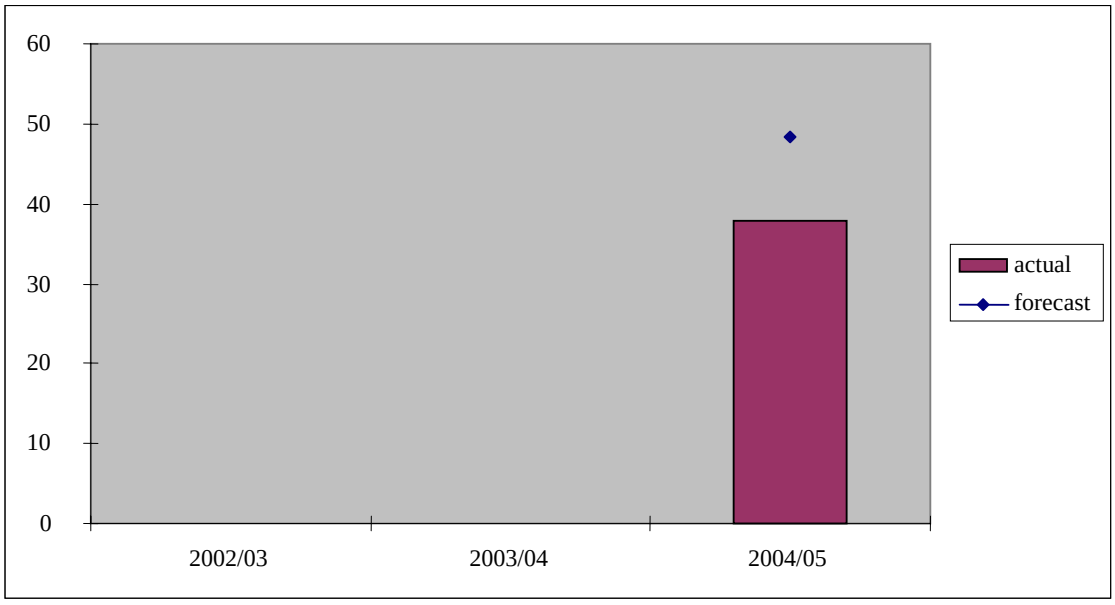
- putting in place resources and contractual arrangements to deliver the increased capital program at a time of resource constraints in the market
- a shift in the timing of major projects – e.g. the South Australia – New South Wales interconnector did not eventuate
- delays in obtaining regulatory test and development approvals.

ElectraNet further commented that it is also delivering projects under budget. ElectraNet finally commented that performance to date in 2005/06 shows that it is on track to achieve its capex program for the regulatory period.

5.3.2 EnergyAustralia

EnergyAustralia recorded capex of $37.8m in 2004/05, compared to its forecast capex of $48.4m, a difference of about 22 %. As noted in section 1.3, there have been changes to the regulatory framework over recent years. EnergyAustralia's revenue for 2004 to 2009 was set using the ex ante approach to determine its capex allowance, the principles of which are detailed in the AER's SRP.

Figure 5.3: EnergyAustralia actual and forecast capex, 2004/05* ($m)



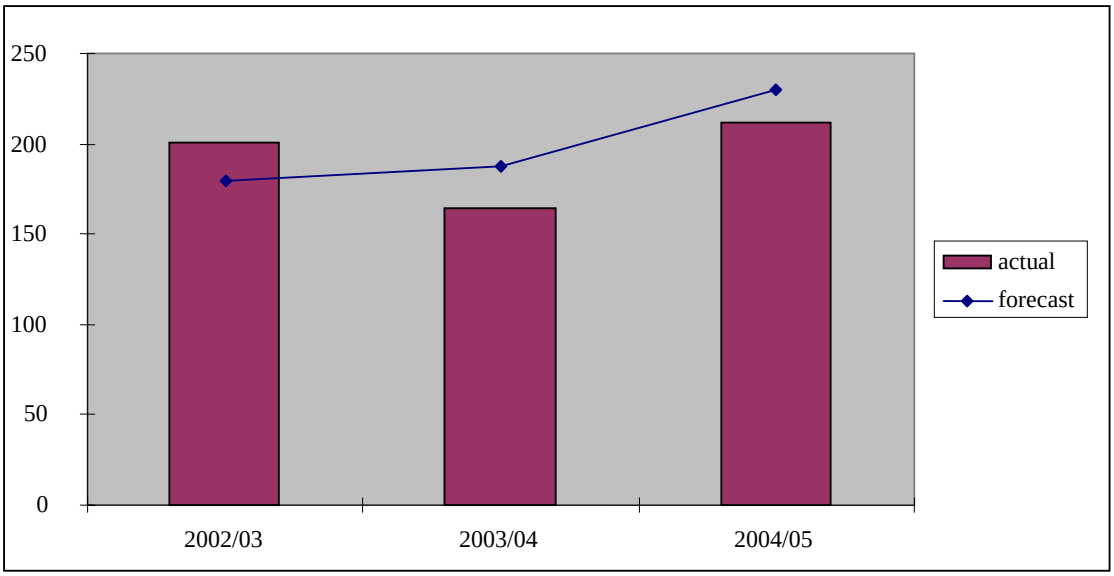
*This is the first year that EnergyAustralia has reported data for inclusion in this report.

EnergyAustralia commented that its capital program remains largely unchanged. However, the timing of two projects (Green Square and Beresfield) and a property matter relating to the 132kV connections at Haymarket and Campbell St that is currently being resolved are the sources of the difference between actual and forecast expenditures for the 2004/05 financial year.

5.3.3 Powerlink

Powerlink recorded capex of $211.6m for 2004/05, which is $18.5m (8 %) lower than forecast. However, this represents a significant increase in actual capex of $47.5m, compared to its expenditure in 2003/04.

Figure 5.4: Powerlink actual and forecast capex, 2002/03 - 2004/05 ($nominal m)

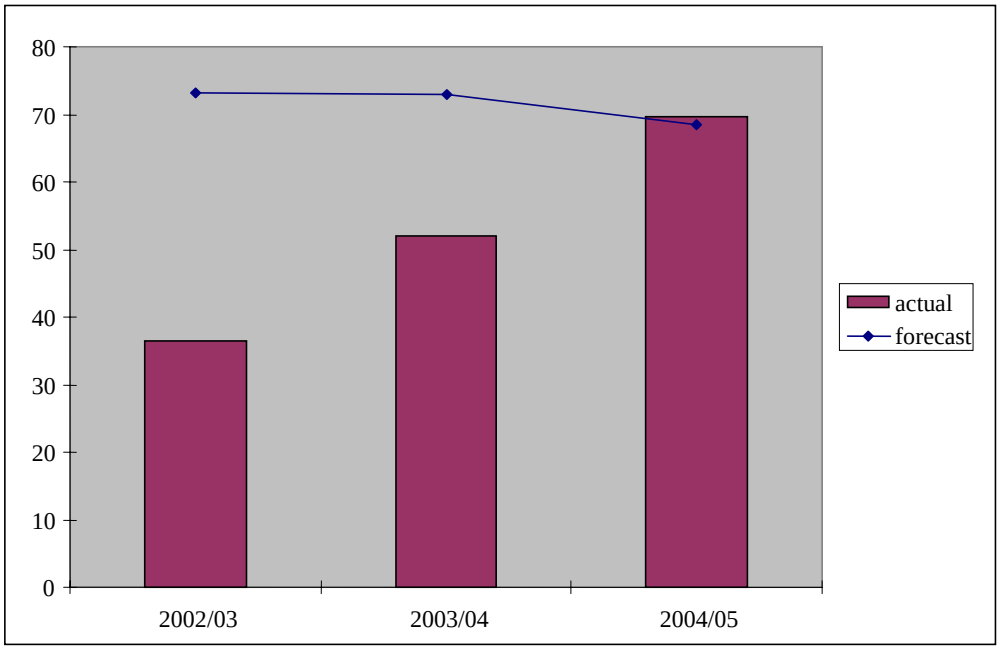


Powerlink commented that its capital expenditure program needs to be considered over the whole five year regulatory period. In response to ongoing demand growth in Queensland, Powerlink is on track to exceed its regulatory capital allowance for the five year period.

5.3.4 SPI PowerNet

This year SPI PowerNet's actual capex of $69.6m is slightly above the forecast figure of $68.5m, and represents a significant increase over actual spending for 2002/03 and 2003/04. It has previously commented that a large substation renewal program means that capex will rise towards the end of the current regulatory period as projects are completed and the expenditure reported under the as-commissioned method.

Figure 5.5: SPI PowerNet actual and forecast capex, 2002/03 - 2004/05 ($nominal m)



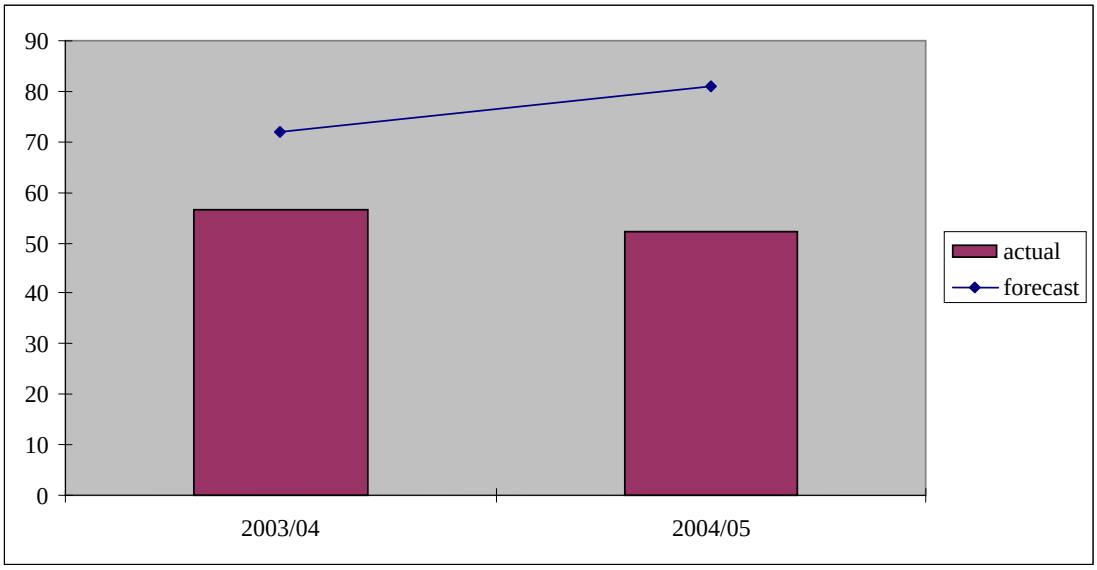
SPI PowerNet commented that, as stated in last year's report, 2003/04 was the last year where in-service targets were expected to be substantially below the ACCC forecast due to the long lead times involved with many of the capital projects underway. As predicted, in 2004/05 the amount of capex placed in service increased substantially as more projects reached competition and was largely aligned with the ACCC forecasts.

As indicated in previous reports, SPI PowerNet expects future years to be above the ACCC forecast as further large amounts of work in progress associated with the station rebuild program is commissioned.

5.3.5 Transend

Transend's actual capex for 2004/05 was $52.3m which was $28.5m (35.3 %) lower than the forecast figure. Transend's actual capex also decreased by $4.2m when compared to 2003/04.

Figure 5.6: Transend actual and forecast capex, 2003/04 - 2004/05* ($nominal m)



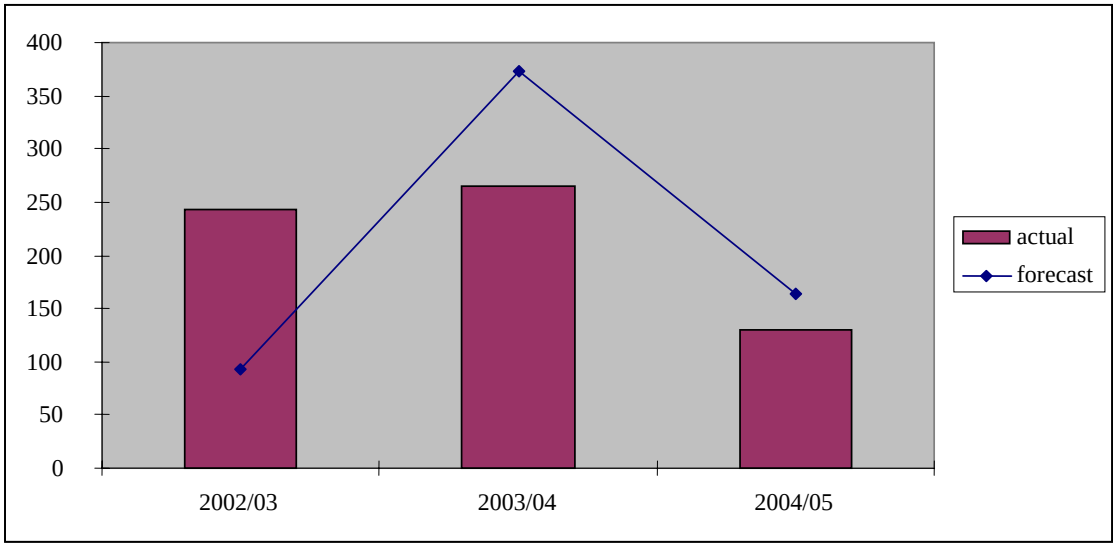
*Transend commenced reporting data for inclusion in this report from 2003/04.

Transend advised that the actual figures reflect the value of commissioned capital expenditure rather than actual expenditure. Capital expenditure levels have increased substantially in recent years with much of the difference between forecast and actual commissioned capital expenditure in 2004/05 largely explained by a $27 million increase in work in progress. Transend is actually expending close to its forecast capital budget, though commissioning projects more slowly than anticipated. Delays in planning approvals have impacted in this regard.

5.3.6 TransGrid

TransGrid's recorded capex of $130.6m was $26.8m (17%) lower than forecast. In comparison to 2003/04, TransGrid's actual capex has decreased by over 50 %. This is mainly due to the completion of the MetroGrid project. As noted in section 1.3, there have been changes to the regulatory framework over recent years. TransGrid's revenue for 2004 to 2009 was set using the ex ante approach to determine its capex allowance, the principles of which are detailed in the AER's SRP (December 2004). As TransGrid's capex allowances for 2002/03 to 2004/05 (Figure 5.7) span the previous and current regulatory frameworks, those frameworks should be taken into account when considering outcomes.

Figure 5.7: TransGrid actual and forecast capex, 2002/03 - 2004/05 ($nominal m)



TransGrid commented that the forecast capex was based on the ACCC revenue cap decision made in 2000. Expenditure in that decision was recognised only when a project is commissioned and the forecasts reflect this “as commissioned” profile. However, the actual expenditure is based on an “as spent” expenditure profile. The timing differences between “as commissioned” and “as spent” expenditure profiles account for most of the differences shown in Figure 5.7.

6. Operating and maintenance expenditure

6.1 Introduction

As with capex, the NER requires the AER to seek to achieve an environment that fosters efficient opex practices. The AER's regulatory framework aims to achieve this by providing incentives to reduce actual opex, balanced against statutory reliability obligations and incentives to improve service standards. As a first step, the AER sets opex targets based on an assessment of the TNSP's capacity to achieve realistic efficiency gains in its proposed opex program, given future demand, service standards and other relevant requirements. The AER's incentive scheme then allows the TNSP to retain any underspend against target and retain some of the savings into the next regulatory period. The regulatory compendium provides details on the opex incentive scheme, including a carry forward mechanism for efficiency gains or losses achieved.

This chapter presents the TNSPs' reported opex compared with the forecasts included in the ACCC's revenue cap decisions for the 2004/05 period. Pursuant to the regulatory compendium, the opex allowance is reviewed at the next price reset, taking into account the actual expenditure in the previous period and other information about likely future expenditure.

6.2 Aggregate TNSP performance

Table 6.1 shows the difference between the actual and forecast opex for 2004/05. Aggregate opex for 2004/05 was almost $354m, which is an increase of about $39m over 2003/04. This increase is in part driven by the inclusion of EnergyAustralia and Murraylink into the 2004/05 aggregate opex totals.

Aggregate actual opex was about $8m less than forecast for 2004/05. Table 6.1 also shows that there are some significant differences between actual and forecast opex for individual TNSPs. The actual opex of each TNSP and the reasons for the differences between actual and forecast opex are discussed below. Opex figures are presented net of network (grid) support payments, which are shown separately where incurred by TNSPs. This enhances the comparability of opex outcomes.

Table 6.1 Opex - aggregate TNSP performance, 2004/05*

	Actual Opex ($m)	Forecast Opex ($m)	Difference ($m) / (%)
ElectraNet SA	32.6	43.0	(10.4) / (24.2)
EnergyAustralia	23.0	23.7	(0.7) / (3.0)
Murraylink	3.1	3.1	(0.01) / (0.3)
SPI PowerNet	56.5	64.6	(8.1) / (12.5)
Powerlink	87.5	72.8	14.7 / 20.2
Transend	29.0	29.3	(0.3) / (1.0)
TransGrid	117.3	119.9	(2.6) / (2.2)
VENCorp	4.8	5.8	(1.0) / (17.2)
Total 2004/05	353.8	362.2	(8.4) / (2.3)
Total 2003/04**	315.1	314.9	0.2 / 0.1
Total 2002/03***	281.0	287.3	(6.3) / (2.2)

Source: Regulatory Accounts 2002/03, 2003/04 and 2004/05 and ACCC revenue cap decisions.
*Excludes grid support.
**Excludes EnergyAustralia and Murraylink.
***Excludes EnergyAustralia, Murraylink and Transend.

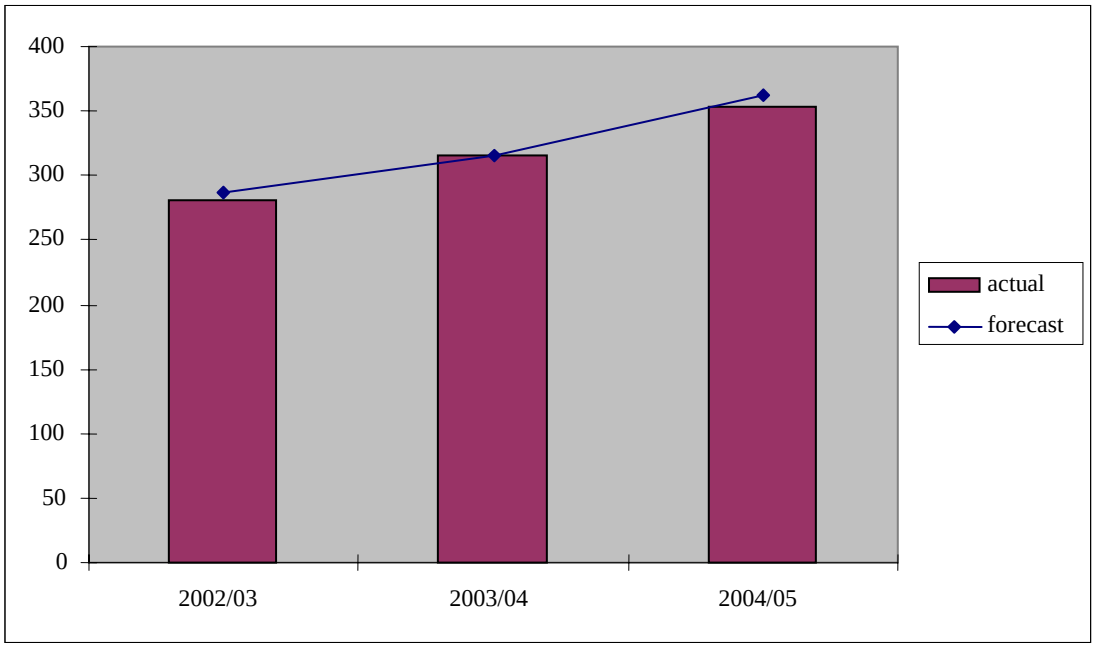
Table 6.2 Grid support: 2002/03 – 2004/05 ($nominal m)

		2002/02	2003/04	2004/05
ElectraNet SA	actual	4.4	3.7	4.6
	forecast	4.0	4.0	4.0
Powerlink	actual	10.7	11.2	15.3
	forecast	5.2	16.6	15.4

Source: Regulatory Accounts 2002/03, 2003/04 and 2004/05 and ACCC revenue cap decisions.

Figure 6.1 shows that aggregate forecast opex, similar to previous years, is relatively close to actual opex. In the latest financial year, there was a general trend amongst TNSPs to spend less on opex than was accommodated in their revenue caps. Powerlink is the exception. Actual opex comprises about 26% of a TNSP's total costs. Spending on an aggregate level is tracking reasonably closely with revenue cap forecasts. It should be noted that several factors affect the comparability of opex among transmission companies. These include varying load profiles, load densities, asset age profiles, network designs, local regulatory requirements, topography and climate. This is discussed in more detail in Chapter 2 which explores the different network characteristics of the TNSPs.

Figure 6.1: Aggregate actual and forecast opex, 2002/03 – 2004/05* ($nominal m)

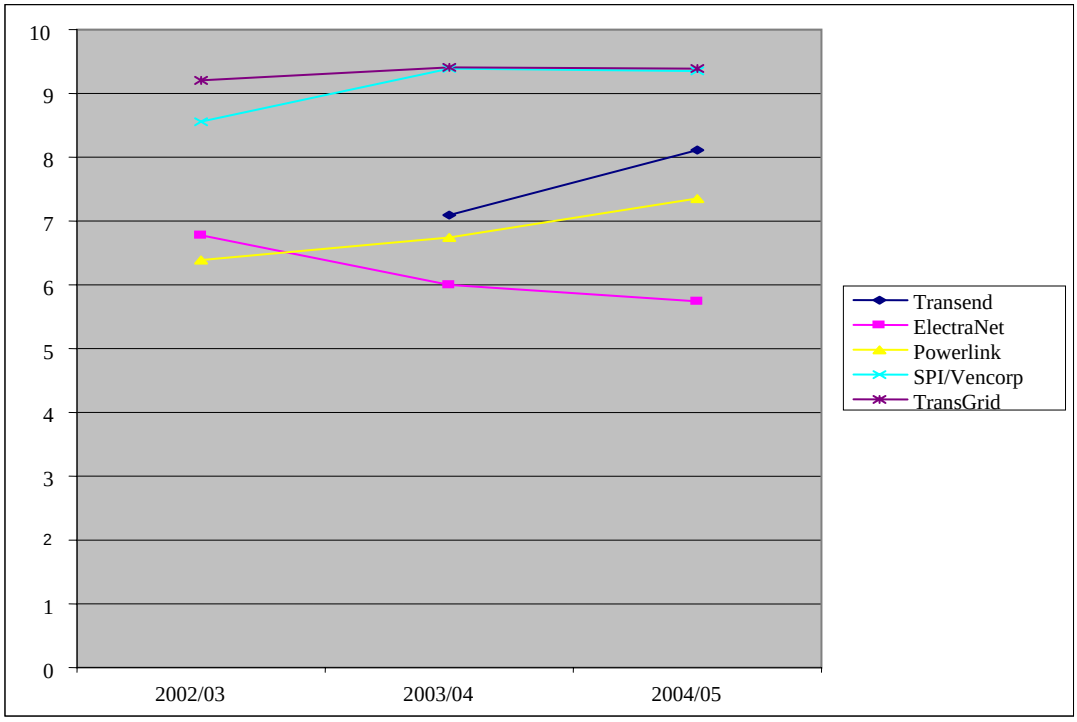


*Excludes grid support.

Chapter 7 on service standards discusses the link between TNSPs providing adequate opex and maintaining the quality of service of their networks. Table 7.1 summarises results of the AER's PI Scheme for 2004. All TNSPs, except for Murraylink, received a payment under the PI scheme for the year.

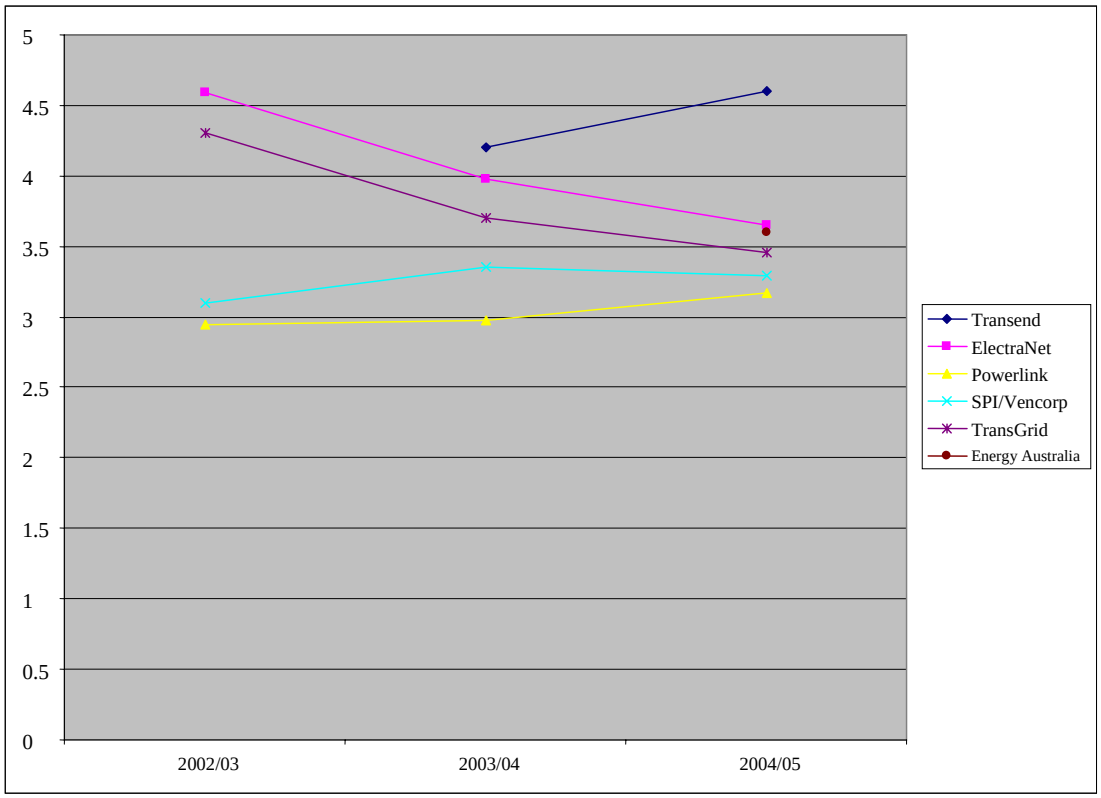
As noted in Chapter 2, the AER recognises that differences in operating conditions and scale can explain some variance in ratios such as opex/line length. Accordingly, the AER does not use benchmarking to establish opex allowances for TNSPs, but rather as a guide to whether the allowances are within a reasonable range.

Figure 6.2: Actual opex/line length ($'000/km)*



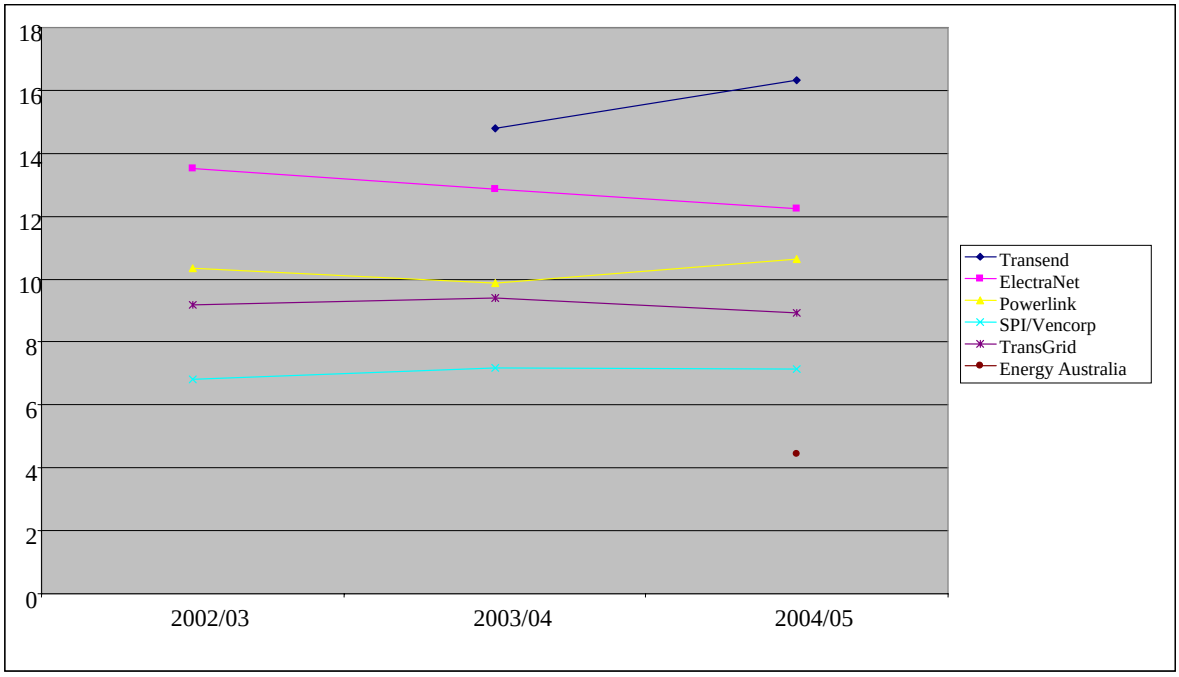
*EnergyAustralia's data is included in the regulatory report for the first time this year. It recorded an opex/line length ratio of $22115/km for 2004/05. Opex figures exclude grid support.

Figure 6.3: Actual opex/RAB (%)*



*Excludes grid support.

Figure 6.4: Actual opex/MW demand peak ($'000/MW)*



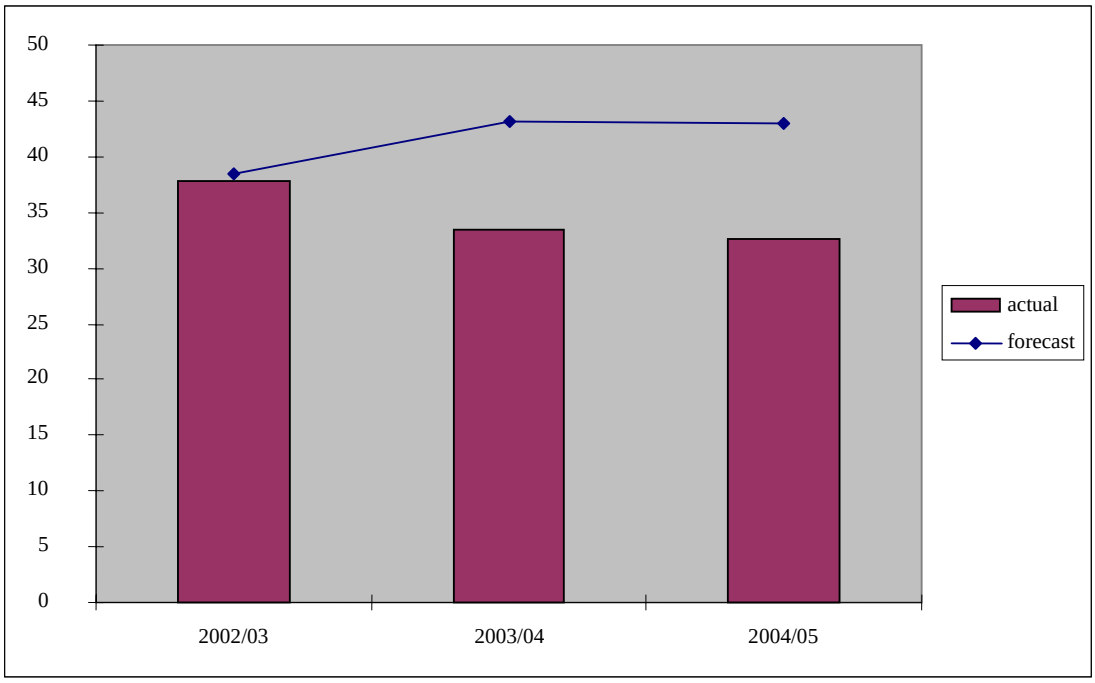
*Excludes grid support.

6.3 Individual TNSP performance

6.3.1 ElectraNet SA

ElectraNet SA recorded opex (excluding grid support) of $32.6m, 24.2% less than its forecast expenditure of $43.0m. Actual opex for 2004/05 was similar to the previous year.

Figure 6.5: ElectraNet SA actual and forecast opex, 2002/03 - 2004/05 ($nominal m)*



*Excludes grid support

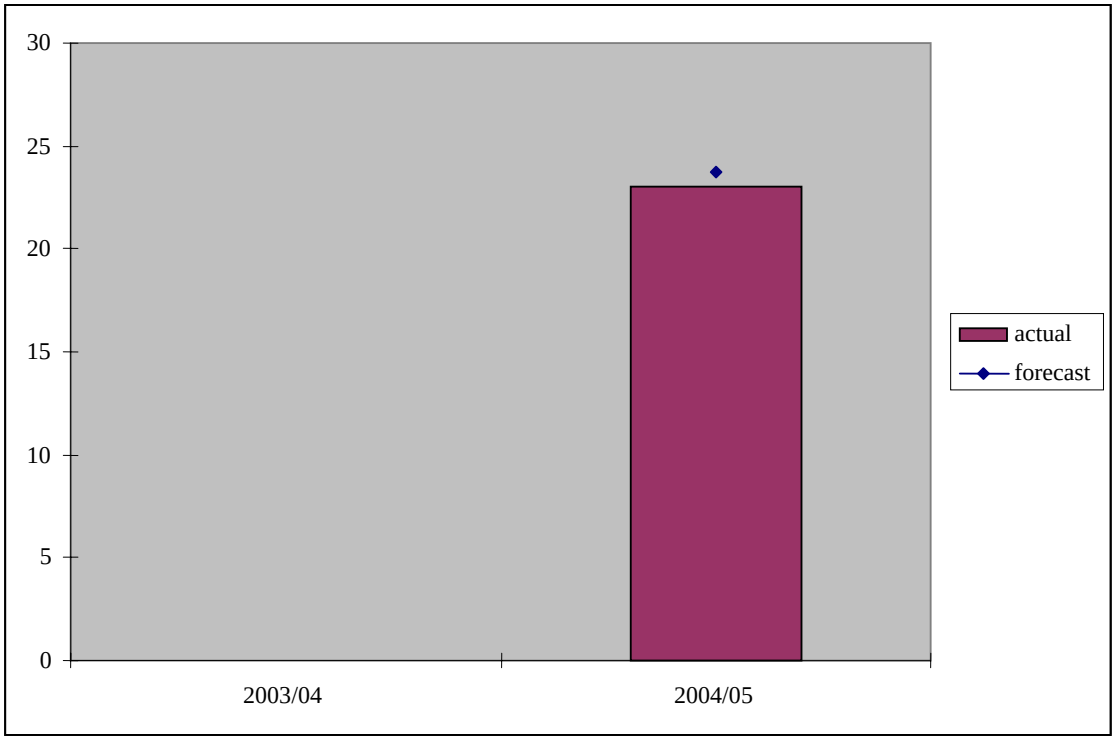
ElectraNet commented that it has actively sought opex efficiencies in response to the incentives included in the revenue cap decision.

ElectraNet further commented that it has also undertaken a review of asset maintenance and refurbishment practices that will require routine and condition based maintenance expenditure to increase over the remainder of the regulatory period.

6.3.2 EnergyAustralia

EnergyAustralia recorded opex of $23m, which was 3.0% lower than its forecast expenditure of $23.7m.

Figure 6.6: EnergyAustralia actual and forecast opex, 2004/05* ($m)



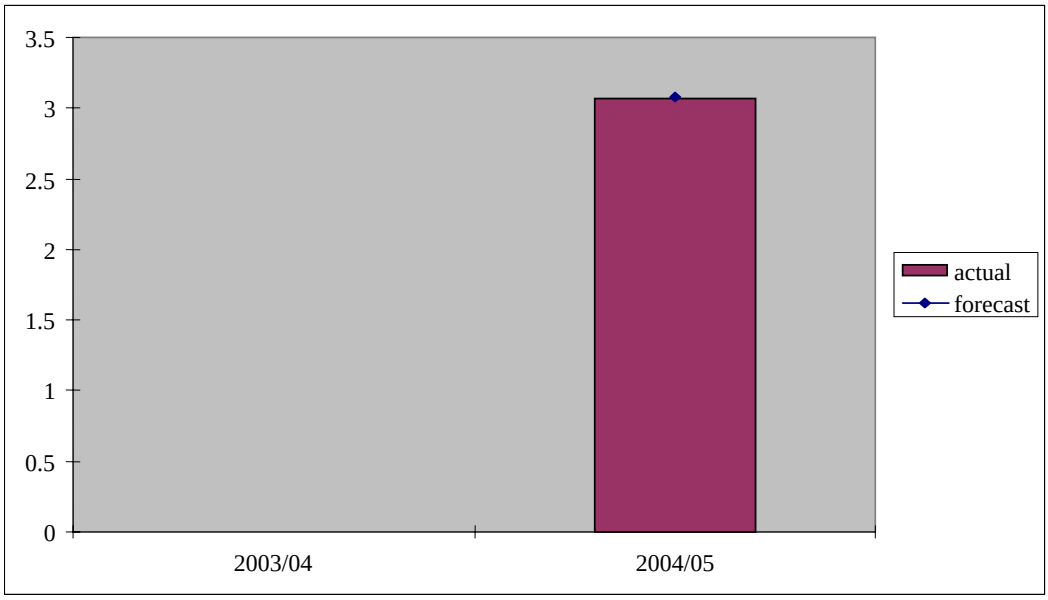
*This is the first year that EnergyAustralia has reported data for inclusion in the report.

EnergyAustralia commented that its operating program remains unchanged and on target.

6.3.3 Murraylink

Murraylink recorded opex of $3.1m, which was very close to its forecast expenditure.

Figure 6.7: Murraylink actual and forecast opex, 2004/05* ($m)

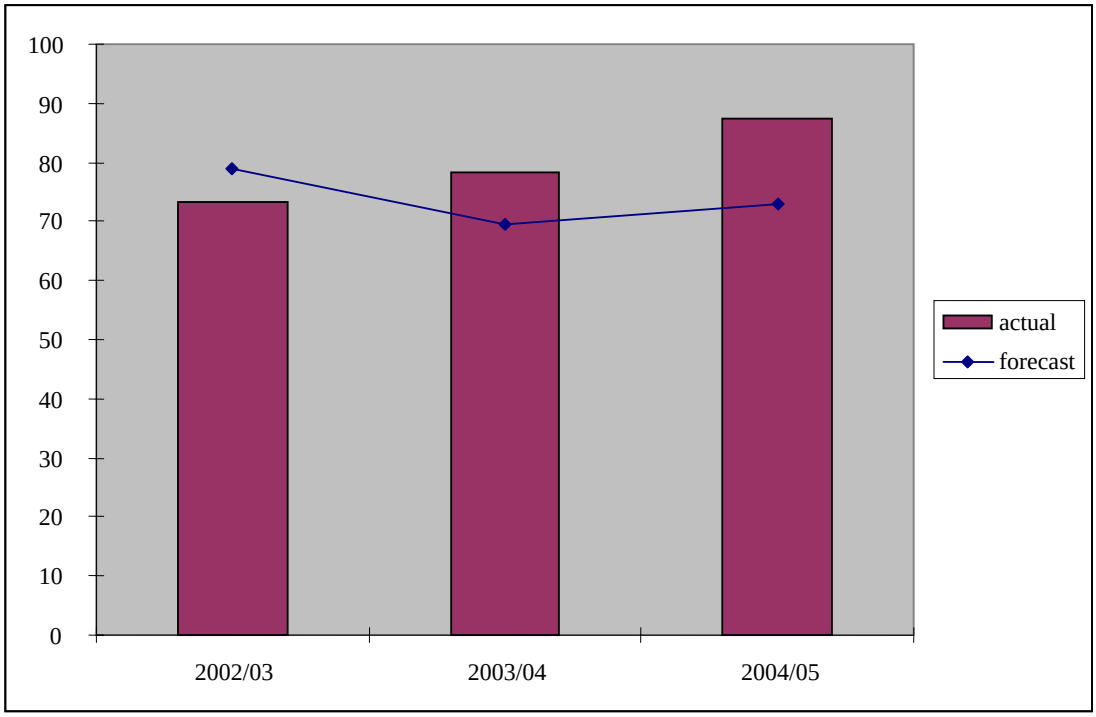


*This is the first year that Murraylink has reported data for inclusion in the report.

6.3.4 Powerlink

Powerlink's recorded actual opex of $87.5m (which excludes grid support payments) was $14.7m (20.2%) higher than its forecast expenditure ($72.8m). The actual opex for 2004/05, excluding grid support payments, was nearly 12% higher than actual expenditure for 2003/04.

Figure 6.8: Powerlink actual and forecast opex, 2002/03 - 2004/05 ($nominal m)*



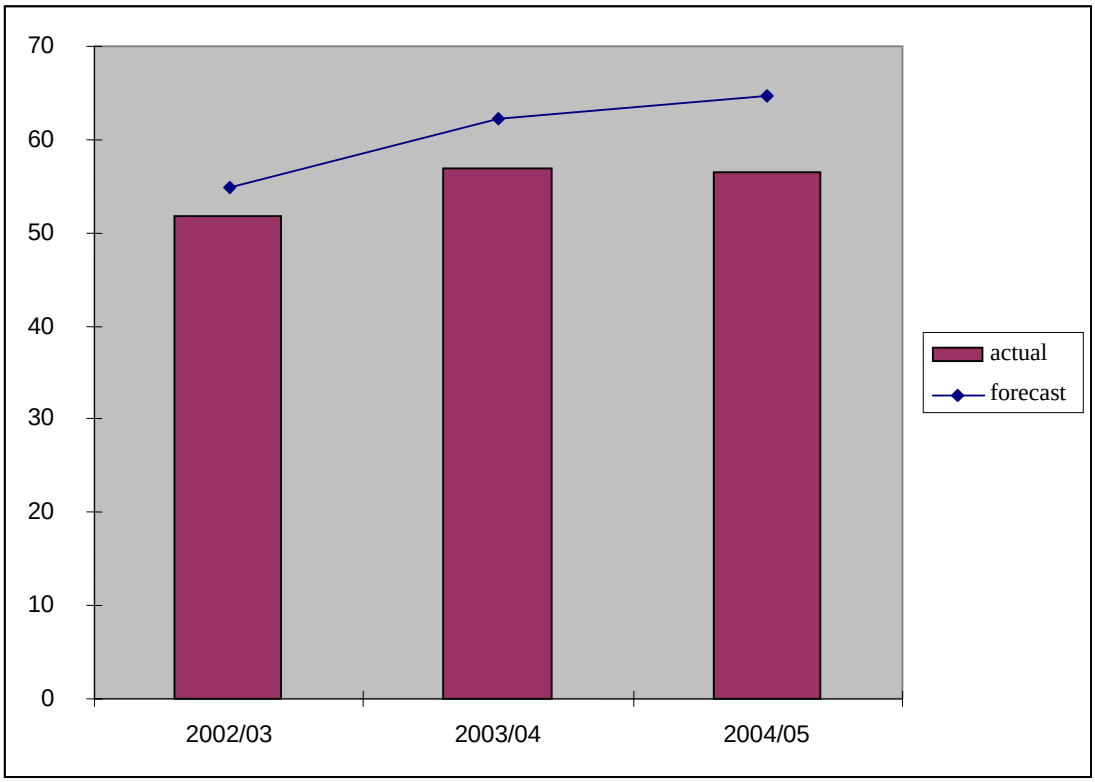
*Excludes grid support

Powerlink commented that grid support payments are weather-dependent and highly volatile.

6.3.5 SPI PowerNet

SPI PowerNet's opex of $56.5m was about 12.5% lower than the forecast expenditure of $64.6m. The actual opex for 2004/05 was similar to the previous financial year's actual expenditure of $56.8m.

Figure 6.9: SPI PowerNet actual and forecast opex, 2002/03 - 2004/05 ($nominal m)

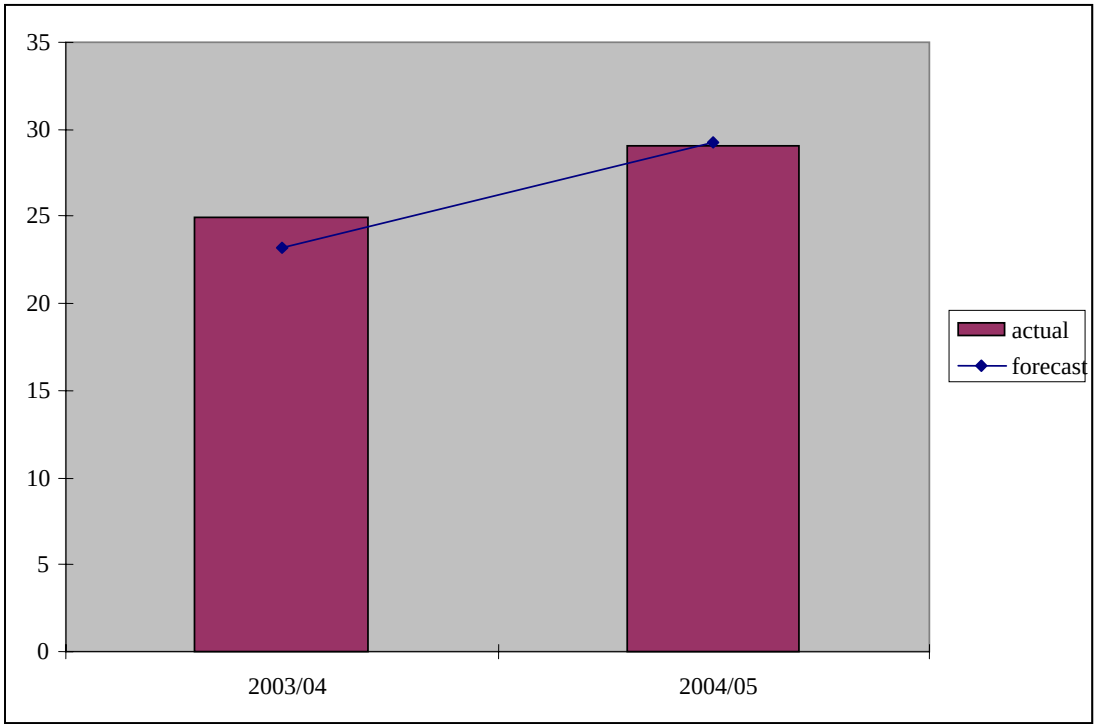


SPI PowerNet stated that it actively pursues efficiencies in response to the incentives offered under the current regime. Nonetheless, SPI PowerNet continues to expect its opex costs to trend upwards over the regulatory period.

6.3.6 Transend

Transend recorded opex of $29m, which was close to its forecast expenditure of $29.3m. This represented an increase in actual opex of $4m over its 2003/04 expenditure.

Figure 6.10: Transend actual and forecast opex, 2003/04 - 2004/05 ($nominal m)

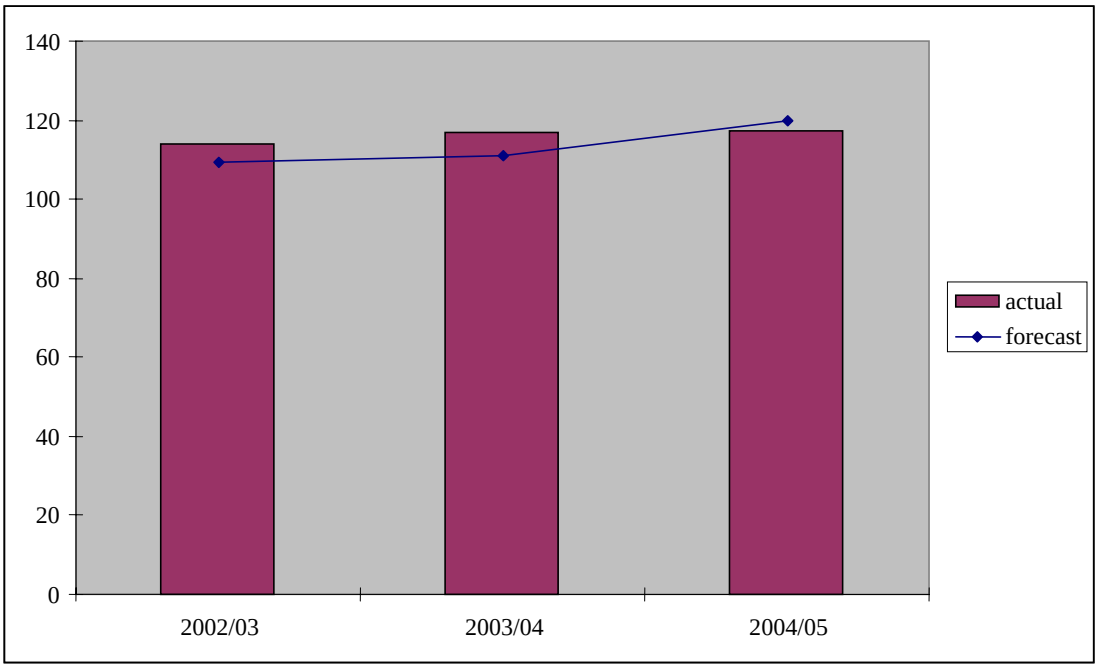


Transend commented that the increase in actual and forecast opex is broadly in line with the operating expenditure allowance recognised by the ACCC in its revenue cap decision for the period 2004-09. Increases from 2003/04 levels included Transend costs associated with preparation for, and May 2005 commencement of operation in, the NEM. As outlined in Transend's revenue application, it expects future operating expenditure to remain materially higher than 2003/04 levels.

6.3.7 TransGrid

TransGrid recorded opex of $117.3m, which was 2.2% lower than its forecast expenditure of $119.9m. In comparison to actual opex of $117m for 2003/04, there was a minimal increase in TransGrid's actual expenditure for this financial year.

Figure 6.11: TransGrid actual and forecast opex, 2002/03 - 2004/05 ($nominal m)

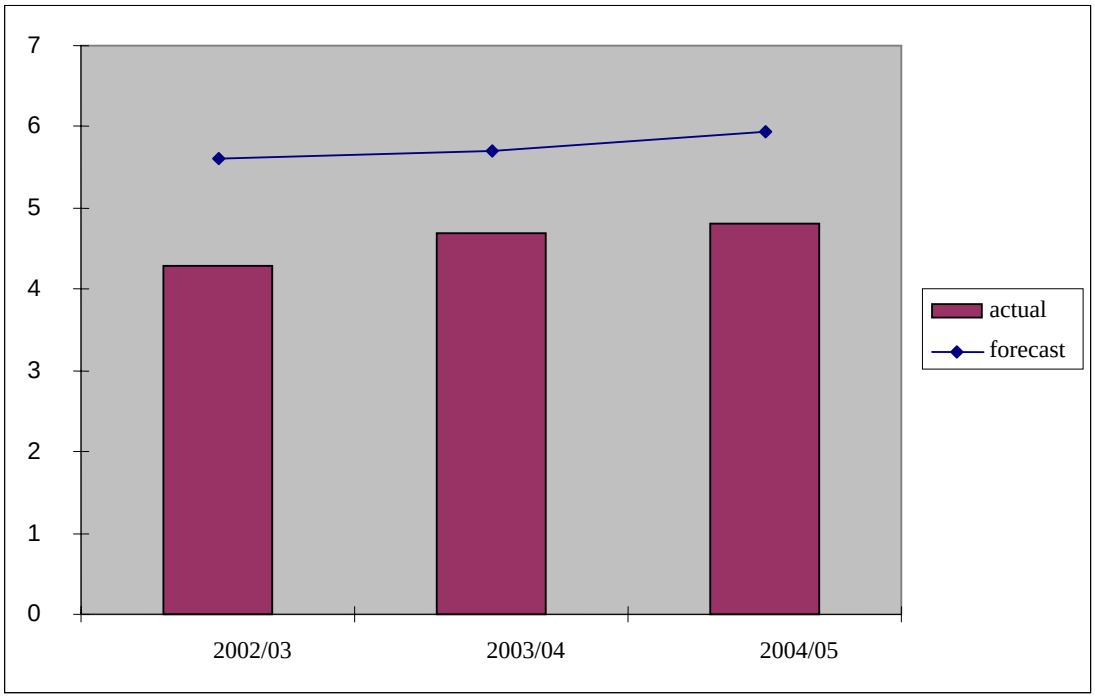


TransGrid commented that the ACCC's revenue cap decision for TransGrid covering the period 1 July 2004 to 30 June 2009 includes an opex efficiency improvement factor of 2% per annum. This decision imposes financial penalties if the opex target is not achieved.

6.3.8 VENCorp

VENCorp's actual opex was $4.8m, approximately 17% lower than the forecast figure of $5.8m. This reflects a continuing underspend of opex against forecast over the last three years. However, unlike other TNSPs, VENCorp is a not-for-profit organisation. Under its regulatory arrangements the total value of any under expenditure is returned as a shared benefit to all Victorian customers in the following financial year.

Figure 6.12: VENCorp actual and forecast opex, 2002/03 - 2004/05 ($nominal m)



7. Service Standards

7.1 Background

Under the NER, the AER determines TNSPs' revenue caps through which TNSPs are able to maximise profits by reducing actual costs below the forecast levels. While such cost reductions could occur from improved efficiency, it could also be a sign of reduced service quality or increased service risk.

On 12 November 2003, the ACCC published the transmission network service standards guidelines (guidelines) which the AER has adopted. The guidelines seek to balance the cost efficiency incentive above with the need to provide a secure and reliable network service. Outlined in the guidelines is the AER's approach to establishing service standards and a PI Scheme within the revenue cap framework set out in the NER.

7.2 Performance Incentive Scheme

The PI Scheme aims to encourage TNSPs to continually improve the standards of service provided to customers through efficiency gains. It does this by providing financial bonuses for improvements in service performance and financial penalties for deteriorations in service performance against the TNSP's specified measures. These penalties and bonuses impact the TNSP's annual revenue calculation. The PI Scheme also ensures that TNSPs consider how their network operations are valued in the NEM.

The guidelines set out five core performance measures:

- transmission circuit availability
- average outage duration
- frequency of 'off supply' events
- inter-regional constraints
- intra-regional constraints

The standard definitions of these performance measures are outlined in Schedule 1 of the guidelines. Presently, the PI Scheme only uses the first three measures listed above – performance standards associated with the last two criteria are currently being developed (see section 7.2.2).

The PI Scheme uses the TNSP's historical performance in relation to a specific measure as a target for future performance. The AER also takes into account the impact of planned capex on performance. The performance targets are then set in each revenue cap decision for the duration of the regulatory period. Since the performance benchmarks are based on factors unique to each TNSP, performance benchmarks and weighting of performance measures vary between TNSPs.

The financial reward or penalty is calculated using the formula set out in the guidelines and in the TNSP's revenue cap decision. This formula applies a weighting to each performance measure. At this stage of the scheme's development, the financial incentive is capped at ±1% of the annual revenue so as to limit the risk to TNSPs. However, this cap may change in future as the scheme is further developed and refined.

7.2.1 Exclusions

To maintain the integrity and appropriate balance of performance incentives the guidelines permit TNSPs to exclude certain categories of events. The nature and number of excludable events differs across TNSPs.[8] Some reasons an event may be excluded include that it was outside of the TNSP's control or the event resulted from the actions of a third party. All TNSPs are able to exclude 'force majeure' events from their performance calculations provided that the AER is satisfied that the events fit within the appropriate definitions.

When considering the classification of an event as being force majeure, the AER will consider the following:

- was it unforeseeable and its impact extraordinary, uncontrollable or unmanageable?
- does this type of event occur frequently and if so how did the impact of the particular event differ?
- could the TNSP, in practice, have prevented the impact of the event though not necessarily the event itself?
- could the TNSP have effectively reduced the impact of the event by adopting better practices?

7.2.2 Market Impact Transparency Report

To assess the possibility of further refining incentives relating to the impact of transmission constraints, a service standards working group has been formed. The working group's efforts led to the development of the draft Market Impact Transparency Report (MITR), which includes the Marginal Cost of Constraints (MCC) and Total Cost of Constraints (TCC), as well as information on the nature of constraints and line ratings. The objective is to measure the market impact of transmission constraints and outages.

The AER has made significant progress on the MITR, having:

- further researched and analysed the construct and methodology supporting the derivation of both the MCC and TCC
- conducted an independent audit on the MCC methodology and data generated
- conducted an independent audit of the TCC methodology and data generated
- formed a working group with staff and consultants from the AER and NEMMCO to address issues associated with the calculation of the TCC.

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[8] See Appendix B

Once the first MITR is released, the AER will investigate the introduction of an economic incentive mechanism.

7.3 Implementation of the Scheme

The PI scheme has been implemented through TNSP revenue caps set under clause 6.2.4(b) of the NER. In setting a revenue cap, clause 6.2.4(c) requires the regulator to take into account the TNSP's revenue requirement, having regard for, amongst other things, the service standards applicable to the TNSP.

The PI scheme has been implemented in the revenue caps for the following TNSPs:

- ElectraNet SA
- EnergyAustralia
- Murraylink
- SPI PowerNet
- Transend
- TransGrid

The PI Scheme measures performance based on calendar year rather than by financial year. This results in a three to six-month lag between service standards performance being measured and the financial incentive being added to or subtracted from the MAR limit based on a July-June financial year. This allows sufficient time for the data submitted by TNSPs to be audited and the resultant bonus or penalty to be included in the following financial year's MAR.

7.4 Annual Compliance Review

Under the revenue cap decisions and the guidelines, TNSPs are required to report their service standards performance each year to the AER. The AER reviews each report to ensure that the reporting of performance, treatment of exclusions and proposed incentives by TNSPs comply with the guidelines and their respective revenue cap decisions. At the conclusion of the review process the AER notifies all relevant TNSPs of their financial incentive outcome for the relevant year.

7.4.1 Summary of Performance 2004

During 2004, the ACCC conducted its second service standards compliance review (review). The ACCC engaged Sinclair Knight Merz (SKM) to audit the performance reports provided by TNSPs and assist in determining the appropriate incentive or penalty to be applied to each TNSP. This review included all six TNSPs.

Table 7.1 shows the financial incentive for each TNSP for the 2004 period. This table also includes the financial incentive outcomes for the 2003 calendar year for ElectraNet SA and SPI PowerNet.

Table 7.1 Financial Incentives for 2003 and 2004

	2004 calendar year ($000s)	2004 s-factor* %	2003 calendar year ($000s)	2003 s-factor* %
ElectraNet SA	997.7	0.63	1,118.7	0.74
EnergyAustralia	456.4	1.00	N/A	N/A
Murraylink	(87.8)	(0.80)	N/A	N/A
SPI PowerNet	609.8	0.22	(75.0)	(0.03)
Transend	573.9	0.55	N/A	N/A
TransGrid	2,007.3	0.93	N/A	N/A

*Financial incentives are capped at ± 1.0% of the TNSP's annual revenue. An s-factor of 0.50, for example, would result in a payment of 0.5% of the TNSP's annual revenue, or half of the potential maximum payment available under the PI Scheme.

A detailed summary of the 2004 calendar year data can be found in Appendix B. Complete TNSP performance reports for 2003 and 2004 can also be found on the AER website (www.aer.gov.au).

7.4.2 Regulatory Report and Service Standards

Service standards data has been included in two Regulatory Reports to date: the 2002/03 report and the current report. This data was omitted from the 2003/04 Regulatory Report due to the disparity between the service standards and regulatory reporting periods affecting the availability of performance data. It is intended that service standards data will be included in future Regulatory Reports. For the 2005 calendar year, service standards data will be progressively available for each TNSP at www.aer.gov.au during the first half of 2006.

Appendix A: Financial summary and indicators

ElectraNet SA – Summary - financial performance and position, indicators ($m)

Financial performance	**2002/03**	**2003/04**	**2004/05**
Transmission revenue(PS)	150.2	156.5	163.9
Opex(PS)*	37.8	33.5	32.6
Grid support	4.4	3.7	4.6
Depreciation(PS)	38.5	37.6	40.2
EBIT(PS)	70.7	82.0	86.6
Financial position			
Average RAB	824.0	841.8	877.7
Total assets	1174.5	1220.3	1250.7
Total debt	817.5	837.7	843.7
Total liabilities	865.4	893.4	901.1
Total equity	309.1	327.0	349.6
Financial indicators			
EBIT(PS)/interest cover**	1.2x	1.6x	1.0x
Return on assets (%)	8.6	9.7	9.9
Return on equity** (%)	(5.3)	1.4	0.2
Gearing ratio** (%)	72.6	71.9	70.7

*Excludes grid support.

**ElectraNet SA advise that credit rating agencies generally treat shareholder loan notes as equity rather than debt for the purposes of determining its credit rating. If payments made on these shareholder loan notes are included in interest, the EBIT/interest cover ratio respectively for 02/03, 03/04 and 04/05 would be 0.8x, 1.0x and 1.1x. Similarly, including these shareholder loan notes as debt would give a gearing ratio of 91.7%, 90.5% and 88.8%. On the same basis, the return on equity becomes -17.6%, 4.1% and 0.5% respectively.

EnergyAustralia - Summary - financial performance and position, indicators

	($m)
Financial performance	**2004/05**
Transmission revenue(PS)	91.3
Opex(PS)	23.0
Depreciation(PS)	24.6
EBIT(PS)	44.1
Financial position	
Average RAB	631.0
Total assets	674.4
Total debt	312.6
Total liabilities	378.8
Total equity	295.6
Financial indicators	
EBIT(PS)/interest cover	2.1x
Return on assets (%)	7.0
Return on equity (%)	5.6
Gearing ratio (%)	51.4

Murraylink - Summary - financial performance and position, indicators	**($m)**
Financial performance	**FY 2004**
Transmission revenue(PS)	12.4
Opex(PS)	3.1
Depreciation(PS)	4.3
EBIT(PS)	5.0
Financial position	
Average RAB	101.5
Total assets	174.9
Total debt	175.9
Total liabilities	176.9
Total equity	(0.004)
Financial indicators	
EBIT(PS)/interest cover	23.5x
Return on assets (%)	4.9
Return on equity (%)	120000
Gearing ratio (%)	100.0

Powerlink – Summary - financial performance and position, indicators ($m)

Financial performance	**2002/03**	**2003/04**	**2004/05**
Transmission revenue(PS)	348.8	383.7	416.2
Opex(PS)*	73.2	78.3	87.5
Grid support	10.7	11.2	15.3
Depreciation(PS)	99.1	105.8	114.0
EBIT(PS)	170.8	184.7	199.2
Financial position			
Average RAB	2487.0	2630.5	2762.4
Total assets	3050.5	3203.3	3370.0
Total debt	1351.8	1412.4	1469.3
Total liabilities	1658.4	1738.0	1802.3
Total equity	1392.1	1465.3	1567.7
Financial indicators			
EBIT(PS)/interest cover	2.2x	2.3x	2.3x
Return on assets (%)	6.9	7.0	7.2
Return on equity (%)	5.5	6.3	6.6
Gearing ratio (%)	49.3	49.1	48.4

*Excludes grid support.

SPI PowerNet – Summary - financial performance and position, indicators ($m)

Financial performance	**2002/03**	**2003/04**	**2004/05**
Transmission revenue(PS)	262.7	271.5	281.2
Opex(PS)	51.7	56.8	56.5
Depreciation(PS)	51.7	55.8	56.8
EBIT(PS)	166.3	164.0	179.5
Financial position			
Average RAB	1811.3	1833.0	1860.8
Total assets	2245.1	2287.3	2335.8
Total debt	1432.8	1375.7	1529.1
Total liabilities	1830.6	1809.1	1796.4
Total equity	621.2	685.0	539.5
Financial indicators			
EBIT(PS)/interest cover	1.8x	1.9x	2.0x
Return on assets (%)	9.2	8.9	9.7
Return on equity (%)	8.3	9.3	11.4
Gearing ratio (%)	69.8	66.8	73.9

Transend– Summary - financial performance and position, indicators ($m)

Financial performance	**2003/04**	**2004/05**
Transmission revenue(PS)	85.9	108.0
Opex(PS)	25.0	29.0
Depreciation(PS)	29.4	33.8
EBIT(PS)	31.8	42.6
Financial position		
Average RAB	592.8	630.4
Total assets	648.6	697.7
Total debt	35.1	52.9
Total liabilities	97.0	125.7
Total equity	551.7	572.0
Financial indicators		
EBIT(PS)/interest cover	15.5x	17.4x
Return on assets (%)	5.4	6.8
Return on equity (%)	3.6	4.8
Gearing ratio (%)	6.0	8.5

TransGrid – Summary - financial performance and position, indicators ($m)

Financial performance	**2002/03**	**2003/04**	**2004/05**
Transmission revenue(PS)	389.9	407.8	435.3
Opex(PS)	113.8	117.0	117.3
Depreciation(PS)	108.0	111.7	118.5
EBIT(PS)	165.1	182.9	199.4
Financial position			
Average RAB	2632.5	3179.8	3394.6
Total assets	2807.4	3383.4	3732.6
Total debt	1338.7	1523.6	1519.7
Total liabilities	1684.0	1866.9	1864.7
Total equity	1123.4	1516.4	1867.9
Financial indicators			
EBIT(PS)/interest cover	1.9x	2.1x	1.9x
Return on assets (%)	6.3	5.8	5.9
Return on equity (%)	4.2	5.5	4.1
Gearing ratio (%)	55.3	50.1	44.9

VENCorp – Statutory electricity segment summary- financial performance, position and stakeholder funds ($m)

Financial performance	**2002/03**	**2003/04**	**2004/05**
Transmission revenue	261.8	222.2	343.3
Less network charges	229.2	239.0	323.3
Total electricity transmission revenue	32.6	-16.8	20.0
Other revenue	1.4	1.2	2.2
Total revenue	34.0	-15.6	22.2
Less expenses	4.3	4.7	4.8
Net result for period	29.7	-20.3	17.4
Financial position			
Current assets	51.7	29.4	51.6
Non-current assets	0.3	0.2	0.1
Total assets	52.0	29.5	51.7
Current liabilities	24.9	22.6	27.4
Non-current liabilities	0.5	0.6	0.5
Total liabilities	25.4	23.2	28.0
Net assets	26.6	6.3	23.7
Stakeholders funds			
Contributed capital	0.0	0.0	0.0
Accumulated surplus	26.6	6.3	23.7

Appendix B: Service standards performance 2004

Since the formulation of the guidelines, six TNSPs have had service standards and performance incentives included in their transmission revenue cap decisions. A detailed summary of the results of the ACCC's 2004 review is outlined below.

B.1 ElectraNet SA

Introduction

On 11 February 2005, ElectraNet SA submitted its annual performance report for the 2004 calendar year. It reported an overall improvement in performance calculating an incentive bonus of $998 600. This was calculated using an s-factor of 0.63 % of ElectraNet's annual regulated revenue.

Performance measures

The performance measures implemented for ElectraNet SA are defined in its revenue cap decision[9]. These are:

- transmission line availability
- frequency of lost supply events > 0.2 minutes
- frequency of lost supply events > 1.0 minutes
- average outage duration

Table B1 shows ElectraNet's performance against the above mentioned target measures for the 2004 calendar year and the resulting financial incentive based on performance outcomes.

Exclusions

ElectraNet SA treated the following as excluded events in its performance report for the 2004 calendar year period:

- major line works
- a separation event
- customer initiated outages
- switching to manage network reliability
- failure of third party equipment

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[9] ACCC, *Decision South Australian transmission network revenue cap 2003-2007/08*, 11 December 2002.

In particular, ElectraNet SA proposed outages due to the rebuilding of its Para - Waterloo line be excluded from ElectraNet's performance results.

ElectraNet SA did not propose any exclusions relating to force majeure events.

Consultant's report

The ACCC engaged SKM to audit ElectraNet's performance report for the 2004 calendar year period. SKM formed the opinion that ElectraNet's performance report was free from material errors and presented in accordance with the guidelines. It noted that ElectraNet SA correctly applied the equations specified in the revenue cap decision to calculate its financial incentive.

In relation to the recording system used to capture outage data, SKM stated that ElectraNet's system was accurate and reliable. It also stated that the asset categorisation used by ElectraNet SA and measurement of performance was consistent with historical methods, on which the incentive scheme was based.

SKM considered ElectraNet's proposed exclusions, other than the Para -Waterloo outage, to be consistent with the requirements of the revenue cap decision.

SKM recommended the following:

- the s-factor and financial incentive calculations be accepted as free from material errors
- the incentive bonus for 2004 is 0.66 % of its annual regulated revenue, if the Para -Waterloo outage was to be considered an excluded event
- the incentive bonus for 2004 is 0.63 % of the annual regulated revenue, if the Para - Waterloo outage was NOT to be considered an excluded event but capped at 14 days

ACCC's conclusions

The ACCC found that outages relating to the rebuilding of the Para - Waterloo 132kV should not be classified as excluded events under the revenue cap decision and guidelines. However it considered, under the revenue cap decision and guidelines, the time associated with this outage should be capped at 14 days in relation to the transmission line availability.

As a result, the ACCC considered an increase of $997 700 (or an s-factor of 0.63) to ElectraNet's revenue in the 2005-06 year would comply with ElectraNet's revenue cap decision. In reaching this conclusion, the ACCC considered the revenue cap decision, guidelines, SKM's advice and ElectraNet's report on service standards.

Table B1: Measures, results and incentives

Performance indicator	Break even	2004
Transmission line availability (%)	99.25	99.38
Frequency of lost supply events > 0.2 minutes	5-6	7
Frequency of lost supply events >1.0 minutes	2	0
Average outage duration (minutes)	100-110	48.92
s-factor (%)	0	0.63
Net financial incentive ($000)	0	997.7

B.2 EnergyAustralia

Introduction

On 15 February 2005, EnergyAustralia submitted its annual performance report for the 2004[10] calendar year. It reported an overall improvement against its historical performance, equivalent to an incentive bonus of $456 350. This was calculated using an s-factor of 1 % of EnergyAustralia's annual regulated revenue.

Performance measures

Transmission feeder availability is the only performance measure implemented for the purpose of a financial incentive in EnergyAustralia's transmission revenue cap decision.[11]

A range of performance measures would have been preferred to provide a broader incentive for EnergyAustralia to improve overall performance. However, EnergyAustralia had a limited collection of performance data for the measures defined in the guidelines. As such, the ACCC was unable to set performance targets based on historical data and thus unable to set targets against the standard performance measures outlined in the guidelines.

In lieu of other measures, EnergyAustralia proposed that performance data be collected against the remaining measures of availability and outages. The ACCC accepted EnergyAustralia's proposal that this should be reported over the present regulatory period, without attaching a financial incentive.

Table B2 shows EnergyAustralia's performance against transmission feeder availability for the 2004 calendar year period and the attached financial incentive based on performance outcomes.

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[10] Given the regulatory period began on 1 July 2004, the relevant period is 1 July 2004 to 31 December 2004.

[11] ACCC, *Decision NSW and ACT transmission network revenue cap – EnergyAustralia 2004-05 to 2008-09*, 27 April 2005.

Exclusions

EnergyAustralia specified major line works as excluded events under the guidelines.

EnergyAustralia did not propose any exclusions relating to force majeure events.

Consultant's report

The ACCC engaged SKM to audit EnergyAustralia's performance report. SKM found that EnergyAustralia's system to record outages was largely manual, and thus subject to human error. SKM observed that an automated recording system would ensure reliability of the data and compliance with the requirements of the ACCC's guidelines. SKM reported that EnergyAustralia was reviewing its recording process. EnergyAustralia stated that a new distributed network management system (DNMS) is expected to be commissioned in about two years. This new DNMS can possibly assist automate the reporting of the availability measures.

In relation to the proposed excluded events, SKM considered that all should be accepted, but capped at 14 days. This result was consistent with EnergyAustralia's proposal.

SKM recommended that EnergyAustralia receive the maximum incentive bonus of 1 % of its annual regulated revenue based on its 2004 calendar year performance.

ACCC's conclusions

The ACCC found that outages relating to major line works should be treated as excluded events under the revenue cap decision and guidelines. The ACCC agreed with EnergyAustralia and SKM that the time associated with these outages should be capped at 14 days in calculating transmission line availability. This resulted in no material change to the final performance outcome for EnergyAustralia as its performance remained above the maximum performance level.

As a result, the ACCC considered an increase of $456 350 (or an s-factor of 1) to EnergyAustralia's revenue in the 2005-06 year would comply with EnergyAustralia's revenue cap decision. In reaching this conclusion, the ACCC considered the revenue cap decision, guidelines, SKM's advice and EnergyAustralia's report on service standards.

Table B2: Measures, results and incentives

Performance indicator	Break even	2004[#]
Transmission feeder availability (%)	96.96	98.57
s-factor (%)	0	1
Net financial incentive ($000)	0	456.3

This only represents a financial incentive for performance over the period 1 July 2004 to 31 December 2004 because EnergyAustralia's regulatory period commenced on 1 July 2004.

B.3 Murraylink

On 22 February 2005, the Murraylink submitted its annual performance report. The report contained performance information for 84 days of regulated activity in 2003 and performance for the 2004 calendar year.

During the 2003 regulated period, Murraylink reported an overall improvement in performance with an s-factor of 0.42 % of the annual regulated revenue. For the 2004 calendar year, Murraylink reported an overall deterioration in performance with an s-factor of -0.80 % of its annual regulated revenue. Murraylink's net financial incentive was -$87 775 over the 2003 and 2004 regulated periods.

Performance measures

The performance measures implemented for Murraylink were defined in its revenue cap decision.[12] These are:

- total circuit availability
- forced outage circuit availability in peak periods
- forced outage energy availability in off-peak periods

Table B3 shows Murraylink's performance against the above mentioned target measures and the attached financial incentive for its performance outcomes in the 2004 calendar year period.

Exclusions

Murraylink treated three events in the 2004 calendar year as excluded events, these were associated with third parties.

Murraylink did not propose any exclusions relating to force majeure events.

Consultant's report

The ACCC engaged SKM to audit Murraylink's performance report. SKM formed the opinion that Murraylink's performance report was free from material errors and was in accordance with the guidelines. SKM found that the recording system Murraylink used to capture outage data, and to calculate performance, was accurate.

In relation to the exclusion, SKM considered that Murraylink's treatment of three outage events associated with third parties were consistent with the specific exclusions within the guidelines. SKM recommended the ACCC allow these outages to be excluded from the incentive scheme assessment for 2004.

For the 84 days of operation in the 2003 calendar year, SKM recommended the financial incentive should be 0.42 % of Muraylink's annual regulated revenue.

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[12] *Decision Murraylink Transmission Company application for conversion and maximum allowed revenue*, ACCC, 1 October 2003.

SKM recommended the penalty for the 2004 calendar year should be -0.79 % of Murraylink's annual regulated revenue.

ACCC's conclusions

The ACCC found that Murraylink had reported accurately and in a manner consistent with the guidelines and its revenue cap decision.

The ACCC considered a decrease of $87 775 (or an s-factor of 0.42 for 2003 and -0.80 for 2004) to Murraylink's revenue in the 2005-06 year would comply with Murraylink's revenue cap decision. In reaching this conclusion, the ACCC considered the revenue cap decision, guidelines, SKM's advice and Murraylink's report on service standards.

Table B3: Measures, results and incentives

Performance indicator	Break even	2004	2003
Planned circuit energy availability (%)	99.45	99.27	99.27
Forced outage circuit availability in peak periods (%)	99.38	98.88	99.68
Forced outage energy availability in off-peak periods (%)	99.40	99.38	99.55
s-factor (%)	0	(0.80)	0.42
Net financial incentive ($000)	0	(87.7)	

B.4 SPI PowerNet

Introduction

On 11 February 2005, SPI PowerNet (now SP AusNet) submitted its annual performance report for the 2004 calendar year. It reported an overall improvement in performance calculating an incentive bonus of $609 750. This was calculated using an s-factor of 0.22 % of SPI PowerNet's annual regulated revenue.

Performance measures

The performance measures implemented for SPI PowerNet were defined in its revenue cap decision.[13] These are:

- total circuit availability
- peak critical circuit availability

[13] ACCC, *Decision Victorian transmission network revenue caps 2003-2008*, 11 December 2002.

- peak non-critical circuit availability
- intermediate critical circuit availability
- intermediate non-critical circuit availability
- frequency of lost supply events > 0.05 minutes
- frequency of lost supply events > 0.30 minutes
- average outage duration – lines

Table B4 shows SPI PowerNet's performance against the above mentioned target measures and the attached financial incentive for its performance outcomes in the 2004 calendar year period.

Exclusions

SPI PowerNet specified the following as excluded events under the guidelines in the 2004 calendar year review:

- switching to manage network reliability
- force majeure events

Switching to manage network reliability refers to the de-energising of shunt reactors. Normally, the de-energising of assets would result in the asset being classified as unavailable.

SPI PowerNet sought to have the switching out of reactors at peak and intermediate periods excluded from peak and intermediate availability measures (but not from the overall availability measure). It stated that the reason for this was that reactors are most needed at times of low demand (off-peak periods). SPI PowerNet further stated that it was therefore good electricity industry practice to use peak and intermediate periods to maintain the reactors. This was the opposite to almost all other pieces of plant.

In addition, SPI PowerNet proposed that the performance associated with the switching of assets to manage network reliability resulted in the assets being classified as out of service and be excluded because it contributed to network unreliability.

In relation to force majeure events, SPI PowerNet proposed to exclude outages associated with a bushfire and industrial action.

Consultant's report

The ACCC engaged SKM to audit SPI PowerNet's performance report. SKM formed the opinion that SPI PowerNet's performance report was free from material errors and was in accordance with the guidelines.

In relation to the recording system used to capture outage data, SKM stated it was accurate and reliable.

In relation to the exclusion of de-energised shunt reactors, SKM stated that while the reactors were de-energised, and thus normally would be considered unavailable, this practice enhanced the reliability of the network. The shunt reactors were available to be energised but to do so would have been to the detriment of the network reliability. SKM recommended that shunt reactors be treated as 'available' in this circumstance as they are 'available for use'.

In relation to the bushfire, SKM considered this event as normal rather than severe and thus rejected it as an excluded event. While this exclusion was denied, SKM stated that this did not result in a material affect on SPI PowerNet's financial incentive.

In relation to the industrial act, SKM reviewed SPI PowerNet's work orders that were interrupted by the industrial action. It considered that these were legitimate force majeure events under the ACCC's definition of force majeure.

SKM recommended the incentive bonus for the 2004 calendar year should be 0.22 % of SPI PowerNet's annual regulated revenue.

ACCC's conclusions

The ACCC found that the exclusions in relation to force majeure events comply with SPI PowerNet's revenue cap decision and the guidelines. Further, the ACCC found that outages relating to the de-energising of shunt reactors should not be considered as excluded events given the enhancing effect on network reliability. Instead shunt reactors were to be treated as assets which were available for use, resulting in no penalty being calculated for SPI. .

Ultimately the ACCC considered an increase of $609 750 (or an s-factor of 0.22) to SPI PowerNet's revenue in the 2005-06 year would comply with the revenue cap decision. In reaching this conclusion, the ACCC considered the revenue cap decision, guidelines, SKM's advice and SPI PowerNet's report on service standards.

Table B4: Measures, results and incentives

Performance indicator	Break even	2004
Total circuit availability (%)	99.20	99.27
Peak critical circuit availability (%)	99.90	99.97
Peak non-critical circuit availability (%)	99.85	99.57
Intermediate critical circuit availability (%)	99.85	99.80
Intermediate non-critical circuit availability (%)	99.75	99.39
Frequency of lost supply events > 0.05 minutes*	2	2
Frequency of lost supply events >0.30 minutes*	1	0
Average outage duration – lines	10	2.73

(hours)		
Average outage duration – transformers (hours)	10	4.86
s-factor (%)	0	0.22
Net financial incentive ($000)	0	609.75

* These measures were reported but did not contribute to the final financial outcome of SPI PowerNet.

B.5 Transend Networks

On 17 February 2005, Transend submitted its annual performance report for the 2004 calendar year. It reported an overall improvement in performance resulting in an incentive bonus of $573 900. This was calculated using an s-factor of 0.55 % of Transend's annual regulated revenue.

Performance measures

The performance measures implemented for Transend were defined in its revenue cap decision.[14] These are:

- transmission line availability
- transformer circuit availability
- frequency of lost supply events > 0.1 minutes
- frequency of lost supply events > 2.0 minutes.

Table B5 shows Transend's performance against the above mentioned target measures and the attached financial incentive for its performance outcomes in the 2004 calendar year period.

Exclusions

A condition of Tasmania's entry into the National Electricity Market was to install National Electricity Code (now NER) compliant wholesale meters. Transend was required to plan outages on its network for these meters to be installed. It specified these outages as excluded events under the guidelines and its revenue cap decision.

Consultant's report

The ACCC engaged SKM to audit Transend's performance report. SKM formed the opinion that Transend's performance report was free from material errors and was in accordance with the guidelines.

SKM stated that the recording system used to capture outage data was accurate and reliable.

[14] ACCC, *Decision Tasmanian transmission network revenue caps 2004-2008/09*, 10 December 2003.

In relation to the exclusion outages associated with installation of compliant wholesale meters, SKM considered this to be consistent with a third party event under specified exclusions in the guidelines. It recommended the ACCC accept the exclusion for these outages from the incentive scheme assessment for the 2004 calendar year.

SKM recommended the incentive bonus for 2004 calendar year should be 0.55 % of Transend's annual regulated revenue.

ACCC's conclusions

The ACCC found that the exclusion in relation to the installation of compliant metering was consistent with Transend's revenue cap decision and the guidelines.

The ACCC considered an increase of $573 886 (or an s-factor of 0.55[15]) to Transend's revenue in the 2005-06 year would comply with Transend's revenue cap decision. In reaching this conclusion, the ACCC considered the revenue cap decision, guidelines, SKM's advice and Transend's report on service standards.

Table B5: Measures, results and incentives

Performance indicator	Break even	2004
Transmission line availability (%)	99.10 to 99.20	99.34
Transformer circuit availability (%)	99.00 to 99.10	99.31
Frequency of lost supply events > 0.1 minutes	13 to 16	18
Frequency of lost supply events >2.0 minutes	2 to 3	0
s-factor (%)	0	0.55
Net financial incentive ($000)	0	573.9

B.6 TransGrid

Introduction

On 11 February 2005, TransGrid submitted its annual performance report for the 2004[16] calendar year. It reported an overall improvement in performance against its historical performance equivalent to an incentive bonus of $2 007 300. This was calculated using an s-factor of 0.93 % of Transgrid's annual regulated revenue.

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[15] The difference between the ACCC's calculated s-factor and Transend's is attributed to rounding difference.

[16] Given the regulatory period began on 1 July 2004, the relevant period is 1 July 2004 to 31 December 2004.

Performance measures

The performance measures implemented for TransGrid are defined in its revenue cap decision.[17] These are:

- transmission circuit availability
- transformer availability
- reactive plant availability
- frequency of lost supply events > 0.05 minutes
- frequency of lost supply events > 0.4 minutes
- average outage duration, circuits, transformers and reactive plant

Table B6 shows TransGrid's performance against the above mentioned target measures and the attached financial incentive for its performance outcomes in the 2004 calendar year period.

Exclusions

The majority of exclusions specified by TransGrid during the 2004 calendar year period were events which occurred on customer installations and classified as excluded events under the guidelines. A further exclusion not included in customer installations was proposed in relation to an outage which occurred at Kemps Creek.

TransGrid did not propose any exclusions relating to force majeure events.

Consultant's report

The ACCC engaged SKM to audit TransGrid's performance report. SKM found that Transgrid used a reliable and accurate recording system and the categorisation of assets, treatment of exclusions and application of the performance incentive formulae was largely consistent. SKM recommended that Transgrid refine its data collection processes and noted some omissions from TransGrid's performance report.

SKM found the categorisation of outages relating to static var compensator assets at Kemps Creek was outside the definition of exclusions relating to the reactive plant availability measures contained in the revenue cap decision. SKM stated that although TransGrid took specific action to maintain the reactive capacity on the system, the static var compensator in question remained part of the transmission network and was unavailable for service.

SKM recommended the incentive bonus for the 2004 calendar year should be 0.9 % of TransGrid's annual regulated revenue.

[17] ACCC, *Decision NSW and ACT transmission network revenue cap – TransGrid 2004-05 to 2008-09*, 27 April 2005.

ACCC's conclusions

The ACCC found that TransGrid had reported its performance in accordance with the guidelines and revenue cap decision. In relation to the exclusion of outage events at Kemps Creek, the ACCC considered this occurrence to fall outside of the allowable exclusions. This event was considered to be an outage of reactive plant assets and the exclusion was disallowed from the performance incentive measures so as to maintain appropriate incentives for TransGrid to minimise such outages. Consistent with the guidelines and the revenue cap decision, this event was capped to 14 days for the purpose of calculating TransGrid's financial incentive.

Table B6: Measures, results and incentives

Performance indicator	Break even	2004[#]
Transmission circuit availability (%)	99.40	99.72
Transformer availability (%)	99.00	99.30
Reactive plant availability (%)	98.50	99.47
Frequency of lost supply events >0.05 minutes	6	0
Frequency of lost supply events >0.4 minutes	1	0
Average outage duration (minutes)	1500	936.84
s-factor (%)	0	0.93
Net financial incentive ($000)	0	2 007.3

This only represents a financial incentive for performance over the period 1 July 2004 to 31 December 2004 because TransGrid's regulatory period commenced on 1 July 2004.

The ACCC considered an increase of $2 007 300 (or an s-factor of 0.93) to TransGrid's revenue in the 2005-06 year would comply with TransGrid's revenue cap decision. In reaching this conclusion, the ACCC considered the revenue cap decision, guidelines, SKM's advice and TransGrid's report on service standards.

It should be noted that SKM's calculation of the s-factor was based on the ACCC's draft revenue cap decision for TransGrid. The final s-factor calculation of 0.93 % was based on the targets set in the final revenue cap decision.