**Australian
Competition &
Consumer
Commission**

Transmission Network Service Providers Electricity Regulatory Report for 2003/04

April 2005

Table of Contents

Glossary

ACCC	Australian Competition and Consumer Commission
capex	capital expenditure
Code	National Electricity Code
EBIT	Earnings before interest and taxes
GWh	Gigawatt hours
MAR	Maximum Allowed Revenue
MW	Megawatts
NECA	National Electricity Code Administrator
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NPAT	Net profit after taxes
opex	operating and maintenance expenditure
PS	Prescribed services
RAB	Regulated Asset Base
SMHEA	Snowy Mountains Hydro-Electric Authority
SRP	Statement of Principles for the Regulation of Electricity Transmission Revenues (December 2004)
TNSP	Transmission Network Service Provider

Summary

This is the second annual electricity regulatory report published by the Australian Competition and Consumer Commission (ACCC). The report reviews the financial performance of transmission network service providers (TNSPs) regulated by the ACCC. Particularly, 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 ACCC's revenue cap decisions.

Information regarding the following TNSPs is included in this report:

- ElectraNet;
- Powerlink;
- SPI PowerNet;
- Transend;
- TransGrid; and
- VENCorp.

The ACCC also regulates the transmission revenues of the Murraylink Transmission Company. As it reports on a calendar year basis, its financial performance for 2004 will be included in the ACCC's Electricity Regulatory Report for 2004/05.

The transmission revenues of Energy Australia were also regulated by the ACCC in 2003/04. However, as Energy Australia did not provide consent to disclose information, its details were not included in this report. The ACCC notes that this is the second year that Energy Australia has not provided consent.

The TNSPs regulated by the ACCC are required to provide certified annual statements containing details of their financial performance. This information is submitted in accordance with the ACCC's Information Requirements Guidelines. The 2003/04 financial year is the first year for which Transend has lodged statements under the guidelines.

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

Chapter 2 provides an overview of each TNSP. In considering the information presented in the report it is important to bear in mind the differing network characteristics and operating environments of the TNSPs.

Chapter 3 considers the industry's overall performance and then deals with each TNSP's financial performance.

Chapters 4 and 5 are concerned with capex and opex respectively with a discussion of the reasons for variances from the underlying assumptions in the revenue caps.

1 Summary of financial performance

Revenue caps set by the ACCC apply only to those services provided by the TNSPs that are not reasonably expected to be offered on a contestable basis, that is, to prescribed services (PS).

Table A compares regulated revenue for the year against the forecast maximum allowed revenue (MAR), as well as comparing the actual performance of the TNSPs against the operating expenditure (opex) and capital expenditure (capex) forecasts from the ACCC's revenue cap decisions. Forecasts are made for expected expenditure levels over the five year period of the revenue cap and actual costs can vary over that time for a variety of reasons. Circumstances may change with higher than expected load growth, for example, necessitating additional expenditure and/or accelerating construction programs.

The summary figures are presented to provide an overall view of the average level of variances from revenue cap decisions. However, individual TNSP variances 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 Summary of TNSPs' financial performance for 2003/04

$Millions	Actual	Forecast*	Variance $	Variance %
MAR	1305.5	1292.2	13.3	1.0%
Opex	328.9	335.5	-6.6	-1.9%
Capex	571.8	773.0	-201.2	-26.0%

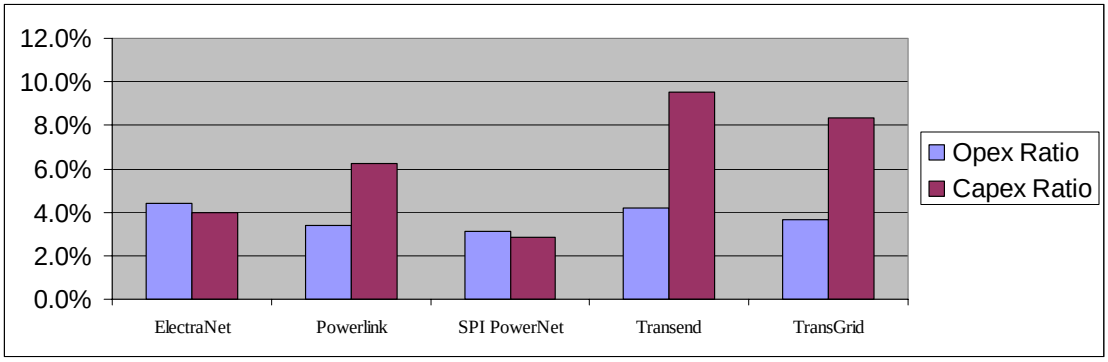
Source: 2003/04 Regulatory Accounts and ACCC's revenue cap decisions

*Includes adjustment to TransGrid's MAR, opex and capex due to the acquisition of the Snowy Mountains Hydro-Electric Authority's (SMHEA) transmission assets in 2002.

Table A discloses a significant variance from the aggregate capex forecast with individual TNSPs having variances of up to 51%. These variances are explored in more detail in Chapter 4.

While there was little apparent variance from the aggregate opex forecast, individual TNSPs experienced variances of up to 40% from the amount forecast in their revenue cap decision. These variances are discussed in Chapter 5.

Figure A Summary of TNSPs' expenditure/RAB for 2003/04



$Millions	Average RAB	Opex Ratio	Capex Ratio
ElectraNet	841.8	4.4%	4.0%
Powerlink	2630.5	3.4%	6.2%
SPI PowerNet	1833.0	3.1%	2.8%
Transend	592.8	4.2%	9.5%
TransGrid	3179.8	3.7%	8.3%
Total	9077.9		

Source: 2003/04 Regulatory Accounts

Figure A and the accompanying table compare the TNSPs' capex and opex as a percentage of their regulated asset base (RAB). The figures above demonstrate that expenditure as a percentage of RAB varied amongst the TNSPs, particularly the capex / RAB ratios. Overall, capex was proportionately higher than opex for most TNSPs. This may be explained by such key drivers of expenditure as load growth and the ageing of assets (see Chapter 4 for further details of the TNSPs' capex programs).

2 Summary of service standards performance

In the 2002/03 Regulatory Report, service standards performance was reported together with the TNSPs' financial information. However, for the 2004 calendar year a separate service standards report will be published later in 2005 due to the timing of the availability of this information.

1. Introduction

1.1 Scope of the report

This report provides information on the financial performance of TNSPs in the National Electricity Market (NEM) whose revenue caps are set by the ACCC. It also provides information on the network characteristics and operating environments of these TNSPs to give context to the financial information. The information relates to the 2003/04 financial year and includes a comparison with the financial forecasts incorporated in the revenue cap decisions. For those TNSPs who were reported on last year, comparison is included between the current and the previous year's figures.

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

1.2 Sources of information

The report draws upon information from the following sources:

- annual regulatory financial statements provided by the TNSPs in accordance with the ACCC's Information Requirements Guidelines (5 June 2002)
- revenue cap applications made by the TNSPs (which include information provided in accordance with the Information Requirements Guidelines)
- revenue cap decisions made by the ACCC
- a revenue cap decision made by the Tasmanian Energy Regulator (for the 6 month period 1 July 2003 to 31 December 2003) and
- Annual Reports (Reviews) made by the TNSPs.

1.3 Setting a revenue cap

The principles and objectives of the regulatory regime, as set out in Chapter 6 of the Code, include the elimination of "monopoly pricing", providing a fair return to network owners and creating incentives for TNSPs to pursue ongoing efficiency gains through cost reductions. In achieving these aims the ACCC is aware of the need to ensure compliance costs are minimised and that the regulatory process is objective, transparent and as light handed as possible.

Consistent with the proposals contained in the Statement of Principles for the Regulation of Electricity Transmission Revenues (December 2004) (the SRP), the ACCC has adopted an accrual building block approach in setting revenue caps. In implementing this framework, the 'post-tax nominal' accrual building block approach calculates the maximum allowed revenue (MAR) as the sum of the return on capital, the return of capital, an allowance for operating and maintenance (non-capital) expenditure, income tax payable and the ACCC's Performance Incentive Scheme.

Expressed in the simplest form, the building block equations are as follows:

MAR = return on capital + return of capital + opex + tax
= *(WACC*RAB) + D + opex + tax*
and
new *RAB* = *previous RAB – depreciation + capex*
where:
MAR = *maximum allowable revenue*
WACC = *post tax nominal weighted average cost of capital*
RAB = *regulatory asset base*
D = *depreciation*
Opex = *operating and maintenance expenditure*
Tax = *expected business income tax payable*

The efficiency incentives are incorporated in the building block model through service standards – opex and capex incentive schemes. This can be expressed in a more precise version of the building block model equations as follows:

Forecast revenue = return on capital + return of capital + opex + tax + service standards incentive scheme + opex incentive scheme.

Closing RAB_{t-1} *= opening* RAB_{t-1} *+ actual* $capex_{t-1}$ *– depreciation allowance* $_{t-1}$ *+ capex incentive scheme.*

Furthermore, in implementing the CPI-X incentive mechanism the MAR will increase each year in line with inflation but decrease by a smoothing factor.

1.4 The ACCC's regulatory functions

The ACCC is now responsible for regulating the revenues of the following TNSPs: ElectraNet; Energy Australia; Murraylink Transmission Company; Powerlink; SPI PowerNet; Transend; TransGrid; and VENCorp.

Under the Code, the ACCC is required to annually collect a wide range of financial and operational information from the TNSPs. This is done for a variety of reasons, including:

- to monitor compliance with the revenue cap
- to identify cross-subsidisation of costs between the regulated and unregulated parts of the business
- to use the information as an input for setting future revenue caps and
- to monitor performance against service standards.

The ACCC is aware that there are valid confidentiality concerns held by TNSPs which must be recognised. These concerns are reflected in the scope of the information presented in this report.

This is the second electricity regulatory report the ACCC has published. Comments from interested parties regarding the content and format of the report are welcomed.

2. Transmission Network Characteristics

2.1 The National Electricity Market

The NEM commenced operation on 13 December 1998 and consists of six regions: South Australia, Victoria, the ACT, New South Wales, Snowy, and Queensland. Tasmania is scheduled to join the market in mid 2005, with the Basslink interconnector being commissioned approximately twelve months later.

The NEM pools registered generators' output into a single wholesale market and allows electricity to be traded across the regions where it is mainly purchased by retailers. High voltage transmission networks carry the electricity from the generators to the distribution networks in the metropolitan and regional areas and, in some cases, directly to major customers. The pool is managed by the National Electricity Market Management Company (NEMMCO) which is owned by the participating state and territory governments.

The TNSPs differ from one another in areas such as geographical constraints, customer distribution, and load growth. An overview of their operating environment is provided below. The ACCC notes that differing network characteristics may affect financial and service standards performance.

2.2 The TNSPs in this report

ElectraNet (South Australia)

ElectraNet is owned by a group of four companies which includes a subsidiary of the Queensland TNSP, Powerlink. ElectraNet is the principal TNSP in South Australia, operating and maintaining the high voltage network throughout the state. The network comprises over 5,500 kms of transmission lines and 73 substations or switchyards.

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

ElectraNet's average RAB for 2003/04 was valued at $841.8 million and its regulated revenue from electricity transmission services was $156.5 million. Maximum summer demand was 2,607 MW with 12,336 GWh of electricity transmitted for 2003/04.

Powerlink (Queensland)

Powerlink is a government-owned corporation that now operates close to 11,600 kms of transmission lines and has 96 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. Further, major generators are located at considerable

distances from the load centres when compared to other regions in the NEM. Distances, therefore, play a large part in determining costs of transmission in Queensland.

Powerlink had an average RAB for this year of $2.6 billion and regulated network charges of $383.7 million.

The network continues to experience rapid load growth demand and in 2003/04 had a maximum demand for electricity of 7,934 MW (which was 12% higher than the maximum demand in the previous period). Total electricity transmitted for the year was 45,625 GWh (up by 6%).

SPI PowerNet (Victoria)

SPI PowerNet is a privately owned transmission business that owns, operates and maintains over 6,500 kms 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.

SPI PowerNet's average RAB was valued at $1.8 billion and its regulated revenue from service and network fees was $271.5 million.

Summer demand peaked at more than 8,500 MW, which was an increase on the previous year's figure of 8,203 MW.

In accordance with the adoption of a new measurement approach to recording total transmission - energy 'sent out' (energy consumed minus the energy consumed by the generators themselves), SPI PowerNet reported a figure of 45,006 GWh. The figure from the previous period of 48,124 GWh, which was derived differently, can be compared to an equivalent figure for this year of 49,111 GWh.

Transend (Tasmania)

Transend is a government-owned company which owns and operates the electricity transmission system in Tasmania. Transend transmits electricity from 29 power stations to substations around the State and owns 3,537 circuit kilometres of transmission lines, as well as 53 substations and switching stations. Over 90% of the generation in Tasmania is hydro-electric and this creates unique circumstances, 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.

On 1 January 2004, the ACCC commenced to regulate Transend pursuant to agreements between the Australian and the Tasmanian government. In anticipation of the completion of the Basslink Project in the first half of 2006, Tasmania is scheduled to join the NEM in May 2005. After entry to the NEM, the ACCC will regulate Transend's transmission revenue under the provisions of the Code.

Transend's average RAB for the period was close to $600 million with reported revenue from network charges of nearly $86 million. Demand for the year peaked at 1,691 MW and total electricity transmitted for the year was 10,186 GWh.

TransGrid (New South Wales)

TransGrid is a state-owned corporation responsible for the management of the high voltage electricity transmission network in NSW. Its system comprises 82 substations and power station switchyards, and 12,446 kilometres 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.

In addition to operating and managing the transmission networks in NSW, TransGrid is the jurisdictional planning body for the State.

TransGrid's average RAB was valued at almost $3.2 billion. It received regulated revenue from network charges of $407.8 million.

Summer demand peaked at close to 12,500 MW. Electricity transmitted (NSW generation including net import from inter-regional flows, less power station auxiliary loads), as reported in their regulatory accounts, exceeded 69,700 GWh. Both figures were the highest in the NEM and represented increases on the figures reported in last year's accounts (12,332 MW, 67,744 GWh).

VENCorp (Victoria)

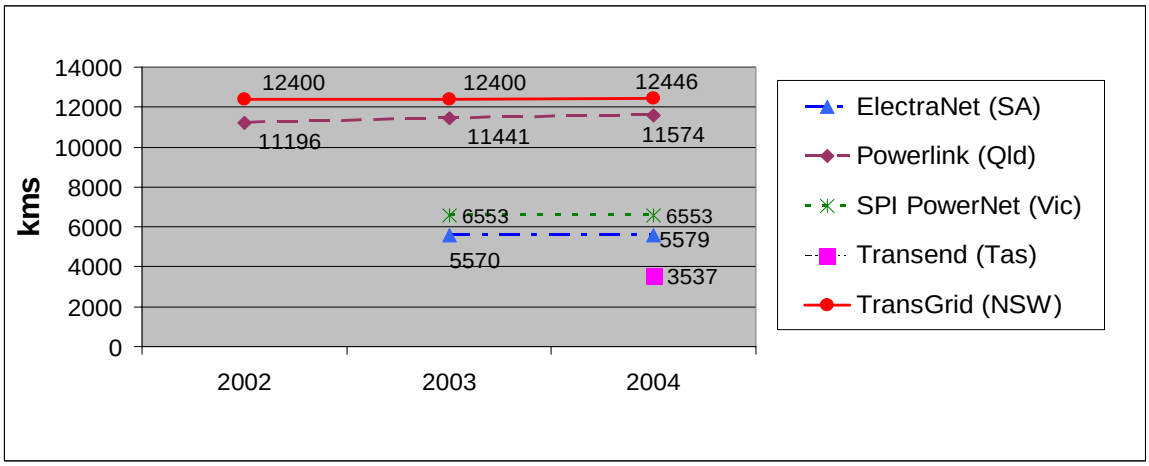
The Victorian Energy Networks Corporation (VENCorp) is wholly owned by the Victorian government and was established in 1997 under an act of Parliament.

It is the monopoly provider of shared transmission network services in Victoria, acquiring bulk network services from SPI PowerNet and other service providers under network agreements. It 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. The separation of the network asset ownership from the investment decision maker is unique within the NEM. VENCorp's gross regulated revenue was $222 m of which only $3.4m relates to Vencorp's direct operating costs.[1] Its network charges for the year were $239 million.

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

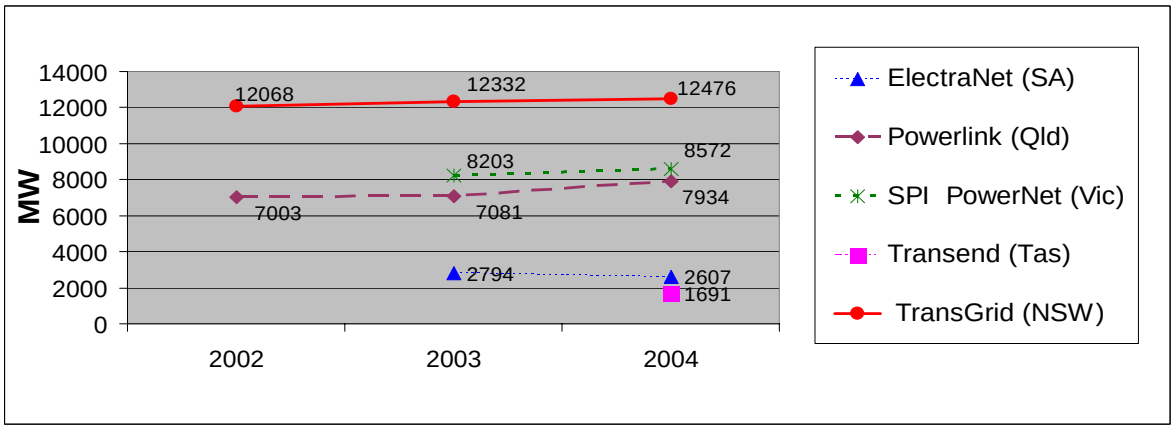
2.3 Network data

Figure 2.1 Network line length (kilometres)



The amount of data shown in the figure above varies depending on the number of years of data the ACCC has received.

Figure 2.2 Maximum peak demand (MW)



The amount of data shown in the figure above varies depending on the number of years of data the ACCC has received.

Table 2.1 Electricity transmitted (GWh)

The methodology behind the figures below may differ to some degree according to whether transmission losses, generator losses, and how import – export balances are accounted for (see footnotes below for a description of electricity transmitted provided by the TNSPS).

	2003/04	**2002/03**
ElectraNet	12336*	12511
Powerlink	45625**	43120
SPI PowerNet	45006*** (or 49111)	48124
Transend	10186**** (or 10725)	
TransGrid	69736*****	67744

* Electricity supplied to the South Australian transmission network.

** Energy flowing into the grid.

*** Figure reported this year is on an 'energy sent out' basis (energy consumed minus the energy consumed by the generators themselves), and differs from the figure in brackets which was based on a different methodology used last year. The bracketed figure is included again this year for comparison with last years figure.

**** This is the first year that Transend has reported data for inclusion in the report. The top figure represents energy transmitted, and the bottom, bracketed figure represents energy sent out.

***** NSW generation including net import from inter-regional flows, less power station auxiliary loads. Figure for 2003 differs to the one published in last year's report – which was taken from the annual report. The figures published this year are both from the regulatory accounts. (02/03 and 03/04).

Table 2.2 Number of substations

	2003/04	**2002/03**
ElectraNet	73	72
Powerlink	96	92
SPI PowerNet	44	44
Transend*	53	
TransGrid	82	81

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

These tables and figures provide an overview of the network characteristics and loads experienced by the TNSPs in their respective regions. Load growth can be particularly volatile in some regions which can present challenges for network planners in the timing and size of augmentations to the grid.

The following trends emerge from the data above, as may be expected in a country experiencing economic and population growth:

- the maximum peak demand that the TNSP must handle is increasing yearly
- the amount of electricity which is being transmitted is increasing
- the infrastructure to support this growth in power demand is increasing (line length, number of substations etc).

3. Financial Performance

3.1 Introduction

3.1.1 Revenue and expenditure

The ACCC sets the revenue cap for each TNSP according to the formula expressed in section 1.3. 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 Code requires the ACCC to balance the interests of TNSPs and customers in reaching its revenue cap decision. TNSPs are provided with a sustainable commercial revenue stream for the regulatory control period (usually five years). The ACCC has a prime objective to encourage efficient expenditure, whether it is investment in infrastructure (capex) or operating and maintenance expenditure (opex), and TNSPs are provided with incentives to manage their costs.

The TNSPs' revenue is 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 which will include forecast capital expenditure (capex) rolled into it over the course of the regulatory period. Altogether, this return on capital plus the return of capital (depreciation) represents about 70% of the MAR.

Opex may constitute more than 25% of the MAR. The SRP outlines an incentive framework for opex under which an efficiency gain/loss will be carried forward for 5 years after the year in which the gain/loss occurred.

TNSPs therefore have some measure of control over their financial performance. The ACCC sets the revenue they may earn, but the TNSPs can influence their ultimate profitability through efficient cost management. TNSPs must comply with a variety of requirements including defined service and network performance and security outcomes, requirements of licensing arrangements, as well as requirements of other statutory authorities etc. These obligations (costings for which are deliberated on in revenue cap decisions) impact on total opex and therefore will impact on total profits.

Capex and opex are the two major factors in determining the profit of TNSPs. The drivers that determine the TNSPs' capex and opex performance are discussed in Chapters 4 and 5.

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

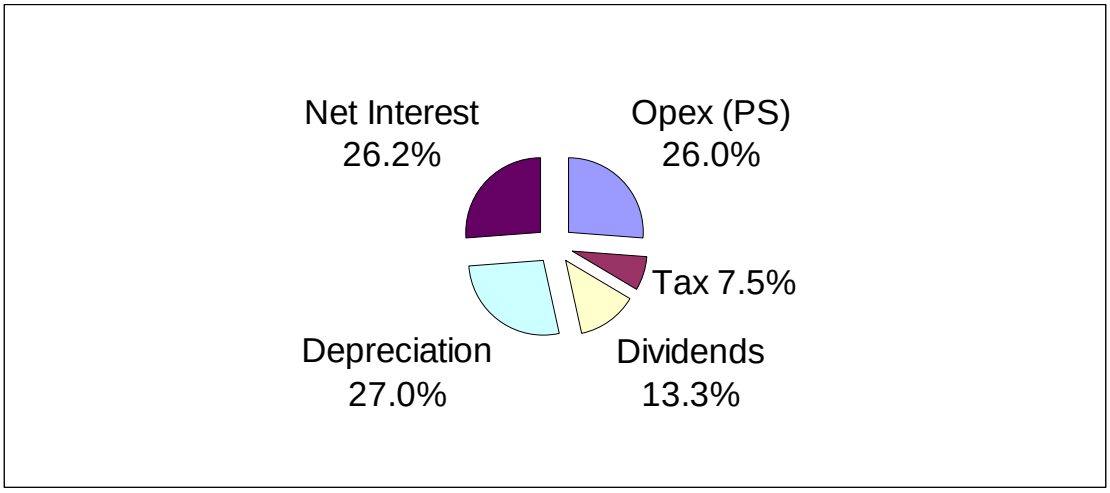
- customer expectations
- relevant legislation in each region and
- National Electricity Code requirements including application of the regulatory test.

This chapter deals with the financial performance of the TNSPs. It compares the TNSPs' actual performance with the assumptions contained in the ACCC's revenue cap decisions. Depreciation emerges as 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. The ACCC also takes into account the TNSPs' historical performance at their next revenue reset, when considering forecasts of expenditure.

Five of the TNSPs forming the subject of this report had the following aggregate financial performance for 2003/04. VENCorp data was not included in the aggregate figures below as it is a non-profit business that operates on a full cost-recovery 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. Financial information for each TNSP may be found in the Appendix.

Transmission revenue of $1.3 billion accounted for the overwhelming majority (99%) of revenue that TNSPs earned in respect of prescribed services.

Figure 3.1 Aggregate TNSP expenses for 2003/04



Source: Regulatory Accounts 2003/04

Figure 3.1 shows that opex, interest payments and depreciation account for about 80% of the TNSPs' total expenses.

Dividends paid out were 39% higher overall than last year, mainly due to significantly higher payouts recorded by TransGrid and Powerlink. Transend, which is reported on for the first time, also recorded a dividend payout. SPI PowerNet and ElectraNet did not pay out any dividends.

3.1.2 Financial performance

The Code requires the ACCC to set a revenue cap (which determines the MAR) 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 Code. Usually, there are small annual variances from the MAR. 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 CPI thereby preserving the real value of the revenue stream.

Measures of profitability such as EBIT (earnings before interest and taxes) will therefore fluctuate according to how well the TNSPs manage their costs, revenue being a constant.

Regulated TNSPs experience relatively low business risk 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. With stable revenues, TNSPs may operate with higher leverage levels than other businesses. In conducting a comparative analysis of the TNSPs' performance, this report has focussed on such areas as debt levels and interest coverage. These and the other measures detailed below are useful to detect trends within the industry.

Transmission networks are capital intensive businesses. As a general matter, higher profitability better enables a business to either generate funds internally to finance its activities or to raise the necessary capital externally. Variable and unexpectedly high load growth in some regions, as well as reliability concerns, can accelerate a TNSP's planned capex program. Chapter 4 further explores this matter.

This report utilises ratios such as return on equity and return on capital to measure the TNSPs' profitability. Year on year figures are provided where applicable to aid analysis of trends and sustainability in financial performance.

3.2 Aggregate TNSP performance

Table 3.1 Aggregate TNSP financial performance

$Millions	**2003/04**
Financial performance	
Transmission revenue (PS)	1305.5
Opex (PS)	325.4
Depreciation (PS)	337.9
EBIT (PS)	647.8
Interest paid	339.0
Tax	93.2
NPAT	264.1
Dividends	166.1
Financial position	
Property, plant & equipment (average RAB)	9077.9
Total assets	10742.9
Total debt	5400.5
Total liabilities	6620.4
Total shareholders' equity and notes	4329.4

Source: Regulatory Accounts 2003/04

Performance highlights – Prescribed Services (PS)

Prescribed services revenue typically makes up about 95% of a TNSP's total revenue. Table 3.1 provides aggregate figures for the TNSPs.

Total prescribed services revenue of more than $1.3 billion was recorded for the 2003/04 financial year. The aggregate financial performance and indicators which are discussed below highlight the significant affect 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.

EBIT (earnings before interest and tax)

EBIT measures the operating profit of the TNSPs before interest and income tax are paid. After the two major expenses were deducted – opex (PS) of $325.4 million and depreciation (PS) of $337.9 million – the aggregate operating profit or EBIT(PS) was $647.8 million.

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 $339 million and taxes of $93.2 million were deducted, was $264.1 million. Total dividends of $166.1 million were paid to owners from this amount. This figure compares to $119.1 million last year.

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 Code. 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 2003/04 was approximately $9.1 billion. This increase of approximately $1.4 billion reflects in part the inclusion of Transend's information in the data reported (its average RAB is almost $600 million).

More than $3 billion in capex has been accommodated for in the ACCC's revenue cap decisions. With the setting of Transend's revenue cap in this financial period this figure will have increased again. 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.

The capex approved by the ACCC highlights its approach to encouraging efficient levels of investment in the industry, one of the major objectives of the Code.

Table 3.2 Aggregate financial indicators

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

Source: ACCC calculations based on Regulatory Accounts for 2002/03 and 2003/04

* The 2003/04 figures are the aggregate figures of five TNSPs - ElectraNet, Powerlink, SPI PowerNet, Transend and TransGrid.

** The 2002/03 figures are the aggregate figures of four TNSPs – ElectraNet, Powerlink, SPI PowerNet and TransGrid.

3.1.3 Financial indicators

Trends in financial indicators allow assessment of the performance of the businesses. Profitability indicators such as return on assets and return on equity provide a consistent basis for presenting information. With none of the TNSPs listed on the Australian Stock Exchange, the indicators provide a guide to their financial performance and operating efficiency in the absence of market valuations. The TNSPs' regulated income is not subject to volume fluctuation. Therefore, control of expenses becomes vitally important to ultimate profitability.

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

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 2003/04 the ratio was 1.9 times – up from last year's figure of 1.6. This change reflects in part the inclusion in the data of Transend which has comparatively very little debt, but also reflects the fact that the other TNSPs' interest coverage improved from the previous year.

Return on assets (EBIT(PS)/average RAB) - this ratio measures the efficiency in the use of the business's assets to produce profits. With stable revenues, the measure will vary according to changes in opex and/or RAB. The aggregate figure was 7.1% for this year, down from 7.4% last year. This figure was affected to some degree by the inclusion of Transend's data, whose return on assets was lower than the industry average.

Return on equity (NPAT/equity) – this ratio measures profitability and efficiency as it indicates the return to shareholders who would be expected to compare that figure with the return provided by alternative investments of similar risk. The aggregate figure was 6.1% for 2003/04 (compared to 4.9% the previous year). It in part reflects the fact that NPAT increased to $264.1 million from last year's figure of $159.3 million. It should be noted that this figure relates to the entire business, regulated and non-regulated, but is considered relevant as the regulated revenue accounts for approximately 95% of the total business revenue.

Gearing ratio (total debt/total debt + equity**)** – this ratio reflects the capital structure of the business and is affected by changes in liabilities. In 2002/03, the overall debt level of the TNSPs was influenced by the addition of SPI PowerNet and ElectraNet to the reporting group, both of which had relatively higher levels of gearing. For 2003/04, the ratio decreased and was influenced by the addition of Transend to the reporting group, which has a relatively lower gearing ratio. The other four TNSPS also had lower gearing ratios this year than the previous year.

The overall figure for this year was 55.5% (in 2002/03 it was 61.7%). As noted for the return on equity figures, the gearing ratio relates to the entire business.

3.1.4 Operating ratios

The following ratios are presented for the information of readers who should be aware that there are many environmental and geographic factors that can influence these ratios (refer to Chapter 5 Opex for a further discussion of these factors). In particular, as electricity transmission is essentially a transportation activity, geographical distances are a significant influence, and should be considered when comparing ratios which are quoted on a "per MW" basis.

Table 3.3 Aggregate operating ratios

	2003/04	**2002/03**
Opex/line length($/km)	8200	8106
Opex/RAB	3.6%	3.8%
Opex/MW peak ($/MW)	9797	9589
Capex/RAB	6.3%	6.6%
Capex/MW peak ($/MW)	17214	16929
Revenue/MW peak ($/MW)	39301	37866
RAB/MW peak ($/MW)	273278	255008

Source: ACCC calculations based on Annual Reports and Regulatory Accounts 2002/03, 2003/04

As noted at Table 3.2 (aggregate financial indicators), these figures compare two different reporting groups. However, the small downwards movement in the opex/RAB and capex/RAB ratios is not explained by Transend being reported on for the first time as its ratios were higher than last year's industry average. The largest decreases in the opex/RAB ratio were experienced by ElectraNet and TransGrid, while the largest decreases in the capex/RAB ratio were experienced by Powerlink and TransGrid.

3.1.5 Tax and dividends paid

The TNSPs pay tax 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 a return on equity invested by government. This policy aims to facilitate competitive neutrality and give the businesses a commercial focus.

Table 3.4 Aggregate tax and dividends paid

$Millions	2003/04	2002/03
Income tax (or equivalent)	93.2	95.2
Dividends	166.1	119.1
Total	259.3	214.3

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

The dividends paid in 2003/04 increased significantly to $166.1 million from $119.1 million for the previous period, predominantly due to increased payments by Powerlink and TransGrid.

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 ACCC 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 ACCC's Information Requirements Guidelines detail the information required to be reported and set out pro-formas to ensure consistency. The information includes data relating to the businesses' financial performance and financial position on a disaggregated and prescribed services basis. Other information includes capex variances, an asset ageing schedule and a summary of provisions.

The ACCC is responsible for gathering information from TNSPs. The ACCC believes that performance monitoring will enhance accountability, particularly in expenditure decisions. Reporting of TNSPs' performance should provide a basis for comparison and yield further incentive for improvement. The facilitation of accountability and performance comparisons will be achieved where the information provided is consistent over time.

Ratio analysis enables the relative financial performance of the TNSPs to be compared. It should be noted that 2003/04 is the first year that data relating to Transend has been included in the report. Accordingly, comparisons with the previous year's performance have not been made for this business.

Table 3.5 TNSP financial indicators 2003/04 *(2002/2003)*

	ElectraNet	Powerlink	SPI PowerNet	Transend*	TransGrid
EBIT(PS)/ interest cover	1.6x** *(1.2x)****	2.3x *(2.2x)*	1.9x *(1.8x)*	16.7x	2.1x *(1.9x)*
Return on assets	9.7% *(8.6%)*	7.0% *(6.9%)*	8.9% *(9.2%)*	5.8%	5.8% *(6.3%)*
Return on equity	1.4%** *(-5.3%)****	6.3% *(5.5%)*	9.3% *(8.6%)*	3.6%	5.5% *(4.2%)*
Gearing Ratio	71.9%** *(72.6%)****	49.1% *(49.3%)*	66.8% *(69.8%)*	6.0%	50.1% *(55.3%)*

Source: ACCC calculations based on Regulatory Accounts 2002/03, 2003/04 and ACCC's revenue cap decisions.

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

** and*** ElectraNet advise that credit rating agencies generally treat shareholder loan notes as equity rather than debt for the purpose of determining its credit rating. Including these shareholder loan notes as debt would give a gearing ratio of 90.5% for 2003/04, and 91.7% for 2002/03. On the same basis, the return on equity becomes 4.1% for 2003/04 and -17.6% for 2002/03. If payments made on shareholder loan notes are included in interest, the EBIT(PS)/interest cover figure for 2003/04 would be 1.0x and 0.8x for 2002/03.

Table 3.6 TNSP operating ratios 2003/04 *(2002/03)*

	ElectraNet	Powerlink	SPI PowerNet	Transend*	TransGrid
Opex(PS)/ line length ($/km)	6660 *(7550)*	7732 *(7333)*	8668 *(7890)*	7064	9402 *(9177)*
Opex(PS)/ RAB (%)	4.4% *(5.1%)*	3.4% *(3.4%)*	3.1% *(2.9%)*	4.2%	3.7% *(4.3%)*
Opex(PS)/ MW peak ($/MW)	14252 *(15093)*	11279 *(11849)*	6675 *(6303)*	14774	9379 *(9228)*
Capex/RAB (%)	4.0% *(4.2%)*	6.2% *(8.1%)*	2.8% *(2.0%)*	9.5%	8.3% *(9.3%)*
Capex/MW peak ($/MW)	12932 *(12312)*	20684 *(28301)*	6104 *(4437)*	33435	21282 *(19753)*
Revenue/MW peak ($PS/MW)	60031 *(53747)*	48364 *(49252)*	31904 *(32025)*	50820	32686 *(31625)*
Assets/MW peak ($RAB /MW)	322889 *(294918)*	331543 *(351222)*	215389 *(220773)*	350530	254871 *(213465)*

Source: ACCC calculations based on Annual Reports (Reviews) / Regulatory Accounts 2002/03 and 2003/04

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

3.2.1 ElectraNet

Financial indicators

ElectraNet's return on assets was 9.7% (up from 8.6% in 2002/03). EBIT(PS) and NPAT have increased from last year to $82.0 million and $4.6 million respectively ($70.7 million and -$16.4 million in 2002/03). No dividends were reported for the year. The return on equity this year was positive, reflecting the positive bottom line profit.

Operating ratios

ElectraNet's opex ratios have decreased over the last financial year. Opex(PS)/line length is down from $7550/km to $6660/km and opex/RAB is down from 5.1% to 4.4% — refer to chapter 5 for more details.

Revenue and expenditure

ElectraNet's performance against its revenue cap shows a large variance from forecast capex, with capital roll-ins about 50% lower than expected for the year – refer to chapter 4 for more details.

Table 3.7 ElectraNet's financial performance

$Millions	**2003/04**			**2002/03**
	Actual *(forecast)*	**Variance$**	**Variance%**	**Actual *(forecast)***
MAR	156.5 *(154.0)*	2.5	1.6%	150.2*(148.0)*
Capex	33.7 *(68.2)*	-34.5	-50.6%	34.4*(35.5)*
Opex	37.2***(47.1)*	-9.9	-21.1%	42.2**(42.5)*

*Includes grid support of $4.4m for 2002/03
**Includes grid support of $3.7m for 2003/04

3.2.2 Powerlink

Financial indicators

Powerlink's EBIT(PS) and NPAT have increased over the previous financial year (by 8.1% to $184.7 million and 20.7% to 92.6 million respectively) while the dividend paid also rose by 20.6% to $87.9 million. The return on equity was higher at 6.3%, up from 5.5%.

The return on assets was 7.0%, slightly up from 2002/03 (6.9%).

Operating ratios

Powerlink's opex ratios have remained fairly constant over the last two financial years. Opex(PS)/line length was $7732/km ($7333/km for 02/03), while opex(PS)/RAB was 3.4%, the same as last year — refer to Chapter 5 for more details.

Revenue and expenditure

Powerlink's performance against the forecasts in its revenue cap decision shows that the only significant variance is in the area of capex (refer to Chapter 4 for more details).

Table 3.8 Powerlink's financial performance

$Millions	**2003/04**			**2002/03**
	Actual *(forecast)*	**Variance $**	**Variance %**	**Actual *(forecast)***
MAR	383.7 *(376.3)*	7.4	2.0%	348.7 *(346.2)*
Capex	164.1*(187.6)*	-23.5	-12.5%	200.4 *(179.0)*
Opex	89.5** *(86.2)*	3.3	3.8%	*83.9* (*84.2*)*

*Includes grid support of $10.7m for 2002/03
**Includes grid support of $11.2m for 2003/04

3.2.3 SPI PowerNet

Financial indicators

SPI PowerNet's NPAT increased by almost 20% to $63.8 million while its EBIT(PS) declined slightly compared to the previous year. Return on equity increased from 8.6% to 9.3% for 2003/04.

SPI PowerNet's actual return on assets was 8.9%, a slight decrease from the previous year.

Operating ratios

SPI's operating ratios increased slightly over the last financial year. Opex(PS)/line length was $8668/km ($7890/km for 02/03), while opex/RAB was 3.1% (2.9% for 02/03) — see Chapter 5 for more details.

Revenue and expenditure

SPI PowerNet's performance against forecast expenditure in its revenue cap decision reveals that capex is about 28% less than expected (2002/03 capex was 50% less than forecast). In last year's report, SPI commented on the large amount of works in progress and that it expected to deliver its in-service capex program over the entirety of the regulatory period but that there might be large variations

from year to year (refer to Chapter 4 for more details). Opex is approximately 9% less than forecast (refer to Chapter 5 for more details).

Table 3.9 SPI PowerNet's financial performance

$Millions	2003/04			2002/03
	Actual *(forecast)*	Variance$	Variance%	Actual *(forecast)*
MAR	271.5*(271.2)*	0.3	0.2%	262.7*(265.6)*
Capex	51.9*(73.0)*	-21.1	-28.8%	36.4*(73.1)*
Opex	56.8*(62.3)*	-5.5	- 8.8%	51.7*(54.9)*

3.2.4 Transend

Transend's data is being reported on for the first time this year.

The ACCC determined Transend's revenue for the 2003/04 financial year as follows: revenue for July – December 2003 was set by the Office of the Tasmanian Energy Regulator, and revenue for January – June 2004 was set by the ACCC in accordance with the Tasmanian Electricity Code (as amended at the time to include provisions similar to the Code). Comparative figures were included in the Transend revenue cap decision for the 2003/04 figures which combine the assessments under the two half year periods. These figures did not form part of the actual revenue cap decision. The 2003-04 financial comparisons included here are based on the two half-year allowances (or forecasts) applying to Transend, namely those set by the Tasmanian Energy Regulator and those set by the ACCC.

Financial indicators

Transend's return on assets was 5.8% and return on equity was 3.6%.

Revenue and Expenditure

Transend recovered its regulated revenue, excepting minor adjustments. Transend's opex was slightly higher than forecast and its commissioned capital expenditure was approximately 20% below forecast (see Chapters 4 and 5 for further details).

Table 3.10 Transend's financial performance

$Millions	2003/04			
	Actual	Forecast	Variance$	Variance%
MAR	85.9	86.4	-0.4	-0.5%
Capex	56.5	72.0	-15.5	-21.5%
Opex	25.0	23.2	1.8	7.7%

3.2.5 TransGrid

Financial indicators

TransGrid's financial performance and indicators have varied significantly in the last two years. NPAT increased by 75% to $83.2 million over the previous financial year, while the return on equity has risen from 4.2% to 5.5% for 2003/04 reflecting the increased profit. EBIT(PS) increased by around 11% from $165.1 million to $182.9 million, however there has been a decrease in the return on assets (6.3% to 5.8%) as the value of the asset base increased by 20% over this period. In last year's report, TransGrid commented that capital investment can be lumpy and the growth in the RAB over the period reflects this. Dividends paid increased to $70 million from $46.2 million in 2002/03.

Operating ratios

TransGrid's opex ratios have varied over the last year. Opex(PS)/line length was $9402/km ($9177/km for 02/03), while opex(PS)/RAB was 3.7% (4.3% the previous year) - refer to Chapter 5 for more details. These figures were influenced by a 20% increase in the RAB ($3179 million, up from $2632 million in 2002/03).

Revenue and expenditure

TransGrid's performance against the forecasts in its revenue cap decision discloses a significant capex variance.

Table 3.11 TransGrid's financial performance

$Millions	**2003/04**			**2002/03**
	Actual *(forecast)*	**Variance $**	**Variance%**	**Actual *(forecast)***
MAR	407.8*(404.3)*	3.5	0.9%	389.9*(387.4)*
Capex	265.5*(372.2)*	-106.7	-28.7%	243.6*(92.7)*
Opex	117.0*(111.0)*	6.0	5.4%	113.8*(109.3)*

3.2.6 VENCorp

Revenue and expenditure

VENCorp's actual performance against forecasts in its revenue cap reveals a variance in gross revenue received. The net surplus is $6.3 million (see financial details in the Appendix) which was taken into account when setting customer charges for 2004/05 in accordance with its not for profit charter.

Table 3.12 VENCorp's financial performance

$Millions	2003/04			2002/03
	Actual *(forecast)**	**Variance $**	**Variance%**	**Actual *(Forecast)****
MAR	222.2*(245.1)*	-22.9	-9.3%	261.8*(240.2)*
Capex	11.1*(15.3)*	-4.2	-27.5%	9.4*(12.6)*
Opex	3.4*(5.7)*	-2.3	-40.0%	2.9*(5.6)*

*Forecast figures originally in 2002 dollars – escalated by CPI.

4. Capital expenditure

4.1 Introduction

Capital expenditure (capex) is used to augment the TNSP's transmission system or to replace or refurbish existing assets. In setting a revenue cap, the ACCC forms a view on the efficiency of the proposed capex program having regard to future demand and service quality. The Code also requires the ACCC to foster an efficient level of investment by the TNSP. It should be noted that in the SRP, released in December 2004, the ACCC proposed to adopt an ex ante approach to the treatment of capex.

This chapter presents the TNSPs' reported capex compared with the forecasts that were included in the ACCC's revenue cap decisions for the 2003/04 financial year.

The information on the TNSPs' actual capex for 2003/04 was obtained from the Regulatory Accounts provided to the ACCC as required by section 6.2.5 of the Code.

4.2 Aggregate TNSP performance

The TNSPs' reported actual total capex for the period 2003/04 is shown in Table 4.1. These figures denote total capex, including both network augmentation and replacement/refurbishment capex. It should be noted that VENCorp pays augmentation charges under network services agreements to successful tenderers who build/own/operate additions to the transmission network in Victoria. VENCorp's augmentation payments for 2003/04 were $11.1 million, against forecast expenditure of $15.3 million.

Table 4.1 Capex - aggregate TNSP performance for 2003/04

$Millions	Capex - Actual *(2002/03)*	Capex - Forecast	Variance $	Variance %
ElectraNet	33.7 *(34.4)*	68.2	-34.5	-50.6%
Powerlink	164.1 *(200.4)*	187.6	-23.5	-12.5%
SPI PowerNet	51.9 *(36.4)*	73.0	-21.0	-28.8%
Transend*	56.5	72.0	-15.5	-21.5%
TransGrid	265.5 *(243.6)*	372.2	-106.7	-28.7%
Total	571.8	773.0	-201.2	-26.0%

Source: Regulatory Accounts 2002/03 and ACCC revenue cap decisions.

* This is the first year that Transend reported figures for inclusion in the report.

To put the above figures in perspective, aggregate capex for 2003/04 totalled $571.8 million, over 40% more than was expended on operating and maintaining their networks. Table 4.1 shows the difference between the actual and forecast expenditure.

Although the table shows that total actual capex was 26% lower than the forecast amount, results vary widely among the TNSPs. The reasons for variance from the forecasts differ but may be due to many factors including the age of the assets, load growth, climate and natural disasters such as bushfires. The expenditure of each TNSP and the reasons for the variance from forecast expenditure are discussed below.

4.3 Individual TNSP performance

4.3.1 ElectraNet

ElectraNet's capex for 2003/04 was significantly lower than the forecast for that year. ElectraNet recorded capex of $33.7 million which was $34.5 million (50.6%) lower than the forecast figure.

ElectraNet commented that it 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
- a shift in the timing of major projects – e.g. SNI did not eventuate and
- delays in obtaining regulatory test and development approvals.

ElectraNet further commented that it is also delivering projects under budget and, as a result of these factors, ElectraNet expects that capex will continue to be well below target until later in the regulatory period.

4.3.2 Powerlink

Powerlink recorded capex of $164.1 million for 2003/04, which was $23.5 million (12.5%) lower than forecast for that year.

Powerlink commented that the TNSP Electricity Regulatory Report for 2002/03 recorded a $21.4 million higher than forecast variance for Powerlink and that they had commented at that time that higher than expected load growth in Queensland had driven an acceleration in the network development program.

Powerlink further commented that Queensland continues to experience this growth in peak demand, with a 12% increase in 2003/04. The lower than forecast reported capex (capitalisations) for 2003/04 is attributable to:

- timing differences in forecast and actual capitalisations over the regulatory period and

- rescheduling of capex projects to address the growth in peak demand.

4.3.3 SPI PowerNet

Similar to last year, SPI PowerNet's capex was considerably less than the forecast for 2003/04. SPI PowerNet delivered $51.9 million capex in-service for the year, which was $21 million (28.8%) less than the forecast figure of $73.0 million.

SPI PowerNet commented that it has had 6 station replacements in progress over 2003/04. As these station rebuilds can take up to 3 years for planning and implementation and because of outage constraints, very large amounts of capital expenditure will be work in progress rather than in-service during the early years of the regulatory period. At the end of 2003/04, SPI PowerNet had over $60 million of capital expenditure as work in progress in addition to the $51.9 million brought into service over 2003/04.

Therefore, SPI PowerNet stated that it expects this year to be the last year where in-service targets will be substantially below the ACCC forecast. In future years the value of assets brought into service will be approximately equal to or exceed the ACCC forecasts as the large amount of work in progress is commissioned.

4.3.4 Transend

Transend's capex for 2003/04 was $56.5 million which was $15.5 million (21.5%) lower than the forecast figure.

Transend advised that the difference between its actual expenditure for 2003/04 and the forecast figures reflected that some projects were delivered below their forecast cost; there was prudent deferral of some projects after a re-prioritisation of activities; and there were delays in commissioning a small number of projects for a range of reasons, including changed customer requirements.

4.3.5 TransGrid

TransGrid's recorded capex was considerably lower than that forecast. It recorded expenditure of $265.5 million during 2003/04, which was $106.7 million (28.7%) lower than forecast.

5. Operating and maintenance expenditure

5.1 Introduction

The regulatory framework is designed to give TNSPs an incentive to improve efficiency and reduce actual opex against target costs (see the ACCC's recently released SRP for details, including a carry forward mechanism for efficiency gains or losses achieved). In setting a revenue cap, the ACCC must assess the TNSP's capacity to achieve realistic efficiency gains in its proposed opex program, given future demand and service quality issues.

The ACCC in reaching its revenue cap decision will also assess if the TNSP has adopted an appropriate balance between opex and capex. As with capex, the Code requires the ACCC to seek to achieve an environment that fosters efficient opex practices. The majority of opex outlays are in the form of salaries for staff or payments for outsourced labour, with the main activities undertaken being network operation and maintenance or corporate related activities.

This chapter presents the TNSPs' reported opex compared with the forecasts that were included in the ACCC's revenue cap decisions for the 2003/04 period.

5.2 Aggregate TNSP performance

Table 5.1 Opex - aggregate TNSP performance for 2003/04

$Millions	Opex - Actual *(2002/03)*	Opex - Forecast	Variance $	Variance %
ElectraNet	37.2* *(42.2)*	47.1	-9.9	-21.1%
Powerlink	89.5** *(83.9)*	86.2	3.3	3.8%
SPI PowerNet	56.8 *(51.7)*	62.3	-5.5	- 8.8%
Transend	25.0	23.2	1.8	7.7%
TransGrid	117.0 *(113.8)*	111.0	6.0	5.4%
VENCorp	3.4 *(2.9)*	5.7	-2.3	-40.0%
Total	328.9	335.5	-6.6	-1.9%

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

* ElectraNet - actual opex included $4.4m for grid support in 2002/03, and $3.7m for grid support in 2003/04 (forecast figure contained allowance of $4m for both years).

** Powerlink - actual opex included $10.7m for grid support for 2002/03 (forecast figure contained allowance of $5.2m), and $11.2m for grid support for 2003/04 (forecast figure contained allowance of $16.6m).

The table above shows, similar to last year, the actual total opex incurred in 2003/04 was relatively close to the forecast figure for that year. However, this result does not reflect significant differences between forecast and actual opex reported by individual TNSPs. As is the case with the capex reports, there is no general trend in the outcome of actual expenditure compared to the forecast.

The reasons for the variances from the forecasts differ for each TNSP. The expenditure of each TNSP and the potential reasons behind the variances from the forecasts are discussed below.

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.

The ACCC in its August 2003 Draft Regulatory Principles Discussion Paper recognised that a substantial component of the differences in cost observations between firms is due to legitimate or "uncontrollable" differences in factors which affect the level of costs incurred by the firms.

For example, the costs of electricity transmission or distribution businesses might differ due to differences in:

- the *nature of the services* provided by each firm (for example, a transmission network designed to provide reliability services might appear to have quite different average costs than an otherwise identical network designed to provide transportation services);
- the *range of services* provided by the firm (a distribution business might appear as higher average cost if it is required to provide additional services, such as street lighting or heating, which are not provided by the comparator firms);
- the *volume of services* provided (a transmission or distribution business carrying smaller volumes might appear as higher average cost if there are economies of scale);
- the *quality of services* provided (a firm which offers *n-2* reliability might appear as higher average cost than a firm which offers *n-1* reliability);
- the *price of inputs* (firms in rural areas might have to pay more to attract particular labour skills);
- *Government regulations* (companies which must control noise emissions may face higher average costs than those which do not);
- the *number, density, load factor and size distribution of the customers they serve* (companies which have a higher load factor or customer density may have lower average cost than those companies 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); and
- the *age and quality of the capital stock.*

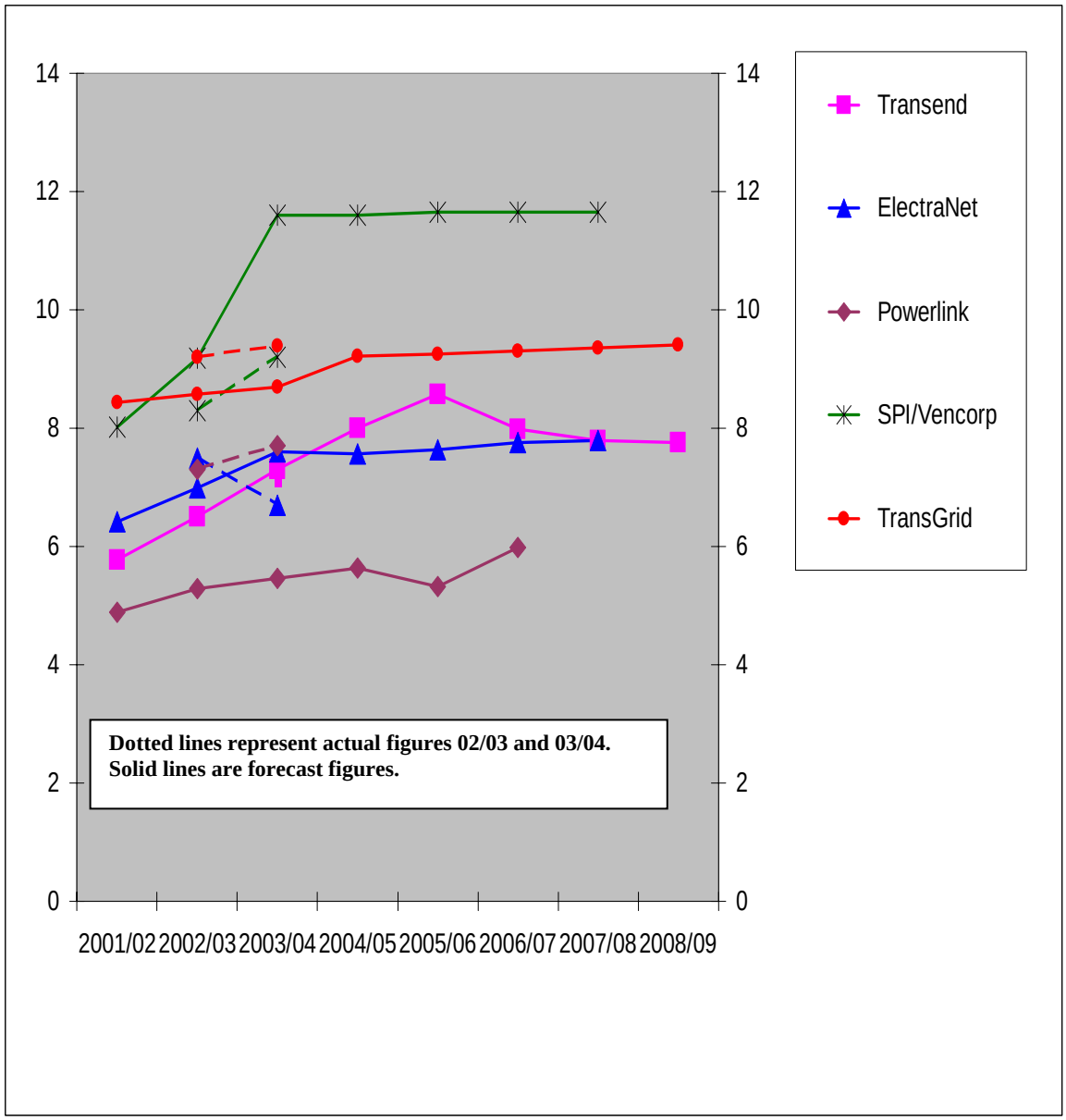
Figures 5.1 to 5.3 show the following opex ratios: opex/line length ($/circuit kilometres); opex/RAB (%); and opex/megawatt peak ($/MW). It is important to note that the ratios will be affected by the factors listed above to varying degrees.

TNSPs generally commented that benchmarking should be examined to establish a range of suitable measures. The ACCC intends to establish a working group in 2005 to benchmark the opex performance of the TNSPs.

Benchmarking

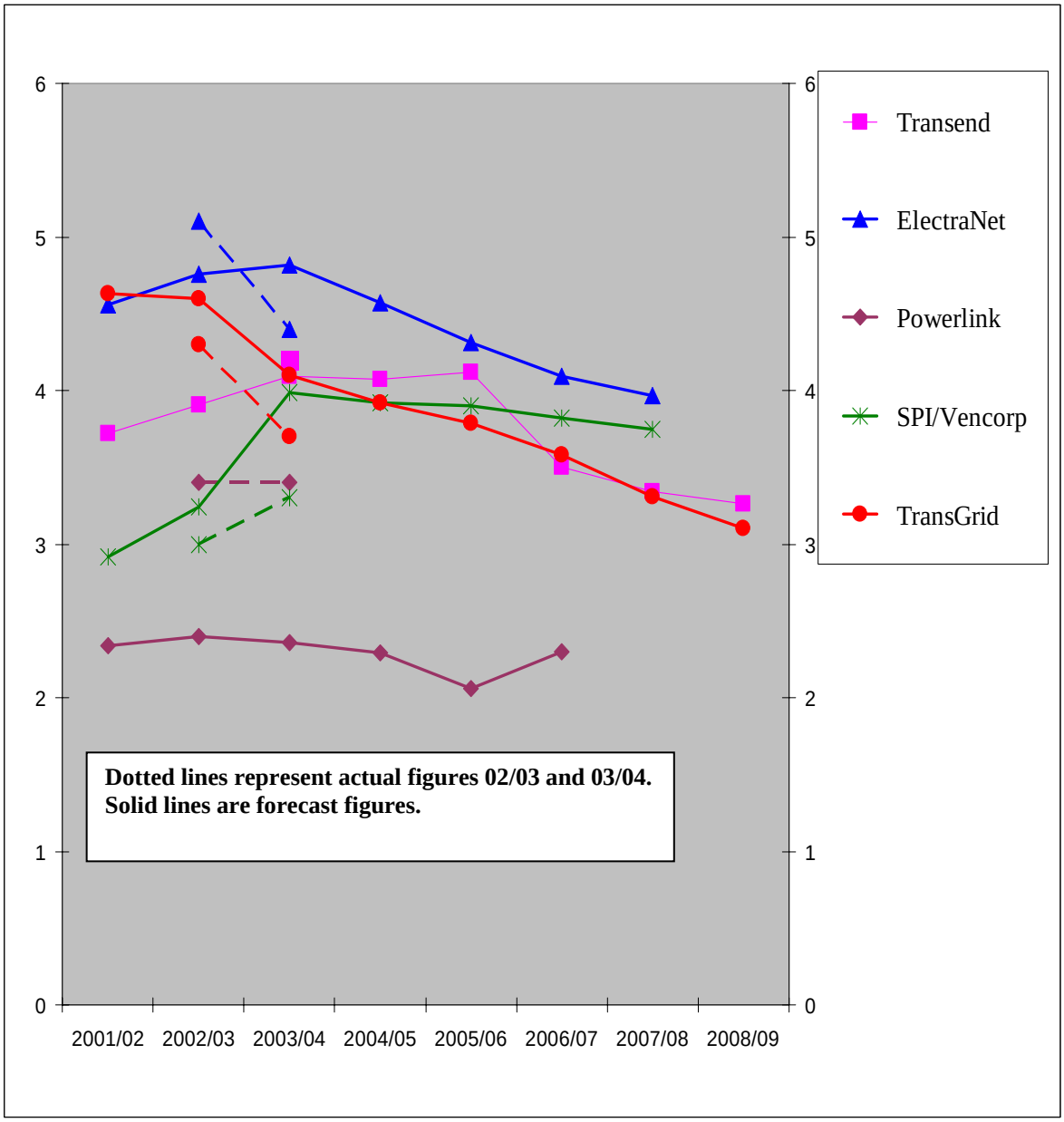
The ACCC recognises that differences in operating conditions and scale can explain why some ratios are higher or lower. As such, the ratios can only provide a measure of reasonableness. Accordingly, the ACCC does not use benchmarking to establish opex allowances for TNSPs, but rather as a guide to whether the allowances are within a reasonable range.

Figure 5.1 Opex/line length ($'000/kilometre)



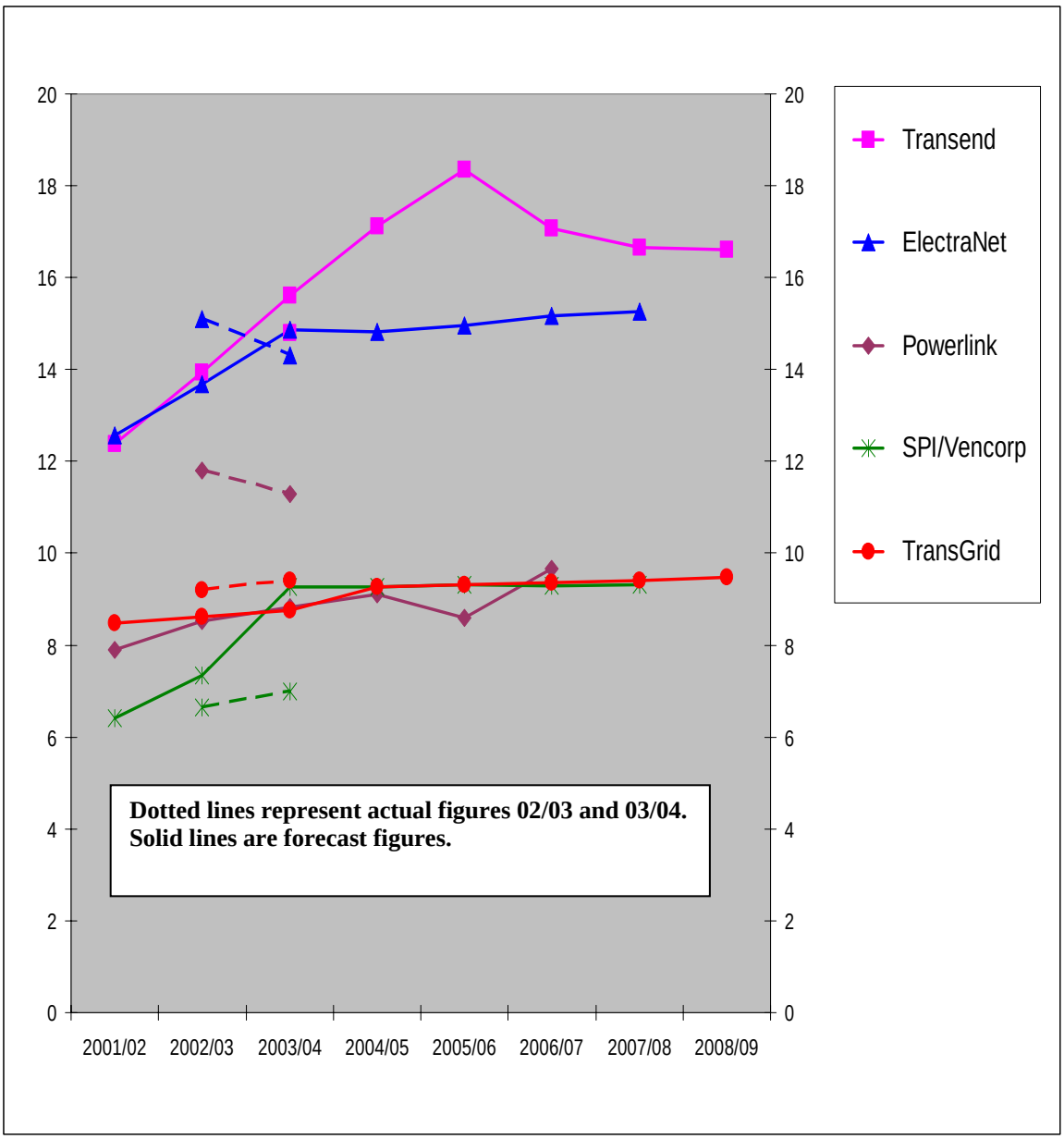
Source: TNSP revenue cap applications and ACCC decisions, Regulatory Accounts.
Only one data point of actual results for Transend.

Figure 5.2 Opex/RAB (%)



Source: TNSP revenue cap applications and ACCC decisions, Regulatory Accounts.
Only one data point of actual results for Transend.

Figure 5.3 Opex/MW peak ($'000/MW peak)



Source: TNSP revenue cap applications and ACCC decisions, Regulatory Accounts.
Only one data point of actual results for Transend.

5.3 Individual TNSP performance

5.3.1 ElectraNet

ElectraNet recorded opex of $37.2 million, 21% less than its forecast expenditure of $47.1 million.

ElectraNet commented that it is actively seeking 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 and expects expenditure in this area to increase over the remainder of the regulatory period.

5.3.2 Powerlink

Powerlink's actual opex of $89.5 million was slightly higher than the forecast expenditure of $86.2 million.

Powerlink commented that it endeavours to keep operating costs within regulatory targets while continuing to deliver a safe and reliable transmission service.

5.3.3 SPI PowerNet

SPI PowerNet's opex of $56.8 million was 8.8% lower than the forecast amount for 2003/04 of $62.3 million.

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

5.3.4 Transend

Transend recorded opex of $25 million, 7.7% higher than its forecast expenditure of $23.2 million.

Transend commented that while expenditure for the second six months of the financial year was consistent with the ACCC's allowance, Transend exceeded the allowance made by the Tasmanian Energy Regulatory for the first half of the year. It stated that the Tasmanian Energy Regulator's allowance did not reflect Transend's operating environment, as it was a 'roll-forward' of an earlier determination.

In that regard, Transend advised that the 1999 Tasmanian Price Determination was made for a period of three years from 1 January 2000 to 31 December 2002. However, the Tasmanian Government, through amendments to the *Electricity Supply Industry (Price Control) Regulations 1998*, extended this Determination for a further 12 months to 31 December 2003. Transend further advised that the Tasmanian Regulations providing for the extension did not give the Tasmanian Energy Regulator any scope to increase the allowance for 2003 to take into account any shifts in costs. The Regulator was confined to providing CPI adjustments only.

5.3.5 TransGrid

TransGrid recorded opex of $117 million for 2003/04, which was 5.4% above its forecast expenditure of $111 million (adjusted for the acquisition of SMHEA assets).

5.3.6 VENCorp

VENCorp's net opex was $3.4 million, 40% lower than the forecast opex of $5.7 million.

Appendix - Summary financial performance and indicators

ElectraNet — Summary – Financial performance and indicators

	$Millions		
	FY 2004	**FY 2003**	**% change**
Financial performance			
Transmission revenue (PS)	156.5	150.2	4.2%
Opex (PS)	37.2	42.2	-11.9%
Depreciation (PS)	37.6	38.5	-2.4%
EBIT (PS)	82.0	70.7	15.9%
Financial position			
Average RAB	841.8	824.0	2.2%
Total assets	1220.3	1174.5	3.9%
Total debt	1053.7	1033.5	2.0%
Total liabilities	1109.4	1081.4	2.6%
Total equity	111.0	93.1	19.2%
Financial indicators			
EBIT (PS)/interest cover	1.6x*	1.2x**	
Return on assets	9.7%	8.6%	
Return on equity	1.4%*	-5.3%**	
Gearing ratio	71.9%*	72.6%**	

* and ** ElectraNet advise that credit rating agencies generally treat shareholder loan notes as equity rather than debt for the purpose of determining its credit rating. Including these shareholder loan notes as debt would give a gearing ratio of 90.5% for 2003/04, and 91.7% for 2002/03. On the same basis, the return on equity becomes 4.1% for 2003/04 and -17.6% for 2002/03. If payments made on shareholder loan notes are included in interest, the EBIT(PS)/interest cover figure for 2003/04 would be 1.0x and 0.8x for 2002/03.

Powerlink — Summary– Financial performance and indicators

	$Millions		
	FY 2004	**FY 2003**	**% change**
Financial performance			
Transmission revenue (PS)	383.7	348.8	10.0%
Opex (PS)	89.5	83.9	6.7%
Depreciation (PS)	105.8	99.1	6.8%
EBIT (PS)	184.7	170.8	8.1%
Financial position			
Average RAB	2630.5	2487.0	5.8%
Total assets	3203.3	3050.5	5.0%
Total debt	1412.4	1351.8	4.5%
Total liabilities	1738.0	1658.4	4.8%
Total shareholders' equity	1465.3	1392.1	5.3%
Financial indicators			
EBIT (PS)/interest cover	2.3x	2.2x	
Return on assets	7.0%	6.9%	
Return on equity	6.3%	5.5%	
Gearing ratio	49.1%	49.3%	

SPI PowerNet — Summary – Financial performance and indicators

	$Millions		
	FY 2004	**FY 2003**	**% change**
Financial performance			
Transmission revenue (PS)	271.5	262.7	3.4%
Opex (PS)	56.8	51.7	9.9%
Depreciation (PS)	55.8	51.7	7.9%
EBIT (PS)	164.0	166.3	-1.4%
Financial position			
Average RAB	1833.0	1811.3	1.2%
Total assets	2287.3	2245.1	1.8%
Total debt	1375.7	1432.8	-4.0%
Total liabilities	1809.1	1830.6	-1.2%
Total shareholders' equity	685.0	621.2	10.3%
Financial indicators			
EBIT (PS)/interest cover	1.9x	1.8x	
Return on assets	8.9%	9.2%	
Return on equity	9.3%	8.3%	
Gearing ratio	66.8%	69.8%	

Transend — Summary – Financial performance and indicators

	$Millions
Financial performance	**FY 2004**
Transmission revenue (PS)	85.9
Opex (PS)	25.0
Depreciation (PS)	27.0
EBIT (PS)	34.3
Financial position	
Average RAB	592.8
Total assets	648.6
Total debt	35.1
Total liabilities	97.0
Total shareholders' equity	551.7
Financial indicators	
EBIT (PS)/interest cover	16.7x
Return on assets	5.8%
Return on equity	3.6%
Gearing ratio	6.0%

TransGrid — Summary – Financial performance and indicators

	$Millions		
Financial performance	**FY 2004**	**FY 2003**	**% change**
Transmission revenue (PS)	407.8	389.9	4.6%
Opex (PS)	117.0	113.8	2.8%
Depreciation (PS)	111.7	108.0	3.4%
EBIT (PS)	182.9	165.1	10.8%
Financial position			
Average RAB	3179.8	2632.5	20.8%
Total assets	3383.4	2807.4	20.5%
Total debt	1523.6	1338.7	13.8%
Total liabilities	1866.9	1684.0	10.9%
Total shareholders' equity	1516.4	1123.4	35.0%
Financial indicators			
EBIT (PS)/interest cover	2.1x	1.9x	
Return on assets	5.8%	6.3%	
Return on equity	5.5%	4.2%	
Gearing ratio	50.1%	55.3%	

VENCorp — Statutory electricity segment summary
— Financial performance and indicators

$Millions	FY 2004	FY 2003	% change
Financial performance			
Transmission revenue	222.2	261.8	-15.1%
Less network charges	239.0	229.2	4.3%
Total electricity transmission revenue	-16.8	32.6	-151.6%
Other revenue	1.2	1.4	-13.2%
Total revenue	-15.6	34	-145.9%
Less expenses	4.7	4.3	8.2%
Net result for period	-20.3	29.7	-168.2%
Financial position			
Current assets	29.4	51.7	-43.2%
Non-current assets	0.2	0.3	-43.0%
Total assets	29.5	52.0	-43.2%
Current liabilities	22.6	24.9	-9.1%
Non-current liabilities	0.6	0.5	20.8%
Total liabilities	23.2	25.4	-8.5%
Net assets	6.3	26.6	-76.3%
Stakeholders funds			
Contributed capital	0	0	
Accumulated surplus	6.3	26.6	-76.3%