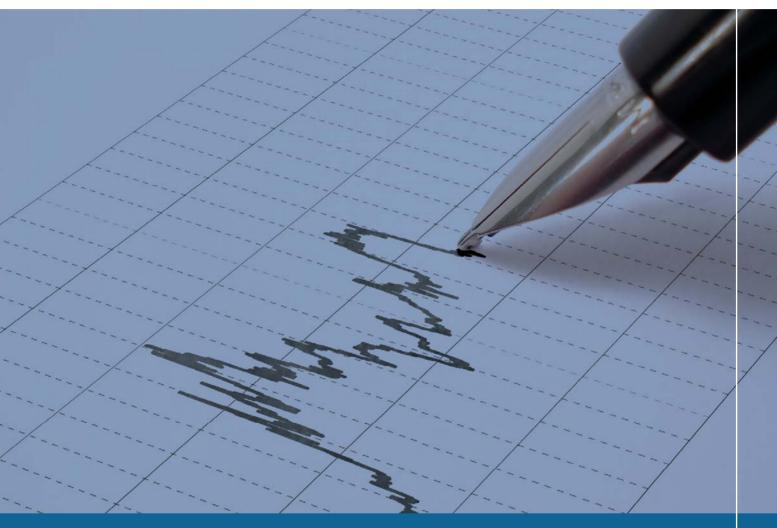
## APPENDIX 23

PB Associates, Benchmark Comparison of Transend's Corporate Overhead and Shared Costs, April 2008



# **Transend Networks**

# BENCHMARK COMPARISON OF TRANSEND'S CORPORATE OVERHEAD AND SHARED COSTS





**APRIL 2008** 



## Benchmark Comparison of Transend's Corporate Overhead & Shared Costs

April, 2008

Transend Networks Pty Ltd



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## **Executive Summary**

PB Strategic Consulting (PB) has been engaged by Transend Networks Pty Ltd ("Transend") to undertake a comparative benchmarking exercise of its corporate overhead costs.

The report examines the corporate overhead costs for a range of Australian transmission businesses. The report also examines Transend's corporate cost performance against Australian distribution businesses. In order to obtain comparable figures for the range of companies, a number of normalising factors have been applied to the data, including revenues, employees and circuit line length.

By its very nature, the natural monopoly's characteristic of Transend enables it to take advantage of economies of scale. However, it is important to note at the outset that Transend is Australia's smallest transmission network operator, and is therefore unable to take advantage of the potential economies of scale to the same extent as its larger peers. The difference between a large system and small system, which Transend operates, plays a key role in characterising the cost structure of the firm. This difference in scale is crucial in enabling a network operator to realise average cost savings.

Despite the scale and size disadvantages relative to its peers, Transend has compared well across all of the corporate functions benchmarked. Specifically, Transend's costs are generally below or equivalent to what might be expected given its size.

#### Corporate Overhead Costs (Transmission)

PB has compared the corporate overhead costs of Transend with those of other Transmission businesses. Benchmark comparisons for transmission businesses are conducted at two levels – a high level reflecting the aggregate data available, and a low level reflecting less aggregated data. The high level functions benchmarked include corporate support, asset management, and insurance. The low level functions benchmarked include Human Resources, Finance, and Information Technology (IT).

Transend's corporate overhead functions appear to be at a higher level of efficiency compared to other Australian transmission operators. Our analysis shows that Transend's:

- 1. Corporate Support Function is slightly more efficient than peer organisations.
- 2. Asset Management function is more efficient than peer organisations.
- 3. Insurance function is among the most efficient.
- 4. Finance function is more efficient than peer organisations.
- 5. Human Resource costs are more efficient than peer organisations.
- 6. IT function is more efficient than peer organisations.



#### Corporate Overhead Cost (Distribution)

PB has also compared Transend's corporate overhead with those of Australian Distribution businesses. The functions benchmarked are Finance, Human Resources, IT, Corporate Affairs and Corporate Shared.

On the whole, Transend's corporate overhead functions appear to be at a higher level of efficiency compared to other Australian distribution operators. Our analysis shows that Transend's:

- 7. Finance function appears to be more efficient than a typical distribution operator.
- 8. Human Resource is more efficient than a typical distribution operator.
- 9. IT function is slightly less efficient than might be expected compared to Australian distributors.
- 10. Corporate Affairs function appears more efficient than a typical distribution operator.
- 11. Corporate Shared function is slightly more efficient than a typical distribution operator.

While noting that Transend has on the whole compared well across all of the corporate functions benchmarked, it is evident that economies of scale exist in delivering corporate services jointly. Significant fixed costs exist in setting up corporate services, and the incremental unit costs of supporting additional functions of the non-regulated or excluded business are sometimes negligible in comparison. Therefore, Transend's corporate cost structure has tended not to reflect the level of scale economies more evident in larger transmission and distribution businesses.



## 1. Introduction

Transend Networks Pty Ltd ("Transend"), in accordance with the national electricity law and national electricity rules, is currently preparing its revenue reset proposal to the Australian Energy Regulator (AER). The revenue reset will set the allowed revenues for the period 2009-2014. As part of this review process, Transend is required to submit capital and non-capital related expenditures to the AER for review. A key component of non-capital related expenditure is the indirect costs associated with corporate overhead and shared costs.

PB Strategic Consulting has been engaged by Transend to undertake a comparative benchmarking exercise of its corporate overhead and shared costs. The underlying purpose of the exercise is to identify the corporate cost performance of Transend relative to its peers. Due to Transend's comparatively small size, the study also compares Transend's performance against Australian electricity distribution businesses.

## 1.1 Scope of Study

The objective of this review is to establish the performance of Transend's corporate costs relative to other comparable electricity businesses. In doing so, it provides Transend with observable facts and outcomes of its business operations, including an indication of where it sits relative to its peers, identification of gaps and potential areas for business improvement.

The overall scope of the PB study is as follows:

- Providing a comparative assessment of Transend's corporate activity against other similar organisations;
- Identification of divergences and any areas of concern relative to comparable peers; and
- Explaining divergences associated with scale issues in the provision of corporate and shared services.

## 1.2 Approach to Study

In undertaking the benchmark review of Transend, the approach adopted by PB has included the following key elements:

- Conducting a desktop survey of the corporate and shared costs of transmission and distribution businesses. This involved collecting data from various public sources at both a high level (aggregate data), and from a lower level (disaggregated data) perspective.
- Defining costs that appropriately reflect corporate costs of businesses to ensure sufficiently useful and relevant benchmark results.
- Conducting an overview of data sources and assumptions, including the alignment of costs to ensure symmetry in time period comparisons.
- Assessing and formulating metric comparisons that best explain the key corporate cost drivers, taking into account the size and differential characteristics of electricity businesses.



## 1.3 Report Structure

The remainder of the report is structured as follows.

- Chapter 2 provides an overview of the benchmarking framework adopted in this study, including an overview of base year for comparison, sample businesses benchmarked, and an outline of corporate overhead functions and cost drivers adopted in this study.
- Chapter 3 provides a summary of comparisons made between corporate overhead costs of Transend and Australian transmission businesses.
- Chapter 4 provides a summary of comparisons made between corporate overhead costs of Transend and Australian distribution businesses.
- Chapter 5 provides a summary and conclusion of the benchmarking exercise.



## 2. Corporate Benchmark Framework

This Chapter provides an overview of the benchmark measurement framework used in this report. It includes the evaluation parameters of the benchmarking exercise, an outline of the sample businesses in each jurisdiction; a description of the high level (aggregate data) and low level (disaggregate data) corporate functions, and discussion of key cost drivers.

PB recognises that any comparative assessment is heavily reliant on the availability of data, and the level of comparability of the source data. The individual characteristics of network operators will also create factors that are difficult to account for when comparing across companies.

PB also notes that the comparisons made in this report are based on Transmission and Distribution Price Submissions, and do not represent a full benchmarking exercise (see Appendix A for references to data sources). A full benchmarking exercise would require the inclusion of additional company-specific inputs together with an internal validation process to ensure comparability. The timescale to complete such an exercise would extend over a period of months, and access to staff and records in each business would be required in order to refine figures and ensure comparability. This was beyond the scope of this work.

The following sections highlight where estimations and assumptions have been made in order to provide reasonably comparable figures. These qualifications must be taken into account when considering the report outcome.

## 2.1 Time Period for Comparison

The time periods considered are different for each jurisdiction. The periods considered are aligned with regulatory periods.

For transmission businesses, the relevant periods are:

- Victoria regulatory period is 2008/09-2013/14, (6 years)
- South Australia regulatory period is 2008/09 to 2012/13 (5 years)
- Western Australia regulatory period is 2006/07 2008/09 (3 years)
- Queensland regulatory period is 2007/08 to 2011/12 (5 years)

For distribution businesses, the relevant time periods are:

- Victoria regulatory period is 2001-2005, (5 years)
- South Australia regulatory period is 2005/06 to 2009/10 (5 years)
- Western Australia regulatory period is 2006/07 2008/09 (3 years)
- Queensland regulatory period is 2005/06 to 2009/10 (5 years)

As the length of regulatory periods varies by jurisdiction, the data collected are expressed in different ways and range from real dollars (for a given point in time), to nominal dollars for each year of the regulatory period. Therefore it has been necessary to make adjustments to the expenditure amounts to enable direct comparisons to be made. All expenditure amounts



were converted and expressed in June 2006/07 Australian Dollars to ensure symmetry in comparison.

Data sourced from Transend are in June 2006/07 dollars, which represents the base year of Transend's revenue proposal. Therefore, PB has selected June 2006/07 as the base point for indexing corporate overhead expenditure in this report.

PB notes that the data provided excludes overheads applied to capital projects. PB understands that these costs are reflective of the costs to be submitted to the AER for review.

Consumer Price Index (CPI) figures from the Australian Bureau of Statistics website (average of 8 capital cities) have been used to index expenditure amounts.

## 2.2 Sample Businesses

### 2.2.1 Australian Transmission Businesses

Five of Australia's electricity transmission businesses are included as part of this benchmarking exercise. They are:

- Powerlink located in Queensland,
- SP Ausnet located in Victoria,
- Western Power located in Western Australia,
- ElectraNet located in South Australia; and
- Transend located in Tasmania.

These businesses together make up approximately 70 per cent of Australia's electricity transmission sector (IBISWorld Pty Ltd, p. 18).

### 2.2.2 Australian Distribution Businesses

In addition to the five transmission businesses outlined above, a comparison of Transend with distribution businesses is also undertaken. There are two key reasons for undertaking such a comparison. First, Transend's network is comparatively smaller in size compared to other transmission businesses, and reflects elements of a distribution business (i.e. 6.6 kV to 220 kV network). Second, and unlike other transmission businesses, a component of Transend's capital work programme involves work that would be undertaken by a typical distribution business in Australia's mainland (e.g. expenditure on zone substations).

The benchmarked Australian distribution system operators are:

- ETSA utilities located in South Australia;
- Western Power located in Western Australia;
- AGL located in Victoria;
- CitiPower located in Victoria;
- SP Ausnet (formerly TXU) located in Victoria;
- Poweror located in Victoria;
- United Energy located in Victoria; and



Aurora Energy located in Tasmania.

Whilst making comparisons between transmission and distribution networks clearly have their limitations, they share common characteristics including responsibility for maintaining their portion of the network and facilitating new connections. The additional inclusion of distribution businesses also provides a more comprehensive approach towards comparing Transend's corporate cost performance, while noting that the characteristic of a distribution network differs to that of a transmission business (e.g. business support costs of DNSPs are generally larger than TNSPs) (Western Power 2006, p. 39).

## 2.3 High Level (Aggregate) Corporate Overhead Functions

PB has undertaken the benchmarking of corporate costs at two levels. A high level (aggregate data) comparison that aligns with the revenue submissions made by transmission businesses to the AER; and a lower level (disaggregated) comparison.

PB believes that the high and low level comparison is necessary for two reasons. First, the high level view provides increased data accuracy, as the data is sourced directly from transmission operators with a prescribed definition. However, the disadvantage of a high level comparison is that it provides less insight into corporate cost performance, as the data source may include elements of non-corporate overhead and shared costs. Secondly, although the low level comparison provides better insight into corporate and shared costs, the data related to these activities are generally not available from operators. Therefore, benchmark indicators are generally sourced from third party sources and the use of industry benchmarks are required. For these reasons, PB believes that incorporating both levels of comparisons provides a more complete assessment of Transend's corporate cost performance.

The functions benchmarked at the high level include asset management, corporate support and insurance. Due to data availability, these functions are benchmarked for transmission operators only.

#### 2.3.1 Corporate Support

Corporate support includes the cost of activities required to ensure adequate and effective corporate governance, business planning and business services, including finance, accounting, administration, human resources and internal audit.

Transend's corporate support function includes human resources, finance, IT, corporate shared, and corporate affairs functions.

The Western Power submission did not provide an exact definition for 'corporate support'. However, this was separately identified and includes strategy and corporate affairs, business transformation (implementation of organisational change), finance and human resources functions. The corporate support function of Powerlink and ElectraNet were identified as one line item, while SP Ausnet's submission was broken down into clearly identifiable subcategories including finance, human resources, IT and other.



#### 2.3.2 Asset Management

Asset management includes those operational activities that support the strategic development and ongoing management of the system, including system planning (works delivery, strategic and tactical), connections, compliance, project administration, and environmental and safety. Within Transend, the activities are categorised under four sub-categories being Customer & Asset Management, Regulation and compliance, Transmission Services Support.

Transend's asset management includes customer and asset management, transmission and services support. Customer & Asset Management costs are activities performed by the Customer and Asset Management Group including Grid Vision, customer management, connections, program management, land use planning, network development, asset strategy and performance, standards and policy. Transmission Services costs include works co-ordination and scheduling, project management, legal, contractor management, contract management, safety and environment, engineering and asset services. Grid Vision involves long-term strategic development for the network.

PB notes that SP Ausnet, Powerlink and ElectraNet's 'Asset Management' costs were sourced from their cost submissions to AER under the heading "Asset Management Support Costs". SP Ausnet's asset management included operational support, while Powerlink and ElectraNet exclude this sub-category. Western Power's asset management was identified as a separately listed item called network support in the category of business support costs.

#### 2.3.3 Insurance

Insurance costs are defined as all costs for business risk assessment, insurance and self insurance costs. The insurance costs for transmission businesses were identified as separate line items, with the definitions of the data source being consistent with each other.

### 2.4 Low Level (Disaggregated) Corporate Overhead Functions

In addition to the high level comparison, PB has undertaken a more detailed low level assessment of corporate overhead costs based on the available information (see Appendix A). For transmission businesses, the functions benchmarked included Human Resources, Finance, and IT. Benchmark indicators for corporate shared costs and corporate affairs were not benchmarked due to the lack of available disaggregated data for these functions. However, PB believes that the high level benchmark of 'Corporate Support' along with Human Resources, Finance, and IT provide a satisfactory basis for drawing corporate cost comparisons for transmission businesses.

For distribution businesses however, the functions benchmarked included Corporate Shared Costs, and Corporate Affairs/Other, as the data for this sample of companies were publicly available. Human Resources, Finance, and IT functions of distribution companies were also compared.

The level of comparability is subject to the accuracy of the source data and level of detail available. The definitions and level of comparability are discussed below.



#### 2.4.1 Human resources

Human Resources (HR) is defined as including general HR operations, employee relations, training and development, as well as Occupational Health & Safety.

Transend's HR function excludes training and recruitment costs (other than for HR staff and some company wide training), but includes Occupational Health & Safety managed outside of the HR function.

The HR function for transmission businesses, SP Ausnet and Western Power, were separately identified in their submissions to the regulator. While SP Ausnet's submission was identified as a single line item under the category of "non-system recurrent", Western Power's submission included a detailed breakdown under the category of "business support costs". The HR function for the remaining transmission businesses, ElectraNet and Powerlink, adopts KPMG's average benchmark estimates for human resources in the energy sector.

The Victorian distribution companies exclude the cost of training for employees outside of the HR department from the HR costs, whilst this cost was included within Western Power's operating expenditure program. The ETSA submission did not provide a comprehensive definition of the human resource cost which was included as part of its corporate costs, however OH&S was identified as a separately listed cost and added to the HR cost provided for the benchmarking exercise.

#### 2.4.2 Finance

The Finance function is inclusive of costs for financial control, business analysis, treasury, and preparation of regulatory accounts.

Transend's Finance function includes external audit and one staff member outside of Finance (capital expenditure reporting).

Western Power and SP Ausnet's transmission finance costs were separately identified in their submission to the regulator. However, the finance functions for Powerlink and ElectraNet were not directly available and therefore KPMG's median industry benchmark estimates were used to estimate the value of these functions.

The Victorian distribution companies exclude the accounts receivable cost from their finance cost, as these costs are included in the billing and revenue costs submitted separately. However, the KPMG benchmarked cost for these companies includes the full costs of the accounts receivable function. This analysis also adopts KPMG's benchmark cost for the Victorian companies, and does not include the billing and revenue costs in any of the analysis. Accounts receivable costs are included by both Western Power and ETSA.

Furthermore, the Victorian distribution companies have included fleet costs within Finance, but do not refer to the inclusion of risk management or insurance costs. The labour cost of risk management and insurance has been reallocated to the Finance function from "other operating expenses" benchmarked by KPMG. The cost of risk and insurance were also reallocated to Finance from Corporate Affairs in ETSA's submission. Western Power's distribution benchmark included the Payroll function within their HR costs, whilst the KPMG



study has included this cost within the Finance function. This cost was not able to be reallocated from Western Power's HR costs due to the absence of the cost breakdown.

#### 2.4.3 Information Technology

The information technology (IT) function includes the development and implementation of IT strategy as well as the operational expenditures (equipment etc) not included in other functions.

Transend's IT functions excludes the cost of operational IT (transmission system) and Asset Management Information System (AMIS).

Western Power's submission also includes document management, library, research and archiving costs within its IT costs. KPMG excludes some costs which have already been allocated across functions including the cost of major applications. ETSA's operating expenditures include the cost of major licence fees associated with IT business systems.

### 2.4.4 Corporate Affairs

Corporate Affairs include the cost of regulation, legal, audit, and costs associated with the CEO and Managing Director's offices.

As discussed above the 'typical' business costs provided by KPMG were distributed amongst the relevant functions by PB. Costs included within Corporate Affairs included, for instance, the labour cost of the CEO and legal staff, as well as expenses incurred by legal and other consultants.

The information sourced for Western Power provided costs for all of the activities undertaken in the Corporate Affairs function. ETSA's definition of Corporate Affairs included risk management, insurance and OH&S, these costs were reallocated to the Finance and HR functions costs for this benchmarking analysis. The cost of the offices of the CEO and Managing Director ('Other') were reallocated to Corporate Affairs from the Shared Services costs.

#### 2.4.5 Corporate Shared

Corporate Shared costs include general office administration, marketing, planning and property management.

Transend's corporate shared functions include the cost of a role to co-ordinate fleet management and undertake some of the procurement function.

KPMG's price review submission did not provide a breakdown of costs for either Corporate Shared or Corporate Affairs costs, instead benchmarks for the various labour and expenses were provided by KPMG on a 'typical' distribution business. These costs were divided amongst the various functions by PB in accordance with the definitions. Energy Planning was identified as a separate cost item and the benchmarked figure was added to the Corporate Shared costs.

Western Power's Corporate Shared costs available for comparison included administration services (including facilities management) and business transformation. Business



transformation involves developing and delivering an organisational change program and was included as proxy for the planning activity included in the other DB's costs. Costs for marketing, planning and property were included for ETSA and general administration costs were not identified separately from the other corporate costs.

## 2.5 Cost Drivers

In order to obtain comparable figures for the range of companies, a number of normalising factors have been applied to the data collected in this study. The normalisation factors include revenues, network line length, and number of employees. Subject to the source data and level of data available, the most relevant cost drivers have been adopted to allow informed comparison of the data.

To determine the most appropriate benchmark indicators, PB has estimated the correlation coefficient, or R-squared ( $R^2$ ), of several index combinations. In effect, the  $R^2$  is a measure of statistical reliability, or goodness of fit. Therefore PB has used the  $R^2$  to determine the most appropriate benchmark metric combinations, and adopted those metric combinations that best explain the correlation between corporate costs and size.

PB notes that  $R^2$  is only a descriptive statistic, and is a measure of how the proposed benchmark indicator variable changes with a proposed cost driver (e.g. corporate support varies with revenue). It is not a measure whether a variable is related to, or caused to vary by another variable. Further, with a greater number of related data points,  $R^2$  (as a statistic) will become a more reliable measure. In this study, the benchmark data is representative of one year only (2006/07) and based on a relatively small sample. This is likely to result in a lower  $R^2$  even if the model is in fact satisfactory. The selection of cost drivers are discussed below.

#### **Corporate Support**

Corporate support – including corporate governance, business planning and business services, which includes finance, accounting, administration, human resources and internal audit; are generally dependant on the number of reconciliations, administration and accounting activities that are often driven by revenues. Therefore, PB has adopted benchmark for Corporate Support spending per revenue.

#### Asset Management

Asset management– including Customer & Asset Management, Regulation and Compliance, Transmission Services Support – are generally dependent on the size of the network operations, which is driven by line length. However, PB's assessment of the correlation between asset management and size suggests that asset management is better explained as a proportion of employees. Therefore, PB has adopted benchmark for Asset Management spending per employee.

#### Insurance

Insurance – includes costs for business risk assessment, insurance and self insurance costs – is generally dependent on the proportion of revenues, employees and/or line length. However, PB's assessment of the correlation between insurance costs and size suggests



that insurance costs are better explained as a proportion of revenues. PB has therefore adopted an insurance benchmark as a proportion of revenues.

#### Human resources

HR costs – including general HR operations, employee relations, training and development, and Occupational Health & Safety – are generally dependent on the number of employees. Therefore, PB has adopted benchmark for HR spending per employee.

#### Finance

Finance costs – including financial accounting, management accounting, statutory and regulatory reporting, treasury, etc. – are generally dependant on the number of personnel in the organisation, which are driven by the number of employees. Therefore, PB has adopted benchmark for Finance spending per employee.

#### Information Technology

As IT expenditure is generally dependant on the number of PCs (discussed further in section four), which is similar to the number of employees, the benchmark for IT spending per employee has been adopted rather than a benchmark for IT spending per revenue. However, PB has also undertaken benchmarking of IT expenditure against line length.

#### **Corporate Affairs**

Corporate Affairs – includes the cost of regulation, legal, audit, and costs associated with the CEO or Managing Director's offices. These costs are generally dependent on network and business size, which is driven by line length and revenues. Therefore, PB has adopted the benchmark for Corporate Affairs per km of line length and as a proportion of revenues.

#### **Corporate Shared**

Corporate Shared – includes general office administration, marketing, planning and property management – are generally dependent on network and business size, which is driven by line length and revenues. Therefore, PB has adopted the benchmark for Corporate Affairs per km of line length and as a proportion of revenues.



## 3. Transmission Benchmark Indicators

This section provides a summary of comparisons made between corporate overheads costs of Transend and Australian transmission businesses. The high level functions benchmarked include corporate support, asset management, and insurance. The low level functions benchmarked include Human Resources, Finance, and IT.

PB reports the benchmark indicators in a format that does not allow individual transmission operators to be identified. Specifically, sample businesses are not named. Instead, businesses are given an alphabetical name in each graph.

## 3.1 High Level Benchmarks

#### 3.1.1 Corporate Support

Figure 3-1 shows corporate support costs as a percentage of revenues for transmission operators. As might be expected, the corporate cost as a proportion of revenues decreases as revenue increases. This is likely to reflect the fixed costs associated with providing the corporate cost function (such as corporate governance, business planning and business services), and hence the economies of scale associated with the cost structure of larger transmission operators. There is also a high level of correlation between corporate support and percentage of revenue ( $R^2$  is 93%), suggesting a high level of correlation and reliability in the benchmark results.

Transend's corporate support as a percentage of revenue is slightly below the trend line, indicating that its corporate cost is below what might be expected given the size of the company.

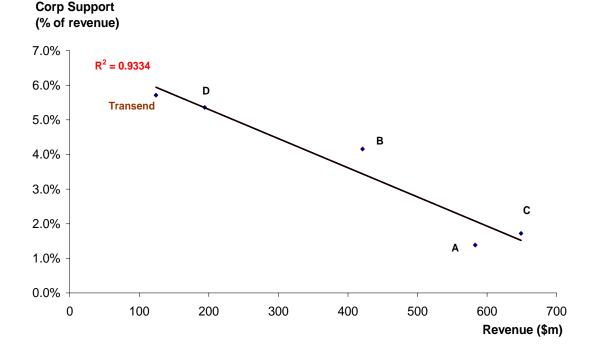


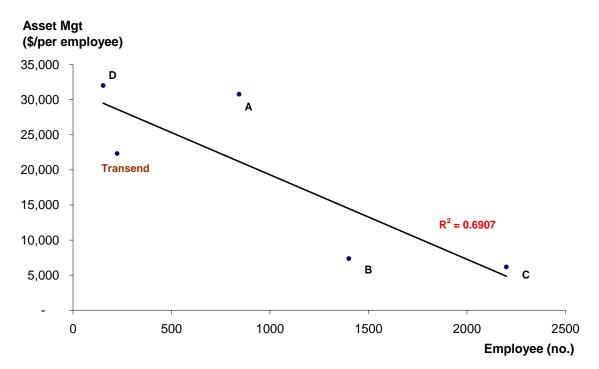
Figure 3-1: Corporate support as a proportion of revenue



#### 3.1.2 Asset Management

Figure 3-2 shows Asset Management costs  $per employee plotted against number of employees for the sample transmission businesses. As might be expected, the trend for asset management as a proportion of employees decreases as the number of employees increase. This is likely to reflect the fixed cost component of asset management regardless of size, and therefore the ability of larger businesses to take advantage of scale economies in operating a network per employee. The Figure also illustrates that the benchmark provides an average indicator of asset management, with an <math>R^2$  of 69%.

Transend's asset management cost per employee is below the trend line, indicating that its asset management cost is more efficient than what might be expected given its size.





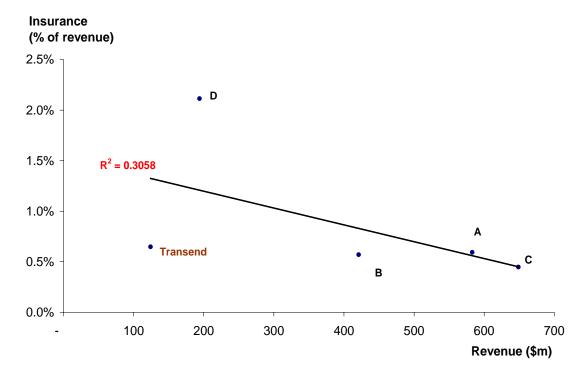


#### 3.1.3 Insurance

Figure 3-3 illustrates insurance costs as a proportion of revenue for the sample transmission companies. The trend highlights that insurance costs as a proportion of revenues tend to decrease as revenues increases. This is also likely to reflect the fixed costs associated with the provision of insurance (such as costs for business risk assessment, insurance and self insurance costs), and the scale economies associated with larger networks. Although the trend line exhibits economies of scale as expected, there is relatively poor data correlation in this benchmark ( $R^2$  of 31%). This outcome is likely to reflect varying insurance arrangements that transmission operators utilise in protecting their assets (e.g. self insurance versus non-self insurance by operators), as well as their respective risk appetites.

Although the accuracy of this benchmark is less reliable compared to other benchmark indicators, the results nonetheless provide an indicative assessment of Transend's insurance cost compared to its peers. As shown, Transend's insurance cost function, as a proportion of revenue, is more efficient than other operators, and is notably below the trend line.

In PB's view, Transend's insurance cost is well below what might be expected compared to other companies benchmarked. Conversely, company D's insurance cost is notably higher relative to the other businesses. Together these outliers have reduced the reliability of this benchmark indicator.



#### Figure 3-3: Insurance costs as a proportion of revenues



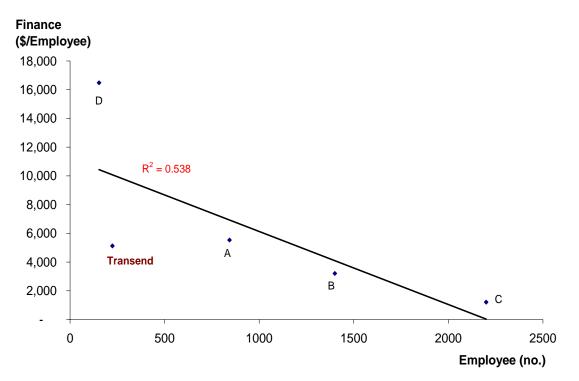
### 3.2 Low Level Benchmarks

#### 3.2.1 Finance

Figure 3-4 shows finance costs \$/per employee for the sample companies examined. The trend for finance costs per employee decreases as the number of employees increase. This trend reflects the fixed costs associated with undertaking finance functions (such as financial accounting, management accounting, statutory and regulatory reporting activities), and hence the economies of scale that are to be expected from undertaking these activities. Figure 3-4 also shows a reasonable level of correlation in the benchmark results, as indicated by an  $R^2$  of 54%.

After normalisation, Transend's finance cost per employee appear to be below the trend line, suggesting that its finance cost is relatively efficient compared to its peers.

In PB's view, Transend's finance cost is well below what might be expected compared to other companies benchmarked. Conversely, company D's finance cost is notably higher relative to the other businesses. Together these outliers have reduced the reliability of this benchmark indicator.



#### Figure 3-4: Finance costs per employee



#### 3.2.2 Human resources

Figure 3-5 shows human resources costs per employee as a function of number of employees. As might be expected, the trend is for human resources costs \$/per employee to decrease as the number of employees increases. This is likely to reflect the fixed costs of the human resources function, and hence the economies of scale available to the larger businesses. Figure 3-5 also shows a reasonable level of correlation of benchmarked companies ( $R^2$  of 53%).

Transend's human resources costs per employee is below the trend line, which suggests that Transend's human resources function is somewhat more efficient than what would be expected given the number of employees. Conversely, company D's human resource cost is notably higher compared to other businesses benchmarked.

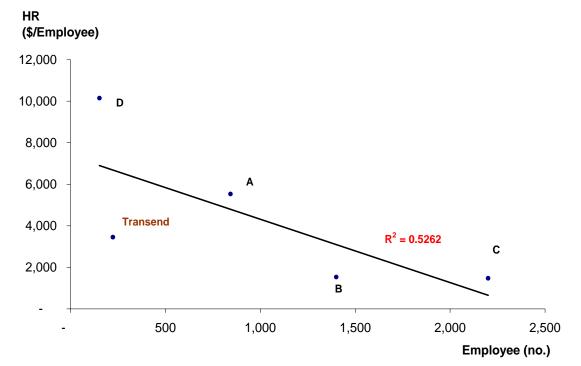


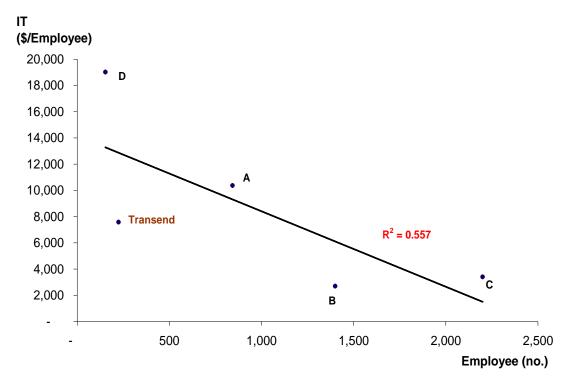
Figure 3-5: Human resource costs per employee



#### 3.2.3 Information Technology

Figure 3-6 illustrates IT cost as a proportion of employees. The values exhibit partial correlation with an R<sup>2</sup> per employee of 56%. This correlation reflects how IT expenditure is generally dependant on the number of PCs, which is generally driven by the number of employees (rather than revenues or line length per se). Transend's IT cost per employee is notably below the trend line, indicating that its cost is well below those that might be expected of a company of its size.

In PB's view, Transend's IT cost is well below what might be expected compared to other companies benchmarked. Conversely, company D's IT cost is notably higher relative to the other businesses. Together these outliers have reduced the reliability of this benchmark indicator.



#### Figure 3-6: IT costs per employee



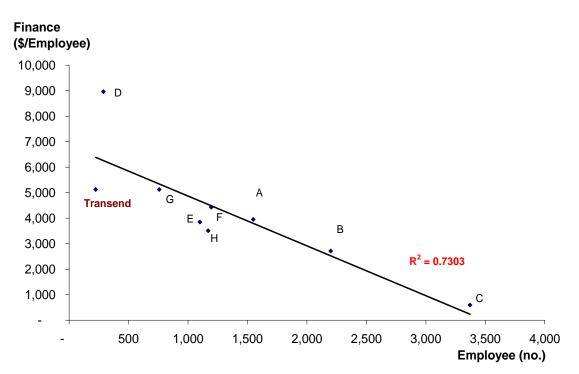
## 4. Distribution Benchmark Indicators

This section provides a summary of comparisons made between corporate overheads costs of Transend and Australian distributors. The functions benchmarked are Human Resources, Finance, IT, Corporate Affairs and Corporate Shared Costs.

Due to data confidentiality, PB reports the benchmark indicators in a format that does not allow individual distributors to be identified. Specifically, sample businesses are not named. Instead, the distributors are given an alphabetical name in each graph.

### 4.1 Finance

Figure 4-1 shows finance costs per employee plotted for the sample companies. The values presented provide a correlation with an  $R^2$  of 73%. The graph indicates that Transend's finance cost per employee is below the trend line. This suggests that Transend's Finance function is at a higher level of efficiency compared to other distribution operators, after taking into account the number of employees in the sample.



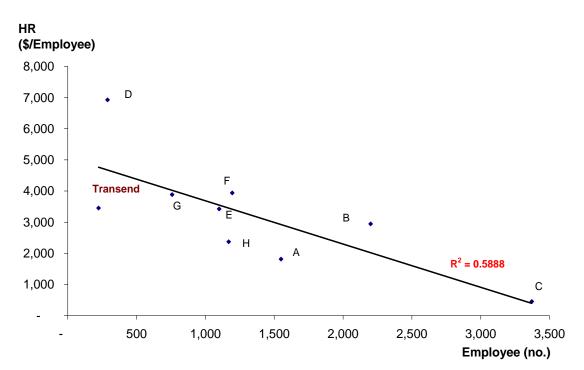
#### Figure 4-1: Finance per employee



### 4.2 Human resources

Figure 4-3 shows human resources costs per employee as a function of number of employees. As might be expected, the trend for human resource costs per employee decreases as the number of employees increases. This is likely to reflect the fixed costs of the human resources function, and hence the economies of scale available to larger businesses. Figure 4-3 shows a correlation of benchmarked companies with an  $R^2$  of 59%.

The Transend human resource costs per employee are shown below the trend line. This would suggest that Transend's human resource function is more efficient than the HR function of a typical distribution network operator.



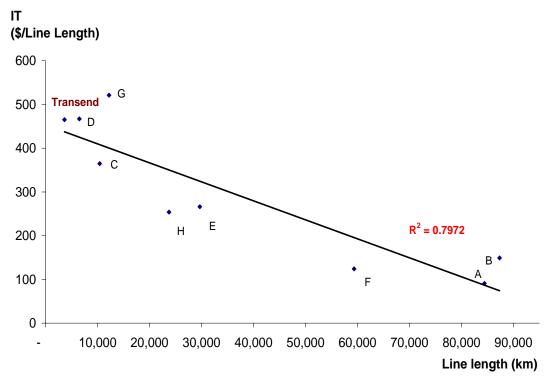
#### Figure 4-3: HR costs per employee



## 4.3 Information Technology

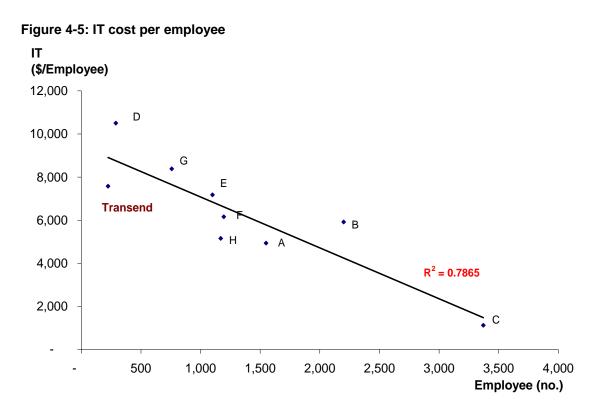
Figure 4-4 below shows IT costs  $\protect{s}$  for the length for the sample companies. The values exhibit a fit with an R<sup>2</sup> of 79.7%. Transend's IT costs per km of line length is slightly above the trend line. This suggests that Transend's IT cost is slightly above that which would be expected given the size of the company.





In addition to the above comparison, PB has also compared IT costs per employee (see Figure 3.7 below). This benchmark comparison provides a similar (but lower) level of correlation compared to IT cost per employee ( $R^2$  of 78.7%). However, Transend IT cost function, per employee, is below the trend line suggesting, under this metric, it is more efficient compared to other distribution businesses on this comparative basis.



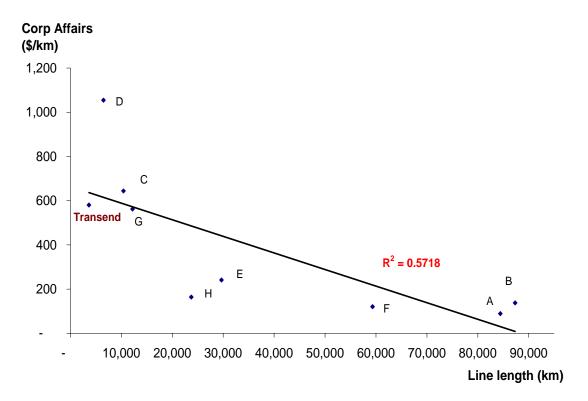




## 4.4 Corporate Affairs

Figure 4-6 shows corporate affairs per km of line length for the sample companies. The values exhibit average correlation with an R<sup>2</sup> of 57%. Transend's corporate affairs cost per km of line length is below the trend line, suggesting that its costs is more efficient than a typical network provider.





In contrast, Figure 4-7 (below) shows corporate affairs costs as a proportion of revenue for the sample companies. As might be expected, the trend is for corporate affairs costs as a proportion of revenues to decrease as revenues increases. This is likely to reflect the fixed costs of the corporate affairs function, and hence the economies of scale available to larger businesses. Figure 4-6 shows correlation of the benchmarked companies with an R<sup>2</sup> of 20%. This is likely to reflect different definitions of corporate affairs within the benchmarked sample, as well as the large variance in the revenues of distributors.

The Transend corporate affairs cost as a proportion of revenue is below the trend line. This suggests that Transend's corporate affairs function is more efficient than the corporate affairs functions of a typical distribution network operator.



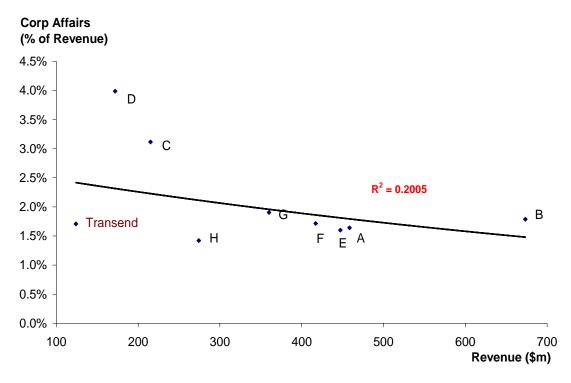


Figure 4-7: Corporate affairs cost as a percentage of revenue



### 4.5 Corporate Shared

Figure 4-8 shows Corporate Shared costs per km of line length plotted against line length of distributors and Transend. The measure provides a more reliable benchmark indicator compared to Figure 4-8, as the correlation is higher ( $R^2$  of 69%). As expected, companies such as Transend, with a smaller network size exhibit lower absolute costs, as measured on a /km line length basis. However, after normalisation, Transend's corporate shared cost is below the trend line, indicating that its costs are below that which might be expected of a company of its size.

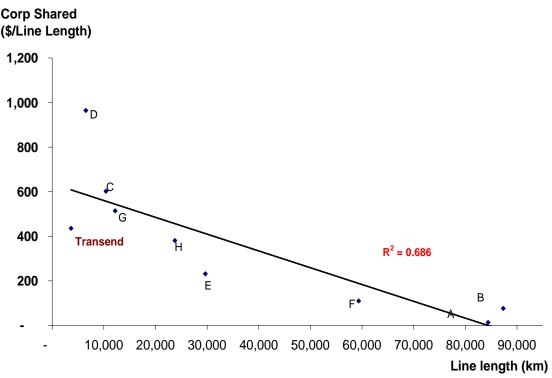


Figure 4-8: Corporate shared per km of line length

Figure 4-9 (below) shows Corporate Shared costs as a proportion of revenue plotted against revenue for the sample companies. The trend is for corporate shared costs as a proportion of revenues decreases as revenues increase. This reflects the economies of scale between corporate shared costs and size. However, Figure 4-8 shows a relatively poor level of correlation ( $R^2$  of 37%) of the sample businesses. This is likely to reflect different definitions of corporate shared within the benchmarked sample, as well as the large variance in the earnings of distributors.

The Transend corporate shared costs as a proportion of revenue are notably below the trend line. This suggests that Transend's corporate shared function, as a proportion of revenue, is efficient compared to distributors.



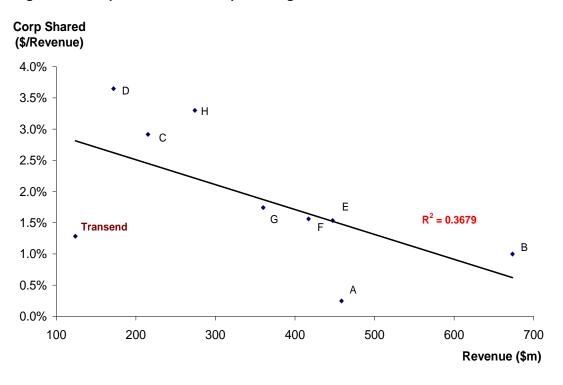


Figure 4-8: Corporate shared as a percentage of revenue



## 5. Summary and Conclusion

In this Chapter, PB provides a summary of findings following our corporate cost benchmark review of Transend against Australian transmission and distribution operators.

By its very nature, the natural monopoly's characteristic of Transend enables it to take advantage of economies of scale. However, it is important to note that Transend is Australia's smallest transmission network operator, and is therefore unable to take advantage of potential economies of scale to the same extent as its larger peers. The difference between a large system and a small system in which Transend operates also plays a key role in characterising the cost structure of the firm. The difference in scale is crucial in enabling a network operator to realise average cost savings.

Despite the scale and size disadvantages relative to its peers, Transend has compared well across all of the corporate functions benchmarked. Specifically, Transend's costs are generally below or equivalent to what might be expected given its size.

### 5.1 Summary of key findings

PB's key findings relevant to Transend's corporate and shared costs performance, as grouped by business operator type, are summarised below. The summary is based on those index or metric combinations that are most statistically reliable, as measured by PB's assessment of the data and the associated correlation coefficient ( $R^2$ ).

#### **Corporate Overhead Costs (Transmission)**

PB's assessment has found that Transend's costs relative to other transmission operators are below or equivalent to what might be expected given the size of the business. That is, Transend's:

- 1. Corporate Support Function is slightly more efficient than peer organisations.
- 2. Asset Management function is more efficient than peer organisations.
- 3. Insurance function is among the most efficient.
- 4. Finance function is more efficient than peer organisations.
- 5. Human Resource costs are more efficient than peer organisations.
- 6. IT function is more efficient than peer organisations.

#### **Corporate Overhead Cost (Distribution)**

PB's assessment has found that Transend's costs relative to other distribution operators are below or equivalent to what might be expected given the size of the business. That is, Transend's:

- 7. Finance function appears to be more efficient than a typical distribution operator.
- 8. Human Resource function is more efficient than a typical distribution operator.
- 9. IT function is slightly less efficient than might be expected compared to Australian distributors.



- 10. Corporate Affairs function appears more efficient than a typical distribution operator.
- 11. Corporate Shared function is more efficient than a typical distribution operator.

## 5.2 Conclusion

While noting that Transend has, on the whole, compared well across all of the corporate functions benchmarked, it is evident that economies of scale exist in delivering corporate services jointly. Significant fixed costs exist in setting up corporate services, and the incremental unit costs of supporting additional functions of the non-regulated or excluded business are sometimes negligible in comparison. Therefore, Transend's corporate cost structure has tended not to reflect the level of scale economies more evident in larger transmission and distribution businesses.



## Appendix A

**Data Sources** 



The following sources have been used for the provision of base data in each jurisdiction.

#### Western Australia

Information for the Western Australian distributor Western Power was sourced from the following reports which are publicly available on Western Power's website - <u>http://www.westernpower.com.au</u> - and other industry research sources.

Forecast Expenditures Compelling Case 2006/07 to 2008/09, Western Power (prepared for Access Arrangement Submission), August 2005.

Capital and Operating Expenditure Program 2006/07 to 2008/09, Western Power (prepared for Access Arrangement Submissions), May 2006.

Wester Power Financial Review 2007

Western Power Annual Report, 2005 and 2006.

IBISWorld 2007, Electricity Transmission in Australia: D3612, 26 November

#### South Australia

Information for ETSA Utilities was sourced from the ETSA websitethe Essential Services Commission of South Australia (ESCOSA) website-<u>http://www.escosa.gov.sa.com</u>. The sources listed below are publicly available.

IBISWorld 2007, Electricity Transmission in Australia: D3612, 26 November

ElectraNet 2007, Revised Cost Information Template, submitted to the Australian Energy Regulator as part of transmission proposal, 18 January. Available on AER's website – <u>http://www.aer.gov.au</u>

*ElectraNet Annual Report 2006.* Available on ElectraNet's website – <u>http://www.ElectraNet.com.au</u>

South Australian Electricity Distribution Price Review 2005/06 to 2009/10, Final Report, PB Associates (prepared for the Essential Services Commission of South Australia), September 2004.

ETSA Utilities Annual Report, 2005.

#### Victoria

Information for the Victorian distributors was sourced from the following two reports which are publicly available on the Victorian Essential Services Commission's website archive – <u>http://www.esc.vic.gov.au</u>. Supplementary information for Victorian businesses was also sourced from the companies' annual reports (sources listed below).

IBISWorld 2007, Electricity Transmission in Australia: D3612, 26 November

IBISWorld 2007, Electricity Distribution in Australia: D3613, 29 November

SP Ausnet 2007, Revised Cost Information Template, submitted to the Australian Energy Regulator as part of transmission proposal, 12 October. Available on AER's website – <u>http://www.aer.gov.au</u>

Essential Service Commission 2007, Electricity Distribution Businesses – Comparative Performance Report 2006, October. Available on AGL's websitehttp://www.esc.vic.gov.au

2001 Price Review - Cost Allocation, KPMG Consulting (prepared for the Office of the Regulator-General, Victoria), May 2000.



2001 Price Review - Cost Allocation, Final Report, KPMG Consulting ((prepared for the Office of the Regulator-General, Victoria), September 2000.

The Australian Gas Light Company (AGL) 2006 Concise Annual Report. Available on AGL's website- <u>http://www.agl.com.au</u>

SP Ausnet Annual Report 2007. Available on SP AusNet's website - http://sp-ausnet.com.au

SP Australia Networks (Distribution) Ltd (formerly TXU Australia Group Pty Ltd) General Purpose Financial Report, 2006. Available on SP AusNet's website – <u>http://sp-ausnet.com.au</u>

*Citipower and Powercor Annual Report, 2005.* Available on CitiPower's website-<u>http://citipower.com.au</u> or Powercor's website-<u>http://powercor.com.au</u>

United Energy Concise Annual Report, 2002. Available on the United Energy (UE) website – <u>http://ue.com.au</u>

#### Queensland

Information for Powerlink was sourced from the Powerlink website - <u>www.powerlink.com.au</u> – and other industry research sources.

IBISWorld 2007, Electricity Transmission in Australia: D3612, 26 November

Powerlink 2007, Cost Information Template, submitted to the Australian Energy Regulator as part of transmission application, 3 April. Available on AER's website – <u>http://www.aer.gov.au</u>

Plan Build Deliver, Powerlink Annual Report 2006/07.

Look Forward, Powerlink Annual Report 2002/03.

Transmission Network Revenue Cap Commencing January 2002, Application Powerlink, Queensland, February 2001

#### Tasmania

Information for Transend was sourced from the Transend website - <u>www.transend.com.au</u> - industry research, regulatory sources, as well as personal communication with Transend staff.

IBISWorld 2007, Electricity Transmission in Australia: D3612, 26 November

Transend Annual Report 2007

Trasend 2003 Revenue Cap Submission to the ACCC. Available on AER's website - <u>http://www.aer.gov.au</u>

## Benchmark Comparison of Transend's Corporate Overhead & Shared Costs

(Addendum)

May, 2008

Transend Networks Pty Ltd



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## A. Addendum

## A.1 Context of Addendum

In April 2008, PB Strategic Consulting (PB) was engaged by Transend Networks Pty Ltd ("Transend") to undertake a comparative benchmarking exercise of its corporate overhead costs against other Australian transmission businesses. In order to obtain comparable figures with the businesses examined, PB examined a number of normalising factors that were then applied to the data. These included revenues, employees and circuit line length.

Subsequent to PB's April 2008 report, Transend has requested an addendum on the high level Asset Management benchmark presented for transmission businesses. Specifically, while Asset Management was normalised on a per employee basis in the original PB report, in this addendum, Asset Management has been normalised on the basis of per km of line length. The results are presented below.

PB notes that similar assumptions outlined in its report of April 2008 apply to this addendum. This includes the evaluation parameters such as time period for comparison, data sources, and the businesses' individual definition and cost allocation method for Asset Management.

### A.2 Asset Management Function

As noted in PB's report of April 2008, asset management includes those operational activities that support the strategic development and ongoing management of the system, including system planning (works delivery, strategic and tactical), connections, compliance, project administration, and environmental and safety. Within Transend, the activities are categorised under four sub-categories being Customer & Asset Management, Regulation and compliance, Transmission Services Support & Grid Vision. Although these activities are largely non-corporate related, PB believes that some these elements nonetheless include corporate related support.

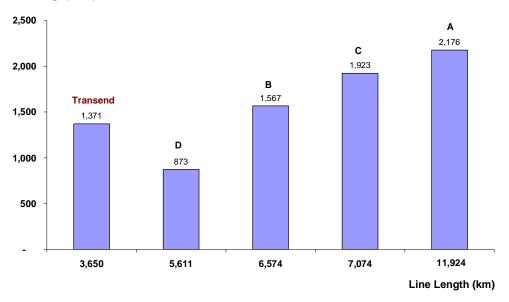
PB notes that SP Ausnet, Powerlink and Electranet's 'Asset Management' costs were sourced from their cost submissions to AER under the heading "Asset Management Support Costs" unless otherwise stated. SP Ausnet's asset management included its asset works program, while Powerlink and Electranet exclude this sub-category. Western Power's asset management was identified as a separately listed item called network support in the category of business support costs.

## A.3 Asset Management per Km of Line Length

PB reports the benchmark indicator for asset management per km of line length in a format that does not allow individual transmission operators to be identified. Specifically, sample businesses are not named and are given alphabetical name in each graph.

Figure A-1 shows Asset Management costs \$/km of line length plotted against km of line length for the sample transmission businesses.

Figure A-1: Asset management cost per km of line length



Asset Mgt (\$/km)

As illustrated in Figure A-1, Transend's asset management costs as a proportion of line length appears to be more efficient compared to the sample average of transmission businesses benchmarked. That is, Transend's asset management costs are benchmarked to be approximately \$1,371 per km of line length compared to the group mean of \$1,582 per km of line length.