# 10 TOTAL REVENUE REQUIREMENTS

## 10.1 Introduction

This chapter describes Transend's revenue requirements for each financial year of the forthcoming regulatory period: 1 January 2004 to 30 June 2009.

The revenue requirements are calculated from a series of 'building blocks', summarised in Table 10.1. The components of each building block were analysed in detail in earlier chapters of this submission.

**Table 10.1 – Summary of the building block components**

| Revenue component | Brief description | Chapter containing analysis |
|---|---|---|
| Operating and maintenance (O&M) expenditure | The annual operating expenditure for the transmission business, and the costs of maintaining the assets used in the delivery of transmission services. | 7 |
| Return of capital (economic depreciation) | The annual depreciation charge on the assets used in the delivery of transmission services. | 8 |
| Return on capital | The product of the required rate of return (the weighted average cost of capital: WACC) and the value of Transend's assets used in the delivery of transmission services. | 4, 6, 8, 9 |
| Efficiency bonus and 2003 revenue shortfall | The calculation of Transend's efficiency in carrying out tasks for NEM entry. The tasks were not contemplated in Transend's existing revenue control. An amount for the under-recovery of revenue from 2003 is also included (discussed below). | 3, 10 |
| Tax allowance | The Commission's post-tax approach provides an additional allowance for tax in the company's cashflows rather than through the WACC. | 9 |

Table 10.2 shows Transend's forecast for the components of each building block, with the total revenue requirements for each year of the forthcoming regulatory period in real dollars (2002-03).

As noted in Chapter 2, Transend's current determination was at first planned to end on 31 December 2002. In extending the revenue control for a further twelve months, the jurisdiction determined that Transend's total revenue should be maintained in real terms.

A crucial assumption in setting Transend's revenue for 2003 was that the impacts of net capital additions and depreciation in 2003 would exactly offset one another.[1] In its issues paper, OTTER indicated that if this assumption proved to be incorrect, adjustments to revenue would be appropriate.

Transend has now had more opportunity to estimate the financial impact of the difference between capital additions and depreciation. Calculations show that OTTER's allowance for 2003 understated Transend's total revenue entitlements by $2.44m.

Transend's proposed revenue in 2003-04 has been increased to account for this shortfall (shown in Table 10.2, under 'Jan to Jun 2004' in the effeciency bonus row).

[1] *OTTER,* Extension of Controls for Electricity Pricing *to 31 December 2003, October 2002, p.5*

**Table 10.2: Annual revenue requirement from January 2004 to 2008-09 (in 2002-03 $m)**

| Revenue component | Jan to Jun 2004 | 2004–05 | 2005–06 | 2006–07 | 2007–08 | 2008–09 |
|---|---|---|---|---|---|---|
| O&M expenditure | 16.0 | 33.4 | 36.5 | 36.9 | 35.0 | 35.2 |
| Return of capital (economic depreciation) | 8.0 | 19.0 | 21.2 | 23.1 | 23.4 | 24.1 |
| Return on capital | 26.0 | 52.7 | 57.0 | 59.1 | 63.6 | 63.8 |
| Efficiency bonus and 2003 revenue shortfall | 2.4 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 |
| Tax allowance | 1.9 | 3.2 | 3.6 | 3.8 | 4.1 | 4.2 |
| **Total annual revenue requirement[1]** | **54.4** | **108.9** | **118.7** | **123.2** | **126.3** | **127.5** |

*[1] A post-tax nominal framework has been used to model the revenue components. These have been converted to 2002-03 real dollars using a CPI deflator.*

Table 10.3 shows this information in nominal dollars. In addition, it also shows the *smoothed revenue requirement* which is calculated in accordance with the Commission's approach to revenue determinations.

**Table 10.3: Annual revenue requirement from January 2004 to 2008-09 (in nominal $m)**

| Revenue component | Jan to Jun 2004 | 2004–05 | 2005–06 | 2006–07 | 2007–08 | 2008–09 |
|---|---|---|---|---|---|---|
| O&M expenditure | 16.3 | 34.7 | 38.7 | 39.9 | 38.6 | 39.6 |
| Return of capital (economic depreciation) | 8.1 | 19.8 | 22.5 | 24.9 | 25.8 | 27.1 |
| Return on capital | 26.6 | 54.8 | 60.4 | 63.8 | 70.0 | 71.6 |
| Efficiency bonus and 2003 revenue shortfall | 2.5 | 0.6 | 0.5 | 0.3 | 0.2 | 0.1 |
| Tax allowance | 2.0 | 3.4 | 3.8 | 4.1 | 4.5 | 4.7 |
| Total annual revenue requirement | 55.5 | 113.2 | 125.7 | 133.1 | 139.1 | 143.1 |
| **Smoothed revenue requirement** | **55.5** | **113.2** | **121.6** | **130.5** | **140.1** | **150.5** |

The calculation for return on capital is shown in Table 10.4.

**Table 10.4: Return on capital from January 2004 to 2008-09 (in nominal $m)**

| Revenue component | Jan to Jun 2004 | 2004–05 | 2005–06 | 2006–07 | 2007–08 | 2008–09 |
|---|---|---|---|---|---|---|
| Opening asset base | 603.8 | 622.9 | 686.3 | 725.8 | 796.3 | 814.3 |
| Capital expenditure roll-in | 27.3 | 83.1 | 61.9 | 95.5 | 43.8 | 42.1 |
| Return of capital (economic depreciation) | (8.1) | (19.8) | (22.5) | (24.9) | (25.8) | (27.1) |
| Closing asset base | 622.9 | 686.3 | 725.8 | 796.3 | 814.3 | 829.3 |
| WACC | 8.80% | 8.80% | 8.80% | 8.80% | 8.80% | 8.80% |
| **Return on capital[1]** | **26.6** | **54.8** | **60.4** | **63.8** | **70.0** | **71.6** |

*[1] The return on capital for each financial year is calculated as the opening asset base in that year multiplied by the WACC.*

Chapter 6 of this submission proposed that the Commission should adopt a new, hybrid, approach for regulating Transend's requirements for capital expenditure. Under this proposal Transend is provided a separate allowance for variable[2] capital expenditure.

The proposed regulatory mechanism has the effect of reducing Transend's initial revenue claim, but provides for an additional allowance as variable capital expenditure is incurred. Transend's actual revenue entitlement will also be affected by any costs (positive or negative) for 'pass-through items', and any service performance bonus or penalty. A full description of these arrangements is provided in Appendix 1.

Notwithstanding these potential adjustments to annual revenue, Transend's base revenue claim presented in Table 10.2 shows that a substantial revenue increase is required over the regulatory period. The required increase in revenue can be expressed in five components, as shown in Table 10.5:

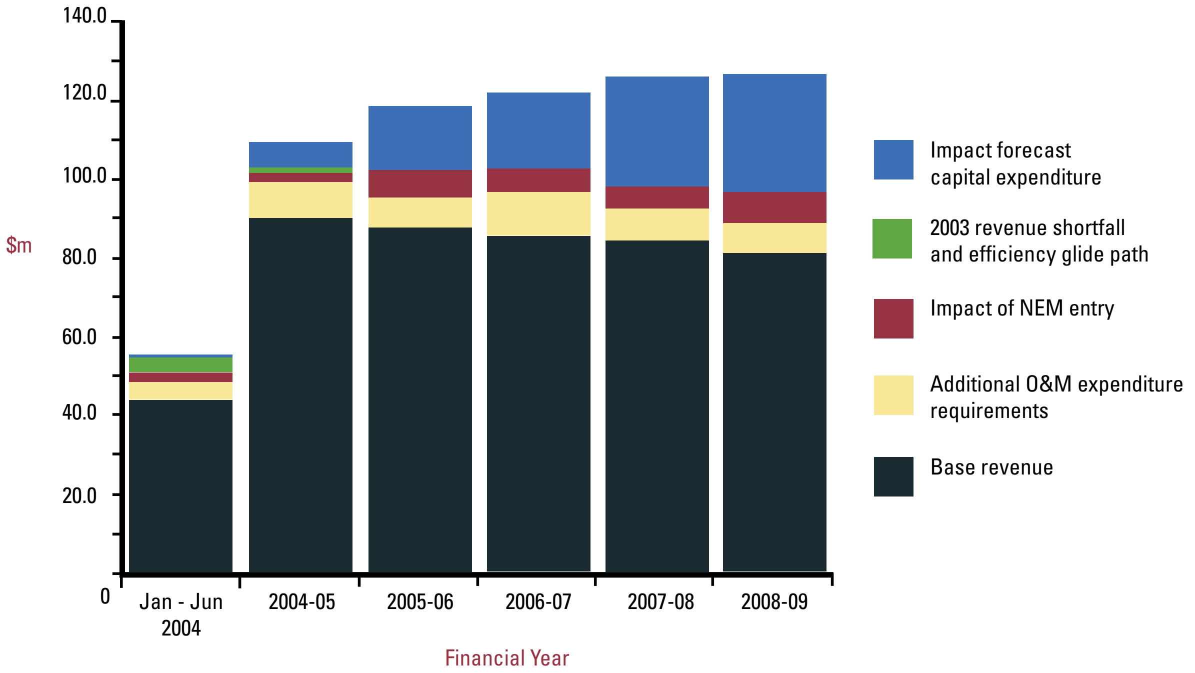
**Table 10.5: Required increase in revenue — the five components**

| | Component | Explanation of component |
|---|---|---|
| 1. | Base Revenue | This represents Transend's base revenue requirement, which is based on (a) the valuation of its assets at the start of the forthcoming regulatory period, and (b) its budgeted O&M expenditure for 2002-03. This base revenue requirement exceeds the allowance provided by OTTER in 2003-04, which adopted a lower asset value and under-estimated O&M expenditure. |
| 2. | Additional O&M expenditure requirements | This category shows the increased O&M expenditure that arises from Transend's expenditure plans, described in Chapter 7. A principal component of this cost is the additional work to be undertaken by the Network Group to maintain and improve services for customers. |
| 3. | Impact of NEM entry | This category isolates the additional costs associated with NEM entry. NEM entry will bring substantial changes to Transend, as explained in Chapters 1, 6 and 7. |
| 4. | 2003 revenue shortfall and efficiency glide-path | As noted earlier, Transend's allowed revenue in 2003 did not properly take account of the company's capital expenditure. This component therefore recognises this shortfall in revenue. In addition, it also provides a separate efficiency bonus or 'glide path', in accordance with information presented in Chapter 3. |
| 5. | Impact of forecast capital expenditure | This category isolates the impact of Transend's capital expenditure plans on its revenue requirements. Chapter 6 contains detailed justification of Transend's capital expenditure plans. |

Figure 10.1 shows the movement of these five elements during the forthcoming regulatory period.

[2] *For a discussion of variable capital expenditure, see section 6.2.2.*

**Figure 10.1 Breakdown of Transend's revenue requirements from January 2004 to 2008-09 (in 2002-03 $m)**




The principal findings from Figure 10.1:

- The base revenue requirement is the dominant element in each year, comprising more than 80% of Transend's required revenue in 2004-05.
- Transend's capital expenditure program is the main driver for revenue increases beyond 2005-06. By 2008-09, an additional $31m is required in that year to finance Transend's fixed capital expenditure program. This is 24% of Transend's total revenue requirement in 2008-09.
- The impact of the additional O&M expenditure requirements necessitates an increase in Transend's revenue requirement in 2004-05. In subsequent years, the extent of the required increase diminishes.
- NEM entry costs peak in 2005-06. It is expected that these costs will also reduce over the remaining years of the regulatory period.

As noted in Chapter 1, the cost of providing transmission services is inextricably linked to the quality of the service. In earlier years, Transend's cost base has been substantially lower than that of its peers in Australia, with the result that service performance has fallen short of expectations.

In 1998, the Government recognised that transmission needed 'a considerable amount of money spent on it' to provide the quality of service required by the people of Tasmania.[3] The detailed analysis in this submission shows that this conclusion equally applies today.

The forthcoming regulatory period brings new challenges that reflect a significant change from the past. The program of work outlined in this submission will meet the challenges that lie ahead. By doing so, it will bring substantial benefits to Transend's customers, to the national electricity market and to Tasmania as a whole.

[3] *House of Assembly,* Hansard, *Wednesday 22 April 1998 - Part 2, p. 87.*