



TELSTRA CORPORATION LIMITED

ULLS Undertaking

Operations and Maintenance and Indirect Cost Factor Study

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A Introduction

1. This document explains the methodology used to calculate the operating and maintenance (O&M) and indirect factors that are inputs into Version 1.0 of the TEA model.
2. The factor calculations are undertaken as a separate study, outside of the TEA model, and are contained in an Excel workbook titled "*Factor Calculation – Final.xls*". The results of the study, in terms of final factors, are then inputs into the TEA model and can be viewed in the user interface by selecting the Costing tab of the Telstra Model Inputs menu and then selecting capital costs and scrolling down to the factor tables.

B O&M Factors

3. In the TEA model, O&M expenses are calculated using a top-down approach. The O&M expenses associated with each category of network plant and equipment are calculated by multiplying the level of investment modelled for each category of plant and equipment by the relevant O&M factor. This top-down approach is common practice in TSLRIC style models given the complexities associated with estimating efficient O&M expenses from the bottom-up¹.
4. The O&M Factors are calculated using Telstra's accounts prepared under the Regulatory Accounting Framework (RAF). Version 1.0 of the TEA model contains O&M factors based on the RAF accounts for the period 2005/06, as these were the most up-to-date accounts available at the time the factors were developed. When more recent RAF accounts become available the TEA model can be updated with ease.
5. The O&M expenses included in the calculation of the O&M factors are ongoing O&M expenses only, as these are the expenses relevant to the ongoing ULLS monthly charge. All once-off costs such as installation costs are removed from the analysis, as these costs are reflected in the charges for ULLS connections.
6. The O&M factors are calculated based on the actual costs incurred by Telstra. However, the resulting O&M expenses are substantially lower than Telstra's actual costs, as the factors are applied to the efficient level of investment costs estimated in the TEA model. As shown in Table 1 below, the level of O&M expenses calculated in the TEA model are, on average, 10% below Telstra's actual O&M expenses allocated to ULLS in the RAF.

¹ See for example FCC Tenth Report and Order in the Matter of Federal-State Joint Board on Universal Service, CC Docket NO. 96-45, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs, CC Docket No. 97-160, FCC 99-304, which concludes that the expense to investment ratio is appropriate. The same approach has been adopted in the HAI model sponsored by AT&T and MCI and by numerous US state regulators. See for example Supplemental Direct Testimony and Exhibits for Robert A. Mercer on behalf of AT&T Communications of the Pacific Northwest, before the Washington Utilities and Transportation Commission, *In the Matter of the Review of Unbundled Loop and Switching Rates; the Deaveraged Zone Rate Structure; and Unbundled Network Elements, Transport, And Termination*, Docket No. UT-023003, Attachment RAM-3: Details on Methodologies and Procedures Employed by HM 5.3. The same approach has been used by the New Zealand Commerce Commission in the TSO model (see Commerce Commission, *Draft Determination for TSO Instrument for Local Residential Telephone Service for period between 1 July 2005 and 30 June 2006*, 9 July 2007, ¶493 – 495) and by WIK in Germany (see . WIK, *Analytical Cost Model, Local Loop, Consultative Document 2.0*, Prepared by WIK for the RegTP, 8 November 2000, sub-section 4.2).

Table 1: 2005/06 actual versus modeled O&M expenses, annual per service

	RAF Account	ULLS	TEA Model
Ducts and Pipes	4-3-01	-CIC-	-CIC-
Copper Cables	4-3-05	-CIC-	-CIC-
Multiplexing Equipment	4-3-15	-CIC-	-CIC-
Switching Equipment-Local	4-3-30	-CIC-	-CIC-
Inter-Exchange Cables	4-3-45	-CIC-	-CIC-
Total excluding other Comm Plant and Equipment O&M		-CIC-	-CIC-
Other Comm Plant and Equipment O&M Expenses		-CIC-	-CIC-
Total including other Comm Plant and Equipment O&M		-CIC-	-CIC-

B.1 Calculation of O&M Factors

7. The O&M factor for each category of plant and equipment is calculated in the same way as follows:
8.
$$O \& M _ Factor = \frac{OperatingExpense}{InvestmentCost}$$
9. This calculation is undertaken in the *Factor Calculation* worksheet for each category of plant and equipment, which are grouped as follows:
 - **Customer Access Network** (Ducts and Pipes, Copper Cables, Multiplexing Equipment and Other);
 - **Switching Equipment** (Switching Equipment-Local, Switching Equipment-Trunk and Switching Equipment-Other);
 - **Inter-Exchange Investments** (Inter-exchange Cables, Other Cables-CAN, Transmission Equipment, Radio Bearer Equipment-Can and Radio Bearer Equipment); and
 - **Other Systems and Equipment** (Data Equipment, Mobile Network and Terminating Equipment, Customer Equipment, Satellite Equipment, International Network-Cables, International Network-Other Systems and Other Communications Plant & Equipment).
10. However, for the purposes of estimating ULLS costs, the only O&M factors used are Ducts and Pipes, Copper Cables, Inter-exchange Cables, Multiplexing Equipment and Switching Equipment-Local.
11. The Operating Expense and Investment Cost for each category of plant and equipment are taken from the *Operating Expenses* and *Investment Costs* worksheets, respectively. The values in these worksheets are calculated by taking the relevant expense and investment cost items from the RAF and making the appropriate adjustments as explained below.

B.1.1 Operating Expense

12. The Operating Expense for each category of plant and equipment is calculated by taking the two maintenance expense items corresponding to the relevant plant and equipment category from the Capital Adjusted Profit Statements of the 2005/06 RAF:
 - Maintenance; and

- Other Expenses.
13. The total value across all RAF products is taken for both the Internal and External Wholesale Businesses as defined in the RAF.
 14. Two adjustments are then made to the Operating Expenses:
 - Reclassify Cable Costs; and
 - Eliminate Installation Costs.
 15. The Reclassify Cable Cost adjustment only applies to the Inter-Exchange Cables and Other Cables-CAN categories. This adjustment reclassifies the Other Cables-CAN as Inter-Exchange Cables. This is done because there is no investment cost in the RAF which corresponds to the Other Cables-CAN and hence it is impossible to calculate an O&M factor for this category on its own.
 16. The Eliminate Installation Costs adjustment removes expenses associated with installation functions, as these are not part of the ongoing O&M expenses associated with the access network. In two cases it has been found that installation costs have been allocated to plant and equipment categories. For these two cases, CAN Copper Cables and CAN Other Cables, the installation costs have been removed. The installation costs associated with these categories can be found in the *Installation* worksheet.
 17. Table 2 below presents the Maintenance and Other Expenses taken from the 2005/06 RAF, the value of the two adjustments made and the final value of the Operating Expense used in the factor calculation.

Table 2: Operating Expenses used in factor calculation, (\$'000)

O&M Factor Categories	RAF Account	Maintenance & Other Expenses	Adjustments	Operating Expense
Customer Access Network				
Ducts and Pipes	4-3-01	-CIC-	-CIC-	-CIC-
Copper Cables	4-3-05	-CIC-	-CIC-	-CIC-
Pair Gain Systems	4-3-15	-CIC-	-CIC-	-CIC-
Other	4-3-25	-CIC-	-CIC-	-CIC-
Switching Equipment				
Switching Equipment-Local	4-3-30	-CIC-	-CIC-	-CIC-
Switching Equipment-Trunk	4-3-35	-CIC-	-CIC-	-CIC-
Switching Equipment-Other	4-3-40	-CIC-	-CIC-	-CIC-
Inter-Exchange Investment				
Inter-Exchange Cables	4-3-45	-CIC-	-CIC-	-CIC-
Other Cables-CAN	4-3-10	-CIC-	-CIC-	-CIC-
Transmission Equipment	4-3-50	-CIC-	-CIC-	-CIC-
Radio Bearer Equipment-CAN	4-3-20	-CIC-	-CIC-	-CIC-
Radio Bearer Equipment	4-3-55	-CIC-	-CIC-	-CIC-
Other Systems and Equipment				
Data Equipment	4-3-60	-CIC-	-CIC-	-CIC-
Mobile Network and Terminating Equipment	4-3-65	-CIC-	-CIC-	-CIC-
Customer Equipment	4-3-70	-CIC-	-CIC-	-CIC-
Satellite Equipment	4-3-75	-CIC-	-CIC-	-CIC-
International Network-Cables	4-3-80	-CIC-	-CIC-	-CIC-

International Network-Other Systems	4-3-85	-CIC-	-CIC-	-CIC-
Other Communications Plant & Equipment	4-3-90	-CIC-	-CIC-	-CIC-

B.1.2 Investment Cost

18. The Investment Cost for each category of plant and equipment is taken from the Fixed Asset Statements of the 2005/06 RAF. The full value of plant and equipment (the total asset value prior to depreciation) across all RAF products is taken for both the Internal and External Wholesale Businesses as defined in the RAF. The full value of plant and equipment is the appropriate basis for calculating the O&M factors as the factors are applied to the full modelled TEA investment costs.
19. Two adjustments are then made to the Investment Costs:
 - Forward-looking adjustment; and
 - Asset reclassification.

Forward-looking adjustment

20. The forward-looking adjustment is, as in prior models, made to 2 plant and equipment categories: Ducts and Pipes and Copper Cables. For these two categories, Telstra has adopted the full investment cost from the TEA model. It is important to note that 96% of O&M expenses are associated with these two categories of plant and equipment. Therefore, while other categories use the RAF investment cost, the majority of O&M expenses in the TEA model are based on O&M factors that use the modelled investment costs as the denominator.

Asset reclassification

21. The construct of the RAF requires Telstra to allocate support assets associated with buildings and power to communications plant and equipment categories (referred to as the secondary plant allocation). For the purposes of calculating O&M and indirect factors, Telstra has effectively reversed this allocation to separately identify costs associated with support assets. This is required since the factors are applied to the direct asset costs produced by the model. These direct asset costs do not include an allocation of support asset investment.
22. For determining the investment cost associated with plant and equipment for calculating O&M factors, the value of the support assets are deducted. They are then used as the basis for calculating support asset costs (discussed in section C.2.1 below).
23. In most cases it is possible to identify which communications plant and equipment category the support assets should be deducted from. However, in the case of power there is no direct mapping. Therefore, the value of power assets is pro-rated across all plant and equipment categories in proportion to the other support assets. This is done in the *Support Asset* worksheet.

B.1.3 Investment Cost results

24. Table 3 below presents the full value of plant and equipment taken from the 2005/06 RAF, the value of the adjustments made and the final Investment Costs used in the factor calculations.

Table 3: Investment Cost used in factor calculation (\$'000)

O&M Expense Factor Categories	RAF Account	Full investment cost	Forward-looking adjustment	Asset Reclassification	Investment Cost
Customer Access Network					
Ducts and Pipes	4-3-01	-CIC-	-CIC-	-CIC-	-CIC-
Copper Cables	4-3-05	-CIC-	-CIC-	-CIC-	-CIC-
Pair Gain Systems	4-3-15	-CIC-	-CIC-	-CIC-	-CIC-
Other	4-3-25	-CIC-	-CIC-	-CIC-	-CIC-
Switching Equipment					
Switching Equipment-Local	4-3-30	-CIC-	-CIC-	-CIC-	-CIC-
Switching Equipment-Trunk	4-3-35	-CIC-	-CIC-	-CIC-	-CIC-
Switching Equipment-Other	4-3-40	-CIC-	-CIC-	-CIC-	-CIC-
Inter-Exchange Investment					
Inter-Exchange Cables	4-3-45	-CIC-	-CIC-	-CIC-	-CIC-
Other Cables-CAN	4-3-10	-CIC-	-CIC-	-CIC-	-CIC-
Transmission Equipment	4-3-50	-CIC-	-CIC-	-CIC-	-CIC-
Radio Bearer Equipment-CAN	4-3-20	-CIC-	-CIC-	-CIC-	-CIC-
Radio Bearer Equipment	4-3-55	-CIC-	-CIC-	-CIC-	-CIC-
Other Systems and Equipment					
Data Equipment	4-3-60	-CIC-	-CIC-	-CIC-	-CIC-
Mobile Network and Terminating Equipment	4-3-65	-CIC-	-CIC-	-CIC-	-CIC-
Customer Equipment	4-3-70	-CIC-	-CIC-	-CIC-	-CIC-
Satellite Equipment	4-3-75	-CIC-	-CIC-	-CIC-	-CIC-
International Network-Cables	4-3-80	-CIC-	-CIC-	-CIC-	-CIC-
International Network-Other Systems	4-3-85	-CIC-	-CIC-	-CIC-	-CIC-
Other Communications Plant & Equipment	4-3-90	-CIC-	-CIC-	-CIC-	-CIC-

B.2 Final O&M Factors

25. The O&M factors, calculated from the Operating Expenses and Investment Costs discussed above are presented in Table 4 below.

Table 4: O&M Factors (\$'000)

Account Description	RAF Account	Operating Expense	Investment Cost	O&M Factors
Customer Access Network				
Ducts and Pipes	4-3-01	-CIC-	-CIC-	-CIC-
Copper Cables	4-3-05	-CIC-	-CIC-	-CIC-
Pair Gain Systems	4-3-15	-CIC-	-CIC-	-CIC-
Other	4-3-25	-CIC-	-CIC-	
Switching Equipment				
Switching Equipment-Local	4-3-30	-CIC-	-CIC-	-CIC-
Switching Equipment-Trunk	4-3-35	-CIC-	-CIC-	-CIC-
Switching Equipment-Other	4-3-40	-CIC-	-CIC-	-CIC-
Inter-Exchange Investment				
Inter-Exchange Cables	4-3-45	-CIC-	-CIC-	-CIC-
Other Cables-CAN	4-3-10	-CIC-	-CIC-	
Transmission Equipment	4-3-50	-CIC-	-CIC-	-CIC-
Radio Bearer Equipment-CAN	4-3-20	-CIC-	-CIC-	-CIC-
Radio Bearer Equipment	4-3-55	-CIC-	-CIC-	-CIC-
Other Systems and Equipment				
Data Equipment	4-3-60	-CIC-	-CIC-	-CIC-
Mobile Network and Terminating Equipment	4-3-65	-CIC-	-CIC-	-CIC-
Customer Equipment	4-3-70	-CIC-	-CIC-	-CIC-
Satellite Equipment	4-3-75	-CIC-	-CIC-	-CIC-
International Network-Cables	4-3-80	-CIC-	-CIC-	-CIC-
International Network-Other Systems	4-3-85	-CIC-	-CIC-	-CIC-
Other Communications Plant & Equipment	4-3-90	-CIC-	-CIC-	-CIC-

C Indirect Factors

26. There are three sets of indirect factors used in the TEA model:

- Indirect expense factors (section C.1);
- Network support asset factors (section C.2); and
- Indirect asset factors (section C.3).

27. Indirect expenses are calculated in the TEA model by applying the indirect expense factors to the calculated O&M expenses in the TEA model. Network support costs and indirect asset costs are calculated in the TEA model by applying the network support and indirect asset factors to the relevant category of modelled investment costs. As with the O&M factors, indirect factors are calculated based on the actual costs incurred by Telstra using the 2005/06 RAF.

C.1 Indirect Expense Factors

28. Indirect expense factors are calculated for the following categories:

- Product and Customer;

- General Administration;
 - Information Technology;
 - Accommodation and Property;
 - Other Non Communications Asset Costs; and
 - Other Organisational Costs.
29. The indirect expense factor for each category is calculated in the same way as follows:

$$30. \text{ IndirectExpense_Factor} = \frac{\text{IndirectExpense}}{\text{TotalDirectExpense}}$$

31. The Indirect Expenses and Total Direct Expense are taken from the *Operating Expenses* worksheet.

C.1.1 Indirect Expense

32. The Indirect Expense for each category above is calculated by taking the relevant expense item from the Capital Adjusted Profit Statements of the 2005/06 RAF. The total value across all RAF products is taken for both the Internal and External Wholesale Businesses as defined in the RAF. The RAF account numbers corresponding to each of the indirect expense categories are shown in Table 5 below.

33. Four adjustments are then made to the indirect expense items from the RAF:

- Eliminate depreciation;
- Eliminate ULLS specific costs;
- Eliminate installation costs; and
- Eliminate operator services costs.

Eliminate depreciation

34. The construct of the RAF separately identifies depreciation expenses for direct network asset categories. For indirect asset categories depreciation expenses are included in the indirect expense categories. Therefore, in the RAF, the depreciation associated with indirect cost categories are included together with the other expenses associated with those categories. Since the TEA model separately calculates depreciation on indirect assets, these costs must be removed to avoid double counting depreciation costs.

Eliminate ULLS specific costs

35. Eliminated ULLS Specific Costs are taken from the *ULLS Specific Costs* worksheet. The indirect expenses calculated by the ACCC as ULLS specific costs are deducted from the indirect expense in the 2005/06 RAF. This is done to avoid double-counting.

Eliminate Installation Costs

36. Installation costs are recovered through separate charges and are not part of the ongoing costs associated with the provision of ULLS and hence should not be included in the calculation of the monthly costs associated with ULLS. Therefore, all installation

costs are removed from the calculation of indirect expenses. The RAF line item 4-2-01 Installation is removed in full. Also, the installation costs that were found to be allocated to other indirect expense categories have been removed. These installation costs can be found in the *Installation Costs* worksheet.

Eliminate Operator Services

37. Operator services are not considered relevant to the calculation of ULLS costs and hence RAF line item 4-2-20 is removed in full from the calculation of indirect expenses.
38. The resulting indirect expenses used in the factor calculation are shown in Table 5 below.

Table 5: Indirect Expenses used in factor calculation, (\$'000)

Indirect Expense Factor Categories	RAF Account	Expenses	Adjustments	Indirect Expense
Product and Customer	4-2	-CIC-	-CIC-	-CIC-
General Administration	4-1-01	-CIC-	-CIC-	-CIC-
Information Technology	4-1-10	-CIC-	-CIC-	-CIC-
Accommodation and Property	4-1-20	-CIC-	-CIC-	-CIC-
Other Non Communications Asset Costs	4-1-30	-CIC-	-CIC-	-CIC-
Other Organisational Costs	4-1-40	-CIC-	-CIC-	-CIC-

C.1.2 Total Direct Expense

39. The Total Direct Expense used as the denominator for the calculation of indirect expense factors is the same for each category of indirect expenses. The value used is simply the total value of O&M Expenses as set out in section B.1.1 above.

C.1.3 Results for Indirect Expense Factors

40. The Indirect Expense factors calculated from the Indirect Expenses and total O&M Expenses discussed above are presented in Table 6 below

Table 6: Indirect Expense factors (\$'000)

Indirect Expense Factor Categories	RAF Account	Indirect Expense	Total O&M Expense	Indirect Expense Factors
Product and Customer	4-2	-CIC-	-CIC-	-CIC-
General Administration	4-1-01	-CIC-	-CIC-	-CIC-
Information Technology	4-1-10	-CIC-	-CIC-	-CIC-
Accommodation & Property	4-1-20	-CIC-	-CIC-	-CIC-
Other Non Communications Asset Costs	4-1-30	-CIC-	-CIC-	-CIC-
Other Organisational Costs	4-1-40	-CIC-	-CIC-	-CIC-

C.2 Network Support Asset Factors

41. The Network Support Asset factors are calculated for the following categories:

- Network Land;
 - Network Buildings;
 - Network Building Improvements;
 - Network Power Systems;
 - Network Management Systems; and
 - Support Structures.
42. The Network Support Asset Factor for each category is calculated in the same way as follows:

43.
$$NetworkSupportAsset_Factor = \frac{CAN_NetworkSupportAssets}{CAN_DirectAssets}$$

44. The value of CAN_NetworkSupportAssets for each category is taken from the *Network Support Asset Factor* worksheet and the value of CAN_DirectAssets is taken from the *Investment Costs* worksheet.

C.2.1 CAN Network Support Assets

45. The Network Support Assets for the CAN are calculated by first identifying all of the assets that have been reclassified as support assets (see section B.1.2). These values are first used to calculate Allocation Factors for each Network Support Asset category. The Allocation Factor for each category is simply the total level of support assets for the category divided by the total level of support assets for all categories.
46. The next Step is to identify what share of the total support assets are related to the CAN. As can be seen in the *Network Support Asset Factor* worksheet, this is calculated as 100% of support assets associated with Copper Cables, Multiplexing Systems and Radio Bearer Equipment – CAN. In total this amounts to –CIC-% of the total support asset costs.
47. The total value of CAN support assets are then allocated across support asset categories using the Allocation Factors
48. Table 7 below sets out the total Network Support Assets, the share of total CAN Network Support Assets allocated to each category and the resulting CAN Network Support Assets used in the calculation of the Network Support Asset factors.

Table 7: Network Support Assets used in factor calculation (\$'000)

Network Support Category	Total Network Support Assets	Allocation Factor	CAN Network Support Assets
Network Land	-CIC-	-CIC-	-CIC-
Network Buildings	-CIC-	-CIC-	-CIC-
Network Building Improvements	-CIC-	-CIC-	-CIC-
Network Power Systems	-CIC-	-CIC-	-CIC-
Network Management Systems	-CIC-	-CIC-	-CIC-
Support Structures	-CIC-	-CIC-	-CIC-
Total	-CIC-		-CIC-

C.2.2 CAN Direct Assets

49. The value of CAN Direct Assets used as the denominator for the calculation of the Network Support Asset factors is the same for each category of network support assets. The value used is simply the total value of the CAN Investment Cost as set out in section B.1.2 above (\$-CIC-).

C.2.3 Results for Network Support Asset Factors

50. The Network Support Asset Factors, calculated from the CAN Network Support Assets and the CAN Direct Assets discussed above are presented in Table 8 below.

Table 8: Network Support Asset Factors (\$'000)

Network Support Category	CAN Network Support Assets	CAN Direct Assets	Network Support Asset Factors
Network Land	-CIC-	-CIC-	-CIC-
Network Buildings	-CIC-	-CIC-	-CIC-
Network Building Improvements	-CIC-	-CIC-	-CIC-
Network Power Systems	-CIC-	-CIC-	-CIC-
Network Management Systems	-CIC-	-CIC-	-CIC-
Support Structures	-CIC-	-CIC-	-CIC-

C.3 Indirect Asset Factors

51. The Indirect Asset Factors are calculated for the following categories:

- Land;
- Buildings;
- Building Improvements;
- Information Technology;
- Other Indirect (Fleet, etc.);
- Software; and
- Intangibles.

52. The Indirect Asset Factor for each category is calculated in the same way as follows:

53.
$$\text{IndirectAsset}_i \text{ Factor} = \frac{\text{IndirectAssets}_i}{\text{Total}_i \text{ DirectAssets}}$$

54. The values for both the Indirect Assets and Total Direct Assets are taken from the *Investment Costs* worksheet.

C.3.1 Indirect Assets

55. The Indirect Asset Cost for each category is taken from the Fixed Asset Statements of the 2005/06 RAF. The total asset value across all RAF products is taken for both the Internal and External Wholesale Businesses and the Retail Business² as defined in the RAF.
56. Six adjustments are then made to the Indirect Asset Costs:
- add accumulated depreciation;
 - remove retail depreciation;
 - remove non-communications assets;
 - remove retail investment costs;
 - remove ULLS specific costs; and
 - remove other investment and receivables.
57. Accumulated depreciation associated with indirect assets is added back into the investment cost to convert the written down value to the full investment cost. This addition amounts to \$-CIC-.
58. Depreciation associated with the Retail Business is estimated and removed. Retail depreciation is estimated by calculating the proportion of total depreciation to total investment cost for each indirect asset category and then multiplying this by the value of retail investment for the category. This amounts to a total deduction of \$-CIC-.
59. The value of non-communications software and intangibles is removed. This amounts to a total of \$-CIC-. Retail investment costs are removed in full as it is not relevant to the calculation of wholesale costs. This amounts to \$-CIC-. Software related investment costs that are already included in the ULLS specific cost pool are also removed to avoid double counting (see section C.1.1 above). This amounts to \$-CIC-. The total value of other investment and receivables (RAF line items 2-3-01-4 and 2-3-05-4) are also removed. These deductions amount to \$-CIC-.
60. The Indirect Asset values from the RAF, the adjustments made and the resulting Indirect Asset Cost used in the Indirect Asset factor calculation are presented below in Table 9.

Table 9: Indirect Assets used in factor calculation ('000)

Indirect Asset Categories	RAF value	Adjustments	Indirect Asset Cost
Land	-CIC-	-CIC-	-CIC-
Building Improvements	-CIC-	-CIC-	-CIC-
Information Technology	-CIC-	-CIC-	-CIC-
Other Indirect (Fleet, etc.)	-CIC-	-CIC-	-CIC-
Software	-CIC-	-CIC-	-CIC-
Intangibles	-CIC-	-CIC-	-CIC-

² The Retail Business is included only for the purposes of calculating depreciation related to the Retail Business. The investment costs associated with the Retail Business are removed in full as discussed below.

C.3.2 Total Direct Assets

61. The value of Total Direct Assets used as the denominator for the calculation of Indirect Asset factors is the same for each category of indirect assets. The value used is simply the total value of the Direct Investment Cost as set out in section B.1.3 above (\$-CIC-).

C.3.3 Results for Indirect Investment Factors

62. The Indirect Asset Factors, calculated from the Indirect Asset and Direct Asset Costs are presented in Table 10 below.

Table 10: Indirect Asset Factors (\$'000)

Indirect Asset Categories	Indirect Asset Cost	Total Direct Asset Cost	Indirect Asset Factors
Land	-CIC-	-CIC-	-CIC-
Building Improvements	-CIC-	-CIC-	-CIC-
Information Technology	-CIC-	-CIC-	-CIC-
Other Indirect (Fleet, etc.)	-CIC-	-CIC-	-CIC-
Software	-CIC-	-CIC-	-CIC-
Intangibles	-CIC-	-CIC-	-CIC-