

**Lead Lag Methodology**

The Lead Lag study is required to determine the appropriate working capital required by DERS. In its previous DRT and RRT application DERS used ATCO Gas' and ATCO Electric's lead lag study (with minor adjustments) to determine DERS' working capital requirements. An updated lead lag study has been used for this application based on DERS' actual 2004 experience. DERS has determined the average revenue lag (in days) and the appropriate expense payment lag (in days) for each test period. The net lag days are then expressed as a percentage of 365 days to arrive at the working capital ratio. Schedules 5.1.4 and 5.2.4 show the results of this study and the calculation of working capital ratio. In order to determine the forecast working capital the working capital ratio is applied to the total forecast annual expenditures for 2005 and 2006 expenses.

DERS has updated the revenue lag information by reviewing the actual time lag between the meter read (charge date) and when payment is received from customers (receipt date). The lag information is captured by revenue and rate class and is based on actual 2004 experience. To this data 15.21 days ( $365/12/2$ ) is added to account for the mid-point of the consumption period. The revenue lag represents the time period from the mid-point of the consumption date to the payment date. Each rate class revenue lag is applied to the rate class 2005 and 2006 forecast revenue to calculate a weighted average for each test period. The 15.21 days does not apply to distribution charges as DERS receives the distribution charges from ATCO at the end of the service period. The average DRT and RRT revenue lag (including service period) for 2005 and 2006 are shown below.

**Table LL – 1 Revenue Lags**

|     | 2004<br>Approved | 2005 F | 2006 F |
|-----|------------------|--------|--------|
| DRT | 38.55            | 42.12  | 42.10  |
| RRT | 44.10            | 44.53  | 44.54  |

Payment lag days are determined by identifying specific payment dates for each expense type. The 15.21 days related to the service period lag is added where applicable. The majority of the expense payment days have not changed from the previous lead lag study.

To determine the working capital ratio for each expense item, the revenue lag days are deducted from the payment lag days and the difference is divided by 365. The working capital ratio is then applied to the forecast annual expenditures for each expense category to determine the forecast working capital.

**Table LL – 2: Payment Days and Net Lag Days for DRT and RRT**

|                               | DRT<br>(payment<br>days) | DRT<br>(2005 net<br>lag days) | RRT<br>(payment<br>days) | RRT<br>(2005 net<br>lag days) |
|-------------------------------|--------------------------|-------------------------------|--------------------------|-------------------------------|
| Energy Purchases              | 40.21                    | 1.91                          | 44.00                    | 0.53                          |
| Distribution and Transmission | 17.00                    | 9.70                          | 17.00                    | 10.17                         |
| ATCO I-Tek                    | 45.21                    | (3.09)                        | 45.21                    | (0.68)                        |
| Corporate Costs               | 15.21                    | 26.91                         | 15.21                    | 29.32                         |
| Salaries and Wages            | 7.5                      | 34.62                         | 7.5                      | 37.03                         |
| Depreciation                  | 0                        | 42.12                         | 0                        | 44.53                         |

**Table LL – 3: DRT Working Capital Ratio**  
(net lag days expressed as a percentage of 365 days)

| <b>Cash Expense</b>  | <b>2004 Approved</b> | <b>2005 Forecast</b> | <b>2006 Forecast</b> |
|----------------------|----------------------|----------------------|----------------------|
| Gas Costs            | (0.45)%              | 0.52%                | 0.52%                |
| Distribution Tariff  | 1.74%                | 2.66%                | 2.66%                |
| Salary and Wages     | 8.51%                | 9.48%                | 9.48%                |
| ATCO ITEK Agreement  | (1.82)%              | (0.85)%              | (0.85)%              |
| Corporate Costs      | N/A                  | 7.37%                | 7.37%                |
| Depreciation Expense | 10.56%               | 11.54%               | 11.53%               |

**Table LL – 4: RRT Working Capital Ratio**  
(net lag days expressed as a percentage of 365 days)

| <b>Cash Expense</b>  | <b>2004 Approved</b> | <b>2005 Forecast</b> | <b>2006 Forecast</b> |
|----------------------|----------------------|----------------------|----------------------|
| Power Pool Invoices  | (0.03)%              | 0.14%                | 0.15%                |
| Distribution Tariff  | 3.26%                | 2.79%                | 2.79%                |
| Salary and Wages     | 9.97%                | 10.14%               | 10.15%               |
| ATCO ITEK Agreement  | (0.36)%              | (0.19)%              | (0.18)%              |
| Corporate Costs      | N/A                  | 8.03%                | 8.04%                |
| Depreciation Expense | 12.03%               | 12.20%               | 12.20%               |

Once determined the working capital ratios can be applied to the expected annual expenses by category to arrive at a forecast working capital balance related to expenditures. The working capital balance is multiplied by the carrying cost rate to determine the working capital requirement related to expenditures. The gas cost and power pool component are included in the energy revenue requirement. All other components are included in the non-energy revenue requirement.

The lag between the payment and recovery of GST has also been determined for 2005 and 2006. DERS has determined energy related GST and non-energy related GST separately for the DRT and RRT. The GST working capital ratio for each component is applied to 7% of the

forecast revenue and expenses categories. The payment and recovery of GST differs from the regular revenue and payment lag cycle. For revenue, payment is made to the Government the month following the invoice date to the customer. GST disbursements on expense items are paid in the month following the invoice. The GST receipts and disbursements for each the energy related and non-energy related are netted to arrive at the GST related working capital component. The GST on gas purchases and power pool invoices less the GST receipts of the energy revenue is applied to the DRT or RRT energy revenue requirement. The GST applicable on other components is included in the non-energy revenue requirement.

**Table LL – 5: DRT GST Working Capital Ratios**

| <b>GST WC Ratio</b> | <b>2004 Approved</b> | <b>2005/06 Forecast</b> |
|---------------------|----------------------|-------------------------|
| GST Receipts        | 6.5%                 | 6.7%                    |
| GST Disbursements   |                      |                         |
| Gas Purchases       | 9.8%                 | 9.8%                    |
| Distribution        | 7.8%                 | 7.8%                    |
| I-Tek               | 8.4%                 | 8.4%                    |

**Table LL – 6: RRT GST Working Capital Ratios**

| <b>GST WC Ratio</b> | <b>2004 Approved</b> | <b>2005/06 Forecast</b> |
|---------------------|----------------------|-------------------------|
| GST Receipts        | 4.6%                 | 6.5%                    |
| GST Disbursements   |                      |                         |
| Power Purchases     | 8.8%                 | 8.8%                    |
| Distribution        | 7.8%                 | 7.8%                    |
| I-Tek               | 8.4%                 | 8.4%                    |

Several adjustments have also been incorporated in the working capital calculation. The budget payment plan balance for 2005 and 2006 is

forecast to equal the actual monthly balances for May 2004 to March 2005 and an estimate of the April 2005 monthly balances. The average deposit level is assumed to equal the average May to December 2004 balance. The average capital base and average hearing reserve account is determined monthly and takes into account the expected in-service dates of each capital project and the expected payment date of cost claims. Again the working capital adjustments are multiplied by the carrying cost rate to determine the working capital requirement related to adjustments.