# DEVELOPMENT OF DISTRIBUTION RATES FOR MAY 1, 2007

## 1.0 DERIVATION OF PROPOSED 2007 DISTRIBUTION RATES FOR CORE, ACQUIRED AND EMBEDDED CUSTOMERS

Hydro One Distribution's proposed 2007 Distribution rates were derived following the OEB Guidelines on 2007 Incentive Rate Mechanism (IRM) Adjustment issued December 20, 2006.

## 2.0 CORE AND ACQUIRED DISTRIBUTION RATES

The steps followed to derive the proposed 2007 Distribution rates for Core and Acquired customer classes were:

1. From the current Distribution rates for Core and Acquired customers, the basic distribution rates were identified. This was done by deducting from the total volumetric distribution rates the Regulatory Rate riders 1 and 2, and deducting from the monthly fixed charges the current smart meter rate rider of $0.27/metered customer.

2. The derived basic distribution rates were increased by 0.477%, reflecting the GDP-IPI price escalator factor of 1.92% less Productivity Gain of 1%, less the impact of the elimination of the Large Corporation Tax (LCT) of 0.443%. (source: OEB Guidelines on 2007 Incentive Rate Mechanism (IRM) Adjustment issued December 20, 2006, Section 4.2.3)

3. To the 2007 proposed basic distribution volumetric rates derived in step 2 above, the Regulatory Rate riders 1 and 2 were added back to calculate the total proposed volumetric distribution rates for 2007 for Core and Acquired customer classes.

4. To the 2007 proposed basic distribution fixed charge derived in step 2 above, the proposed smart meter rate rider of $0.93 per metered customer per month was added to calculate the total proposed fixed monthly distribution service charge for 2007 for Core and Acquired customer classes. (source: OEB Guidelines on 2007 Incentive Rate Mechanism (IRM) Adjustment issued December 20, 2006, Section 4.2.1)

## 3.0 EMBEDDED CUSTOMERS LOW VOLTAGE (LV) RATES

The current LV rates were increased by 0.477% to derive the proposed 2007 LV rates. The current LV rates are all volumetric rates, there is no fixed charge and the Regulatory Rate riders 1 and 2 are separate fixed dollar amounts, therefore, the LV rates do not need to be adjusted prior to applying the 2007 IRM factor of 0.477%.

Regulatory Rate Riders 1 and 2 for Embedded Directs and LDCs are unchanged from the amounts approved by the Board in RP-2005-0013/EB-2005-0098 and RP-2005-0020/EB-2005-0378 proceedings.

## 4.0 SMART METER RATE RIDER

The derivation of the proposed smart meter rate rider of $0.93 per metered customer per month is described in Exhibit B, Tab 1, Schedule 2.

## 5.0 LARGE CORPORATION TAX (LCT)

The impact of the elimination of the Large Corporation Tax (LCT) of 0.443% is derived by dividing the impact of the Large Corporation Tax elimination of $4.1 million over the approved Revenues Requirement excluding miscellaneous revenues of $925 million.

## 6.0 BILL IMPACT ANALYSIS

As per the OEB guidelines, Hydro One Distribution is including the bill impact on total bill calculations for Core and Acquired customer classes based on Summer threshold, Winter threshold, and average annualized threshold. The impacts are included with the proposed Rate Schedules in Exhibits C and D.

## 7.0 RATE SCHEDULES

The current and proposed rate schedules are included in Exhibit C, D, and E for Core, Acquired, and Embedded LV customers.

Miscellaneous Charges Rate Schedules are unchanged from the approved charges in 2006 and are included with the proposed Rate Schedules in Exhibits C, D, and E.

# SMART METER RATE RIDER

## 1.0 INTRODUCTION

In accordance with the Ontario Energy Board's ("the Board") letter of direction dated October 13, 2006, and the subsequent filing guidelines issued on October 26, 2006, Hydro One Networks filed the Company's smart meter investment plan for the 2006 – 2007 time period with the Board on December 15, 2006. This application for a smart meter rate rider is consistent with the December filing with the exception of the deferral of certain expenditures described in Section 4.0 of this exhibit and the inclusion of actual 2006 smart meter expenditures.

The government past regulations authorizing Hydro One Distribution to procure smart meters based on its Request for Proposal ("RFP") issued in March of 2005. The regulations also permit distributors to recover the cost associated with smart meters in their distribution rates subject to final approval from the Ontario Energy Board.

The Ontario government's smart meter initiative requires the implementation of 800,000 smart meters by 2007 with full implementation throughout the entire province by 2010. Hydro One Distribution's share of the government's smart meter target by the end of 2007 is approximately 240,000 meters.

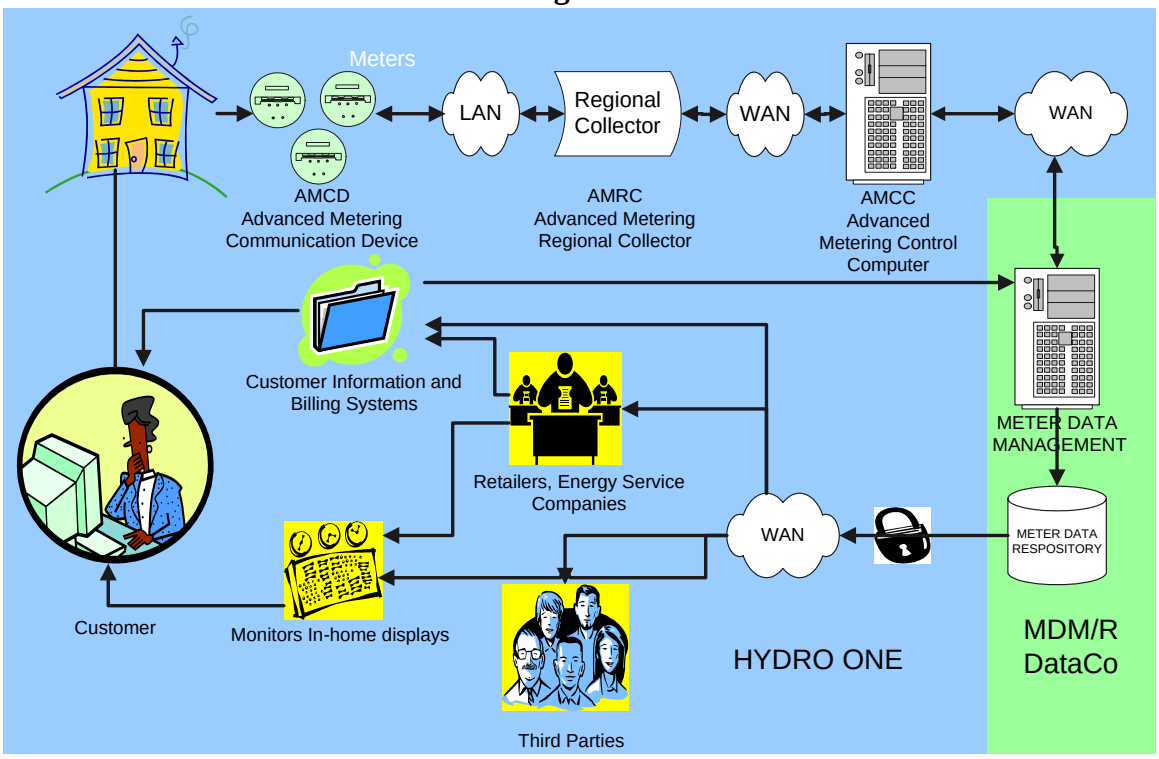
Hydro One Distribution did not file a specific smart meter investment plan as part of its 2006 EDR rate application. In accordance with the Board's EB-2005-0529 Generic Decision, a $0.30 meter cost per residential customer per month was reflected in Hydro One Distribution's revenue requirement and implemented as a charge of $0.27 per metered customer consistent with the Board's direction in the RP-2005-0020/EB-2005-0378 Decision. This smart meter rate rider was applied to all metered customers and recovered through their monthly service charges as of May 1, 2006.

On March 17, 2005, the Board approved Hydro One Distribution's plan for CDM. In this plan, $7.8 million was allocated to the smart metering program to address initial start-up costs and deployment. In order to meet government smart meter targets Hydro One Distribution forecasts that approximately $80 million in capital expenditures will be required through the end of 2007.

## 2.0 SMART METER INFRASTRUCTURE REQUIREMENTS

Figure 1 outlines the roles of the various parties who will be involved in the smart meter initiative.

**Figure 1**




Since Hydro One Distribution will rely on DataCo to provide the meter data management/repository ("MDM/R") functionality, no costs have been included in Hydro One Distribution's cost estimate for this activity.

## 3.0 SMART METER DEPLOYMENT

As of December 31, 2005 Hydro One Distribution served approximately 1.1 million customers and is forecast to grow to 1.3 million customers by the end of 2010.

Table 1 outlines Hydro One Distribution's meter deployment plan for the period 2006 through December 31, 2007.

**Table 1**
**Smart Meter Deployment Forecast (000's)**

| Activity | 2006 | 2007 | Program to Date December 31, 2007 |
|---|---|---|---|
| | | | |
| **Total Meters Deployed** | 28 | 212 | 240 |

## 4.0 SMART METER PROJECT COSTS

Table 2 outlines Hydro One Distribution's forecast of the costs to implement the smart meter program through December 31, 2007.

**Table 2**
**Forecast of Expenditures ($ millions)**

| | 2006 | 2007 | Program to Date December 31, 2007 |
|---|---|---|---|
| Capital | 9 | 71 | 80 |
| OM&A | 5 | 8 | 13 |

Table 3 provides further detail of the smart meter expenditure components. Specific costing for Hydro One is filed within the Smart Meter Rate Calculation Model filed as Appendix B in this Exhibit.

**Table 3**
**Capital and OM&A Details**

| $ millions | 2006 | 2007 | Program to Date December 31, 2007 |
|---|---|---|---|
| **Capital** | | | |
| Smart Meter Deployment | 4 | 34 | 38 |
| Computer Hardware | 0 | 18 | 18 |
| Computer Software | 5 | 19 | 24 |
| | | | |
| **Total Capital** | 9 | 71 | 80 |
| | | | |
| **OM&A** | | | |
| Development & Sustainment | 5 | 8 | 13 |

Note: The Smart Meter Plan filed with the Board on December 15, 2006 included the original 2006 forecast expenditures for 2006 of $27 million. The current lower actual amount was the result of a temporary suspension in the mass deployment in the last quarter of 2006 while some meter installation problems were resolved. Installation resumed in mid-January of 2007.

As mentioned in the introduction of this exhibit, a number of cost items that were contained in Hydro One's December 15, 2006 filing are now being deferred beyond 2007. Specifically the costs in this application exclude:

1. Costs associated with repairs to customer equipment. Based on installations that Hydro One Distribution has completed to date, it is estimated that 10% of future customer meter changes will require some form of additional attention. This could include a second trip for the replacement of a customer's meter base or an electrical service upgrade. The average cost of this work has been estimated at $500 per occurrence and was initially included in the forecast expenditures.

2. Capital and OM&A for customers with greater than 50kW of demand. Although it is anticipated that these customers will have smart meters by 2010 the OEB model and Ontario Regulation 425/06 of the Electricity Act, 1998 currently place these customers out of scope.

3. Capital and sustainment costs for a transaction management system that would provide an integration point between the central meter data management repository (MDMR) and Hydro One's CIS and / or AMR systems. Due to the complexity and timeliness of such a system, which is still under development, the costs associated with this system have been deferred beyond 2007.

In deferring the above costs Hydro One is balancing cost recovery for known items with the cost exposure resulting from a number of current uncertainties. As the province's smart meter initiative evolves, Hydro One will refine its projections for future rate filings. Actual costs will continue to be tracked against revenues in Board approved variance accounts.

## 5.0 RURAL SERVICE

Hydro One Distribution is unique in the province in its customer density makeup. Hydro One Distribution customers average less than 10 customers per kilometer of line while its urban counterparts average 60-70 customers per kilometer of line. As well Hydro One Distribution operates in areas of heavy forestation and rugged terrain. The result is that both the cost of meter installations and telecommunications to the meter will be higher. To compensate for the lower density on the telecommunications, Hydro One Distribution plans to deploy a wireless technology with radios that transmit and receive power at ten times the power of the urban equivalents. Hydro One Distribution has also estimated that a larger number of signal repeaters and collectors will be required to ensure the Company is capable of meeting the AMI specifications captured in the Ontario regulations.

## 6.0 CONDOMINIUMS

At this time regulations that address the requirement for smart meters in individual condominiums are in "draft" only. In their current form, the regulations place the responsibility for sub-metering on the condominium corporation. As a result we have not included any allowance for smart meters in condominiums or any other bulk metered customer facility (e.g. apartments, trailer parks, industrial complexes, etc.) in our smart meter forecast.

## 7.0 EXTENDED OUTAGE DETECTION

Hydro One's smart meter vendor had extended outage detection capability as part of its product offering. This feature is above the minimum requirement in the regulations however Hydro One believes there are real customer benefits associated with this function and is building this capability into its ongoing AMI deployment. Associated costs have not been included in this filing.

## 8.0 REVENUE REQUIREMENT AND RATE RIDER DETERMINATION

As per Table 4, Hydro One Distribution will require an increase in the monthly smart meter rate rider which is currently set at $0.27 per metered customer ($0.30 per residential equivalent). The table shows a revenue requirement of $0.93 per metered customer per month. Details with respect to this calculation are filed as Appendix B in this Exhibit.

Hydro One Distribution, as part of its 2007 rate application, is therefore requesting the Board approve an adjustment to the smart meter rate rider to cover this deficit.

**Table 4**
**Smart Meter Revenue Requirement Analysis**
**$ millions**

| | **Rate Year 2007/2008** |
|---|---|
| | |
| Net Fixed Assets | 42 |
| Working Capital | 1 |
| | |
| Rate Base | 43 |
| | |
| **Revenue Requirement** | |
| OM&A | 8 |
| Depreciation | 5 |
| Return on Rate Base | 3 |
| Pils | (3) |
| Revenue Requirement | 13 |
| | |
| Customers | 1.2 |
| | |
| Dollars/Customer/Month | 0.93 |

## 9.0 IMPLEMENTATION TIMING

Per the Board's Decision in the RP-2005-0020/EB-2005-0529 proceeding and subsequent letter of June 13, 2006, Hydro One Distribution established two variance accounts to track actual capital and operating expenses net of the $0.27 per metered customer per month charge currently being collected from customers and the CDM funding granted. As of December 31, 2006, the debit balance in these accounts net of revenue collected was $12.6 million. Without the proposed rate rider increase, the balance in the deferral account will continue to grow. By increasing the rate rider to $0.93 on May 1, 2007 future rate shocks associated with having to recover a large variance account deficiency will be lessened. The Board will be able to track Hydro One Distribution's actual costs versus the smart meter

forecast and be in position to make any adjustments if necessary in a subsequent rate proceeding.

## 10.0 RECOVERY OF STRANDED METER COSTS

Hydro One Distribution does not require any incremental relief to recover stranded capital costs of the conventional meters being replaced under this program. Hydro One Distribution's depreciation expense within its approved revenue requirement under RP-2005-0020/EB-2005-0378, includes the impact of amortizing all of these older generation meters on straight-line basis over a period ending in 2010.

# APPENDIX A

**Description of Hydro One's application of the EDR Smart Meter rate calculation model**

# Appendix A

## DESCRIPTION OF HYDRO ONE'S APPLICATION OF THE EDR SMART METER RATE CALCULATION MODEL

### Smart Meter Unit Cost

#### 1) Smart Meter Unit Cost

The smart meter unit cost is based on the material cost of the meter and the communication module under glass only and reflects the price for 2007. It does not include any customer equipment costs or any required socket adaptors.

#### 2) Smart Meter Installation Cost per Unit

Smart meters (<50 kW) are installed by Hydro One under two work programs which are the Community Rollout Program (CRP) and the Failed Meter Program (FMP). The CRP is a mass market approach to broadly install smart meters to meet the provincial government's targets. Meters installed under the FMP program also contribute toward meeting the government target but they have an added requirement of complying with Measurement Canada's regulation for testing and reverifying operating meters.

Hydro One's rollout plan starts in urban areas and then moves to rural areas.

#### 3) Smart Meter Other Cost Per Unit

Hydro One's residential customers span the province and includes many rural areas where population density is low. To ensure that smart meters are deployed in a timely, orderly and efficient manner, Hydro One developed a meter logistic and deployment plan and the associated costs of implementation are included in this estimate.

### AMI Capital Cost

#### 4) AMI Computer Hardware Costs

AMI computer hardware includes the costs for mesh gates, mesh repeaters, collectors as well as associated installation costs, and computer servers to operationalize the AMI.

#### 5) AMI Computer Software Costs

AMI computer software includes the costs for software license fees, attending professional services and one time telecom activation fees to operationalize the AMI.

## Other Capital Cost

### 6) Other Computer Hardware Costs

Other computer hardware costs consist mainly of customer information system changes.

### 7) Other Computer Software Costs

Other computer software costs include developmental servers and associated software licenses; program management; external advisors; overhead, carrying charge and procurement.

## Incremental AMI Operational Expenses

### 8) Incremental AMI O&M Expenses

Incremental AMI O&M expenses include costs for the maintenance for mesh gates, mesh repeaters, software license maintenance, higher field operating costs and ongoing telecommunications charges for operationalizing the AMI.

### 9) Incremental AM&I Admin Expenses

Incremental AMI Admin expenses cover the costs for managing surplus meters that have been replaced by smart meters.

## Incremental Other Operational Expenses

### 10) Incremental Other O&M Expenses

Incremental other O&M expenses include business process redesign to accommodate the operation of smart meters, maintenance of developmental servers and customer-related costs such as billing inquiries, call handling and customer communications.

### 11) Incremental Other Operational Expenses

Incremental other operating expenses consist of costs for day to day program management; and project communication and change management.

# APPENDIX B

## 2007 EDR SMART METER RATE CALCULATION MODEL

(modified to reflect Hydro One's. approved Capital Structure, Working Capital and Depreciation rates and the description of the Smart Meters unit installation plan in the model)


# Ontario Energy Board

## 2007 EDR SMART METER RATE CALCULATION MODEL

## Sheet 1 Utility Information Sheet

| Legend: | Input Cell | Pull-Down Menu Option | Output Cell |
|---|---|---|---|
| | From Another Sheet | To The 2007 IRM Model | To Another Sheet |

***Please note that this model uses MACROS. Before starting, please ensure that macros have been enabled.***

| | | | |
|---|---|---|---|
| **Name of LDC:** | Hydro One Networks Inc. | | |
| **Licence Number:** | ED-2003-0043 | **Smart Meter Grouping:** | Listed |
| **IRM 2007 EB Number:** | EB-2007-0542 | | |
| **EDR 2006 RP Number:** | RP-2005-0020 | **EDR 2006 EB Number:** | EB-2005-0378 |
| **Date of Submission:** | | **Revision:** | 0 |
| **Version:** | 1.0 | | |

**Contact Information**

| | |
|---|---|
| **Name:** | Mr. Glen MacDonald |
| **Title:** | Senior Advisor – Regulatory Affairs |
| **Phone Number:** | (416) 345-5913 |
| **E-Mail Address:** | glen.e.macdonald@HydroOne.com |

***Please Note: In the event of an inconsistency between this model and any element of the January 2007 "Report of the Board on 2nd Generation Incentive Regulation of Ontario's Electricity Distributors - Addendum for Smart Metering Rates ", the Report governs.***

# 2007 EDR SMART METER RATE CALCULATION MODEL

**Hydro One Networks Inc.**

**EB-2007-0542**

**Saturday, January 00, 1900**

## Sheet 2. Smart Meter Capital Cost and Operational Expense Data

### Smart Meter Unit Installation Plan: *(From Smart Meter Plan filed December 15, 2006 )*

| *assume calendar year installation* | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---|---|---|---|---|---|---|
| Planned number of smart meters to be installed | 28,000 | 212,000 | | | | 240,000 |
| | - | - | - | - | - | - |
| **Total Planned Meter Installation** | 28,000 | 212,000 | - | - | - | 240,000 |
| Planned Meter Installation Completed before January 1, 2008 | | 240,000 | | | | |

### Smart Meter Unit Cost

| | Per Unit | | |
|---|---|---|---|
| **Smart Meter Unit Cost**<br>*Enter the invoiced cost per smart meter purchased*<br>*Please provide details in Manager's Summary* | $ 110.00 | A | Note: Use 2007 Data |
| **Smart Meter Other Unit Cost**<br>*Enter the invoiced other costs per smart meter unit purchased*<br>*Please provide details in Manager's Summary* | $ - | B | |
| **Smart Meter Installation Cost per Unit**<br>*Enter the time and material cost per smart meter unit installed*<br>*Please provide details in Manager's Summary* | $ 36.00 | C | |
| **Smart Meter Other Cost per Unit**<br>*Enter the other cost per smart meter unit installed*<br>*Please provide details in Manager's Summary* | $ 16.00 | D | |
| **Total Unit cost per Smart Meter** | $ 162.00 | E = A + B + C + D | |

*3. LDC Assumptions and Data*

### AMI Capital Cost

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total | |
|---|---|---|---|---|---|---|---|
| **AMI Computer Hardware Costs**<br>*Enter the estimated capital costs for AMI related Computer Hardware*<br>*Please provide details in Manager's Summary* | $ - | $ 5,321,559 | | | | $ 5,321,559 | F |
| | | *3. LDC Assumptions and Data* | | | | | |
| **AMI Computer Software Costs**<br>*Enter the estimated capital costs for AMI related Computer Software*<br>*Please provide details in Manager's Summary* | $ 1,496,989 | $ 5,514,789 | | | | $ 7,011,778 | G |
| | | *3. LDC Assumptions and Data* | | | | | |
| **Total AMI Capital Cost** | **$ 1,496,989** | **$ 10,836,348** | **$ -** | **$ -** | **$ -** | **$ 12,333,337** | H = F + G |

### Other Capital Cost

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total | |
|---|---|---|---|---|---|---|---|
| **Other Computer Hardware Costs**<br>*Enter the estimated capital costs for other related Computer Hardware*<br>*Please provide details in Manager's Summary* | $ - | $ 12,593,880 | $ - | $ - | $ - | $ 12,593,880 | I |
| | | *3. LDC Assumptions and Data* | | | | | |
| **Other Computer Software Costs**<br>*Enter the estimated capital costs for other related Computer Software*<br>*Please provide details in Manager's Summary* | $ 3,055,231 | $ 13,598,897 | | | | $ 16,654,128 | J |
| | | *3. LDC Assumptions and Data* | | | | | |
| **Total Other Capital Cost** | **$ 3,055,231** | **$ 26,192,777** | **$ -** | **$ -** | **$ -** | **$ 29,248,008** | K = I + J |

### Incremental AMI Operational Expenses

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total | |
|---|---|---|---|---|---|---|---|
| **Incremental AMI O&M Expenses**<br>*Enter the estimated incremental AMI related O&M expenses*<br>*Please provide details in Manager's Summary* | $ 3,552,395 | $ 2,265,748 | | | | $ 5,818,143 | L |
| | | *3. LDC Assumptions and Data* | | | | | |
| **Incremental AMI Admin Expenses**<br>*Enter the estimated incremental AMI related Admin expenses*<br>*Please provide details in Manager's Summary* | $ - | $ 10,140 | | | | $ 10,140 | M |
| | | *3. LDC Assumptions and Data* | | | | | |
| **Total Incremental AMI Operation Expenses** | **$ 3,552,395** | **$ 2,275,888** | **$ -** | **$ -** | **$ -** | **$ 5,828,283** | N = L + M |

### Incremental Other Operational Expenses

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total | |
|---|---|---|---|---|---|---|---|
| **Incremental Other O&M Expenses**<br>*Enter the estimated incremental Other related O&M expenses*<br>*Please provide details in Manager's Summary* | $ 279,103 | $ 4,068,213 | | | | $ 4,347,316 | O |
| | | *3. LDC Assumptions and Data* | | | | | |
| **Incremental Other Admin Expenses**<br>*Enter the estimated incremental Other related Admin expenses*<br>*Please provide details in Manager's Summary* | $ 1,072,777 | $ 1,725,435 | | | | $ 2,798,212 | P |
| | | *3. LDC Assumptions and Data* | | | | | |
| **Total Incremental Other Operation Expenses** | **$ 1,351,880** | **$ 5,793,648** | **$ -** | **$ -** | **$ -** | **$ 7,145,528** | Q = O + P |

*AMI - Advanced Metering Infrastructure*

*Other - Cost or expenses not AMI but does not include stranded assets*

# 2007 EDR SMART METER RATE CALCULATION MODEL

**Hydro One Networks Inc.**

**EB-2007-0542**

**Saturday, January 00, 1900**

## Sheet 3. LDC Assumptions and Data

### Assumptions:

1. Planned meter installations occur evenly through the year.
2. Year assumed January to December
3. Amortization is straight line and has half year rule applied in first year

### 2006 EDR Data Information

| | | |
|---|---|---|
| **Deemed Debt** (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell C 18) | 60% | *4. Smart Meter Rate Calc* |
| **Deemed Equity** (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell C 19) | 40% | *4. Smart Meter Rate Calc* |
| **Weighted Debt Rate** (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell C 25) | 5.93% | *4. Smart Meter Rate Calc* |
| **Proposed ROE** (from 2006 EDR Sheet "3-2 COST OF CAPITAL (Input)" Cell E 32) | 8.65% | *4. Smart Meter Rate Calc* |
| **Weighted Average Cost of Capital** | 7.02% | |

### Working Capital Allowance %

11.60%

### 2006 EDR Total Metered Customers

**Sum of Residential, General Service, and Large User** 1,152,861 *4. Smart Meter Rate Calc*

*from 2006 EDR Sheet "7-1 ALLOCATION - Base Rev. Req." Cells H16 thru H93*

**2006 EDR Tax Rate**

**Corporate Income Tax Rate** 36.12% *5. PILs*

*(from 2006 PILs Sheet "Test Year PILs,Tax Provision" Cell D 14)*

### Capital Data:

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---|---|---|---|---|---|---|
| Smart meter including installation ($162 times Planned Meters Installed) | $ 4,536,000 | $ 34,344,000 | $ - | $ - | $ - | $ 38,880,000 |
| Computer Hardware Costs *2. Smart Meter Data; AMI (F) plus Other (I)* | $ - | $ 17,915,439 | | | | $ 17,915,439 |
| Computer Software Costs *2. Smart Meter Data; AMI (G) plus Other (J)* | $ 4,552,220 | $ 19,113,686 | | | | $ 23,665,906 |
| Total Computer Costs *2. Smart Meter Data; AMI (H) plus Other (K)* | $ 9,088,220 | $ 71,373,125 | $ - | $ - | $ - | $ 80,461,345 |

*6. SM Avg Net Fixed Assets &UCC*

### LDC Amortization Policy:

| | | | |
|---|---|---|---|
| Smart Meter Amortization Rate *Enter Amortization Policy* | 15 | Years | *6. SM Avg Net Fixed Assets &UCC* |
| Computer Hardware Amortization Rate *Enter Amortization Policy* | 5 | Years | *6. SM Avg Net Fixed Assets &UCC* |
| Computer Software Amortization Rate *Enter Amortization Policy* | 10 | Years | *6. SM Avg Net Fixed Assets &UCC* |

### Operating Expense Data:

| | 2006 | 2007 | 2008 | 2009 | 2010 | Total |
|---|---|---|---|---|---|---|
| Incremental O&M Expenses *2. Smart Meter Data; AMI (L) plus Other (O)* | $ 3,831,498 | $ 6,333,962 | | | | $ 10,165,460 |
| Incremental Admin Expenses *2. Smart Meter Data; AMI (M) plus Other (P)* | $ 1,072,777 | $ 1,735,575 | | | | $ 2,808,352 |
| Total Incremental Operating Expense *2. Smart Meter Data; AMI (N) plus Other (Q)* | $ 4,904,275 | $ 8,069,537 | $ - | $ - | $ - | $ 12,973,812 |

*4. Smart Meter Rate Calc*

### Per Meter Cost Split:

| | Per Meter | Installed | Investment | % of Invest |
|---|---|---|---|---|
| Smart meter including installation | $ 162.00 | 240,000 | $ 38,880,000 | 42% |
| Computer Hardware Costs | $ 74.65 | 240,000 | $ 17,915,439 | 0% |
| Computer Software Costs | $ 98.61 | 240,000 | $ 23,665,906 | 0% |
| Smart meter incremental operating expenses | $ 54.06 | 240,000 | $ 12,973,812 | 0% |
| Total Smart Meter Capital Costs per meter | $ 389.31 | | $ 93,435,157 | 42% |

# Smart Meter Rate Calculation

| | 2007 | | | | |
|---|---|---|---|---|---|
| **Average Asset Values** | | | | | |
| Net Fixed Assets Smart Meters *(6. SM Avg Net Fixed Assets &UCC)* | $ 20,833,200 | | | | |
| Net Fixed Assets Computer Hardware *(6. SM Avg Net Fixed Assets &UCC)* | $ 8,061,947 | | | | |
| Net Fixed Assets Computer Software *(6. SM Avg Net Fixed Assets &UCC)* | $ 13,175,999 | | | | |
| Total Net Fixed Assets | $ 42,071,146 | $ 42,071,146 | | | *A* |
| **Working Capital** | | | | | |
| Operation Expense | $ 8,069,537 | | | | |
| Working Capital 11.6 % | $ 936,066 | $ 936,066 | | | *B* |
| **Smart Meters included in Rate Base** | | $ 43,007,213 | | | *C = A + B* |
| **Return on Rate Base** | | | | | |
| Deemed Debt *(3. LDC Assumptions and Data)* | 60.0% | $ 25,804,328 | | | *D = C * Deemed Debt* |
| Deemed Equity *(3. LDC Assumptions and Data)* | 40.0% | $ 17,202,885 | | | *E = C * Deemed Equity* |
| | | $ 43,007,213 | | | |
| Weighted Debt Rate *(3. LDC Assumptions and Data)* | 5.9% | $ 1,530,197 | | | *F = D * Weighted Debt Rate* |
| Proposed ROE *(3. LDC Assumptions and Data)* | 8.7% | $ 1,488,050 | | | *G = E * Proposed ROE* |
| **Return on Rate Base** | | $ 3,018,246 | $ 3,018,246 | | *H = F + G* |
| **Operating Expenses** | | | | | |
| Incremental Operating Expenses *(3. LDC Assumptions and Data)* | | | $ 8,069,537 | | *I* |
| **Amortization Expenses** | | | | | |
| Amortization Expenses - Smart Meters *(6. SM Avg Net Fixed Assets &UCC)* | | $ 1,447,200 | | | |
| Amortization Expenses - Computer Hardware *(6. SM Avg Net Fixed Assets &UCC)* | | $ 1,791,544 | | | |
| Amortization Expenses - Computer Software *(6. SM Avg Net Fixed Assets &UCC)* | | $ 1,410,906 | | | |
| **Total Amortization Expenses** | | | $ 4,649,650 | *5. PILs* | *J* |
| **Revenue Requirement Before PILs** | | | $ 15,737,433 | | *K = H + I + J* |
| **Calculation of Taxable Income** | | | | | |
| Incremental Operating Expenses | | | -$ 8,069,537 | | *I* |
| Depreciation Expenses | | | -$ 4,649,650 | | *J* |
| Interest Expense | | | -$ 1,530,197 | | *F* |
| **Taxable Income For PILs** | | | $ 1,488,050 | *5. PILs* | *L = K - I - J - F* |
| **Grossed up PILs** *(5. PILs)* | | | -$ 2,885,611 | | *M* |
| Revenue Requirement Before PILs | | | $ 15,737,433 | | *K* |
| Grossed up PILs *(5. PILs)* | | | -$ 2,885,611 | | *M* |
| **Revenue Requirement for Smart Meters** | | | **$ 12,851,822** | | *N = K + M* |
| **2007 Smart Meter Rate Adder** | | | | | |
| Revenue Requirement for Smart Meters | | | $ 12,851,822 | | *N* |
| 2006 EDR Total Metered Customers *(3. LDC Assumptions and Data)* | | | 1,152,861 | | *O = 2006 EDR Total Metered Customers* |
| Annualized amount required per metered customer | | | $ 11.15 | | *P = N / O* |
| Number of months in year | | | 12 | | *Q* |
| **2007 Smart Meter Rate Adder** | | | **$ 0.93** | | *R = P / Q* |

Enter this amount in the 2007 IRM Model sheet "4. 2006 Smart Meter Information" in cells F 17 thru F 32 (as required)

# PILs Calculation

| | |
|---|---|
| **INCOME TAX** | |
| Net Income *(4. Smart Meter Rate Calc)* | $ 1,488,050 |
| Amortization *(4. Smart Meter Rate Calc)* | $ 4,649,650 |
| CCA - Class 47 (8%) Smart Meters *(6. SM Avg Net Fixed Assets &UCC)* | -$ 1,722,125 |
| CCA - Class 45 (45%) Computers *(6. SM Avg Net Fixed Assets &UCC)* | -$ 9,919,140 |
| Change in taxable income | -$ 5,503,565 |
| Tax Rate *(3. LDC Assumptions and Data)* | 36.12% |
| Income Taxes Payable | -$ 1,987,888 |
| **ONTARIO CAPITAL TAX** | |
| Smart Meters *(6. SM Avg Net Fixed Assets &UCC)* | $37,281,600 |
| Computer Hardware *(6. SM Avg Net Fixed Assets &UCC)* | $16,123,895 |
| Computer Software *(6. SM Avg Net Fixed Assets &UCC)* | $22,027,389 |
| Rate Base | $75,432,884 |
| Less: Exemption | $ - |
| Deemed Taxable Capital | $75,432,884 |
| Ontario Capital Tax Rate | 0.300% |
| Net Amount (Taxable Capital x Rate) | $ 226,299 |

## Gross Up

| | PILs Payable | Gross Up | Grossed Up PILs | |
|---|---|---|---|---|
| Change in Income Taxes Payable | -$ 1,987,888 | 36.12% | -$ 3,111,909 | |
| Change in OCT | $ 226,299 | | $ 226,299 | |
| PIL's | -$ 1,761,589 | | **-$ 2,885,611** | *4. Smart Meter Rate Calc* |

# Smart Meter Average Net Fixed Assets

## Net Fixed Assets - Smart Meters

| | 2006 | 2007 | |
|---|---|---|---|
| Opening Capital Investment | $ - | $ 4,536,000 | |
| Capital Investment Year 1 *(3. LDC Assumptions and Data)* | $ 4,536,000 | | |
| Capital Investment Year 2 *(3. LDC Assumptions and Data)* | | $ 34,344,000 | |
| Closing Capital Investment | $ 4,536,000 | $ 38,880,000 | |
| Opening Accumulated Amortization | $ - | $ 151,200 | |
| Amortization Year 1 (15 Years Straight Line) | $ 151,200 | $ 302,400 | |
| Amortization Year 2 (15 Years Straight Line) | | $ 1,144,800 | |
| Closing Accumulated Amortization | $ 151,200 | $ 1,598,400 | |
| Opening Net Fixed Assets | $ - | $ 4,384,800 | |
| Closing Net Fixed Assets | $ 4,384,800 | $ 37,281,600 | *5. PILs* |
| Average Net Fixed Assets | $ 2,192,400 | $ 20,833,200 | *4. Smart Meter Rate Calc* |

## Net Fixed Assets - Computer Hardware

| | 2006 | 2007 | |
|---|---|---|---|
| Opening Capital Investment | $ - | $ - | |
| Capital Investment Year 1 *(3. LDC Assumptions and Data)* | $ - | | |
| Capital Investment Year 2 *(3. LDC Assumptions and Data)* | | $ 17,915,439 | |
| Closing Capital Investment | $ - | $ 17,915,439 | |
| Opening Accumulated Amortization | $ - | $ - | |
| Amortization Year 1 (5 Years Straight Line) | $ - | $ - | |
| Amortization Year 2 (5 Years Straight Line) | | $ 1,791,544 | |
| Closing Accumulated Amortization | $ - | $ 1,791,544 | |
| Opening Net Fixed Assets | $ - | $ - | |
| Closing Net Fixed Assets | $ - | $ 16,123,895 | *5. PILs* |
| Average Net Fixed Assets | $ - | $ 8,061,947 | *4. Smart Meter Rate Calc* |

## Net Fixed Assets - Computer Software

| | 2006 | 2007 | |
|---|---|---|---|
| Opening Capital Investment | $ - | $ 4,552,220 | |
| Capital Investment Year 1 *(3. LDC Assumptions and Data)* | $ 4,552,220 | | |
| Capital Investment Year 2 *(3. LDC Assumptions and Data)* | | $ 19,113,686 | |
| Closing Capital Investment | $ 4,552,220 | $ 23,665,906 | |
| Opening Accumulated Amortization | $ - | $ 227,611 | |
| Amortization Year 1 (10 Years Straight Line) | $ 227,611 | $ 455,222 | |
| Amortization Year 2 (10 Years Straight Line) | | $ 955,684 | |
| Closing Accumulated Amortization | $ 227,611 | $ 1,638,517 | |
| Opening Net Fixed Assets | $ - | $ 4,324,609 | |
| Closing Net Fixed Assets | $ 4,324,609 | $ 22,027,389 | *5. PILs* |
| Average Net Fixed Assets | $ 2,162,305 | $ 13,175,999 | *4. Smart Meter Rate Calc* |

# For PILs Calculation

## UCC - Smart Meters

| CCA Class 47 (8%) | 2006 | 2007 | |
|---|---|---|---|
| Opening UCC | $ - | $ 4,354,560 | |
| Capital Additions | $ 4,536,000 | $ 34,344,000 | |
| UCC Before Half Year Rule | $ 4,536,000 | $ 38,698,560 | |
| Half Year Rule (1/2 Additions - Disposals) | $ 2,268,000 | $ 17,172,000 | |
| Reduced UCC | $ 2,268,000 | $ 21,526,560 | |
| CCA Rate Class 47 | 8% | 8% | |
| CCA | $ 181,440 | $ 1,722,125 | *5. PILs* |
| Closing UCC | $ 4,354,560 | $ 36,976,435 | |

## UCC - Computer Equipment

| CCA Class 45 (45%) | 2006 | 2007 | |
|---|---|---|---|
| Opening UCC | $ - | $ 3,527,971 | |
| Capital Additions Hardware | $ - | $ 17,915,439 | |
| Capital Additions Software | $ 4,552,220 | $ 19,113,686 | |
| UCC Before Half Year Rule | $ 4,552,220 | $ 40,557,096 | |
| Half Year Rule (1/2 Additions - Disposals) | $ 2,276,110 | $ 18,514,563 | |
| Reduced UCC | $ 2,276,110 | $ 22,042,533 | |
| CCA Rate Class 45 | 45% | 45% | |
| CCA | $ 1,024,250 | $ 9,919,140 | *5. PILs* |
| Closing UCC | $ 3,527,971 | $ 30,637,956 | |

# INTERIM TIME-OF-USE (TOU) RATES

Hydro One Distribution received Board approval for interim TOU rates as part of its C&DM programs on November 10, 2004 as part of the RP-2004-0457/EB2004-0203 proceeding. The interim TOU rates approval expires on September 30, 2007 at the same time as the C&DM programs.

Hydro One Distribution requests Board approval to extend the Interim TOU rates until Hydro One Distribution files and implements a new set of Distribution rates as part of the Board's rebasing process to establish future Distribution rates.

The difference between distribution revenues at standard rates and at interim TOU rates are being charged to Hydro One Distribution's C&DM program until the end of September 2007. The difference is approximately $30,000 to $35,000 per month. Hydro One Distribution requests that they be allowed to accrue the difference in charges commencing October 2007 until Hydro One Distribution applies and implements a new set of Distribution rates. The difference in charges will be allocated to the C&DM program funds up to and including the amount available in that account. If charges exceed the amount in the C&DM program fund, Hydro One Distribution requests that a variance account be established where any remaining difference in charges may be accrued.