PUC Distribution Inc. (PUC)

Exhibit: 1

PUC Distribution Inc. (PUC)

Ontario Energy Board
P.O. Box 2319, 27th Floor
2300 Yonge Street
Suite 2700
Toronto Ontario
M4P 1E4
Attention: Ms. K. Walli
Board Secretary

Dear Ms. Walli

Please find enclosed PUC Distribution's 2008 Electricity Distribution Rate Application.

T. Greco

Terrance P. Greco
Treasurer
PUC Distribution Inc.

PUC Distribution Inc. (PUC)

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ONTARIO ENERGY BOARD

IN THE MATTER OF the Ontario Energy Board Act, 1998, being Schedule B to the Energy Competition Act, 1998, S.O. 1998, c.15;

AND IN THE MATTER OF an Application by PUC Distribution Inc. (PUC) to the Ontario Energy Board for an Order or Orders approving or fixing just and reasonable rates and other service charges for the distribution of electricity as of May 1, 2008.

APPLICATION

The Applicant is PUC Distribution Inc. (PUC). The Applicant is an Ontario corporation with its office in the City of Sault Ste. Marie.

The Applicant hereby applies to the Ontario Energy Board (the "OEB") pursuant to section 78 of the Ontario Energy Board Act, 1998 for approval of its proposed distribution rates and other charges, effective May 1, 2008.

Except where specifically identified in the Application, the Applicant followed Chapter 2 of the Filing Requirements for Transmission and Distribution Applications dated November 14, 2006 (the "Filing Requirements") in order to prepare this application.

The Schedule of Rates and Charges proposed in this Application is identified in Exhibit 9.

The Applicant requests that the OEB make its Rate Order effective May 1, 2008 in accordance with the Filing Requirements. The applicant requests that if for any reason final rates are not approved and effective May 1, 2008 that interim rates be approved effective May1, 2008 until final rates are approved by the Board. The applicant requests the interim rates would be those proposed in this application.

The Applicant submits the proposed distribution rates contained in this Application are just and reasonable on the following grounds:

(i) the proposed rates for the distribution of electricity have been prepared in accordance with the Filing Requirements;

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(ii) the proposed adjusted rates are necessary to meet the Applicant's Market Based Rate of Return and PILs requirements;

(iii) there are no impacts to any of the customer classes or consumption level subgroups that are so significant as to warrant the deferral of any adjustments being requested by the Applicant; and

(iv) other grounds as may be set out in the material accompanying this Application Summary.

The Applicant applies for an Order or Orders approving the proposed distribution rates and other charges set out in this Application to be effective May 1, 2008, or as soon as possible thereafter. The Applicant submits these rates and charges are just and reasonable pursuant to section 78 of the Ontario Energy Board Act, 1998 being Schedule B to the Energy Competition Act, 1998, S.O. 1998, c.15,

The address of service for PUC Distribution Inc. is 765 Queen Street East, P.O. Box 9000, Sault Ste. Marie, ON, P6A 6P2.

DATED at Sault Ste. Marie Ontario, this 30th day of November, 2007.

Terrance P. Greco
Treasurer
PUC Distribution Inc.

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DISTRIBUTOR LICENCE

Ontario

Electricity Distribution Licence

ED-2002-0546

PUC Distribution Inc.

Valid Until

March 30, 2024

____
Mark C. Garner
Managing Director, Market Operations
Ontario Energy Board
Date of Issuance: March 31, 2004
Date of Amendment: June 9, 2005

Ontario Energy Board	Commission de l'Ėnergie de l'Ontario
P.O. Box 2319	C.P. 2319
2300 Yonge Street	2300, rue Yonge
26th. Floor	26e étage
Toronto, ON M4P 1E4	Toronto ON M4P 1E4

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PUC Distribution Inc.
Electricity Distribution Licence ED-2002-0546

1 Definitions

In this Licence:

"**Accounting Procedures Handbook**" means the handbook, approved by the Board which specifies the accounting records, accounting principles and accounting separation standards to be followed by the Licensee;

"**Act**" means the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B;

"**Affiliate Relationships Code for Electricity Distributors and Transmitters**" means the code, approved by the Board which, among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies;

"**distribution services**"means services related to the distribution of electricity and the services the Board has required distributors to carry out, including the sales of electricity to consumers under section 29 of the Act, for which a charge or rate has been established in the Rate Order;

"**Distribution System Code**" means the code approved by the Board which, among other things, establishes the obligations of the distributor with respect to the services and terms of service to be offered to customers and retailers and provides minimum, technical operating standards of distribution systems;

"**Electricity Act**" means the *Electricity Act, 1998*, S.O. 1998, c. 15, Schedule A;

"**Licensee**" means PUC Distribution Inc.

"**Market Rules**" means the rules made under section 32 of the Electricity Act;

"**Performance Standards**" means the performance targets for the distribution and connection activities of the Licensee as established by the Board in accordance with section 83 of the Act;

"**Rate Order**" means an Order or Orders of the Board establishing rates the Licensee is permitted to charge;

"**regulation**" means a regulation made under the Act or the Electricity Act;

"**Retail Settlement Code**" means the code approved by the Board which, among other things, establishes a distributor's obligations and responsibilities associated with financial settlement among retailers and consumers and provides for tracking and facilitating consumer transfers among competitive retailers;

PUC Distribution Inc. (PUC)

"**service area**" with respect to a distributor, means the area in which the distributor is authorized by its licence to distribute electricity;

"**Standard Supply Service Code**" means the code approved by the Board which, among other things, establishes the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under section 29 of the Electricity Act;

"**wholesaler**" means a person that purchases electricity or ancillary services in the IMO administered markets or directly from a generator or, a person who sells electricity or ancillary services through the IMO-administered markets or directly to another person other than a consumer.

2 Interpretation

2.1 In this Licence, words and phrases shall have the meaning ascribed to them in the Act or the Electricity Act. Words or phrases importing the singular shall include the plural and vice versa. Headings are for convenience only and shall not affect the interpretation of the licence. Any reference to a document or a provision of a document includes an amendment or supplement to, or a replacement of, that document or that provision of that document. In the computation of time under this licence, where there is a reference to a number of days between two events, they shall be counted by excluding the day on which the first event happens and including the day on which the second event happens and where the time for doing an act expires on a holiday, the act may be done on the next business day.

3 Authorization

3.1 The Licensee is authorized, under Part V of the Act and subject to the terms and conditions set out in this Licence:

a) to own and operate a distribution system in the service area described in Schedule 1 of this Licence;

b) to retail electricity for the purposes of fulfilling its obligation under section 29 of the Electricity Act in the manner specified in Schedule 2 of this Licence; and

c) to act as a wholesaler for the purposes of fulfilling its obligations under the Retail Settlement Code or under section 29 of the Electricity Act.

4 Obligation to Comply with Legislation, Regulations and Market Rules

4.1 The Licensee shall comply with all applicable provisions of the Act and the Electricity Act and regulations under these Acts, except where the Licensee has been exempted from such compliance by regulation.

4.2 The Licensee shall comply with all applicable Market Rules.

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5 Obligation to Comply with Codes

5.1 The Licensee shall at all times comply with the following Codes (collectively the "Codes") approved by the Board, except where the Licensee has been specifically exempted from such compliance by the Board. Any exemptions granted to the licensee are set out in Schedule 3 of this Licence. The following Codes apply to this Licence:

a) the Affiliate Relationships Code for Electricity Distributors and Transmitters;

b) the Distribution System Code;

c) the Retail Settlement Code; and

d) the Standard Supply Service Code.

5.2 The Licensee shall:

a) make a copy of the Codes available for inspection by members of the public at its head office and regional offices during normal business hours; and

b) provide a copy of the Codes to any person who requests it. The Licensee may impose a fair and reasonable charge for the cost of providing copies.

6 Obligation to Provide Non-discriminatory Access

6.1 The Licensee shall, upon the request of a consumer, generator or retailer, provide such consumer, generator or retailer with access to the Licensee's distribution system and shall convey electricity on behalf of such consumer, generator or retailer in accordance with the terms of this Licence.

7 Obligation to Connect

7.1 The Licensee shall connect a building to its distribution system if:

a) the building lies along any of the lines of the distributor's distribution system; and

b) the owner, occupant or other person in charge of the building requests the connection in writing.

7.2 The Licensee shall make an offer to connect a building to its distribution system if:

a) the building is within the Licensee's service area as described in Schedule 1; and

b) the owner, occupant or other person in charge of the building requests the connection in writing.

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7.3 The terms of such connection or offer to connect shall be fair and reasonable and made in accordance with the Distribution System Code, and the Licensee's Rate Order as approved by the Board.

7.4 The Licensee shall not refuse to connect or refuse to make an offer to connect unless it is permitted to do so by the *Act* or a regulation or any Codes to which the Licensee is obligated to comply with as a condition of this Licence.

8 Obligation to Sell Electricity

8.1 The Licensee shall fulfill its obligation under section 29 of the Electricity Act to sell electricity in accordance with the requirements established in the Standard Supply Service Code, the Retail Settlement Code and the Licensee's Rate Order as approved by the Board.

9 Obligation to Maintain System Integrity

9.1 The Licensee shall maintain its distribution system in accordance with the standards established in the Distribution System Code and Market Rules, and have regard to any other recognized industry operating or planning standards adopted by the Board.

10 Market Power Mitigation Rebates

10.1 The Licensee shall comply with the pass through of Ontario Power Generation rebate conditions set out in Appendix A of this Licence.

11 Distribution Rates

11.1 The Licensee shall not charge for connection to the distribution system, the distribution of electricity or the retailing of electricity to meet its obligation under section 29 of the Electricity Act except in accordance with a Rate Order of the Board.

12 Separation of Business Activities

12.1 The Licensee shall keep financial records associated with distributing electricity separate from its financial records associated with transmitting electricity or other activities in accordance with the Accounting Procedures Handbook and as otherwise required by the Board.

13 Expansion of Distribution System

13.1 The Licensee shall not construct, expand or reinforce an electricity distribution system or make an interconnection except in accordance with the Act and Regulations, the Distribution System Code and applicable provisions of the Market Rules.

13.2 In order to ensure and maintain system integrity or reliable and adequate capacity and supply of electricity, the Board may order the Licensee to expand or reinforce its

PUC Distribution Inc. (PUC)

distribution system in accordance with Market Rules and the Distribution System Code, or in such a manner as the Board may determine.

14 Provision of Information to the Board

14.1 The Licensee shall maintain records of and provide, in the manner and form determined by the Board, such information as the Board may require from time to time.

14.2 Without limiting the generality of paragraph 14.1 the Licensee shall notify the Board of any material change in circumstances that adversely affects or is likely to adversely affect the business, operations or assets of the Licensee as soon as practicable, but in any event no more than twenty (20) days past the date upon which such change occurs.

14.3 The licensee shall inform the Board as soon as possible of any material changes to the service agreement with PUC Services Inc. (the "Service Agreement").

14.4 If either party to the Service Agreement provides notice of its intention to exercise a right to terminate or discontinue any services under the services agreement, the Licensee shall:

a) Immediately notify the Board in writing of the notice; and

b) provide a plan to the Board as soon as possible, but no later than ten (10) days after the receipt of the notice, as to how the affected distribution services will be maintained in compliance with the terms of this licence.

14.5 In the event of termination of the Service Agreement for any reason, the Licensee shall:

a) ensure there is no interruption of distribution services to the consumers as a result of the termination;

b) notify the Board of the name of the new company that will provide the distribution services; and

c) file with the Board the distribution services agreement with the new company.

15 Restrictions on Provision of Information

15.1 The Licensee shall not use information regarding a consumer, retailer, wholesaler or generator obtained for one purpose for any other purpose without the written consent of the consumer, retailer, wholesaler or generator.

15.2 The Licensee shall not disclose information regarding a consumer, retailer, wholesaler or generator to any other party without the written consent of the consumer, retailer, wholesaler or generator, except where such information is required to be disclosed:

PUC Distribution Inc. (PUC)

a) to comply with any legislative or regulatory requirements, including the conditions of this Licence;

b) for billing, settlement or market operations purposes;

c) for law enforcement purposes; or

d) to a debt collection agency for the processing of past due accounts of the consumer, retailer, wholesaler or generator.

15.3 The Licensee may disclose information regarding consumers, retailers, wholesalers or generators where the information has been sufficiently aggregated such that their particular information cannot reasonably be identified.

15.4 The Licensee shall inform consumers, retailers, wholesalers and generators of the conditions under which their information may be released to a third party without their consent.

15.5 If the Licensee discloses information under this section, the Licensee shall ensure that the information provided will not be used for any other purpose except the purpose for which it was disclosed.

16 Customer Complaint and Dispute Resolution

16.1 The Licensee shall:

a) have a process for resolving disputes with customers that deals with disputes in a fair, reasonable and timely manner;

b) publish information which will make its customers aware of and help them to use its dispute resolution process;

c) make a copy of the dispute resolution process available for inspection by members of the public at each of the Licensee's premises during normal business hours;

d) give or send free of charge a copy of the process to any person who reasonably requests it; and

e) subscribe to and refer unresolved complaints to an independent third party complaints resolution service provider selected by the Board. This condition will become effective on a date to be determined by the Board. The Board will provide reasonable notice to the Licensee of the date this condition becomes effective.

PUC Distribution Inc. (PUC)

17 Term of Licence

17.1 This Licence shall take effect on March 31, 2004 and expire on March 30, 2024. The term of this Licence may be extended by the Board.

18 Fees and Assessments

18.1 The Licensee shall pay all fees charged and amounts assessed by the Board.

19 Communication

19.1 The Licensee shall designate a person that will act as a primary contact with the Board on matters related to this Licence. The Licensee shall notify the Board promptly should the contact details change.

19.2 All official communication relating to this Licence shall be in writing.

19.3 All written communication is to be regarded as having been given by the sender and received by the addressee:

a) when delivered in person to the addressee by hand, by registered mail or by courier;

b) ten (10) business days after the date of posting if the communication is sent by regular mail; and

c) when received by facsimile transmission by the addressee, according to the sender's transmission report.

20 Copies of the Licence

20.1 The Licensee shall:

a) make a copy of this Licence available for inspection by members of the public at its head office and regional offices during normal business hours; and

b) provide a copy of this Licence to any person who requests it. The Licensee may impose a fair and reasonable charge for the cost of providing copies.

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SCHEDULE 1 DEFINITION OF DISTRIBUTION SERVICE AREA

This Schedule specifies the area in which the Licensee is authorized to distribute and sell electricity in accordance with condition 8.1 of this Licence.

1. The City of Sault Ste Marie as at February 10, 1965 with the following exceptions:

   a) 2 Sackville Road;

   b) 3 Sackville Road;

   c) 150 Conmee Avenue;

   d) 429 Hudson Street;

      The exception of 429 Hudson Street does not include the areas of land serviced by the Licensee at the date of issuance of this Licence, those being:

      i) the area of land on which the facility near the northwest corner of Hudson Street and Wellington Street West is located, namely the "yard office";

      ii) the area of land on which the facility near the junction of Hudson Street and St. George Avenue west is located, namely the "skimmer shack"; and

      iii) the area of land on which the railroad crossing signals are located, near the junction of Hudson Street and St. Andrew Terrace.

   e) 45 Third Line West as at March 14, 2003;

      The exception of 45 Third Line West does not include the locations of the consumers who are already serviced by the Licensee at the date of issuance of this licence, those being:

      - the areas of land on which the facilities on the northeast corner of 45 Third Line West are located, namely the "gatehouse" and "office";

   f) 77 Third Line West as at July 9, 2004.

2. Township of Prince as at June 7, 1976;

3. Rankin Reserve as at January 28, 1963; and

4. Township of Dennis as at June 7, 1976, with the exception of concessions 3, 4 and 5.

Materials illustrating the service area are on file with the Ontario Energy Board.

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PUC Distribution Inc. (PUC)

SCHEDULE 2 PROVISION OF STANDARD SUPPLY SERVICE

This Schedule specifies the manner in which the Licensee is authorized to retail electricity for the purposes of fulfilling its obligation under section 29 of the Electricity Act.

The Licensee is authorized to retail electricity directly to consumers within its service area in accordance with condition 8.1 of this Licence, any applicable exemptions to this Licence, and at the rates set out in the Rate Orders.

PUC Distribution Inc. (PUC)

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SCHEDULE 3 LIST OF CODE EXEMPTIONS

This Schedule specifies any specific Code requirements from which the licensee has been exempted.

The Licensee is exempt from the requirements of section 2.5.3 of the Standard Supply Service Code with respect to the price for small volume/residential consumers, subject to the Licensee offering an equal billing plan as described in its application for exemption from Fixed Reference Price, and meeting all other undertakings and material representations contained in the application and the materials filed in connection with it.

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PUC Distribution Inc. (PUC)

APPENDIX A MARKET POWER MITIGATION REBATES

1. Definitions and Interpretations

In this Licence

"embedded distributor" means a distributor who is not a market participant and to whom a host distributor distributes electricity;

"embedded generator" means a generator who is not a market participant and whose generation facility is connected to a distribution system of a distributor, but does not include a generator who consumes more electricity than it generates;

"host distributor" means a distributor who is a market participant and who distributes electricity to another distributor who is not a market participant.

In this Licence, a reference to the payment of a rebate amount by the IMO includes interim payments made by the IMO.

2. Information Given to IMO

a Prior to the payment of a rebate amount by the IMO to a distributor, the distributor shall provide the IMO, in the form specified by the IMO and before the expiry of the period specified by the IMO, with information in respect of the volumes of electricity withdrawn by the distributor from the IMOcontrolled grid during the rebate period and distributed by the distributor in the distributor's service area to:

i consumers served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and

ii consumers other than consumers referred to in clause (i) who are not receiving the fixed price under sections 79.4 and 79.5 of the *Ontario Energy Board Act, 1998*.

b Prior to the payment of a rebate amount by the IMO to a distributor which relates to electricity consumed in the service area of an embedded distributor, the embedded distributor shall provide the host distributor, in the form specified by the IMO and before the expiry of the period specified in the Retail Settlement Code, with the volumes of electricity distributed during the rebate period by the embedded distributor's host distributor to the embedded distributor net of any electricity distributed to the embedded distributor which is attributable to embedded generation and distributed by the embedded distributor in the embedded distributor's service area to:

i consumers served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and

ii consumers other than consumers referred to in clause (i) who are not receiving the fixed price under sections 79.4 and 79.5 of the *Ontario Energy Board Act, 1998*.

PUC Distribution Inc. (PUC)

c Prior to the payment of a rebate amount by the IMO to a distributor which relates to electricity consumed in the service area of an embedded distributor, the host distributor shall provide the IMO, in the form specified by the IMO and before the expiry of the period specified by the IMO, with the information provided to the host distributor by the embedded distributor in accordance with section 2.

The IMO may issue instructions or directions providing for any information to be given under this section. The IMO shall rely on the information provided to it by distributors and there shall be no opportunity to correct any such information or provide any additional information and all amounts paid shall be final and binding and not subject to any adjustment.

For the purposes of attributing electricity distributed to an embedded distributor to embedded generation, the volume of electricity distributed by a host distributor to an embedded distributor shall be deemed to consist of electricity withdrawn from the IMO-controlled grid or supplied to the host distributor by an embedded generator in the same proportion as the total volume of electricity withdrawn from the IMO-controlled grid by the distributor in the rebate period bears to the total volume of electricity supplied to the distributor by embedded generators during the rebate period.

3. Pass Through of Rebate

A distributor shall promptly pass through, with the next regular bill or settlement statement after the rebate amount is received, any rebate received from the IMO, together with interest at the Prime Rate, calculated and accrued daily, on such amount from the date of receipt, to:

a retailers who serve one or more consumers in the distributor's service area where a service transaction request as defined in the Retail Settlement Code has been implemented;

b consumers who are not receiving the fixed price under sections 79.4 and 79.5 of the *Ontario Energy Board Act, 1998* and who are not served by a retailer where a service transaction request as defined in the Retail Settlement Code has been implemented; and

c embedded distributors to whom the distributor distributes electricity.

The amounts paid out to the recipients listed above shall be based on energy consumed and calculated in accordance with the rules set out in the Retail Settlement Code. These payments may be made by way of set off at the option of the distributor.

If requested in writing by OPGI, the distributor shall ensure that all rebates are identified as coming from OPGI in the following form on or with each applicable bill or settlement statement:

"ONTARIO POWER GENERATION INC. rebate"

Any rebate amount which cannot be distributed as provided above or which is returned by a retailer to the distributor in accordance with its licence shall be promptly returned to the host distributor or IMO as applicable, together with interest at the Prime Rate, calculated and accrued daily, on such amount from the date of receipt.

Nothing shall preclude an agreement whereby a consumer assigns the benefit of a rebate payment to a retailer or another party.

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Electricity Distribution Licence ED-2002-0546

Pending pass-through or return to the IMO of any rebate received, the distributor shall hold the funds received in trust for the beneficiaries thereof in a segregated account.

PUC Distribution Inc. (PUC)

CONTACT INFORMATION

TITLE: Treasurer
NAME: Terrance P. Greco
Direct line: 705-759-6566
Direct Fax: 705-759-6553
E-mail: Terry.Greco@ssmpuc.com

TITLE: Rates & Regulatory Officer
NAME: Jennifer Uchmanowicz
Direct line: 705-759-3009
Direct Fax: 705-759-6553
E-mail: Jennifer.Uchmanowicz@ssmpuc.com

PUC Distribution Inc. (PUC)

SPECIFIC APPROVALS REQUESTED

- Approval to charge rates effective May 1, 2008 to recover a service revenue requirement of $17,191,211.

- Approval to adjust retail transmission rates to reflect the new wholesale Uniform Transmission Rates.

- PUC has a deemed capital structure of 50% debt, 50%, equity as approved by the Ontario Energy Board and a return on equity of 9.00%, consistent with the return specified in the Board's Decision in EB-2005-0412, dated April 12, 2006. PUC's current debt to equity structure is outside of the deemed capital structure and was implemented to minimize rates to customers. PUC has received consultant's recommendations regarding capital structure and has had discussions with its shareholder regarding revising the current capital structure. PUC will move toward the deemed debt to equity structure of 60/40 as its rate base grows. The rates applied for in this application are based on the 2008 deemed debt to equity of 53/47.

  The change in the capital structure is a move toward the Ontario Energy Board's Report on Cost of Capital and 2nd Generation Incentive Regulation for Ontario's electricity Distributors dated December 20, 2006. The OEB report indicates that Distributors will be required to phase-in a 60% debt and 40% capital structure that must be completed by 2010.

- Approval to establish a new variance account for MDMR (Meter Depository Management Repository)

- Approval to establish a new variance account to collect the difference between:
  - the return on smart meter assets and smart meter depreciation expense for full years in 2009 and 2010 as the amount included in the 2008 rates for the return on smart meter assets and smart meter depreciation expense only included one half of smart meter expenditures due to the use of the average opening and closing capital asset balances.

- Approval to establish a deferral/variance account on May 1, 2008 for capital works during the non-rebasing years to collect the revenue requirement costs (i.e. depreciation and return) associated with the cost of construction.

- Approval to continue the following deferral/variance accounts after May 1, 2008 (Exhibit 5).

  COMMODITY ACCOUNTS ARE CLASSIFIED AS FOLLOWS:

  1588 Retail Settlement Variance Account – Power

  1588 RSVA Power, Sub-account Global Adjustments

<u>PUC Distribution Inc. (PUC)</u>

NON-COMMODITY ACCOUNTS ARE CLASSIFIED IN TWO CATEGORIES AS FOLLOWS:

<u>Wholesale and Retail Market Variance Accounts</u>

1518 Retail Cost Variance Account – Retail

1548 Retail Cost Variance Account – STR

1580 Retail Settlement Variance Account - Wholesale Market Service Charges

1582 Retail Settlement Variance Account - One-time Wholesale Market Service

1584 Retail Settlement Variance Account - Retail Transmission Network Charges

<u>Utility Deferral Accounts</u>

1508 Other Regulatory Assets

1508 Other Regulatory Assets - Sub-account OEB Cost Assessments

1508 Other Regulatory Assets - Sub-account Pension Contributions

1525 Miscellaneous Deferred Debits

1555 Smart Meter Capital and Recovery Offset Variance

1555 Smart Meter Capital and Recovery Offset variance – Sub-Account Stranded Meter Costs

1556 Smart Meter OM&A Variance

1562 Deferred Payments in Lieu of Taxes

1563 PILs contra account

1565 Conservation and Demand Management Expenditures and Recoveries

1566 CDM Contra

1572 Extraordinary Event Losses

1574 Deferred Rate Impact Amounts

1592 PLS & Tax Variance

1590 Recovery of Regulatory Asset Balances

2425 Other Deferred Credits

- Approval of the proposed lost factor 1.0454 (Exhibit 4)
- Approval of rate riders for disposition of Deferral and Variance Accounts (Exhibit 5)

PUC Distribution Inc. (PUC)

DRAFT ISSUES LIST

Smart Metering
In this rate application PUC has included costs related to Smart Metering. PUC's smart meter plan has been compiled by a consultant as part of a group of the EDA's Northeast District LDCs. As part of the group's plan, PUC is scheduled to install all its smart meters in the spring of 2008. The costs included are based on the consultant's estimates which have been drawn from costs approved for other LDCs in the province.

Capital Structure
PUCs current capital structure includes debt in excess of the current deemed structure. This application includes measures to move towards the new deemed debt to equity structure as prescribed by the Board. The applied for rates are based on the transitional deemed structure of 53/47 debt to equity.

Allocation of Affiliate Costs
PUC has a Management and Operating agreement with an affiliate. There are certain shared costs that are allocated to the LDC. Included in this application is a consultant's report that examines and recommends cost allocation methods that are applied in the 2008 test year projections.

Level of Capital Expenditures and Operating and Maintenance Expenses
The 2008 test year projections include increases in capital expenditure levels and also operating and maintenance expense increases. In management's opinion, these increases are necessary to improve reliability and system security which has been declining over the years. In addition to management's report which sets out the recommended long term path to improvement, is a consultant's report that critically reviews management's recommendations.

Cost Allocation
In this application PUC has adjusted the percentage of revenue recovered from the various rate classes. With the requested rates, recoveries from the individual classes fall within the Board recommended ranges except for the streetlight and sentinel light classes. A move toward the recommended ranges for these two classes was commenced in 2008 rates and will be continued in future rate applications.

Exhibit: 1

PUC Distribution Inc. (PUC)

PROCEDURAL ORDERS/MOTIONS/NOTICES

There are no procedural orders or notices at this time.

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ACCOUNTING ORDERS REQUESTED

PUC Distribution Inc. does not request any accounting orders at the time of submission.

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NON-COMPLIANCE WITH UNIFORM SYSTEM OF ACCOUNTS

PUC Distribution Inc. follows the categories and accounting guidelines as stated in the Uniform System of Accounts.

Exhibit: 1

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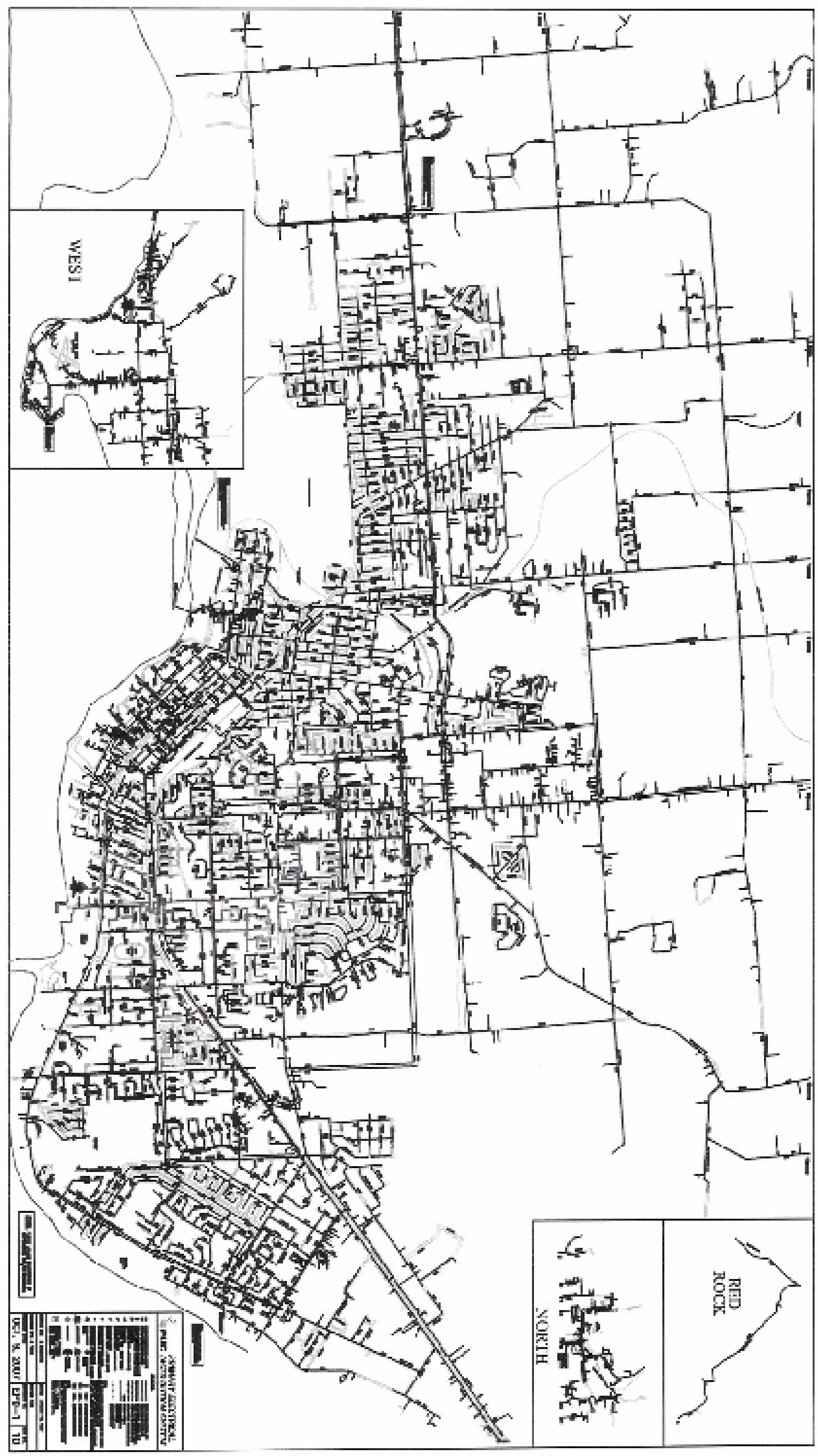
MAP OF DISTRIBUTION SYSTEM

Exhibit: 1

PUC Distribution Inc. (PUC)



PUC Distribution Inc. (PUC)

LIST OF NEIGHBORING UTILITIES

LIST OF ADJACENT DISTRIBUTORS

Great Lakes Power
2 Sackville Road
Sault Ste. Marie, Ontario
P6B 6J6
Direct line: 705-256-3850
Website: www.glp.on.ca

DESCRIPTION OF DISTRIBUTOR

COMMUNITY SERVED:	- City of Sault Ste. Marie (with exception of all or part of five municipal addresses as listed on its distribution licence) - Township of Prince - Rankin Reserve - Township of Dennis (concessions 3, 4 and 5)
TOTAL SERVICE AREA	342 sq km
RURAL SERVICE AREA	284 sq km
DISTRIBUTION TYPE	PUC Distribution is neither an embedded or host distributor
SERVICE AREA POPULATION	77,948
MUNICIPAL POPULATION	74,948

PUC Distribution Inc. (PUC)

EXPLANATION OF HOST AND EMBEDDED UTILITIES

PUC Distribution Inc. does not host any utilities within its service area.

PUC Distribution Inc. is not an embedded utility.

PUC Distribution Inc. (PUC)

Utility Organizational Chart

There are no employees in PUC Distribution Inc.

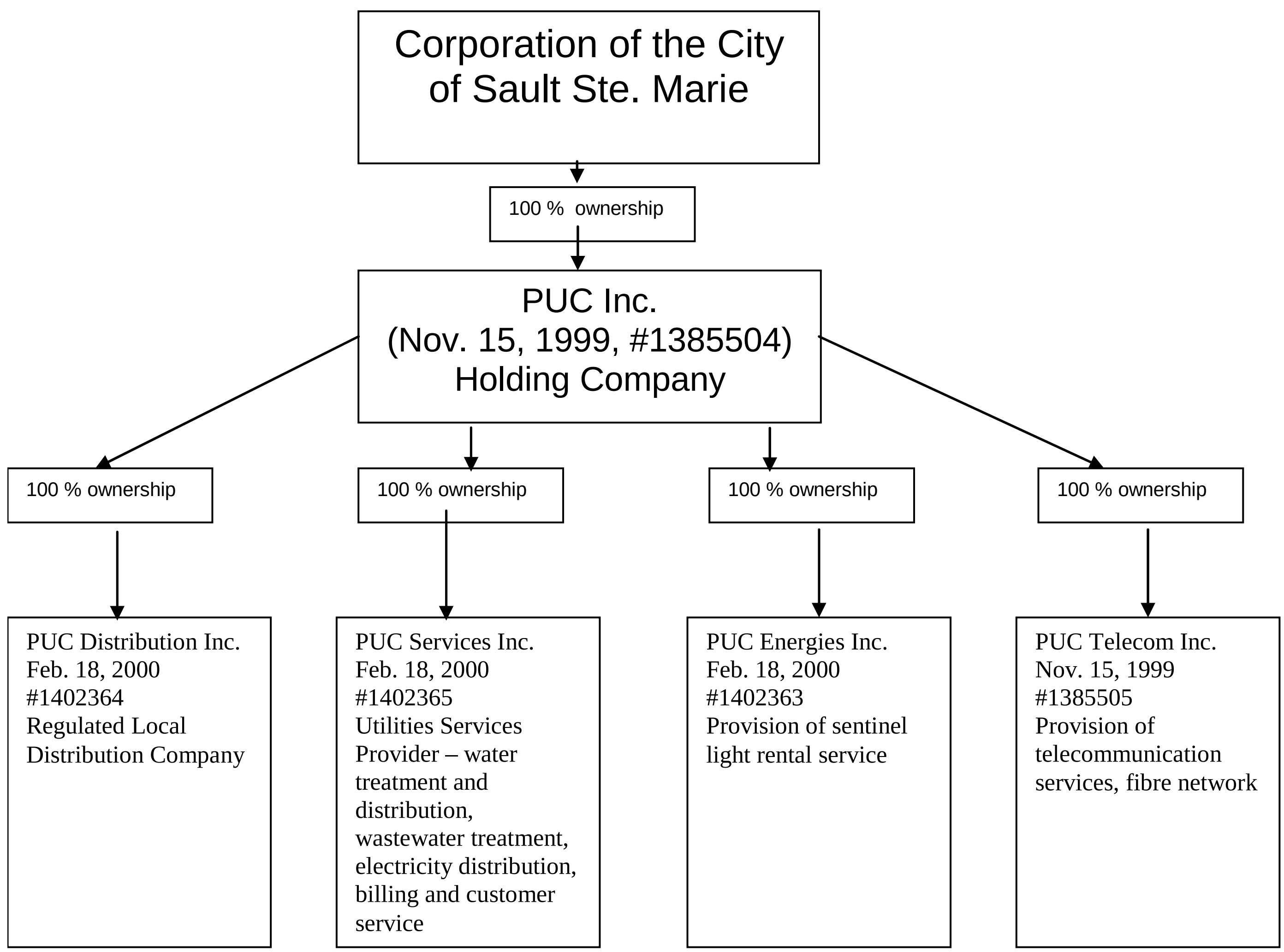
PUC Distribution Inc. (PUC)

CORPORATE ENTITIES RELATIONSHIP CHARTS

Structure

Upon the restructuring of the electricity sector, the former City of Sault Ste. Marie Public Utilities Commission, the provider of electric and water services to the city, was restructured into the PUC Inc. group of corporations while retaining the Public Utilities Commission to continue to provide water treatment and distribution services. PUC Distribution Inc., the local distribution company is a wholly owned subsidiary of PUC Inc. PUC Inc. is wholly owned by the Corporation of the City of Sault Ste. Marie. Other wholly owned subsidiaries of PUC Inc. are:

PUC Services Inc.
PUC Telecom Inc.
PUC Energies Inc.



PUC Distribution Inc. (PUC)

PUC Distribution Inc.

PUC Distribution Inc. is the local distribution company which provides regulated services in its service territory. The company owns the distribution assets (land and land rights, poles, conduit, conductors, transformers and meters) and operates the distribution system through an affiliated company – PUC Services Inc. There are no employees in PUC Distribution Inc. Direct services from PUC Services to PUC Distribution such as capital additions or maintenance of the distribution system are charged at cost. Services such as billing, customer service, administration, etc., which are provided by PUC Services to all the affiliates are charged at cost using allocation factors based on the type of shared service provided.

PUC Services Inc.

PUC Services Inc. is an integrated utility service provider. PUC Services Inc. provides services to its affiliated companies at cost, either as a direct charge for specific services to a specific affiliate or as an allocation of services common to all the affiliates. In addition to providing services to its affiliates in the PUC Inc. group, services are provided to the Public Utilities Commission on the same terms as that of the affiliates.

PUC Services also provides services to entities outside the affiliated group - water treatment, wastewater treatment, billing and customer care services under a number of contracts. These services are provided at rates negotiated between the parties, but in all cases are on a for-profit basis.

PUC Energies Inc.

PUC Energies Inc. provides a sentinel light rental service to customers in its service territory. Energy is purchased from PUC Distribution at the regulated rates. A monthly charge to customers results in the recovery of costs and a profit margin. PUC Energies is not in the retail energy business.

PUC Telecom Inc.

PUC Telecom Inc. owns a fibre optic network loop within the City of Sault Ste. Marie. Services are provided in a partnership with a third party to PUC Services Inc. and several other non-affiliated companies. Rates are based on negotiated contracts.

PUC Distribution Inc. (PUC)

PLANNED CHANGES IN CORPORATE AND OPERATIONAL STRUCTURE

PUC does not have any current changes planned for the Corporate and Operational Structure.

PUC Distribution Inc. (PUC)

STATUS REPORT ON BOARD DIRECTIVES

PUC has no Board directives at this time. However, in PUC's 2006 rate order the Board commented on the adequacy of the information provided in support of the application. PUC acknowledges the comment and has engaged outside resources to provide a critical review of PUC's proposed capital and operating and maintenance programs and also the allocation of costs between affiliated companies. The Review of Capex and O & M Plan completed by BDR is included in Exhibit 2 in addition to PUC's Long Term Capital and O & M Needs report. Included in Exhibit 4 is the Full Absorption Cost Allocation Report prepared by RDI Consulting Inc.

PUC Distribution Inc. (PUC)

CONDITIONS OF SERVICE

PUC DISTRIBUTION INC.

CONDITIONS OF SERVICE

Effective May 1, 2006

Revised May 23, 2006

Original version filed with the OEB June 30, 2003

PUC Distribution Inc. (PUC)

PREFACE

CONDITIONS OF SERVICE

The Distribution System Code (DSC) requires that every Distributor produce its own “Conditions of Service” document. The purpose of this document is to provide a means for communicating the types and level of service available to Customers within PUC Distribution’s service area.

The Distribution System Code requires that the Conditions of Service be readily available for review by the general public. In addition, the most recent version of the document must be provided to the Ontario Energy Board (OEB), which in turn will retain it on file for the purpose of facilitating dispute resolutions in the event that a dispute cannot be resolved between the Customer and its local distributor.

This document follows the form and general content of the Conditions of Service template appended to the DSC. The template was prepared to assist Distributors in developing their own "Conditions of Service" document based on current practice and the DSC. As suggested by the DSC, PUC Distribution has expanded on the contents to encompass local characteristics and other specific requirements.

The General section contains references to services and requirements that are common to all Customer classes. This section covers items such as Rates, Billing, Hours of Work, Emergency Response, Power Quality, Available Voltages and Metering.

The Customer Specific section contains references to services and requirements specific to the respective Customer class. This section covers items such as Service Entrance Requirements, Delineation of Ownership, Special Contracts, etc.

Other sections include the Glossary of Terms, Tables and References.

Subsequent changes will be incorporated with each submission to the OEB.

Comments on this Conditions of Service can be submitted by:

email to: conditionsofservice@ssmpuc.com

or mail to: ***PUC Services Inc.***
765 Queen Street East, P.O. Box 9000
Sault Ste. Marie, Ontario P6A 6P2

PUC Distribution Inc. (PUC)

PUC Distribution Inc. (PUC)

PUC Distribution Inc. (PUC)

INTRODUCTION

Conditions of Service

This document, Conditions of Service (Conditions), provides the terms and conditions according to which PUC Distribution Inc. agrees to distribute electricity to its Customers. These Conditions may be amended or replaced by PUC Distribution Inc. from time to time, subject to approval by the Ontario Energy Board (OEB). The Customer shall comply with these Conditions as amended from time to time.

Nothing contained in these Conditions or in any contract for the supply of electricity by PUC Distribution Inc. shall prejudice or affect any rights, privileges or powers vested in PUC Distribution Inc. by law under any Act of Legislature of Ontario or the Parliament of Canada, or any regulations thereunder.

Distributor Identification

PUC Distribution Inc. (PUC) is a corporation incorporated under the laws of the Province of Ontario and a regulated local distribution company (LDC) distributing electricity within Ontario.

PUC Services Inc. (PUC Services) is an affiliate corporation incorporated under the laws of the Province of Ontario that provides management services under long-term contract to PUC to operate, maintain, expand and manage the assets of PUC. PUC Services acts as agent for PUC in all matters related to these Conditions.

Any reference to PUC within this document shall include reference to PUC Services.

Distributor Licence and Service Area

PUC is licensed by the Ontario Energy Board (OEB) to supply electricity to Customers as described in the Distribution Licence issued by the OEB. Additionally there are requirements imposed on PUC by the various codes referred to in the Licence and by the Electricity Act and the Ontario Energy Board Act.

Related Codes and Governing Laws

PUC's Conditions are subject to the provisions of the following, hereinafter referred to collectively as 'the Codes':

1. Electricity Act, 1998
2. Ontario Energy Board Act, 1998
3. Distribution Licence,
4. Affiliate Relationships Code,
5. Transmission System Code, (TSC),
6. Distribution System Code, (DSC),
7. Retail Settlement Code, (RSC),
8. Standard Supply Service Code, (SSS),
9. Electricity Distributors Rate Handbook

PUC shall make a copy of the Codes available for inspection by members of the public at its General Office during normal business hours. A copy of the Codes will be provided to any person who requests them, for a reasonable cost, as listed in *Appendix B* herein.

In the event of a conflict between this document and the Distribution Licence or regulatory codes issued by the OEB, or the Energy Competition Act, 1998 (the "Act"), the provisions of the Act, the Distribution Licence and associated regulatory codes shall prevail in the order of priority indicated above. If there is a conflict between a Connection Agreement with a Customer and these Conditions, these Conditions shall govern.

When planning and designing for electric service, Customers and their agents must refer to all applicable provincial and Canadian electrical codes, and all other applicable federal, provincial and municipal laws, regulations, codes and by-laws to also ensure compliance with their requirements. The work shall be conducted in accordance with the Ontario Occupational Health and Safety Act and the Electrical & Utility Safety Association (E&USA) Rule Book.

Interpretations

In these Conditions, unless otherwise defined, words and phrases shall have the meaning ascribed in the Codes. In addition:

- headings and underlining are for convenience only and do not affect the interpretation of these Conditions;
- words or phrases importing the singular include the plural and vice versa;
- words referring to a gender include any gender;
- any reference to a document or a provision of a document includes an amendment or supplement to, or a replacement of, that document or that provision of that document;
- any reference to a Code, Regulation, Act or Statute shall refer to its latest edition, revision or amendment;
- an event that is required under these Conditions to occur on or by a stipulated day which is a holiday may occur on or by the next day, that is not a holiday.

Amendments and Changes

The provisions of these Conditions form part of any contract made between PUC and any connected Customer, Generator or their agents. Any amendments to these Conditions shall supercede any previous Conditions.

In the event of changes to these Conditions a public notice in a local newspaper or notice with the Customer's bill shall be made. The notice shall include a proposed time line for implementation of the new Conditions of Service.

The Customer is responsible for contacting PUC to obtain, or to ensure they have the latest version of the Conditions. PUC may charge a reasonable fee for providing the Customer with a copy of this document.

Alternatively, a copy of this document may be downloaded from the PUC website at www.ssmpuc.com .

Contact Information

PUC can be contacted during normal working hours – Monday to Friday between 09:00 and 16:30 hours:

General Office -	765 Queen Street East, P.O. Box 9000, Sault Ste. Marie, Ontario P6A 6P2
	Telephone: (705) 759-6500, Facsimile: (705) 759-6510,
	Website: www.ssmpuc.com
Service Centre -	510 Second Line West, P.O. Box 9000, Sault Ste. Marie, Ontario P6A 6P2
	Telephone: (705) 759-6594, Facsimile: (705) 759-6534,

In the event of an emergency, outside of normal working hours, PUC can be contacted by telephone at (705) 759-6555.

PUC Distribution Inc. (PUC)

Customer Rights

Non-discriminatory Access

PUC shall, upon the request of a Consumer, Generator or Retailer, provide them with access to its distribution system and shall convey electricity to them in accordance with the terms of these Conditions and the Codes.

Obligation to Connect

PUC shall connect a Customer to its distribution system if the point of connection 'lies along' any of the lines of PUC's distribution system and the Owner, occupant or person in charge of the premises requests connection in writing.

PUC shall make an offer to connect a building to its distribution system if the building is within PUC's service area, and the Owner, occupant or person in charge of the building requests connection in writing.

The terms of such connection or offer to connect shall be made in accordance with these Conditions.

In those instances where the Customer will own their secondary or primary service, the Customer has the right to hire a contractor to supply and install the service in accordance with these Conditions.

Obligation to Supply

PUC shall sell electricity or ensure that electricity is supplied to every person connected to its distribution system in accordance with Section 29 of the Electricity Act and the Standard Supply Service Code.

At the request of a Consumer, PUC shall provide a list of Retailers who have Service Agreements in effect with PUC. The list shall conform to the requirements of Section 2.5 of the Affiliate Relationships Code.

PUC will not provide information on products retailed by a Retailer.

Upon receiving an inquiry from a Consumer connected to its distribution system, PUC shall either respond to the inquiry if it deals with PUC's distribution services such as meter accuracy, distribution rates, bill calculation errors, safety and reliability, or provide the Consumer with contact information for the party responsible for the item of inquiry. Inquiries about usage, including how usage might be modified to lower bills, may be addressed by PUC or referred to the relevant Retailer, in accordance with Chapter 7 of the Retail Settlement Code.

System Integrity

PUC shall maintain its distribution system to meet the standards established in the Distribution System Code and the Market Rules and having regard to any other recognized industry operating or planning requirement of the OEB.

Distributor Rights

Access to Customer Property

PUC shall have access to Customer property in accordance with Section 40 of the *Electricity Act, 1998.*

PUC Distribution Inc. (PUC)

Safety of Equipment

The Customer will comply with all aspects of the Ontario Electrical Safety Code with respect to insuring that equipment is properly identified and connected for metering and operation purposes and will take whatever steps necessary to correct any deficiencies in a timely fashion. If the Customer does not take such action within a reasonable time, PUC may disconnect the supply of power to the Customer.

The Customer shall not build, plant or maintain or cause to be built, planted or maintained any structure, tree, shrub or landscaping that would or could obstruct the installation or maintenance of distribution lines and equipment, endanger the equipment of PUC, interfere with the proper and safe operation of PUC's facilities or adversely affect compliance with any applicable legislation.

Operating Control

The Customer will provide a convenient and safe place, satisfactory to PUC, for installing, maintaining and operating its equipment in, on, or about the Customer's premises. PUC assumes no risk and will not be liable for damages resulting from the presence of its equipment on the Customer's premises or approaches thereto, or action, omission or occurrence beyond its control, or negligence of any Persons over whom PUC has no control.

Except for an employee or agent of PUC or other Person lawfully entitled to do so, no Person shall remove, replace, alter, repair, inspect or tamper with PUC equipment.

Customers will be required to pay the cost of repairs or replacement of PUC's equipment that has been damaged or lost by the direct or indirect act or omission of the Customer or its agents. The physical location on Customers' premises at which a distributor's responsibility for operational control of distribution equipment ends is defined by the *Distribution System Code* as the "operational demarcation point".

Repairs of Defective Customer Electrical Equipment

The Customer will be required to repair or replace any equipment owned by the Customer that may adversely affect the integrity or reliability of PUC's distribution system. If the Customer does not take such action within a reasonable time, PUC may disconnect the supply of power to the Customer. PUC's policies and procedures with respect to the disconnection process are further described in these Conditions.

Repairs of Customer's Physical Structures

Depending on the ownership demarcation point, construction and maintenance of all civil works on private property owned by the Customer, including such items as transformer vaults, transformer rooms, transformer pads, cable chambers, cable pull rooms and underground conduit, will be the responsibility of the Customer. All civil work on private property must be inspected and accepted by PUC and the Electrical Safety Authority (ESA).

The Customer is responsible for the maintenance and safe keeping conditions satisfactory to PUC of its structural and mechanical facilities located on private property.

Contractor Approval

In those instances where the Customer has the authority to hire a contractor to construct plant that will become part of PUC's system, the contractor shall be subject to the approval of PUC. Also, PUC shall have the right to require the contractor to submit proof of previous experience and satisfactory performance and PUC shall have the right to investigate such proof prior to the Owner awarding a contract for the work to the contractor.

Disputes

Any dispute between Customers or Retailers and PUC shall be settled according to the dispute resolution process specified in PUC's Distribution Licence.

If a Customer or other Market Participant has a complaint regarding services provided by PUC under its Distribution Licence, the party may contact one of PUC's Customer Service representatives at 705-759-6500, during normal business hours, or e-mail the complaint to conditionsofservice@ssmpuc.com .

Upon receipt of a complaint, a PUC representative will contact the Customer to acknowledge receipt of the complaint and, if possible, to resolve the complaint, or investigate and follow-up on the complaint as required to resolve the complaint. If a complaint cannot be resolved by a PUC representative, PUC will refer the complaint to an independent third party complaints resolution agency that has been approved by the Ontario Energy Board. Until such time as the Ontario Energy Board approves such an independent third party complaints resolution agency, such complaints will be referred to the Ontario Energy Board, which has assumed this role.

Liability

PUC shall only be liable to a Customer and a Customer shall only be liable to PUC for any damages that arise directly out of the willful misconduct or negligence of:

- PUC in providing distribution services to the Customer;
- the Customer in being connected to PUC's distribution system; or
- PUC or the Customer in meeting their respective obligations under these Conditions, their licences and any other applicable law.

Despite the above, neither PUC nor the Customer shall be liable under any circumstances whatsoever for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for any indirect, consequential, incidental or special damages, including but not limited to punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, tort or otherwise.

A contract to supply power may not be transferred by a Customer to another party.

Force Majeure

Neither party shall be held to have committed an event of default in respect of any Obligation under these Conditions if prevented from performing that Obligation, in whole or in part, because of a force majeure event.

If a force majeure event prevents a party from performing any of its Obligations under these Conditions and the applicable Connection Agreement, that party shall:

- promptly notify the other party of the force majeure event and its assessment in good faith of the effect that the event will have on its ability to perform any of its Obligations. If the immediate notice is not in writing, it shall be confirmed in writing as soon as reasonably practicable.
- not be entitled to suspend performance of any of its Obligations under these Conditions to any greater extent or for any longer time than the force majeure event requires it to do so;
- use its best offers to mitigate the effects of the force majeure event, remedy its inability to perform, and resume full performance of its Obligations;
- keep the other party continually informed of its efforts; and
- provide written notice to the other party when it resumes performance of any Obligations affected by the force majeure event.

PUC Distribution Inc. (PUC)

DISTRIBUTION ACTIVITIES (GENERAL)

Connections

Customer That 'Lies Along'

For the purpose of these Conditions 'lies along' means a Customer property or parcel of land that is directly adjacent to or abuts onto the public road allowance or easement where PUC has distribution facilities if it can be connected to without an expansion or enhancement, and meets the conditions listed in these Conditions.

Under the terms of the *Distribution System Code* and *Rate Handbook*, PUC is obliged to connect any Customer that lies along its lines. Alternatively, PUC may deny connection for the reasons described in Subsection 2.1.3.

Type of Customer

Customers are classified on the basis of rate class as follows:

- Residential Service,
- General Service less than 50 kW,
- General Service greater than 50 kW,
- Sentinel Lighting,
- Municipal Street Lighting.

Non-residential Customers with an average peak demand of 50kW or greater over the past 12 months will be classified as General Service greater than 50kW. New Customers without prior billing history will have the peak demand based on 90% of the installed service capacity.

Point of Demarcation

Customers will accept service from the street, at the point nearest to PUC's distribution facilities satisfactory to PUC, or will be required to pay for all additional costs necessary to provide service at a location of their choice.

The location of the Customer's service entrance equipment will be subject to approval of PUC and ESA.

Connection Process & Timing

The Customer or its authorized representative shall consult with PUC concerning the availability of supply, the voltage of supply, service location, metering, locations of other utility services, and any other details. These requirements are separate from and in addition to those of ESA. PUC will confirm, in writing, the characteristics of electric supply.

The Customer or its authorized representative shall make application for new or upgraded electric service and temporary power service in person. The Customer is required to provide PUC with sufficient lead-time in order to ensure the timely provision of supply to new and upgraded premises or the availability of adequate capacity for additional loads to be connected in existing premises.

The minimum time intervals required for PUC to energize new or enlarged electrical services where a suitable supply circuit exists once all conditions of PUC have been met, are as follows:

- three working days for Residential Service
- five working days for General Service

These time intervals are measured from receipt of all the following:

- written approval from ESA;
- a contract signed by the Customer;
- a Customer deposit, where required: and
- all required underground plant locates have been received.

Prior to energizing, a field verification inspection by PUC may be necessary. If deficiencies are noted, a second inspection will be performed by PUC, at its expense, to ensure corrections have been completed. Any subsequent costs, incurred by PUC due to continuing deficiencies, will be at the Customer's expense.

If special equipment is required or equipment delivery problems occur, then longer lead-times may be necessary. PUC will notify the Customer of any extended lead times.

The supply of electricity is conditional upon PUC being permitted and able to provide such a supply, obtaining the necessary apparatus and material and constructing works to provide the service. Should PUC not be permitted or able to do so, it is under no responsibility to the Customer whatsoever and the Customer releases PUC from any liability in respect thereto.

Service Entrance and Meter Location Changes

The Customer must consult with PUC for advice in situations involving changes in the metering facilities and/or location prior to initiating and such work.

Where a service change involves changing the utility service cables from an overhead supply to an underground supply or to an upgraded underground supply, the Customer will, as a minimum, be required to provide a trench from the meter base to the street-line (to the satisfaction of PUC) and cover all PUC labour, materials and equipment costs incurred in order to complete the installation.

Basic Overhead Service Connection

The basic overhead service connection provided by PUC includes supply and installation of overhead distribution transformation capacity and a maximum of 30 m of overhead service conductors from PUC's Delivery Point to the Customer's service connection on private property at no cost to the Customer. The Customer is required to pay costs beyond the initial 30 m.

Where conditions require the construction of a pole line on private property by the Customer, the line shall be guyed at each end in such a manner as to be considered self-supporting. The service pole, or first point of support on the Customer's property, shall be 'dead end construction' of a type approved by PUC. 'Double crossarms' or equivalent shall be installed for primary supply.

Basic Underground Service Connection

The basic underground service connection provided by PUC is intended for residential Customers only and includes the supply and installation of underground service wires. The charge applied includes credit for equivalent overhead lines and provides for a maximum length of 30 m of underground conductors on private property. The Customer is required to pay additional costs beyond the initial 30 m.

Except for paid Subdivisions, it is the Customer's responsibility to provide and install the trench and 75 mm rigid PVC conduit, to PUC's satisfaction. Also, the Owner or his contractor must obtain clearances from all of the utility companies (including PUC) before starting any excavation.

Private Primary Lines

General

PUC Distribution Inc. (PUC)

This section refers to the design and construction of privately-owned high voltage overhead or underground lines (primary lines) and associated poles, structures and attachments on private property which are to be used for the supply of electrical energy to the Customer and which may accommodate PUC-owned transformers, metering units or protective devices.

Where a private primary line is required, the Owner shall supply, install and maintain the line at their expense.

Detailed requirements cannot be stated which would be applicable in all cases, therefore the Owner shall consult with PUC in the early planning stages to ascertain PUC's requirements and to obtain approval for the location of the line. Failure to do so may require remedial work at the Owner's expense.

Early Consultation

During the early planning stages of the project the Owner shall submit two copies of drawings to PUC for approval before commencement of any work indicating the following:

- location of the proposed line on a scaled site plan, including public rights-of-way, lot lines and adjacent obstructions such as fences, buildings, trees or other equipment;
- voltage rating of the proposed line;
- pole heights and specifications;
- guying arrangements;
- underground duct or structure details;
- clearances between conductors;
- conductor sizes and material list;
- location of transformers;
- fusing specifications.

Specific Requirements

In addition to Ontario Electrical Safety Code specifications, the following PUC general requirements also apply:

- pole lines shall be dead-ended and guyed at each end within the Owner's property so as to be independent from PUC's supply lines, to PUC satisfaction;
- the first pole in the line shall be of minimum height and class as specified by PUC;
- the first pole shall be within 20 m of the PUC's Point of Supply and shall be located such that conductors from the PUC pole do not cross over adjacent lands;
- lines shall be constructed so as not to encumber neighbouring lands. In most cases this means a minimum horizontal clearance of 2 m must be provided between any lot line and the nearest high voltage phase conductor.

Maintenance of Supply to Customers

Overhead Radial Service

Where no poles exist on the Customer's property, PUC will maintain the service wires from its circuits to the Customer's Delivery Point.

Where a pole line exists on the Customer's property, PUC maintains the service wires from its circuits to the first pole on the Customer's property. Private lines shall be maintained at the Customer's expense. Pole lines installed by PUC on private property shall be maintained at the Customer's expense.

Underground Radial Service

Underground services installed by PUC are maintained by PUC unless specifically documented otherwise to the Customer by PUC. Following maintenance, surface restoration by PUC will include only soil, sod, gravel or asphalt. Where damage can be shown to be the Customer's responsibility, maintenance and repair are the Customer's expense.

Where replacement of primary cables is required on private property, such work shall be performed by PUC at the Customer's expense.

Underground Looped Supply

Maintenance or replacement of all underground looped cables, which form part of PUC's circuits, shall be performed by PUC at PUC expense, unless specifically documented otherwise to the Customer by PUC. Following maintenance, surface restoration by PUC will include only soil, sod, gravel or asphalt. Where damage can be shown to be the Customer's responsibility, maintenance and repair are the Customer's expense.

Service Removal

Where PUC is requested to remove a primary radial service, the Customer shall pay the cost.

Looped primary services shall not be removed unless approved by PUC.

Removal of any service, primary or secondary, is contingent upon PUC receiving written request to do so by the Owner of the property being served, and upon payment of any charges due.

Upgrading of Facilities

PUC will undertake the necessary programs to maintain and upgrade distribution plant at its expense. In the event that services or facilities to a Customer need to be restored as a result of these construction or maintenance activities by PUC, they will be restored to an equivalent condition.

In addition PUC will carry out the necessary construction and electrical work to maintain existing supplies by providing standard overhead or underground supply services to Customers affected by PUC's construction activities. If a Customer requests special construction beyond the normal PUC standard installation in accordance with the program, the Customer shall pay the additional cost including engineering and administration fees.

Underground Cable Locates

Upon request, PUC will locate, if able, all PUC owned or maintained secondary and primary underground cables without charge during normal business hours. If PUC is unable to locate an underground cable it will provide a service disconnection and reconnection during its normal business hours without charge.

Expansions/Offer to Connect

Under the terms of the *Distribution System Code,* PUC is obliged to make an offer to connect any Customer that is in PUC's service territory that cannot be connected without expansion or enhancement. Alternatively, PUC may deny connection for the reasons described in Subsection 2.1.3.

The detailed offer to connect shall be made within a reasonable time from the request for connection and it shall be fair, reasonable and based on PUC's design standards. The offer to connect shall include:

- a description of materials and labour required;
- an estimate of the amount that will be charged to the Customer;
- a description and estimate of work for which the Customer may obtain an alternative bid and, if so, the process by which the Customer may obtain the alternative bid.

The estimate shall delineate estimated costs specifying those costs attributable to engineering design, materials, labour, equipment and administrative activities.

If the offer to connect is a firm offer, PUC shall provide one estimate to the Customer for any plans submitted to PUC for an expansion project, at no expense to the Customer. If the Customer submits revised plans, PUC may provide a new firm offer based on the revised plans at the Customer's expense.

If the offer is an estimate of the costs to construct the expansion and not a firm offer, the final amount charged to the Customer shall be based on actual costs incurred. PUC shall calculate the one estimate and the final amount of Customer contribution at no expense to the Customer.

PUC shall inform the Customer requesting the connection that the Customer has the choice to obtain alternatives for the connection and expansion facilities from qualified contractors if the following conditions apply:

- the project requires a capital contribution from the Customer; and
- construction would not involve work on existing circuits.

If a Customer is interested in obtaining an alternative bid, PUC shall inform the Customer that the Customer may choose among the contractors that have been pre-qualified by PUC to perform the work eligible for an alternative bid.

If a Customer chooses to pursue an alternative bid and elects to use the services of an approved contractor for an aspect of the expansion project, PUC shall:

- require the Customer to hire and pay the contractor's costs for the work eligible for the alternative bid and to assume full responsibility for the construction of that aspect of the expansion project;
- require the Customer to be responsible for administering the contract or to have the Customer pay PUC to do this activity on a 'fee for service' basis. Administering the contract includes acquisition of all required permissions, permits and easements;
- reserve the right to inspect and approve all aspects of the constructed facilities as part of system commissioning activity, prior to connecting the constructed facilities to the existing distribution system, at cost to the Owner.

PUC may charge a Customer that chooses to pursue an alternative bid any costs incurred by PUC associated with an expansion project, including but not limited to the following:

- costs for additional design, engineering or installation of facilities required to complete the project that were incurred in addition to the original offer to connect;
- costs for inspection or approval of the work performed by the contractor hired by the Customer.

If PUC must construct new facilities to its main distribution system or increase the capacity of existing distribution system facilities to connect a specific Customer or group of Customers, PUC shall perform an economic evaluation of the expansion project to determine if the future revenue from the Customer(s) will pay for the capital and on-going maintenance costs of the expansion project. PUC may require a Customer to pay all or a part of the costs of electrical plant installed to supply only that Customer. Such capital contributions will be calculated using the guidelines set out by the OEB in the *Distribution System Code*; Appendix B of the Code sets out the methodology and assumptions for an economic evaluation.

Connection Denial

The *Distribution System Code* sets out the conditions for PUC to deny connections. PUC is not obligated to connect a Customer within its service territory if the connection would result in any of the following:

- contravention of existing Canadian laws and those of the Province of Ontario;
- violations of conditions in PUC's Licence;
- use of a distribution system line for a purpose that it does not serve and that PUC does not intend to serve;

- adverse effect on the reliability and safety of the distribution system;
- imposition of an unsafe work situation beyond normal risks inherent in the operation of the distribution system;
- a material decrease in the efficiency of PUC's distribution system;
- a material adverse effect on the quality of distribution services received by an existing connection;
- discriminatory access to distribution services;
- potential increases in monetary amounts that already are in arrears with PUC.

In accordance with the *Distribution System Code*, if PUC refuses to connect a Customer in its service territory that 'lies along' one of its distribution lines, PUC shall inform the person requesting the connection of the reason(s) for not connecting, and where PUC is able to provide a remedy, make an offer to connect. If PUC is unable to provide a remedy to resolve the issue, it is the responsibility of the Customer to do so before connection can be made.

Inspections Before Connection

All new, altered or enlarged Customer electrical installations shall be inspected and approved by ESA. PUC is prohibited by law from energizing installations which have not be approved by ESA and therefore requires notification from the Authority of its approval prior to the connection of a Customer's service.

Services that have been disconnected for a period of six months or longer shall also be re-inspected and approved by ESA prior to re-connection.

Temporary services, for construction purposes, are approved by ESA for a period of twelve months and must be re-inspected should the period of use exceed twelve months.

Customer-owned substations must be inspected by both PUC and ESA.

Duct banks shall be inspected and approved by PUC prior to the pouring of concrete and again before backfilling. The completed ducts must be rodded by the contractor in the presence of a PUC inspector and shall be clear of all extraneous material. A mandrel of nominal duct diameter, supplied by PUC, will be passed through each duct. In the event ducts are blocked by ice, the Owner's representative will be responsible for clearing the ducts prior to the cable installation. Connection to existing concrete duct banks or manholes will be done only by PUC.

Transformer pads, foundations or electrical rooms or vaults shall be inspected and approved by PUC prior to the installation of equipment.

Provision for metering shall be inspected and approved by PUC prior to connection.

Relocation of Plant

When requested to relocate distribution plant, PUC shall exercise its rights and discharge its obligations in accordance with existing legislation, such as the *Public Service Works on Highways Act*, provincial or federal regulations, formal agreements, easements and common law. In the absence of any existing arrangements, PUC is not obligated to relocate the plant. However, PUC shall resolve the issue in a fair and reasonable manner which shall include a response to the requesting party explaining the feasibility of the relocation and providing a fair and reasonable charge for relocation based on cost recovery principles.

The Customer may be required to pay all of the costs incurred by the relocation.

PUC Distribution Inc. (PUC)

Easements

Where required, the Customer shall grant easements, at no cost to PUC and free and clear of all encumbrances, to permit installation and maintenance of service. The width and extent of such easements shall be determined by PUC and shall be granted prior to connection of the service.

Easements are necessary whenever PUC's plant, that is required to serve the Customer, is to be located on or must cross over private property not owned by that Customer.

The Customer must prepare a reference plan and associated easement documents to the satisfaction of PUC's solicitor and register same on title, all at its own cost. Details will be provided upon application for service.

Contracts

Standard Form of Contract

All Customers will be required to complete and sign PUC's standard form of contract (Service Contract) in order to receive an electrical connection. A Service Contract shall be considered as being in force from the date it is signed by the Customer and PUC and shall remain in force until terminated by either party.

Implied Contract

In all cases, notwithstanding the absence of a formal contract, the taking and using of electrical energy from PUC by any Person or Persons constitutes the acceptance of the terms and conditions of all regulations, conditions and rates as established by PUC in its Conditions and rates schedule, and in the various codes and legislation listed in Section 1.2 above. Such acceptance and use of energy shall be deemed to be the acceptance of a binding contract with PUC and the Person(s) so accepting shall be liable for payment for such energy and the contract shall be binding upon the Person's heirs, administrators, executors, successors or assigns.

In the absence of a contract for electricity with a tenant, or in the event electricity is used by a Person(s) unknown to PUC, then the cost for electricity consumed by such Person(s) is due and payable by the Owner(s) of such property.

Special Contracts

Special Contracts that are customized in accordance with the service requested by the Customer normally include, but are not necessarily limited to, the following examples:

- construction sites
- mobile facilities
- non-permanent structures
- special occasions, etc.
- generation.

Payment by Building Owner

The Owner of a building is responsible for payment of electrical energy supplied to the building by PUC unless PUC is requested in writing to supply energy by the occupants of the building.

Termination of the Supply of Electrical Energy

An Owner or occupant(s) wishing to terminate the supply of electricity to their premise must notify PUC in writing. Until PUC receives such written notice from the Owner or occupant(s), the Owner or occupant(s), as applicable, shall be responsible for payment to PUC for the supply of electricity to such building. PUC may refuse to terminate the supply of electricity to an Owner's building when there are occupant(s) in the building. An Owner is responsible for compliance with the Tenant Protection Act.

When the supply of electricity is terminated the Owner shall be responsible for payment to PUC of the applicable monthly service charge. This charge will not apply where the distribution facilities have been removed. Where the Customer requests the disconnect and/or removal of PUC connection assets, removal will be at the Customer's cost.

Disconnection

PUC has the right and/or obligation to disconnect the supply of electrical energy to a Customer consistent with Sections 30 and 31 of the *Electricity Act* and good utility practice for causes not limited to the following reasons:

- non-payment of account to PUC, Retailer or Wholesaler. PUC may disconnect the supply of electrical energy to a Customer for non-payment of account;
- adverse effect on the reliability and safety of the distribution system;
- imposition of an unsafe worker situation beyond normal risks inherent in the operation of the distribution system. If an unsafe or hazardous condition is found to exist or if the use of electricity by apparatus, appliances or other equipment is found to be unsafe or damaging to PUC or the public, service may be discontinued without notice;
- a material decrease in the efficiency of the distribution system;
- a materially adverse effect on the quality of distribution services received by an existing connection. If an undesirable system disturbance is being caused by Customer's equipment, the Customer will be required to cease operation of the equipment until satisfactory remedial action has been taken. If the Customer does not take such action within a reasonable time, PUC may disconnect the supply of power to the Customer;
- inability of PUC to perform meter reading, planned inspections and maintenance;
- failure of the Customer or Consumer to comply with a directive of PUC made for purposes of meeting its licence obligations;
- energy diversion, fraud or abuse on the part of the Customer. PUC shall use its discretion in taking action to mitigate unauthorized energy use. Upon identification of possible unauthorized energy use, PUC shall notify, if appropriate, Measurement Canada, ESA, police officials, Retailers that service consumers affected by the unauthorized energy use or other entities as may be required. PUC may recover from the parties responsible for the unauthorized energy use all costs incurred by PUC arising from unauthorized energy use including inspection or repair costs;
- PUC may disconnect the supply of electrical energy to a Customer without notice in accordance with a court order or for emergency.

Such discontinuance of service does not relieve the Customer of the liability for arrears or minimum bills for the balance for the term of the contract nor shall PUC be liable for any damage to the Customer's premises resulting from such discontinuance of service.

The physical process by which PUC disconnects or reconnects shall reflect good utility practice and shall consider safety as a primary requirement.

Prior to disconnecting a property, PUC shall provide the customer and the occupant(s) with the current, standard Electricity Disconnection Fire Safety Notice, either for residential dwelling units (houses or apartment units) or other buildings and occupancies as the case may be, published by the Office of the Fire Marshall, Ministry of Community Safety and Correctional Services, and distributed through its website or otherwise.

PUC shall not disconnect a consumer from the distribution system at the direction of a retailer for an amount payable by a consumer to a retailer that is overdue.

Disconnection for Arrears

PUC will adhere to the following process for disconnecting a Customer as a result of non-payment of account:

1. A final notice is sent to Customers who are in arrears one week after the due date has passed.
2. Seven days after final notice is due, if payment or satisfactory payment arrangements are not made, PUC will attempt to contact the Customer by telephone.
3. If contact is made by phone and satisfactory payment arrangements are made and kept the Customer will not be disconnected.
4. If no contact by phone is accomplished, the Customer receives a written 24 hour disconnect notice.
5. If payment is not made or payment arrangements are not kept, power is disconnected.

The above noted number of days are guidelines. Every attempt is made to reach satisfactory resolution with Customers in arrears. Disconnection is the last resort.

Once disconnected, the service will not be restored until satisfactory payment arrangements have been made.

Any notice which is given by mail shall be deemed to be received on the third business day after mailing.

A service charge will apply for delivery of disconnect notices and for services disconnected for non-payment.

Conveyance of Electricity

Limitations to Guaranty of Supply

PUC shall follow good utility practice and use reasonable diligence in providing a regular and uninterrupted supply but does not guarantee a constant supply or the maintenance of unvaried frequency or voltage and will not be liable for damages to the Customer by reason of any failure in respect thereof.

Customers requiring a higher degree of security than that of normal supply are responsible to provide their own back-up or standby facilities.

Although it is PUC’s policy to minimize inconvenience to Customers, it is necessary to occasionally interrupt a Customer’s supply to maintain or improve the distribution system, or to provide new or upgraded services to Customers. Whenever practical and cost effective, as determined by PUC, arrangements suitable to the Customer and PUC will be made to minimize any inconvenience. PUC will endeavor to provide the Customer with reasonable advance notice, except in cases of emergency, involving danger to life and limb or impending severe equipment damage.

PUC will endeavor to notify Customers prior to interrupting the supply to any individual service. However, if an unsafe or hazardous condition is found to exist or if the use of electricity by apparatus, appliances or other equipment is found to be unsafe or damaging to PUC or the public, service may be discontinued without notice.

Depending on the outage duration and the number of Customers affected, PUC may issue a news release to advise the general public of the outage.

Customers who require an uninterrupted source of power for life support equipment must provide their own equipment for these purposes. Customers using a life support system are encouraged to inform PUC of their medical needs and their available backup power. Such Customers are responsible for ensuring that the information they provide PUC is accurate and up-to-date.

Emergency Service (Trouble Calls)

All equipment on private property apart from those items specifically installed by PUC such as transformers, meters, etc., belong to and are the responsibility of the Customer.

When electrical supply is interrupted, the Customer should first ensure that failure is not due to blowing of fuses within the installation. If there is a partial power failure, the Customer should obtain the services of an electrical contractor to carry out necessary repairs. If, on examination, it appears that PUC's main source of supply has failed, the Customer should report these conditions at once to PUC. Should it be confirmed that the failure is on PUC's supply, PUC shall reimburse the Customer for any costs incurred to have a contractor inspect the service.

PUC does provide emergency service to determine the cause of electrical failure where, in the opinion of PUC, or as specifically set out elsewhere in these Conditions, such service is warranted. Where temporary or permanent repairs are made by PUC to a Customer's circuits or equipment, PUC shall render a charge.

The provision of emergency services does not relieve the Customer of his responsibility to maintain his circuits and equipment in a safe and efficient condition.

When temporary repairs are made in an emergency by PUC to a Customer's circuits or equipment, it is the Customer's responsibility to have permanent repairs made as soon as possible. PUC will advise ESA of any such temporary repairs.

If, in the opinion of PUC, unsafe conditions exist on a Customer's property, PUC will request ESA to inspect the conditions.

Service to Customers After Normal Hours

In the event of an emergency, outside of normal working hours, PUC can be contacted by telephone at 759-6555. PUC will initiate restoration efforts as rapidly as practicable.

Requests for service outside normal hours that are not of an emergency nature will be treated as follows:

- calls which indicate damage or impending damage to PUC plant or property are attended to immediately. PUC will initiate restoration efforts as rapidly as practicable and costs are borne by PUC, unless others are found liable;
- billing inquiries, requests for underground cable locations, new service connections or any other services not considered urgent are attended to on the next working day;
- requests for service work on PUC-owned equipment, where the Customer requires the service outside PUC's normal working hours, are attended to immediately and the Customer is charged for actual labour costs;
- requests to remove animals from PUC-owned equipment are attended to at PUC's expense;
- when a Customer cannot allow an interruption of supply during PUC's normal working hours to permit PUC to provide new or upgraded services to that Customer only, then PUC will arrange for the interruption during other than normal hours and the Customer may be charged actual costs for labour and materials;
- when a Customer cannot allow an interruption of supply during PUC's normal working hours to permit PUC to provide new or upgraded services to another Customer or to maintain and improve its own system under non-emergency conditions, then PUC will attempt to arrange for the interruption during other than normal hours at no cost to the Customer;
- when a Customer arranges with PUC for work to be performed on their service during other than normal working hours, the Customer shall pay actual costs for labour and materials.

Enhancements

PUC shall continue to plan and build its distribution system for reasonable forecast load growth. PUC may perform enhancements to its distribution system for the purpose of improving system operating characteristics or relieving system capacity constraints. In determining system enhancements to be performed on its distribution system, PUC shall consider the following:

- good utility practices;
- improvement of the system to either meet or maintain required performance-based indices;
- current levels of customer service and reliability or potential improvement from the enhancement;
- costs to customers associated with distribution reliability and potential improvement from the enhancement.

Power Quality

In response to a Customer power quality concern, where the utilization of electric power affects the performance of electrical equipment, PUC will perform investigative analysis to identify the underlying cause. Depending on the circumstances, this may include review of relevant power interruption data, trend analysis, and/or use of diagnostic measurement tools.

Upon determination of the cause resulting in the power quality concern, where it is deemed a system delivery issue and where industry standards are not met, PUC will recommend and/or take appropriate mitigation measures. PUC will endeavor to control harmonics generated by its own system where these are found to be detrimental to the Customers. If PUC is unable to correct the problem due to the impact on other Customers, then it is not obligated to make the corrections. PUC will use appropriate industry standards (such as IEC or IEEE standards) as a guideline. If the problem lies on the Customer side of the system, PUC may seek reimbursement for the time spent in investigating the problem.

If an undesirable system disturbance is being caused by a Customer’s equipment, the Customer will be required to cease operation of the equipment until satisfactory remedial action has been taken. If the Customer does not take such action within a reasonable time, PUC may disconnect the supply of power to the Customer.

PUC, at its discretion, may require the Customer to install additional facilities to correct the undesirable effect. All costs associated with such installations will be at the Customer’s expense.

Electrical Disturbances

There are levels of voltage fluctuation and other disturbances that can cause flickering lights and more serious difficulties for Customers connected to the PUC distribution system.

Some types of electronic equipment such as video display terminals can be affected by the close proximity of high electrical currents that may be present in transformer and/or electrical rooms.

No electrical equipment which may produce an undesirable system disturbance shall be connected by a Customer to a Customer’s service without prior approval of PUC. Examples include large motors, welders and variable-speed drives. In planning the installation of such equipment, the Customer is required to consult with PUC prior to purchase or installation.

PUC will endeavor to maintain voltage variation limits, under normal operating conditions, at the Customers’ Delivery Points, as specified by the latest edition of CSA Standard CAN3-C235. However, more sensitive electronic equipment such as computers can be seriously affected by variations in quality of supply voltage. Customers who need electrical power of high quality and within rigid voltage tolerances are responsible for providing their own power conditioning equipment.

Customers requiring a three-phase supply should install protective apparatus to avoid damage to their equipment which may be caused by the interruption of one phase or non-simultaneous switching of phases of PUC's supply.

Standard Voltage Offerings

Secondary Voltage and Transformation

PUC standard secondary voltage (low voltage) offerings include the following voltages and transformation capacities:

(a) Supplied either overhead or underground from PUC transformers located on the street:

- 120/240 volts - single-phase, 3-wire up to 75 kVA
- 120/208 volts - three-phase, 4-wire up to 150 kVA
- 600/347 volts - three-phase, 4-wire up to 150 kVA.

(b) Supplied either overhead or underground from PUC transformers located on the Customers property:

- 120/240 volts - single-phase, 3-wire up to 167 kVA
- 120/208 volts - three-phase, 4-wire up to 500 kVA
- 600/347 volts - three-phase, 4-wire up to 2500 kVA.

PUC will supply and maintain transformers up to and including the stated capacities at no cost to the Customer subject to the following requirements:

- customers will not be allowed the option of supplying their own transformation, provided their needs can be adequately satisfied through the use of a reasonable number of PUC standard stock units;
- customers will be required to pay a monthly minimum transformation charge (MTC), as listed in *Appendix B*, per kVA of transformation installed, should their demand charge fall below this amount in any given month. This minimum transformation charge will apply in addition to the monthly service charge;
- customers are required to install secondary metering for each unit supplied. Primary metering is not acceptable for installations involving multiple transformer;
- where multiple transformers are installed, the individual meters can be totalized to produce one overall demand reading, provided the customer pays the initial capital cost of the totalizing recorder;
- customers must supply all the civil works and installation costs required to accommodate the transformer(s);
- maximum transformer sizing is not necessarily limited to 2,500 kVA. Each case above 2,500 kVA will be evaluated on its own merit.

Primary Voltage

PUC standard primary supply voltages (high voltage) include the following:

- 12,470/7,200 volt, 3-phase, 4-wire, solidly grounded neutral;
- 34,500/19,900 volts, 3-phase, 4-wire, solidly grounded neutral.

Voltage Guidelines

PUC maintains service voltage at the Customer's service entrance within the guidelines of CSA Standard CAN3-C235 (see *Appendix E* herein), which allows variations from nominal voltage of:

- 6% for Normal Operating Conditions,
- 8% for Extreme Operating Conditions.

Where voltages are outside the indicated limits for Normal Operating Conditions but within the indicated limits for Extreme Operating Conditions, improvement or corrective action will be taken on a planned and programmed basis, but not necessarily on an emergency basis.

Where voltages are outside the indicated limits for Extreme Operating Conditions, improvement or corrective action will be taken on an emergency basis. The urgency for such action will depend on various factors such as the location and nature of load or circuit involved, the extent to which limits are exceeded with respect to voltage levels and duration, etc.

Back-up Generators

Customers with portable or permanently connected emergency generation capability shall comply with all applicable criteria of the Ontario Electrical Safety Code and in particular, shall ensure that Customer emergency generation does not back feed onto PUC's system.

Customers with permanently connected emergency generation equipment shall notify PUC regarding the presence of such equipment.

Metering

PUC will provide, install and maintain revenue meters, instrument transformers, test panels and all interconnecting wiring required to meter the Customer at the utilization voltage. Such equipment shall remain the property of PUC.

The Customer must provide all the associated meter bases, cabinets, switchboards or switchgear cubicles, at their cost, required to accommodate the PUC's metering equipment and all subject to PUC approval.

All PUC equipment on the Customer's premise is in the care of and at the risk of the Customer and if damaged, other than for deterioration from normal usage, the Customer will pay for the cost of repair or replacement.

All disconnect switches and circuit breakers on the line side of PUC's metering shall have provisions for sealing and padlocking. This includes feeder breakers supplying dry-core transformer which in turn feed meter centres.

When a disconnect device has been locked in the 'OFF' position by PUC, under no circumstances shall anyone remove the lock and energize it without first receiving approval from PUC.

All meters for single-phase (120/240 volt) and three-phase (120/208 volt) services up to and including 200 A shall be mounted on the line side of the main disconnect. All three-phase metering above 120/208 volts shall be installed on the load side of a main disconnect.

All auxiliary connections to circuits such as fire alarms, exit lights and customer instrumentation shall be made to the load side of PUC's metering.

Where aluminum conductors are used, service entrance equipment must have CSA approval for aluminum conductors.

Normally the service will not be energized until the outside finish in the area of the meter has been completed. If exceptions are made to this, then the Owner/Developer/Contractor will be responsible for ensuring that the meter is suitably protected while work is being done on the exterior wall adjacent to the meter and will be entirely responsible for all costs for materials and labour for repairing or replacing a damaged meter.

Primary metering is not generally available, but will be considered only in special circumstances following consultation with PUC. Customer-owned substations may require primary metering and the provisions required for these installations shall be specified and approved by PUC for each application. The Owner will be responsible for the additional cost of primary metering over standard secondary metering.

PUC Distribution Inc. (PUC)

All General Service Customers will be metered up to 50 kilowatts by a watt-hour meter and over 50 kilowatts by a demand watt-hour meter or interval meter, as specified herein.

General

The Customer shall provide unimpeded and safe access to PUC at all times for the purpose of installing, removing, reading, maintaining, operating or changing metering or distribution equipment.

Service locations requiring access from adjacent properties (mutual drives, narrow side setbacks, etc.) will require the completion of an easement or a 'Letter of Permission' from the property owner(s) involved.

Meter Location

The location of the service entrance, routing of duct banks, metering and all other works will be established through consultation with PUC. Failure to comply may result in relocation of the service plant at the Owner's expense.

Meters shall be located as near as possible to the service entrance box in a location approved by PUC and shall be readily accessible at all times.

Meters for new or upgraded residential services shall be installed on the exterior of buildings and located adjacent to a driveway or walkway within 3 m from the front of the dwelling. A clear access route to the meter(s) shall be maintained at all times. Exceptions will only be considered when the Owner agrees to pay for the additional cost of a remote reading meter over the cost of a standard meter.

Indoor meters shall not be located in a bathroom, stairway, behind an oil tank, directly under a water or steam pipe or within 0.5 m of water, gas or steam pipes. If a meter needs to be recessed or enclosed after installation, prior approval shall be obtained from PUC.

The Owner shall provide a clear, safe working space of not less than 1.2 m in front of the installation extending from the floor to ceiling with a minimum ceiling height of 2.1 m so as to ensure the safety of PUC personnel who may be required to work on the installation.

Provisions for metering shall facilitate a practical mounting height for revenue meters as follows:

- Minimum: 1.0 m above finished floor to center of lowest meter for metering centres only, or
- Minimum: 1.7 m above finished floor or grade to center of a single meter, and
- Maximum: 2.0 m above finished floor to center of top most meter in all cases.

In all locations where Commercial/Industrial revenue metering is accessible to the general public, a lockable enclosure or a room for service equipment and meters, shall be provided by the Owner as agreed to by PUC, as follows:

a) an electrical room reserved solely for metering equipment, or

b) metal enclosed switchgear approved by PUC, or

c) a metal metering cabinet.

Where there is the possibility of danger to workmen or damage to equipment from moving machinery, dust, fumes or moisture, the Customer shall provide protective arrangements, to the satisfaction of PUC.

Where excessive vibration may affect or damage metering equipment, adequate shock-absorbing mounting shall be provided and installed by the Customer.

Multiple Occupancy Buildings

Owners of multi-unit rental apartments may choose to install individual meters in addition to providing bulk metering facilities, subject to entering into an agreement with PUC. One of the primary conditions of the metering agreement requires the Owner to assume all liability for any billing arrears of any tenant. Also the Owner would be responsible for all sub-metering costs, excluding the meters themselves, which will be supplied by PUC.

Residential condominiums are normally individually metered and do not require an agreement since the dwelling units are individually owned.

Where four-jaw single-phase watt-hour meters are required, PUC will supply the meters at no cost to the Owner. Where five-jaw network watt-hour meter are required, the Owner is responsible for the cost difference between the standard four-jaw and the network five-jaw meters.

Non-residential or mixed-use commercial buildings will normally be bulk metered by a single meter. However, where specific areas are clearly and permanently defined and in other respects are separate entities, individual metering of the loads is acceptable.

Multiple meters shall be grouped where practicable and be accessible from a public area or an outside door. The Owner must provide PUC with keys to access the meter room unless PUC determines the room to be easily accessible during normal working hours.

In any case, a copy of the metering layout plan shall be forwarded to PUC for review.

The Customer/contractor shall permanently and legibly identify all metered services with respect to correct municipal 911 address and unit number. The identification shall be applied to all service switches and breakers and to all meter cabinets and meter mounting devices that are not immediately adjacent to the service switch. The Customer/contractor shall ensure that all service identifications are accurate and, by not doing so, will be held totally responsible. The Owner shall inform PUC immediately of any changes made in the unit numbers.

Current Transformer Boxes

Where required by these Conditions the Owner shall supply and install a current transformer box (meter cabinet) to PUC's requirements. Cabinets shall be CSA approved and constructed from sheet metal, minimum 14 AWG. Paint finish shall be gray baked enamel A.S.A. 61. Cabinets shall be complete with a removable back plate and hinged doors with provision for a PUC padlock. Diagonal cable installation is not acceptable and failure to comply with this requirement will necessitate the removal and relocation of the cable feeds.

Meter cabinets shall be installed indoors except where special permission is granted by PUC to install the meter cabinet outside. Cabinets for outdoor locations approved by PUC shall be weatherproof. Also cabinets in indoor locations which may be exposed to dirt, dust or moisture shall be weatherproof.

The Owner/Developer must supply and install a CSA approved meter socket with the following specifications.

- all 3-phase, 4-wire meter sockets must have an insulated neutral.
- all 5-jaw kits (network meters) are to be installed in the 9 o'clock position.
- all 7-jaw kits are to be installed in the 6 o'clock position.
- each socket will include a meter retaining ring;
- all bases will be installed in a location, which is and will remain unobstructed by such items as fences, hedges, expansions, sunrooms, porch enclosures and any other impediments.

The table below summarizes PUC requirements for the various meter sockets and cabinets to be supplied by Owners.

PUC Distribution Inc. (PUC)

TABLE: 2.3.7.6 METER SOCKET AND CABINET SIZES

<table>
<tr><th>Service Size</th><th>Volts</th><th>Phase</th><th>Meter Socket or Cabinet Size (inches)</th><th>Height Above Floor to Cabinet Bottom (mm)</th></tr>
<tr><td rowspan="4">Up to 200 Amp</td><td>120/240</td><td>1</td><td>4 terminal</td><td rowspan="4">See Section 2.3.7.1.1</td></tr>
<tr><td>120/208</td><td>2 + N</td><td>5 terminal (network)</td></tr>
<tr><td>120/208</td><td>3</td><td rowspan="2">7 terminal</td></tr>
<tr><td>347/600</td><td>3</td></tr>
<tr><td rowspan="3">400 Amp & Larger</td><td>120/240</td><td>1</td><td>20 x 30(horizontal) x 10 or
self-contained 400 Amp. meter base</td><td>1200 min. to 1500 max.</td></tr>
<tr><td>120/208</td><td>3</td><td rowspan="2">48 x 48 x 12</td><td rowspan="2">600 min. to 900 max.</td></tr>
<tr><td>347/600</td><td>3</td></tr>
<tr><td>Switchgear</td><td>120/208 or 347/600</td><td>3</td><td>20 x 30(vertical) x 10</td><td>1000 min. to 1500 max.</td></tr>
<tr><td>Switchgear Alternate Arrangement</td><td>120/208 or 347/600</td><td>3</td><td>20 x 30(vertical) x 10
plus
36 x 36 x 12</td><td>1000 min. to 1500 max.</td></tr>
</table>

Note: Load and line entry points shall be approved by PUC prior to installation.

Metal Clad Switchgear

PUC will provide and install colour coded secondary wiring, instrument transformers and revenue meters for metal clad switchgear installations. The following requirements will apply and the Owner is required to:

- consult with PUC regarding the metering facilities to be provided by the Owner;
- submit two copies of the manufacturer's switchgear drawings, for approval, dimensioned to show provision for and arrangement of PUC's metering equipment;
- provide complete shipping instructions, including name and address of the manufacturer, for instrument transformers for those projects where these are to be provided by PUC for installation by the switchgear manufacturer;
- provide and install the metering cabinet and conduit;
- ensure each main bus bar is drilled and thread tapped 10-32 or 10-24 on the line side of the removable current transformer link;
- install 37 mm rigid conduit or any equally approved conduit of a size specified by PUC shall be installed between the current transformer compartment of the switchgear and the meter cabinet for separations up to 30 m;

- for conduit installations greater than 30 m in length or where several bends are necessary, larger conduits or other special provision may be required, at the discretion of PUC.

Interval Metering

PUC may install a demand meter or interval meter for purposes of measuring demand in order to assign the Customer to a rate class or to set the appropriate distribution services rate for that Customer.

PUC shall provide a MIST meter installation for any existing Customer that has an average monthly peak demand during a calendar year of over 1,000 kW. PUC shall install a MIST meter on any new installation that is forecast by PUC to have a monthly average peak demand during a calendar year of over 500 kW, for the purposes of measuring energy delivered to the Customer.

PUC shall provide an interval meter to any Customer who submits to it a written request for such meter installation, either directly or through an authorized agent, in accordance with the Retail Settlement Code, subject to the following conditions:

- The Customer that requests interval metering shall compensate PUC for all incremental costs associated with that meter, including:
  - the capital cost of the interval meter,
  - installation costs associated with the interval meter,
  - ongoing maintenance (including allowance for meter failure) and verification and re-verification of the meter,
  - installation and ongoing provision of communication line or communication link with the Customer’s meter and cost of metering made redundant by the Customer requesting interval metering.
- PUC shall determine whether the meter will be a MIST or MOST meter, subject to the requirements of the Distribution System Code.
- A communication system utilized for MIST meters shall be in accordance with PUC’s requirements.

General Service Interval Metering

All new and upgraded General Service Customers with peak demand forecasted to be 500 kW or greater and any Customer requiring pulses for spot market pass-through pricing will be metered with remotely interrogated interval meters. The Customer shall install and maintain a 13 mm conduit from the communication entrance equipment and a direct-dial voice quality communication line, that is active 24 hours a day, to the metering location. The wall jack must be mounted within 300 mm of the meter cabinet. This communication line may be shared with a fax machine at PUC’s sole discretion, provided PUC is able to communicate with the meter in an acceptable manner. The Customer shall be responsible for the ongoing monthly costs of operating the communication line.

Where such metering exists, PUC will consider Customer requests to provide a secondary pulse for load control or Customer-owned metering. All costs incurred would be at the expense of the Customer.

Residential Service Interval Metering

Residential Customers requesting interval metering will be required to meet the conditions of Section 2.3.7.3 Interval Metering.

Generation Facilities (Four Quadrant Metering)

All Ontario Energy Board-licensed generators connected to the distribution system that sell energy and settle through the Distributor’s Retail Settlement process shall be required to install a four-quadrant interval meter.

PUC Distribution Inc. (PUC)

PUC shall meter Customers with generation that does not require an Ontario Energy Board licence, such as back-up capability or generation for load displacement, in the same manner as PUC's other load Customers.

PUC requires an Embedded Generator connected to PUC's distribution system to install its own meter in accordance with PUC's metering requirements and provide PUC with the technical details of the metering installation.

Where practical, metering for Embedded Generators shall be installed at the Point of Supply. If it is not practical to install the meter at the Point of Supply, PUC shall apply loss factors to the generation output in accordance with the loss factors applied for retail settlements and billing.

Meter Reading

PUC shall have the right to read any of PUC's electricity meters on the Customer's premises. The Customer must provide access for meter reading purposes. In the event that a reading cannot be obtained, the bill will be estimated using historical consumption values. Where premises are closed during PUC normal business hours, the Customer must, on reasonable notice, arrange access at a mutually convenient time.

VEE Process

Metering data collected by PUC shall be subjected to a validating, estimating and editing (VEE) process if it is to be used for settlement and billing purposes. PUC's VEE processing is established according to local practice which is intended to be fair and reasonable and provides assurance that correct data is submitted to the settlement process. The VEE process shall do the following:

- Convert raw metering data into validated, corrected or estimated 'settlement-ready' metering data suitable for use in determining settlement amounts in accordance with the settlement schedule in the Retail Settlement Code.
- Detect errors in metering data introduced as a result of improper operational conditions and /or hardware/software malfunctions including failures of or errors in metering or communication hardware and metering data exceeding pre-defined variances or tolerances.
- Use operational system data, including historical generation and load patterns and data collected by PUC, as appropriate, for validating raw metering data and for editing, estimating and correcting metering data found to be erroneous or missing.

PUC's VEE process for data from non-interval and MOST meters shall compare energy and demand (if applicable) readings from at least one equivalent historical billing period using appropriate bandwidths by Customer Class and other specific criteria.

PUC's process for data from MIST meters considers industry standards specified by the IMO in its VEE process for registered wholesale meters.

PUC's documented VEE process and criteria is available for scrutiny by Customers, Retailers, the Board and Measurement Canada.

PUC shall comply with Measurement Canada standards as a minimum metering installation and measurement standard and may apply any other practices that exceed those standards.

Totalizing Meter Reads

Generally, all services will be metered on the low voltage side of the transformer (secondary metering). Where PUC provides multiple transformers, PUC will totalize the individual readings into one, provided the Owner pays the costs of totalizing equipment. The Customer will also be required to install and maintain an adequate communication line for remote reading of the totalizing equipment by PUC.

Final Meter Reading

When a service is no longer required or if the Customer is switching Energy Provider, the Customer shall provide PUC at least five business days notice of the termination date so that PUC can obtain a final meter reading as close as possible to the final date. The Customer shall provide access to PUC and its agent(s) for this purpose.

If a final meter reading is not obtained, the Customer shall pay a sum based on an estimated demand and/or energy for electricity used since the last meter reading. After a final bill has been issued and a read is obtained an adjusted bill will be issued.

Faulty Registration of Meters

Metered electricity usage for the purpose of billing is governed by the federal *Electricity and Gas Inspection Act* and associated regulations, under the jurisdiction of Measurement Canada, Industry Canada. PUC's revenue meters are required to comply with the accuracy specifications established by the regulations under the above noted Act.

In the event of incorrect measurement, PUC will determine the correction factors based on the specific cause of the metering error and the Customer's electricity usage history. The Customer shall pay a reasonable sum for all the energy supplied based on the reading of any meter formerly or subsequently installed on the premises by PUC, due regard being given to any change in the character of the installation and/or the demand.

If the incorrect measurement is due to reasons other than the accuracy of the meter, such as incorrect meter connection, incorrect connection of auxiliary metering equipment or incorrect meter multiplier used in the bill calculation, the billing correction will apply for the duration of the error. PUC will correct the bills for that period in accordance with the regulations under the above noted Act.

Meter Dispute Testing

Metering inaccuracy is an extremely rare occurrence. Most billing enquiries can usually be resolved between the Customer and PUC without resorting to the meter dispute test.

However, either PUC or the Customer may request the service of Measurement Canada to resolve a dispute. If the Customer initiates the dispute, PUC will charge the Customer a 'Meter Dispute Test Agent Fee' if the meter is found to be accurate and Measurement Canada rules in favour of PUC.

Tariffs and Charges

Appendices A through *C* contained herein list the rates that have been established for providing the Customer with electricity and service connections from the distribution system, as well as any services provided by PUC, as per the Market Rules and regulations.

Service Connections

Appendix C contained herein lists the charges established for providing Customers with connections to the electrical distribution system.

Energy Supply

Standard Supply Service

All existing PUC Customers are Standard Supply Service (SSS) Customers until PUC is informed of their switch to a competitive electricity supplier. A Service Transfer Request (STR) must be made by the Customer or the Customer's authorized Retailer.

PUC Distribution Inc. (PUC)

Retailer Supply

Customers transferring from Standard Supply Service (SSS) to a Retailer shall comply with the Service Transfer Request (STR) requirements as outlined in sections 10.5 through 10.5.6 of the Retail Settlement Code.

All requests shall be submitted as electronic file and transmitted through EBT Express. The Service Transfer Request (STR) shall contain information as set out in section 10.3 of the Retail Settlement Code.

If the information is incomplete, PUC shall notify the Retailer or Customer about the specific deficiencies and await a reply before proceeding to process the transfer.

Wheeling of Energy

All Customers considering wheeling of electricity through PUC's distribution system are required to contact PUC for technical requirements and applicable tariffs.

Deposits

Deposit requirements will conform to the Distribution System Code (DSC).

PUC requires security deposits, in a form acceptable to PUC, as a precaution to protect PUC and its Customers against potential losses from non-payment of accounts. Security deposits will be required for accounts which are billed under Standard Supply Service, Split Billing or Distributor Consolidated Billing. Service may be refused or discontinued if the required deposit is not paid.

Deposits will vary between Customers due to a variety of factors, including weather conditions, living or business accommodations, life-style or business activities, and heating requirements.

Where the Customer has an established usage history, the amount of the deposit will be based on that history. Where there is no history, the amount will be based on the service size, as detailed in *Appendix D,* contained herein.

The requirement to provide a deposit may be waived for permanent supply of electrical energy if certain conditions are met, as detailed below. Customers that have been exempted from paying a deposit and are now deemed to have unsatisfactory payment record or have become a credit risk may be required to provide a deposit.

The customer will be provided with the specific reasons for requiring a security deposit.

Subject to the DSC, the PUC may use any risk mitigation options available under law to manage customer non-payment risk.

Amount of Deposit

The maximum amount of a security deposit, where a customer is billed monthly, shall be 2.5 times the estimated bill based on the customer's average monthly load during the most recent 12 consecutive months within the past two years. Where relevant usage information is not available for the customer for 12 consecutive months within the past two years the customer's average monthly load shall be based on a reasonable estimate made by PUC Distribution.

Where a customer has a payment history which discloses more than one disconnection notice in a 12 month period, the PUC may use that customer's highest actual or estimated monthly load for the most recent 12 consecutive months within the past 2 years for the purposes of calculating the maximum amount of security deposit.

Deposits Refunded

For Residential Service Customers, deposits, plus interest, will be credited to the account either when the account is finalized or after one calendar year, provided the Customer has had a good payment history.

PUC Distribution Inc. (PUC)

For General Service Customers, deposits, plus interest, will be refunded or credited to the account, either when the account is finalized, or after five years for customers with demand less than 50 kW and 7 years in any other rate class, provided the Customer has had a good payment history. For customers with a demand greater than 5,000 kW who would be exempt from paying a deposit, PUC is only required to return 50% of the security deposit.

Security deposits will be reviewed each calendar year to determine whether the deposit is to be returned as the customer is in a position that would exempt it from paying a deposit based on a good payment history.

Deposits shall be returned within six weeks of the closure of an account subject to the Distributor's right to use the security deposit to offset amounts owing by the customer to the Distributor in regards to their final bill.

Where a customer changes from SSS to a competitive retailer that uses retailer-consolidated billing or from distributor consolidated billing to split billing or retailer consolidated billing the security deposit shall be applied to the final bill prior to the change in service. Where a change is made from distributor consolidated billing to split billing the distributor may retain a portion of the deposit that reflects the non-payment risk associated with the new billing option.

Good Payment History

The relevant time period that makes up the good payment history is one year for residential customers, 5 years for general services customers with demand less than 50 kW and 7 years for all other rate classes. The relevant time period must be the most recent period of time and some of the time period must have occurred in the previous 24 months.

A customer is deemed to have a good payment history unless during the relevant time period the following or more than one of the following singular criteria has occurred;

- The customer has received more than one disconnection notice,
- More than one cheque has been returned for insufficient funds,
- More than one pre-authorized payment has been returned for insufficient funds or,
- A disconnect/collect trip has occurred.

If any of the preceding events occur due to an error by the PUC, the customer's good payment history shall not be affected.

Deposit Waived for Customers

The deposit requirement for Customers shall be waived if the Customer:

- had a good payment history as set out in section 2.4.3.3 or
- provides a letter from another distributor or gas distributor in Canada confirming a good payment history with that distributor for the most recent time period set out in section 2.4.3.3 where some of the time period which makes up the good payment history has occurred in the previous 24 months: or
- is less than 5000 kW demand and provides a satisfactory credit check at the customer's expense.

A non-residential customer in a rate class other than less than 50 kW who has a credit rating from a recognized credit rating agency shall have the maximum amount of the security deposit reduced according to the following table (using Standard and Poor's Rating Terminology):

Credit Rating	***Allowable Reduction***
AAA- and above or equivalent	100%
AA-, AA, AA+ or equivalent	95%

A-, From A, A+ to below AA or equivalent	85%
BBB-, From BBB, BBB+ to below A or equivalent	75%
Below BBB- or equivalent	0%

Form of Security Deposit

The security deposit for a residential customer shall be cash or cheque.

The security deposit for a non –residential customer shall be cash, cheque, an automatically renewing irrevocable letter of credit as defined in the Bank Act, 1991 (c.46), letter of guarantee, bond, or other security issued by a financial institution or insurer. The form of security must be acceptable to PUC.

The security deposit can be paid in equal installments over a 4 month period. The customer may choose to pay the security deposit over a shorter period of time. The first monthly installment is due prior to commencement of service.

In the event that the requirements for the security deposit are not met service may be terminated.

Interest on Cash/Cheque Deposits

Interest shall accrue monthly commencing on receipt of the total deposit made by the way of cash or cheque. The interest rate shall be at the Prime Business Rate as published on the Bank of Canada website less 2 percent, updated quarterly. The interest accrued shall be paid out at least once every 12 months or on return or application of the security deposit or closure of the account, whichever comes first, and may be paid by crediting the customer account.

Billing

PUC may, at is option, render bills to its Customers on either a monthly, bi-monthly, quarterly or annual basis. Bills for the use of electrical energy may be based on either a metered rate or a flat rate, as determined by PUC.

Proration of Accounts

Accounts shall be prorated where the initial bill or final bill to a Customer is for a period shorter or longer that the normal bill period or where the rates have been revised effective on a date not coincident with the Customer's billing date.

Service and demand charges will be prorated based on a straight ratio calculation of the number of days in the actual billing period to the number of days in the standard 30 day month.

Billing Errors

Over Billed

Where a billing error, from any cause, has resulted in a Consumer or Retailer being over billed, and where Measurement Canada has not become involved in the dispute, PUC shall credit the Consumer or Retailer with the amount erroneously billed.

The credit PUC remits to the appropriate parties shall be the amount erroneously billed for up to a six-year period.

Under Billed

Where a billing error, from any cause, has resulted in a Consumer or Retailer being under billed, and where Measurement Canada has not become involved in the dispute, PUC shall charge the Consumer or Retailer with the amount that was not previously billed.

PUC Distribution Inc. (PUC)

In the case of an individual Residential Consumer who is not responsible for the error, the allowable billing period of time shall not exceed two years and for Non-Residential Consumers or for instances of willful damage, the relevant time period is the duration of the defect, up to six years.

The entity billing a Consumer, whether PUC or a Retailer, is responsible for advising the Consumer of any meter error and its magnitude and of his or her rights and obligations under the *Electricity and Gas Inspection Act (Canada).*

Estimating Bills

Reasonable attempts will be made to obtain a meter reading for all regular electricity bills. Bills will only be estimated when PUC has been unsuccessful in obtaining a meter reading. Estimated bills for electric energy used will be based on the Customer's consumption history, whenever possible.

Demand will only be estimated after current practices for retrieving a reading have been exhausted. When a demand reading cannot be obtained, the demand will be estimated by reviewing the demand history for consistency and selecting an appropriate demand reading to use. This does not apply to interval metering.

Payments

Settlement of Accounts

All accounts for electrical energy used by the Customer are due when rendered.

Bills are payable in full up to and including the due date which shall normally be a minimum of sixteen calendar days from the date of mailing or hand delivery of the bill.

Accounts may be paid at the PUC general office (765 Queen Street E.) with cash, cheque, draft or debit card during normal business hours; at most financial institutions; by telephone banking or on-line banking; by Pre-Authorized Debit Plan (Equal Payment Plan or Exact Payment Plan); at payment 'drop-off' boxes (non-cash payments only) located at convenient locations throughout the City; or by mail (non-cash payments only).

Accounts receivable by PUC covering miscellaneous bills for items other than electricity are due and payable 30 days after invoicing. Thereafter, interest is charged monthly.

Pre-Authorized Debit Plans (PAD Plans)

There are two Pre-Authorized Debit Plans - Equal Payment Plan and Exact Payment Plan.

The following guidelines apply to either PAD program:

- A Customer's account must be paid in full prior to starting on the PAD program and they cannot have more than two NSF cheques in the last six months.
- The amount due in the reconcile month will be withdrawn from the Customer's bank account on the payment date.
- A Customer can be removed from the PAD plan at the discretion of PUC.

PAD Equal Payment Plan

Eleven equal payments are automatically withdrawn from the Customer's bank account based on the prior year consumption.

The twelfth month is used as the reconcile month: credits on a Customer's account are refunded to their bank account and balances outstanding are withdrawn on the due date of their reconcile bill.

Customers have the choice of four withdrawal dates in a month - 4th, 11th, 18th or 25th.

New participants cannot start on the PAD Equal Payment Plan during the months of May, June or July.

PAD Exact Payment Plan

The exact amount due on the Customer's bill is automatically withdrawn from the Customer's bank account on the due date printed on the bill or within seven days after.

Late Payment Charges

All bills are subject to a late payment charge (see *Appendix B* herein) if paid after the due date. Failure to receive a bill does not exempt late payment charges as a bill may be obtained from PUC office.

Where the total amount billed has not been paid by the due date, the late payment charge shall apply but only to the amount of the bill outstanding at the due date. Partial payments will be applied to any outstanding arrears before being applied to the current billing.

Customer Information

The *Retail Settlement Code* - Sections 10 and 11 specify the rights of Customers and their Retailers to access current and historical usage and payment information and related data and the obligation of PUC in providing access to such information.

PUC shall upon written authorization by a Customer, make available the information specified in the *Retail Settlement Code*, to the Customer or the Retailer that provides electricity to a Customer connected to PUC's distribution system.

Provision of consumer specific information to retailers and customers through the EBT system shall be done at no charge to the Customer. Requests to deliver data to Retailers and Customers not delivered through the EBT system shall be honoured twice a year at no charge and PUC may charge a fee for any additional requests. A request is considered to be data delivered to a single address. Thus a single request to send information to three locations is considered three requests.

At the Customer's request, PUC will provide a list of Retailers who have Service Agreements in effect with PUC.

PUC will provide information appropriate for operational purposes that has been aggregated sufficiently, such that an individual's Consumer information cannot reasonably be identified, at no charge to another distributor, a transmitter, the IMO or the OEB. PUC may charge a fee that has been approved by the OEB for all other requests for aggregated information.

PUC will communicate general market and educational information to Customers connected to its distribution system as required.

CUSTOMER CLASS SPECIFIC

Residential Service

General Comments

This section refers to the supply of electrical energy to residential Customers residing in single-family detached, semi-detached, duplex or triplex dwelling units, as defined in the local zoning by-law, and where a small business establishment exists, in addition to a dwelling within one of the aforementioned dwelling units.

Energy is supplied single-phase, 3-wire, 60-Hertz, having a nominal voltage of 120/240 Volts, up to maximum 400 Amperes per dwelling unit.

There shall normally be only one Delivery Point and one service line to a dwelling.

In circumstances where two existing services are installed to a dwelling, and one service is to be upgraded, the upgraded service will replace both of the existing services.

Where surface restoration by PUC is required following any repairs or maintenance to a service, PUC will provide only soil, sod, gravel or asphalt, unless the damage can be shown to be the Customer's responsibility.

Early Consultation

The Customer shall supply the following to PUC well in advance of installation commencement:

a) required service date;

b) requested service entrance capacity and voltage rating of the service entrance equipment;

c) locations of other utility services: gas, telephone, water and cable TV;

d) details respecting heating equipment, air conditioners and any appliances that demand a high consumption of electrical energy;

e) survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines.

Point of Demarcation

The Point of Demarcation (both operational and ownership) for Residential Services is at the line side of the meter base for underground services and at the top of the stack for overhead services, beyond which the Customer bears full responsibility for installation and maintenance.

In all cases, the final demarcation point will be the decision of PUC.

Secondary Services

In accordance with the *Distribution System Code*, PUC shall provide:

1) supply and installation of overhead distribution transformation capacity or an equivalent credit for transformation equipment; and

2) up to 30 m of overhead conductor or an equivalent credit for underground services.

The Owner will contribute the balance of the total cost of the service installation, and may in some circumstances be required to construct a private pole line.

The Owner must provide service equipment compliant to both PUC and ESA's requirements.

General Service

General Comments

This section provides additional details not covered elsewhere in these Conditions related to the supply of electrical energy to General Service Customers such as commercial buildings and developments.

Commercial buildings are defined as buildings that are used for purposes other than residential occupancy or residential occupancy greater than three units including townhouses and row houses.

Early Consultation

Detailed regulations cannot be stated which would be applicable to all cases; therefore, the Owner will consult with PUC in the early planning stages to ascertain PUC's requirements.

The Owner shall submit to PUC the following information:

- required service date;
- voltage requirement;
- estimated minimum monthly demand (kW);
- estimated yearly energy consumption (kWh);
- estimated initial maximum monthly demand (kW);
- estimated future maximum monthly demand (kW);
- single line electrical system schematic;
- specific listing of the type of loads for lighting, motors, heating equipment, air conditioning and any other equipment and appliances that demand high consumption of electrical energy;
- number of units and the areas of each;
- survey grading plan and site plan, to scale, showing the apartments, town homes, retail area or office building in relation to existing or proposed property lines and rights-of-way and other buildings or structures such as parking garages and loading ramps. The plans shall include vertical and horizontal views of the proposed incoming duct bank from the Point of Entry to the Delivery Point;
- plan, to scale, of the area in which the transformer vault is to be located, showing all details of the vault;
- plan, to scale, showing the electrical room and provision for the metering equipment.

Point of Demarcation

The Point of Demarcation, or Delivery Point, for a General Service depends on the nature of the service.

For secondary services where the transformer is situated on the public roadway, the Delivery Point is at the secondary side of the transformer, unless otherwise set by PUC.

For primary services, the Point of Demarcation depends on the nature of the service; overhead versus underground and, PUC versus Customer owned transformation.

PUC Distribution Inc. (PUC)

For an overhead primary service regardless of the transformer ownership, the Delivery Point is at the high-voltage connection point at the street line, unless otherwise set by PUC.

For an underground primary service, the Delivery Point is at the secondary bushings of the transformer, where the transformer is owned by PUC, or the primary bushings of the transformer where the transformer is owned by the customer, unless otherwise set by PUC.

In all cases, underground primary cables shall be supplied, installed and maintained by PUC in the Customer's duct bank at cost to the Customer but shall remain the property of PUC.

The Customer must obtain a Delivery Point Location (Meter Locate) from PUC before proceeding with the installation of any service. Failure to do so may result in the Delivery Point having to be relocated at the Customer's expense.

Supply Voltage

Generally, new commercial buildings are supplied at one utilization voltage only.

The Owner shall make provision to take delivery at one of the voltages listed in Section 2.3.4, as specified by PUC. The Owner shall obtain prior approval from PUC for the use of any specific voltage at any specific location.

Underground Service

Under normal circumstances, Commercial buildings are supplied electrical energy by an underground service through a single Delivery Point for each land parcel, at a location specified by PUC.

For low voltage supply, the Customer's cables shall be brought to a point determined by PUC for connection to PUC's supply.

For high voltage supply, the line terminals of the switching equipment shall be suitable for 2-hole (NEMA drilling) compression connectors supplied by PUC. Cable terminators will be supplied by PUC and be of the modular style.

A minimum vertical distance of 1.0 m is required between the point of cable entrance and terminator connection to the switch and each point of cable entrance shall be directly below its termination point. Other cable entry arrangements must be approved by PUC.

Overhead Service

In circumstances where Commercial buildings cannot be supplied electrical energy by an underground service, PUC shall use its sole discretion based on acceptable industry practices in establishing the specific requirements for the service installation.

Supply of Equipment

PUC supplies, installs and maintains:

- transformers, according to the provisions contained herein,
- meters and metering transformers (instrument transformers).

The Owner shall supply, install and maintain:

- transformer pads, foundations, or vaults, as required, and all associated equipment;
- all secondary service wires and ducting from the Delivery Point to the metering equipment;
- concrete encased ducts to PUC's specifications, where the primary supply is underground;

- dry-type transformers for special utilization voltages for internal building distribution.

Technical Information Requirements

Where project drawings are required for PUC approval, for items under PUC's jurisdiction, the Customer or its authorized representative must ensure that proposal drawings are in complete compliance with PUC's standards. Approval of project drawings by PUC shall not relieve the Customer of its responsibility in respect of full compliance with PUC's standards. In all cases, one copy of all relevant drawings must be submitted to PUC. Where the Customer requires a returned approved copy, two copies of all plans must be submitted.

Prior to committing to construction or purchase of equipment, the Customer must provide the following information to PUC.

- The approximate date when the service must be energized.
- Site & Grading Plans indicating the lot number, plan numbers and when applicable the street number. The site plan shall show the location of the building on the property relative to the property lines, any driveways and parking areas. Elevations shall be shown for all structures and proposed installations.
- Site Servicing Plan showing the location on the property of all services proposed and/or existing such as water, gas, storm and sanitary sewers, telephone, etc.
- Floor Plan showing the locations of the electric service and any other services, and indicating the total gross floor area of the building.
- Duct Bank Location showing the preferred routing of the underground duct bank on the property.
- Transformer Location indicating the preferred location on the property for the high voltage transformation.
- Electrical Room indicating the preferred location in the building of the meter room and the main switchboard.
- Single Line Diagram showing the main switch capacity, the required utilization voltage, the number and capacity of all sub-services, metering details, as well as the connected load breakdown for lighting, heating, ventilation, air conditioning etc. Also, indicate the estimated initial kilowatt demand and ultimate maximum demands. Fusing must be adequately sized to co-ordinate with the transformer size provided.

Where a Customer-owned substation is to be provided, the Owner will be required to provide the following in addition to the information outlined above:

- all details of the transformer, including kVA capacity, primary and secondary voltages, impedance and cooling details;
- a site plan of the transformer station showing the equipment layout, proposed primary connections, grounding and fence details, where applicable;
- a coordination study for protection review.

General Service - Above 50 kW

This section expands on the requirements of Section 3.2 above and provides additional requirements not covered elsewhere in these Conditions related to the supply of electrical energy to Commercial/Industrial Customers requiring transformation capacity greater than 50 kW. Commercial developments such as residential subdivisions and townhouses are included herein with respect to the obligations of the developer.

Early Consultation

The Owner shall submit to PUC the following information:

- required service date;
- voltage requirement;
- estimated initial Maximum Demand;
- estimated future Maximum Demand;

Secondary Service

Under normal circumstances, Commercial/Industrial buildings are supplied electrical energy by an underground service through a single point of entry for each land parcel, at a location specified by PUC.

For underground services, the Owner will provide and install to PUC's standards, all ducting and service conductors.

Primary Service

The Owner will pay for the cost of services and may in some circumstances be required to construct a private pole line or underground duct bank structures.

Where the Customer takes service overhead, PUC will install overhead supply lines and required cut-outs to the first point of support on private property. The location of this support must be approved by PUC and shall be within 30 m of PUC's existing overhead plant. All costs for materials and labour shall be at the Customer's expense.

Where the Customer takes service underground, the Customer shall supply and install all underground structural works to the point of supply specified by PUC and as outlined in other sections herein. Primary underground conductors will be supplied and terminated by PUC at the Owner's expense.

Customer-Owned Transformers/Substations

Generally Customers are not permitted to own the transformer(s). PUC will supply and maintain adequate standard transformer capacity to satisfy the Customer's needs.

In the event PUC is unable to meet unusual needs, the Customer shall supply, install and maintain suitable transformers in accordance with CSA specifications C2 or C88, latest edition, conforming to PUC's requirements and subject to ESA approval. Without limiting PUC's requirements, these may include that the Customer's transformers be equipped with multiple high voltage windings, suitable for connection to two system voltages, in order to facilitate voltage conversions. PUC may also specify special tap settings to accommodate system voltage variations.

Customer-owned substations are a collection of transformers and switchgear located in a suitable room or enclosure owned and maintained by the Customer, and supplied at primary voltage, i.e. the Supply Voltage is greater that 750 volts.

When requested, the Customer shall make provision in the substation switchgear for loop feeding PUC's supply cables via group-operated load interrupter switches.

Plans and Specifications for Customer-Owned Substations

In addition to obtaining the approval of ESA for substation equipment, the Customer shall also obtain PUC approval of any components which may affect PUC's system, e.g. cables, lightning arresters, terminators, protective and switching devices etc. The approval should be obtained well in advance of tender documents being issued or any equipment purchases.

PUC will review and approve the original and one corrected proposal for each new substation free of charge. Costs of any additional review will be charged to the Customer. When modifications are being made to an existing substation without a substantial load increase, all costs of PUC review and approval will be charged to the Customer.

To obtain approval the Customer shall submit to PUC two copies of detailed plans and specifications, certified by a registered Professional Engineer, showing the following:

(a) Single line schematic diagram indicating:
- all voltages of the proposed installation;
- transformer bank capacity, rating, reactance, and cooling medium;
- protective and switching devices with short-circuit ratings.

(b) Working drawings and specifications for the substation installation including:
- detailed dimensions, in plan and elevation views;
- working and live parts clearances;
- structures and guying for dead-ending incoming lines;
- material list;
- interlocking schemes.

(c) Survey plan and site plan indicating the location of the substation with respect to the public right-of-way.

(d) List of the lighting, motor, welding, heating and other loads.

(e) Ampere and voltage rating of the main secondary service switch.

(f) Location and details of the metering equipment.

Pre-Service Inspection and Energization of Customer-Owned Substations

A certified pre-service inspection report shall be submitted by the Customer at his expense prior to energization. The inspection shall be completed by a contractor approved by PUC and to PUC's specifications. The report shall include the results of tests and checks as follows:

(a) transformer oil sample test;

(b) field observed lightning arrester data;

(c) primary disconnect operation check;

(d) transformer ratio test;

(e) high potential test of any primary cables not installed by PUC;

(f) field observed high voltage fuse test;

(g) "as-built" drawings of the installation.

Following receipt of the pre-service inspection report PUC will perform an on-site inspection and, if satisfactory, energize the substation. There will be no charge for these services if scheduled in advance during PUC's normal working hours and providing it is the first inspection and energizing of a new or enlarged substation.

Operation of Primary Disconnect Devices on Customer-Owned Substations

Customers shall permit access by PUC at all times in order to operate primary disconnect devices on Customer-owned substations. Customers may require the operation of primary disconnect devices for purposes of routine maintenance or other reasons. PUC will do so upon receipt of a written commitment to pay its costs. A minimum of one week's notice is required for planned operation of such devices.

PUC Distribution Inc. (PUC)

PUC may require Customers to enter into a written agreement pertaining to operation of specific primary disconnect devices. Under this agreement only specified devices may be operated by Customers. Under no other circumstances are Customers permitted to operate any primary disconnect devices.

Maintenance of Customer-Owned Substations

Customers are responsible for performing both regular and emergency maintenance on substations owned by them. Customers must be suitably prepared at all times to provide for their own availability of materials and labour to perform emergency repairs in the event of a sudden substation failure. PUC may provide advice regarding determination of the cause of failure and will disconnect the supply in order to facilitate repairs, but will not perform repairs on Customer-owned substations.

Electrical Room Requirements

Where the Owner is required to supply and maintain an electrical room it shall be of sufficient size to accommodate the service entrance and meter requirements of the tenant(s) and provide clear working space in accordance with the Electrical Safety Code, as well as room for future service increases.

The electrical room must be separate from, but adjacent to, the transformer vault. It must be located to provide safe access from the outside or main hallway and not from an adjoining room, so that it is readily accessible to PUC employees and its authorized Agent(s) at all hours to permit meter reading and to maintain electric supply. It shall not be used for storage or contain equipment foreign to the electrical installation within the area designated as safe working space. All stairways leading to electrical rooms above or below grade shall have a handrail on at least one side as per Building Code requirements and shall be located indoors. Either a dual locking arrangement or a key box arrangement will be required on the access door.

Adequate lighting and a 120 volt convenience outlet shall also be provided.

Refer to Section 2.3.7 Metering, for additional Electrical Room Requirements.

Transformer Vaults

This section refers to the requirements of Customer-owned, above-grade transformer vaults in which PUC installs and maintains its transformation equipment.

All vaults shall be constructed in accordance with the applicable codes, and as herein specified. Vaults shall be at grade level, preferably in a corner of the building, with two outside walls. The grade level requirement shall be with respect to the location of the door and to achieve continual natural drainage away from both the interior and immediate exterior of the vault. All vault dimensions and clearances must be approved by PUC prior to the commencement of construction.

The Owner must submit details of the following to PUC for approval well in advance of committing to any installation or equipment purchase:

- incoming primary concrete-encased ducts complete with reinforcing and pull ropes;
- grounding system in accordance with the Electrical Safety Code;
- cable trench at the primary entrance to the vault complete with drain and cover;
- cable pulling eyes;
- floor drain with screen, trap and reverse check valve including adequate floor slope towards drain;
- metal clad vault door located on an outside wall with direct access from grade level and provision for locking with PUC’s standard padlock utilizing hardware that is not removable from the outside. No other means of

locking shall be permitted. The door shall not have any ventilation openings and must include an elevated concrete sill with an external permanent sign stating: “Danger - High Voltage”;

- smoke detector in a location approved by PUC with annunciation external to the vault. Sprinklers and other fire extinguishing systems are not permitted;
- adequate lighting and a 120 volt convenience outlet.

Access to Vaults

The Customer shall allow authorized PUC employees access to the transformer vault at all times and shall prevent unauthorized persons from entering.

It is necessary that PUC vehicles be allowed access to the door of the vault without causing property damage. The Owner shall provide an unobstructed paved or graveled surface for this purpose, of sufficient strength as specified by PUC. Alternatively, the Owner shall take responsibility for any necessary property repair following vehicular access.

Where the high voltage interrupting switches are located inside a building, a direct outside entrance to the switchgear room must be provided.

Secondary Conductors

The Owner shall supply, install and maintain all secondary cables, cable trays and associated equipment within the vault, subject to layout approval by PUC. The Owner shall apply for written approval well in advance of design and installation.

Maintenance and Costs

PUC will carry out or co-ordinate maintenance on its transformer(s) inside the vault.

Repairs to the Owner’s equipment will be at the Owner’s expense. The Owner or its Agent is not permitted to carry out maintenance inside an energized vault.

Customer’s Physical Structures

Construction and maintenance of all civil works on private property including such items as transformer pads, transformer rooms, transformer vaults, cable chambers, and underground conduit are the responsibility of the Customer. All civil work on private property is subject to inspection and approval by PUC and ESA.

The Customer is responsible to maintain all the structural and mechanical facilities located on private property in a safe condition.

Townhouses and Condominiums

Street townhouses are usually a free-hold property where the land is owned by the individual Owners of each unit, fronting onto a Municipal street.

A townhouse development is a structure or complex of structures each containing more than two residential units. A single Residential Customer would occupy each unit and have direct outside access at ground level.

Condominiums are located on common land which is the property of a condominium corporation or is owned by the Owner of all the units in the case of rental property. These units usually front onto internal roads that are also privately owned.

A condominium development is a structure or complex of structures each containing more than two residential units. A single Residential Customer would occupy each unit.

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Service Information

The condo developer will enter into a servicing agreement with PUC, governing the terms and conditions under which the electrical distribution system and services will be designed and installed.

The developer will provide all of the civil works to accommodate PUC and will pay the complete cost of the electrical distribution system, design and services.

The distribution system and services shall be underground.

PUC will establish the location of duct banks, service routings and meter bases.

Early Consultation

The Customer shall supply the following to PUC well in advance of installation commencement:

- required service date;
- requested service entrance capacity and voltage rating of the service entrance equipment;
- locations of other utility services: gas, telephone, water and cable TV;
- details respecting heating equipment, air conditioners and any appliances that demand a high consumption of electrical energy;
- survey plan and site plan, to scale, showing the buildings in relation to existing or proposed property lines and rights-of-way and other buildings or structures such as parking garages and loading ramps. The plans shall include vertical and horizontal views of the proposed incoming duct bank from the Point of Entry to the Delivery Point.

Subdivision and Commercial Land Developments

General

The Developer may choose to design and build, all or parts of, the electrical distribution facilities for the development (Type A Development). Alternatively, the Developer may request that PUC design, construct and install the electrical service (Type B Development). In all cases, all of the electrical service must be constructed to PUC standards, the Electrical Safety Code, and all applicable laws, regulations and codes.

It is not feasible to define in advance PUC requirements that would be applicable in all cases, therefore the Developer must consult with PUC in the early planning stages to ascertain those requirements.

Early Consultation

The Developer shall submit the following information. All plans and drawings required shall be provided as two paper copies plus one electronic copy in AutoCAD format.

- plan of subdivision;
- detailed engineering plans (including all proposed driveway and walkway locations) approved by the Municipality);
- schedule of electric power requirements at defined phases or stages of development;
- type of heating and air-conditioning for each dwelling unit;
- service requirements for all other types of buildings or recreational facilities that may be constructed in addition to the residential dwellings.
- estimated minimum monthly demand (kW);
- estimated yearly energy consumption (kWh);

PUC Distribution Inc. (PUC)

Subdivision or Development Agreements

The Developer is required to enter into a standard Subdivision or Development Agreement, specific to the type of development, with PUC. Payment of all applicable financial requirements necessary for the installation of an underground electrical distribution system will be required prior to finalizing the Agreement.

In general, the Developer shall pay all costs associated with the design, construction, inspection, switching, energizing and installation of the underground electrical distribution system, services and street lighting system. Included are costs associated with preparations and registration of the standard agreement and easements.

For residential Type B developments, PUC's costs shall be paid by the Developer through flat fees that are based on the number of units being developed. These fees are listed in *Appendix C* contained herein and include an allowance for equivalent overhead distribution and service lines.

The nature of commercial or industrial developments is such that it is not possible to establish flat fees in advance. For Type B developments of this nature, PUC will estimate the cost of constructing the services based on the information provided by the developer. The developer will be required to pay the actual costs of design and construction and must provide deposits and securities as specified in the development agreement.

For Type B developments, the Developer shall provide written approval of the location of PUC's underground electric supply system, services and the street lighting system well in advance of construction commencement. Following this approval, any costs incurred for revisions must be paid for by the Developer.

PUC's standard subdivision agreements are available for review upon request.

Underground or Overhead Distribution System

Electrical distribution on the street shall be underground for urban developments. In rural areas, the Developer has the option of overhead distribution, provided the lot frontages exceed 150 metres.

Supply for all services, other than apartment or commercial buildings, will be 120/240 Volts, single-phase, 3-wire, 200 Amperes rating. In the event any of the lands are built or developed for other than single family detached or semi-detached dwellings, or the service entrance of any building exceeds 200 Amperes rating, the type of service required must be clarified with PUC and the Developer shall pay all additional costs assessed for each service.

Underground Services

For residential subdivisions all house or building services shall be underground at the Developer's expense, regardless of the type of Distribution System used.

Municipal Street Lighting

Street lighting shall be standard concrete or steel poles with associated underground wiring in conjunction with the underground electrical distribution system and the Developer shall pay the entire cost for labour, materials, supervision and permit fees required. Alternatively the developer may choose to install decorative streetlights at additional costs and subject to additional requirements identified in the Subdivision Agreement.

General Service - Above 300 kW

This section provides additional details not covered elsewhere in these Conditions related to the supply of electricity to Commercial/Industrial Customers requiring a transformation capacity greater than 300 kW.

All services with an estimated monthly demand greater than 300 kW will require a group-operated switch rather than the minimum single phase cut-outs. The group-operated switch will be supplied and installed by PUC at cost to the

Customer. The Customer must provide the facilities to accommodate the switch. Alternatively, at PUC's sole discretion, the switch may be installed on PUC plant within the right-of-way.

For services requiring more than 500 kVA or where the Customer anticipates future load growth requiring more than 500 kVA of transformation, the Owner must supply and install a precast well-type transformer foundation rather than a cast-in-place concrete pad.

Early Consultation

Detailed requirements cannot be stated which would be applicable in all cases, therefore the Owner will consult with PUC in the early planning stages to confirm PUC requirements.

The Customer shall provide PUC with:

- required service date;
- the number, rating, primary and secondary voltages of any customer owned transformer(s);
- the estimated initial connected load and demand in kW;
- the estimated future connected load and demand in kW;
- two complete sets of substation and relevant drawings as detailed below in section '3.3.9.2 - Drawings '. All drawings for high voltage equipment submitted to PUC for approval must be certified by a professional engineer in order to be considered;
- easement(s), if required.

PUC will:

- advise the Customer of the suitability of the service date;
- arrange for a Service Contract with the Customer;
- review the submitted drawings and return one set to the Customer with comments and/or approval. If requested by PUC, the Customer shall re-submit the drawings where the comments are extensive and require major changes;
- specify the required high voltage main fuse link or relay setting for co-ordination with the system. In case of multiple transformer stations, a complete co-ordination study shall be submitted by the Customer for approval;
- make the final connection to the source of supply;

Drawings

Apart from the regular drawings submission to ESA, the Customer shall provide two sets of the following drawings and details to PUC:

- Survey Plan: prepared by an Ontario Land Surveyor; showing the property limits, registered plan and existing buildings or easements, if any.
- Site Plan: showing the location of the station relative to buildings, structures and set backs from adjacent property line. The site plan shall also include the exact location of existing PUC-owned plant and the proposed route of the incoming supply.
- Schematic or Single-Line Diagram: indicating the major components of the station and their electrical ratings. Where additions or alterations are being made these shall be clearly distinguished from unchanged portions of the installation.
- Electrical Details: sufficient details shall be provided in order to enable fast processing and approval of the station drawings. The following represents the minimum data required:

- plan, elevation and profile views of the station structure, switchgear, transformer(s), termination poles, duct banks, etc.;
- dimensions to clearly indicate the electrical, physical and working clearances as well as relative location of all equipment;
- pole or structure for dead-ending PUC lines shall be complete with suitable hardware for attaching the suspension insulators that will be supplied and installed by PUC.
- fencing arrangement;
- grounding details. In the case of indoor metal enclosed switchgear, when PUC has operating control of any interrupter switches, the assembly shall further incorporate ground rod parking stands and stirrups;
- details of vault construction, if indoor substation;
- manufacturer's drawings of metal-enclosed switchgear showing internal arrangement of equipment, clearances, means of access, interlocking and provision for personal safety. Where PUC cables terminate in the switchgear, the Customer shall provide suitable terminators for the size and type of cable as specified by PUC;
- Bill of Material properly referenced to the drawings;
- when the Customer's switchgear is used for loop feeding PUC's supply cables, provision for padlocking the 'in' and 'out' load interrupter switches and the associated bay doors shall be required;
- indoor and outdoor switchgear assemblies shall contain a space heater and protective guard in each bay, along with thermostat(s), sized to promote air circulation and to prevent condensation from forming;
- the Customer shall make provisions for a future system neutral connection to the Customer's dead-ending pole or structures installed by PUC. Where PUC neutral terminates in the Customer's switchgear, the Customer shall provide a suitable connector on the ground bus for the size and type of cable specified by PUC.

General Service - Above 1,000 kW

This section provides additional details not covered elsewhere in these Conditions related to the supply of electricity to Commercial/Industrial Customers requiring transformer capacity greater than 1,000 kW.

All services greater than 1,000 kW must be metered with an interval meter, as per the requirements of the *Distribution System Code* and Section 2.3.7 Metering above.

Embedded Generation

The Customer shall comply with the detailed requirements outlined in the Distribution System Code as well as PUC requirements listed below.

PUC shall make every reasonable effort to respond promptly to a Customer's request for connection of its Embedded Generation Facility (Generator). In any event PUC shall arrange an initial consultation with a Generator that wishes to connect to PUC's distribution system regarding the connection process within thirty calendar days of receiving a written request for connection. A final offer to connect a Generator to its distribution system shall be made within ninety calendar days of receiving a written request for connection, unless other necessary information outside PUC's control is required before the offer can be made.

A Customer wishing to connect a Generator to PUC's distribution system shall enter into a Connection Agreement in a form acceptable to PUC prior to connection.

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The connection and operation of a Generator must not endanger workers or jeopardize public safety, or adversely affect or compromise equipment owned or operated by PUC, or the security, reliability, efficiency and the quality of electrical supply to other Customers connected to PUC's distribution system. If damage or increased operating costs result from a connection with a generator, PUC shall be reimbursed for these costs by the generator.

When a Generator is to be connected to PUC's distribution system, the Customer shall provide an interface protection that minimizes the severity and extent of disturbances to PUC's distribution system and the impact on other Customers. The interface protection shall be capable of automatically isolating the generator(s) from PUC's distribution system for the following situations:

- Internal faults within the generator.
- External faults in PUC's distribution system.
- Certain abnormal system conditions, such as over/under voltage, over/under frequency.

The Customers shall disconnect the Generator from PUC's distribution system when:

- a remote trip or transfer trip is included in the interface protection, and
- the Customer effects changes in the normal feeder arrangements other than those agreed upon in the operating agreement between PUC and the Customer.

Micro-Embedded Load Displacement Generator

Customers wishing to install micro-embedded load displacement generators (MELD) shall conform to the requirements of the Distribution System Code. In addition, the following PUC requirements will apply:

- Disconnecting Device

  Subject to ESA and PUC approval, a lockable, outdoor rated, visible break, disconnecting device shall be installed on the exterior of the house adjacent to the existing or proposed electric meter base. One such approved device is a Cutler-Hammer product, catalogue No. 3GAC222NF.

- Metering

  The standard single phase meter typically supplied by PUC in residential applications is not approved by Industry Canada for bi-directional revenue metering. Therefore PUC will provide and install an approved meter at cost to the owner. The owner will be required to provide a deposit for the full amount prior to ordering the meter. The deposit will be applied towards the actual installed cost when billed. A credit will be provided for the deferred cost of a standard meter.

- Billing Settlement

  Monthly Service Charge and Distribution Charges will apply regardless of net consumption. No payment will be made for any excess generation that results in a net delivery of energy to the grid between meter reads.

- Connection Agreement

  The owner shall enter into the contract posted in the Distribution System Code, Appendix E, before the proposed installation is connected to the grid. The installation will be subject to the appropriate inspection approvals by ESA.

Embedded Market Participant

An Embedded Market Participant shall provide PUC with proof of compliance of IMO-registration Requirements and appropriate Licences.

Where these Conditions of PUC exceeds the technical requirements of any other licence or participant obligations, these Conditions shall take precedence.

The Embedded Market Participant must meet at a minimum, the standards as set out in these Conditions in order to connect to PUC's distribution facilities.

Embedded Distributor

An Embedded Distributor shall provide PUC with proof of compliance of IMO-registration Requirements and appropriate Licences.

Where these Conditions exceed the technical requirements of any other licence or participant obligations, these Conditions shall take precedence.

The Embedded Distributor must meet at a minimum, the standards as set out in these Conditions in order to connect to PUC's distribution facilities.

Unmetered Connections

A Customer, at the sole discretion of PUC, may arrange for an unmetered service to fixed loads such as telephone booths, traffic signals, CATV amplifiers, municipal street lighting and traffic lights.

Early Consultation

The Customer shall supply the following to PUC well in advance of installation commencement:

- required service date;
- requested service entrance capacity and voltage rating of the service entrance equipment;
- locations of other utility services: gas, telephone, water and cable-vision;
- survey plan and site plan indicating the proposed location of the service entrance equipment with respect to public rights-of-way and lot lines.

Street Lighting

Municipal street lighting that is designed, installed and maintained by PUC shall be fully funded by the Municipality and adhere to the *Distribution System Code* and PUC's Licence.

The method and location of supply will vary based on the conditions present on PUC's plant and will be established for each application by PUC.

Energy consumption will be based on the connected wattage and the calculated hours of use based on the measurement of darkness hours by a suitable master photocell.

Traffic Signals and Crosswalks

These are devices owned and maintained by the Municipality.

The method and location of supply will vary and will be established for each application through consultation with PUC. The Owner shall be responsible for all costs associated with the supply and installation of service conductors.

Prior to energizing a service PUC will require notification from ESA that the installation has been inspected and approved for connection.

Energy consumption will be based on the connected wattage and the calculated hours of use based on the controller programming.

Illuminated Bus Shelters Owned and Operated by the Municipality

The service location and method of supply will be established through consultation with PUC for each application. The Owner shall be responsible for all costs associated with the supply and installation of service conductors.

Prior to energizing a service PUC will require notification from ESA that the installation has been inspected and approved for connection.

Energy consumption will be based on the connected wattage and number of hours utilized per day.

Other Small Services

The method and location of supply for such loads as telephone booths, cable-TV amplifiers and similar small unmetered loads will vary and will be established for each application through consultation with PUC. The Owner shall be responsible for all costs associated with the supply and installation of service conductors.

Normally PUC will supply transformation at no cost to the Owner, except for particular cases where PUC may deem it necessary to charge for the labour and other associated work required to provide transformation.

Prior to energizing a service PUC will require notification from ESA that the installation has been inspected and approved for connection.

Energy consumption will be based on the connected wattage and the calculated hours of use.

Miscellaneous Small Metered Loads

Illuminated Bill Boards and Similar Installations

The nominal service voltage will at the discretion of PUC, but will normally be 120/240 Volts, single-phase, three-wire. The method and location of supply will vary and will be established for each application through consultation with PUC. In all cases the service must be metered.

The Owner shall be responsible for all costs associated with the supply and installation of service conductors.

Normally PUC will supply transformation at no cost to the Owner, except for particular cases where PUC may deem it necessary to charge for the labour and other associated work required to provide transformation.

Prior to energizing a service PUC will require notification from ESA that the installation has been inspected and approved for connection.

Decorative Street Lighting

This section does not apply to Municipal street lighting that is designed, installed and maintained by PUC and funded by the Municipality.

The method and location of the supply will vary based on the conditions present on PUC's plant and will be established for each application through consultation with PUC.

The service will be metered. The Customer shall provide a photo cell or time clock control arranged to energize the load for night illumination only.

Generally, service will be provided underground. The Owner will provide underground ducts and facilities to PUC's requirements as specified in these Conditions.

Temporary Service

Temporary services may be provided for construction purposes or special events. The Customer must provide a deposit prior to installation to cover the full estimated cost of installation and removal of all equipment necessary to provide the service. The deposit will be applied towards the final billing for actual costs incurred.

Temporary services must be metered.

GLOSSARY OF TERMS

Affiliate Relationships Code - means the code, approved by the Ontario Energy Board and in effect at the relevant time, which, among other things, establishes the standards and conditions for the interaction between electricity distributors or transmitters and their respective affiliated companies.

Ancillary Services - means services necessary to maintain the reliability of the IMO-controlled grid: including frequency control, voltage control, reactive power and operating reserve services.

Apartment Building - means a structure containing four or more dwelling units having access from an interior corridor system or common entrance.

Application for Service - means the agreement or contract between PUC and the Customer for which electrical service is requested.

Billing Demand - the metered demand or connected load after necessary adjustments have been made for power factor, intermittent rating, transformer losses and minimum bill. A measurement in kilowatts (kW) of the maximum rate at which electricity is consumed during a billing period.

Board or OEB - means the Ontario Energy Board.

Conditions of Service - means the document developed by the distributor in accordance with Sub-section 2.3 of the Distribution System Code that describes the operating practices and connection rules for the distributor.

Connected Load - means the total kilowatt rating of all the electrical equipment on the Customer's premises that is connected to the main service.

Connection - means the process of installing and activating connection assets in order to distribute electricity to a Customer.

Connection Agreement - means an agreement entered into between a distributor and a person connected to its distribution system that delineates the conditions of the connection and delivery of electricity to that connection.

Connection Assets - means that portion of the distribution system used to connect a Customer to the existing main distribution system and consists of the assets between the point of connection on the distributor's main distribution system and the ownership demarcation point with that Customer.

Consumer - means a person who uses, for their person's own consumption, electricity that the person did not generate.

Customer - means a person or corporation that has contracted for or intends to contract for connection of a building or installation requiring electrical energy. This includes developers of residential or commercial subdivisions.

Delivery Point - means the point in its wires at which the distributor delivers electricity to the wires of the Customer.

Demand - means the average value of electric power measured over a specified interval of time, usually expressed in kilowatts (kW). Typical demand intervals are 15, 30 and 60 minutes.

Demand Meter - means a meter that measures a consumer's peak usage during a specified period of time.

Developer - means the person(s) or corporation(s) owning property for which new or modified electrical services are to be installed.

Disconnection - means a deactivation of connection assets that results in cessation of distribution services to a Consumer.

Distribute - with respect to electricity means to convey electricity at voltages of 50 kilovolts or less.

Distribution Losses - means energy losses that result from the interaction of intrinsic characteristics of the distribution network such as electrical resistance with network voltages and current flows.

Distribution Loss Factor - has the meaning described to it in the Retail Settlement Code.

Distribution Services - means services related to the distribution of electricity and the services the Board has required distributors to carry out, for which a charge or rate has been approved by the Board under Section 78 of the *Ontario Energy Board Act* .

Distribution System Code - means the code, approved by the Ontario Energy Board and in effect at the relevant time, which, among other things, establishes the obligations of the distributor with respect to the services and terms of service to be offered to customers and retailers and provides minimum technical operating standards of distribution systems.

Distribution System/Plant/Facilities - means a system for distributing electricity and includes any structures, equipment or other things used for that purpose. A distribution system is comprised of the main system capable of distributing electricity to many customers and the connection assets used to connect a Customer to the main distribution system.

Distributor - means a person who owns or operates a distribution system.

Duct Bank – means one or more ducts that may be encased in concrete used for the purpose of containing and protecting underground electric cables.

Electricity Act - means the *Electricity Act*, 1998, S.O. 1998, c.15, Schedule A.

Electrical Safety Authority or ESA – means the person or body designated under the Electricity Act regulations as the Electrical Safety Authority.

Electric Service - means the supply of electricity from PUC to the Customer.

Embedded Distributor - means a distributor who is not a wholesale market participant and that is provided electricity by a host distributor.

Embedded Generator or Embedded Generation Facility - means a generator whose generation facility is not directly connected to the IMO-controlled grid but instead is connected to a distribution system.

Embedded Market Participant (or Embedded Wholesale Consumer) - means a consumer who is a wholesale market participant whose facility is not directly connected to the IMO-controlled grid but is connected to a distribution system.

Emergency - means any abnormal system condition that requires remedial action to prevent or limit loss of a distribution system or supply of electricity that could adversely affect the reliability of the electricity system.

Emergency Back-up - means a generation facility that has a transfer switch that isolates it from a distribution system.

Energy - refers to the product of power multiplied by time usually expressed in kilowatt-hours (kWH).

Energy Competition Act - means the *Energy Competition Act*, 1998, S.O. 1998, c.15.

Energy Diversion - means electric consumption unaccounted for but that can be quantified through various measures upon review of the meter mechanism such as: unbilled meter readings, tap off load(s) before revenue meter or meter tampering.

Enhancement - means a modification to an existing distribution system that is made for purposes of improving system operating characteristics such as reliability or power quality or relieving system capacity constrains resulting for example from general load growth.

Expansion - means an addition to a distribution system in response to a request for additional customer connections that otherwise could not be made, for example by increasing the length of the distribution system.

Extreme Operating Conditions - conditions are defined in the CSA Standard CAN3-C235-87 - latest edition.

Four-Quadrant Interval Meter - means an interval meter that records both the power injected into a distribution system and the amount of electricity consumed by the Customer.

Generate - with respect to electricity, means to produce electricity or provide ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system.

Generation Facility - means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and includes any structures, equipment or other things used for that purpose.

Generator - means a person who owns or operates a generation facility.

Good Utility Practice - means any of the current practices, methods and acts engaged in or approved by a significant portion of the electric utility industry in North America, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be acceptable practices, methods or acts generally accepted in North America.

Holiday - means Saturday, Sunday, statutory holiday or any day as defined in the Province of Ontario as a legal holiday.

IMO - means the Independent Electricity Market Operator established under the Electricity Act.

IMO-Controlled Grid - means the transmission systems with respect to which, pursuant to agreements, the IMO has authority to direct operation.

Interval Meter - means a meter that measures and records electricity use on an hourly or sub-hourly basis.

Main Service - refers to the incoming cables, bus duct, disconnecting and protective equipment for a building or from which all other metered sub-services are taken.

Market Rules - means the rules made under Section 32 of the *Electricity Act.*

Measurement Canada - means the Special Operating Agency established in August 1996 by the *Electricity and Gas Inspection Act,* 1980-81-82-83, c.87, and Electricity and Gas Inspection Regulations (SOR/86-131).

Meter Installation - means the meter and, if so equipped, the instrument transformers, wiring, test links, fuses, lamps, loss-of-potential alarms, meters, date recorders, telecommunications equipment and associated data facilities installed to measure power past a meter point, provide remote access to the metered data and monitor the condition of the installed equipment.

Meter Socket - refers to the mounting device for accommodating a socket-type revenue meter.

Metering Services - means installation, testing, reading and maintenance of meters.

MIST Meter - means an interval meter from which data is obtained and validated within a designated settlement timeframe. MIST refers to ‘Metering Inside the Settlement Timeframe’.

MOST Meter - means an interval meter from which data is only available outside of the designated settlement timeframe. MOST refers to ‘Metering Outside the Settlement Timeframe’.

Multiple Dwelling or Unit Site - means a building which contains more than one self-contained dwelling or unit.

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Normal Operating Conditions - means the operating conditions comply with the standards set by the CSA Standard CAN3-C235-87 - latest edition.

Ontario Energy Board (OEB) - means Ontario regulator and licensing agency for distribution of electrical energy.

Ontario Energy Board Act - means the *Ontario Energy Board Act*, 1998, S.O. 1998, c.15, Schedule B.

Ontario Power Generation Inc. (OPGI) Rate – refers to the rate applied to Ontario Hydro stranded debt. This will terminate at market opening.

Owner – includes an individual, a corporation, sole proprietorship, a partnership, unincorporated organization, unincorporated association, body corporate and any other legal entity.

Person – includes an individual, a corporation, sole proprietorship, a partnership, unincorporated organization, unincorporated association, body corporate and any other legal entity.

Point of Demarcation (Operational) – means the physical location at which the distributor's responsibility for operational control of distribution equipment including connection assets ends.

Point of Demarcation (Ownership) – means the physical location at which the distributor's ownership of distribution equipment including connection assets ends.

Point of Supply – with respect to an Embedded Generator means the supply of connection point where electricity produced by the generator is injected into a distribution system.

Power Factor – measures the ratio between Real Power and Apparent Power (ie. kW/kVA).

Primary Service – any service which is supplied with a nominal voltage greater than 750 Volts.

Private Property – means the property beyond the existing public street allowances.

Rate – means any rate, charge or other consideration and includes a penalty for late payment.

Rate Handbook – means the document approved by the Board that outlines the regulatory mechanisms that will be applied in the setting of distributor rates.

Reactive Power – this power does not work but is necessary to allow some equipment to operate and is measured in kilo-Volt-Amperes-Reactive (kVAR).

Real Power – the power required to do real work which is measured in kilowatts (kW).

Regulations – means the regulations made under the Act or the Electricity Act.

Residential – means a premise or area designated for living purposes only to the general exclusion of other uses.

Retail – with respect to electricity means:

- to sell or offer to sell electricity to a consumer,
- to act as agent or broker for a retailer with respect to the sale or offering for sale of electricity, or
- to act or offer to act as an agent or broker for a consumer with respect to the sale or offering for sale of electricity.

Retail Metering Code – means the code approved by the Ontario Energy Board and in effect at the relevant time, which among other things establishes metering and meter reading standards and rules for providing interval metering.

Retail Settlement Code – means the code approved by the Board and in effect at the relevant time which among other things establishes a distributor's obligations and responsibilities associated with financial settlement among retailers and customers and provides for tracking and facilitating customer transfers among competitive retailers.

Retailer – means a person who retails electricity.

Secondary Service – any service which is supplied with nominal voltage less than 750 Volts.

Service Area – with respect to a distributor means the area in which the distributor is authorized by its licence to distribute electricity.

Service Date – means the date that the Customer and the distributor mutually agree upon to begin the supply of electricity by the distributor.

Service Entrance – means the point and equipment at which the service wires enter the Customer's building.

Service Wires – means the conductors from the distributor's main circuits on public streets or easements to the Customer's premise.

Services – means all facilities required for supplying electrical energy from the Point of Entry of each lot or block to the Delivery Point at detached or semi-detached dwelling units.

Standard Development Agreement (or Subdivision Electrical Distribution System Agreement) means a legal agreement between the Developer, the Mortgagees and PUB Distribution, in a form suitable for registration at the Lands Registry Office; and which details the engineering and financial responsibilities of all parties to the agreement.

Standard Supply Service Code – means the code approved by the Ontario Energy Board and in effect at the relevant time which among other things establishes the minimum conditions that a distributor must meet in carrying out its obligations to sell electricity under Section 29 of the Electricity Act.

Street Light System – means all facilities required for illuminating all public rights-of-way as determined by the Municipality.

Supply Voltage – means the voltage measured at the Customer's main service entrance equipment.

Temporary Service – means an electrical service granted temporarily for such purposes as construction, real estate sales, trailers etc.

Tenant – means a Person that rents and occupies the property of another.

Transformer Room – refers to an isolated enclosure built to applicable codes to house transformers and associated electrical equipment.

Transmission System – means a system for transmitting electricity and includes any structures, equipment or other things used for that purpose.

Transmitter – means a person who owns or operates a transmission system.

Underground Electrical Supply System – means all facilities required for supplying electrical energy from any existing distribution circuit to the subdivision, up to the point of Entry to each lot or block.

Un-metered Connections (or Loads) – means electricity consumption that is not metered and is billed based on estimated usage.

Utilization Voltage - refers to those used to supply and operate Customer's equipment (typically below 750 Volts) as measured at the point of utilization.

Validating, Estimating and Editing (VEE) means the process used to validate, estimate and edit raw metering data to produce final metering data or to replicate missing metering data for settlement purposes.

Wholesale Market Participant - means a person that sells or purchases electricity or ancillary services through the IMP-administered markets.

APPENDICES

APPENDIX A SCHEDULE OF RATES

for current rates approved by the OEB

see PUC website at www.ssmpuc.com

or contact the Business Office for a copy of the rate card at:

765 Queen Street East, P.O. Box 9000, Sault Ste. Marie, Ontario P6A 6P2
Telephone: (705) 759-6500
Facsimile: (705) 759-6510

PUC Distribution Inc. (PUC)

APPENDIX B MISCELLANEOUS CHARGES

for current charges approved by the OEB

see PUC website at www.ssmpuc.com

or contact the Business Office at:

765 Queen Street East, P.O. Box 9000, Sault Ste. Marie, Ontario P6A 6P2
Telephone: (705) 759-6500
Facsimile: (705) 759-6510

PUC Distribution Inc. (PUC)

APPENDIX C DISTRIBUTION AND CONNECTION CHARGES

All charges are subject to applicable taxes.

Basic Overhead Service: (Residential or Commercial)

200 ampere service (first 30 m only)	no charge
Extra length for 200 ampere overhead service (beyond first 30 m)	$ 4.24 per m

Basic Underground Residential Service: (Customer provides trenching)

200 ampere service (first 30 m only)	$229 per house
400 ampere service (first 12 m only)	$398 per house
Extra length for 200 ampere underground service (beyond first 30 m)	$16.98 per m
Extra length for 400 ampere underground service (beyond first 12 m)	$26.73 per m

Urban Residential Subdivision: (PUC provides trenching)

Single Family Lot (includes service line)		$1,435 per lot
Semi-Detached Dwelling Unit (includes service line)		$1,365 per unit
Townhouse Dwelling Units (includes service line)		$1,286 per unit
Apartment Buildings:	Distribution Frontage	$46.81 per m
	U/G Primary Service (up to property line only)	$5,648 each
200 ampere underground service from overhead distribution (first 30 m)		$381 per service
Extra length for 200 ampere underground service (beyond first 30 m)		$21.30 per m

Rural Estate Residential Subdivision: (PUC provides trenching)

Underground distribution	$2,477 per lot
Underground service (30 m. limit for 200 ampere or 12 m. limit for 400 ampere)	
from underground distribution	$1,847 per service
from overhead distribution	$751 per service
Extra length for 200 ampere underground service (beyond first 30 m)	$21.30 per m
Extra length for 400 ampere underground service (beyond first 12 m)	$30.51 per m

APPENDIX D SECURITY DEPOSITS

Table 1 DEPOSIT SCHEDULE – RESIDENTIAL SERVICE

Dwelling Type	Electric Heat	Non-Electric Heat	Garage
Apartment House Semi-detached Duplex	$300.00 $600.00 $600.00 $300.00	$200.00 $400.00 $400.00 $200.00	No deposit if for own non-commercial use
Townhouses (ADHA and houses in which there is no water or heat classify as apartments)		$200.00	

Table 2 DEPOSIT SCHEDULE – GENERAL SERVICE

Service Size Amperes	1 Phase 120/240 Volts	3 Phase 120/208 Volts	3 Phase 347/600 Volts
60	$135.00	$200.00	$600.00
100	$225.00	$350.00	$1,000.00
200	$450.00	$700.00	$1,950.00
300	-	-	$2,950.00
400	$900.00	$1,350.00	$3,900.00
600	$1,350.00	$2,050.00	$5,900.00
800	-	$2,700.00	$7,850.00
1000	-	$3,400.00	$9,800.00
1200	-	$4,100.00	$11,800.00
1600	-	$5,450.00	$15,700.00
2500	-	$8,500.00	$24,500.00

PUC Distribution Inc. (PUC)

APPENDIX E CSA STANDARD VOLTAGE REQUIREMENTS

CSA Standard Voltage Requirements CAN3-C235

Recommended Voltage Variation Limits for Circuits up to 1000 V, at Service Entrance

Voltage Variation Limited Application at Service Entrance

Nominal System Voltages	Extreme Operating Conditions			
		Normal Operating Conditions		
Single Phase				
120/240	106/212	110/220	125/250	127/254
240	212	220	250	254
480	424	440	500	508
600	530	550	625	635
3-phase, 4-wire				
120/208Y	110/190	112/194	125/216	127/220
240/416Y	220/380	224/388	250/432	254/440
277/480Y	245/424	254/440	288/500	293/508
347/600Y	306/530	318/550	360/625	367/635
3-phase, 3-wire				
240	212	220	250	254
480	424	440	500	508
600	530	550	625	635

APPENDIX F ECONOMIC EVALUATION FOR SYSTEM EXPANSION

Economic Evaluation Model for Distribution System Expansion

Refer to Appendix B of the Distribution System Code:

"Methodology and Assumptions for an Economic Evaluation"

PUC Distribution Inc. (PUC)

APPENDIX G STANDARD SERVICE CONNECTION AGREEMENT

PUC
765 Queen Street East, P.O. Box 9000
Sault Ste. Marie, Ontario P6A 6P2
(705) 759-6500 Fax 759-6510

APPLICATION FOR SERVICE - RESIDENTIAL / GENERAL SERVICE

The undersigned hereby requests the PUC to make the designated service connections at the premises indicated hereon, and agrees to abide and to be bound by the provisions and amendments of PUC Distribution Inc. Conditions of Service, the Public Utilities Act, the Electricity Act, and the By-laws of this Company, which are now or may be in force. **The PUC shall have access to the premises for reading, examining, repairing or removing meters.**

Customer # ______________________

Account: ______________________

Cycle ______ Route ______ Walk ______

Property Owner ☐ Tenant ☐

S.I.C. Code ______________________

Electric Service Res. ☐ **Gen.** ☐

Meter # ______________ Mult. ________

Demand Meter # ______________________

Water Service Res. ☐ **Gen.** ☐

Meter # ____________ No. Units ______

Sewerage Exempt Yes ☐ No ☐

Name ____

Service Address ____

Mailing Address ____

____

Postal Code ____________________ Home Telephone # ____________________

Work Telephone # ____________________ Ext. # __________ Fax # ____________________

Prev. Service Address ____

Customer Identification: 1. ______________________________

Fire Protection Yes ☐ No ☐ 2. ______________________________

GST Exempt Yes ☐ No ☐ Band # ______________________________

Remarks / Start Billing

The PUC requires a deposit in accordance with PUC Distribution Inc. Conditions of Service:

Satisfactory Credit Check: ☐ **Credit Reference Letter:** ☐ **Good Payment History:** ☐ **Deposit Waived:** ☐

Required Deposit / Letter of Guarantee $ ____________________ Amount Paid $ ____________________ Balance Owing $ ____________________

PAD Plan: Exact ☐ Equal ☐ Start Date: ____________________ Amount: ____________________ Occupancy Charge: ________

I understand that failure to pay balance owing on deposit by ____________________ will result in the PUC instituting collection procedures.

SIGNATURE:

____________________ DATE ______________ 20____ Accepted on Behalf of PUC ______________ Cust. Serv./Teller ______________

Form #11

FOR OFFICE USE ONLY:

Electric Service ☐

DSO Line # ______________

DSO Meter # El ______________

Wt ______________

Work Order Required ☐ Yes ☐ No

New ______ Amp U/G $ ______

Increase &/or Relocate

O/H to U/G $ ______________

Extra Charges $ ______________

G.S.T. $ ______________

Total Cost $ ______________

Water Service ☐

DSO Water # ______________

Lateral Size ______________

Cost $ ______________

Frontage Charges ______________

Cost $ ______________

Asphalt Restoration ☐ Yes ☐ No

Cost $ ______________

Water Service

Total Cost $ ______________

Heat Source ______________________

Landlord #: ______________________

PUC Distribution Inc. (PUC)

PLANNED CHANGES IN CONDITIONS OF SERVICE AND SERVICE CHARGES

PUC has no planned changes in Conditions of Service document.

PUC Distribution Inc. (PUC)

Changes in Policies and Regulations

PUC has no changes in Policies and Regulations at the time of application.

PUC Distribution Inc. (PUC)

LIST OF WITNESSES

To be provided if oral hearing occurs

PUC Distribution Inc. (PUC)

SUMMARY OF THE APPLICATION

PURPOSE AND NEED

PUC self-nominated for 2008 rate rebasing. We have calculated a Revenue Requirement of $17,191,211 and our present rates will produce a deficiency of $4,107,414 in distribution revenue for the 2008 Test year. PUC therefore seeks the Ontario Energy Board's approval to revise its rates applicable to its distribution of electricity. The issues to be reviewed in this case, as PUC sees them, are discussed below.

Through this application, PUC seeks:

To recover:

- Deficiency arising from changes in OM&A, Amortization, and the Rate of Return.
- Deferral and Variance Account Balances.

To change:

- Distribution Loss Factor

To reflect:

- Just and Reasonable Distribution Rates that have been modeled in accordance with the Ontario Energy Board Filing requirements for Distribution Rate Applications.

PUC has been assisted in this rate application by Elenchus Research Associates who provide the model used in determination of just and reasonable 2008 Distribution Rates.

The information used in this Application is PUC's forecasted results for its 2008 Test Year. With the rates presently in effect, the PUC estimates that its revenue for 2008 would not be sufficient to provide a reasonable return. PUC is also presenting the historical actual information for fiscal 2006, information for the current approved test year and forecast for the fiscal 2007 bridge year.

TIMING

The financial information supporting the Test Year for this Application will be PUC's fiscal year ending December 31, 2008 (the "2008 Test Year"). However, this information will be used to set rates for the period May 1, 2008 to April 30, 2009. The Test Year revenue requirement is that forecast by PUC as needed to enable it to earn a reasonable return for fiscal 2008

CUSTOMER IMPACT

PUC proposed rates will not have unacceptable impacts on total customer bills and therefore PUC is not proposing any rate mitigation measures. Refer to Exhibit 9 for Rate Design and Bill Impacts.

PUC Distribution Inc. (PUC)

MAJOR ISSUES

There are a number of issues that, although they may not all be defined as major, are anticipated to be examined in this case. These issues are listed below.

Capital Structure

PUC has a deemed capital structure of 50% debt, 50% equity as approved by the Ontario Energy Board in RP-2005-0020, and a return on equity of 9.00%, consistent with the return specified in the Board's Decision in EB-2005-0412, dated April 12, 2006. PUCs current capital structure includes debt in excess of the current deemed structure. This application includes measures to move towards the new deemed debt to equity structure as prescribed by the Board. However, the applied for rates are based on the transitional deemed structure of 53% debt and 47% equity.

Return on Rate Base

In addition, PUC has assumed a return on rate base of 7.12% consistent with the methodology outlined in Appendix B of the Report of the Board on Cost of Capital and 2nd Generation Incentive Regulation for Ontario Electricity Distributors dated December 20, 2006. PUC understands the OEB will be finalizing the return on equity for 2008 rates based on January 2008 market interest rate information.

Smart Metering

In this rate application PUC has included costs related to Smart Metering. PUC's smart meter plan has been compiled by a consultant as part of a group of the EDA's Northeast District LDCs. As part of the group's plan, PUC is scheduled to install all its smart meters in the spring of 2008. The costs included are based on the consultant's estimates which have been drawn from costs approved for other LDCs in the province.

Allocation of Affiliate Costs

PUC has a Management and Operating agreement with an affiliate. There are certain shared costs that are allocated to the LDC. Included in this application is a consultant's report that examines and recommends cost allocation methods that are applied in the 2008 test year projections.

Level of Capital Expenditures and Operating and Maintenance Expenses

The 2008 test year projections include increases in capital expenditure levels and also operating and maintenance expense increases. In management's opinion, these increases are necessary to improve reliability and system security which has been declining over the years. In addition to management's report which sets out the recommended long term path to improvement, is a consultant's report that critically reviews management's recommendations.

Cost Allocation

In this application PUC has adjusted the percentage of revenue recovered from the various rate classes. With the requested rates, recoveries from the individual classes fall within the Board recommended ranges except for the streetlight and sentinel light classes. A move toward the recommended ranges for these two classes was commenced in 2008 rates and will be continued in future rate applications.

PUC Distribution Inc. (PUC)

BUDGET DIRECTIVES

PUC compiled budget information for the three major components of the budgeting process: revenue forecasts, operating, maintenance and administrative expense forecasts and capital budgets. This budget information is compiled for both the bridge and test years.

Revenue Forecast

The energy sales and revenue forecast model was updated to reflect more recent information. This model was then used to prepare the revenues sales and throughput volume and revenue forecast at existing rates for fiscal 2007 and 2008. The forecast is weather normalized and considers such factors as new customer additions and load profiles for all classes of customers.

Operating and Maintenance Expense Forecast

The operating and maintenance expenses for the fiscal 2007 bridge year and the 2008 test year have been forecast using a zero based methodology and is strongly influenced by prior year experience. Each item is reviewed account by account for each of the forecast years.

Capital Budget

The capital budgeting process begins with a review of the long term plans. A copy of the capital plan and a critical third party review is included with this application.

PUC Distribution Inc. (PUC)

CHANGES IN METHODOLOGY

PUC Distribution has no request for changes in methodology.

Exhibit: 1

PUC Distribution Inc. (PUC)

NUMERICAL DETAILS OF CAUSES OF DEFICIENCY/SUFFICIENCY 2008 TEST YEAR

	2008 Test at 2007 Existing Rates
Revenue	
Distribution Revenue	12,091,138
Other Operating Revenue (Net)	992,659
Total Revenue	13,083,797
Costs and Expenses	
Distribution Costs	
Operation & Maintenance & Administration	8,506,469
Depreciation & Amortization	3,310,977
Taxes	170,151
PILS	1,687,136
Total Costs and Expenses before Interest	13,674,733
Utility loss	-590,936
Utility proposed rate base	49,406,580
Required Return @7.12%	3,516,478
Required Return	3,516,478
Utility loss	590,936
Revenue Deficiency	**4,107,414**

PUC Distribution Inc. (PUC)

CAUSES OF REVENUE DEFFICIENCY

PUC's revenue deficiency is a result of an increase in expenses, an increase in the rate base, insufficient rate increases in the past and tax minimization measures that are no longer available.

Exhibit: 1

PUC Distribution Inc. (PUC)

AUDITED FINANCIAL STATEMENTS

AT
DECEMBER 31 2006

PUC Distribution Inc. (PUC)

Financial Statements of

PUC DISTRIBUTION INC.

Year ended December 31, 2006

PUC Distribution Inc. (PUC)

KPMG LLP
Chartered Accountants
111 Elgin Street at Queen
Suite 200
PO Box 578
Sault Ste Marie ON P6A 5M6

Telephone (705) 949-5811
Fax (705) 949-0911
Internet www.kpmg.ca

AUDITORS' REPORT

To the Shareholder of PUC Distribution Inc.

We have audited the balance sheet of PUC Distribution Inc. as at December 31, 2006 and the statements of operations and deficit and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2006 and the results of its operations and its cash flows for the year then ended in accordance Canadian generally accepted accounting principles.

KPMG LLP

Chartered Accountants, Licensed Public Accountants

Sault Ste. Marie, Canada

March 9, 2007

Exhibit: 1

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Balance Sheet

December 31, 2006, with comparative figures for 2005

	2006	2005
Assets		
Current assets:		
Accounts receivable	$ 6,031,724	$ 2,037,542
Unbilled revenue	5,970,114	8,931,643
Payment in lieu of taxes recoverable	325	6,445
Inventories	1,425,186	1,263,831
Prepaid expenses and deposits	154,182	140,782
Receivable from related party, PUC Services Inc.	2,777,097	10,833,492
	16,358,628	23,213,735
Capital assets (note 2):		
Land, buildings and equipment	76,170,010	74,198,638
Less accumulated amortization	40,630,885	38,746,152
	35,539,125	35,452,486
Regulatory assets (note 3)	1,217,901	3,159,785
	$ 53,115,654	$ 61,826,006
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable and accrued liabilities	$ 6,652,853	$ 15,165,783
Customer deposits	1,048,692	916,375
	7,701,545	16,082,158
Long-term debt (note 4)	41,940,000	41,940,000
Shareholders' equity		
Share capital:		
Authorized:		
Unlimited special shares, non-voting, non-cumulative, redeemable at $10,000 per share		
10,000 Common shares		
Issued and outstanding:		
2,000 Common shares	4,656,146	4,656,146
Deficit	(1,182,037)	(852,298)
	3,474,109	3,803,848
Contingent liability (note 6)		
	$ 53,115,654	$ 61,826,006

See accompanying notes to financial statements.

On behalf of the Board:

_______________ Director _______________ Director

1

Exhibit: 1

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Statement of Operations and Deficit

Year ended December 31, 2006, with comparative figures for 2005

		2006		2005
Revenue:				
Distribution revenue	$	11,209,507	$	10,839,403
Energy charges		45,728,363		52,663,389
Other related charges		166,932		148,057
		57,104,802		63,650,849
Cost of power		45,728,363		52,663,389
Gross profit		11,376,439		10,987,460
Investment income		334,831		307,848
Other revenue		421,986		589,424
		12,133,256		11,884,732
Expenses:				
Distribution and transmission		3,482,096		3,200,544
Billing and collecting		941,104		843,055
Community relations		428,532		465,985
Administration		1,870,707		2,482,203
Interest on long term debt		2,807,650		2,807,650
Interest on customer deposits		38,043		19,014
Capital tax		130,151		136,800
Amortization		2,764,612		2,668,236
		12,462,995		12,623,487
Loss for the year		(329,739)		(738,755)
Deficit, beginning of year		(852,298)		(113,543)
Deficit, end of year	$	(1,182,037)	$	(852,298)

See accompanying notes to financial statements.

2

Exhibit: 1

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Statement of Cash Flows

Year ended December 31, 2006 with comparative figures for 2005

	2006	2005
Cash flows from operating activities:		
Loss for the year	$ (329,739)	$ (738,755)
Items not involving cash:		
Amortization	2,764,612	2,668,236
Retail settlement variances	634,298	9,613
	3,069,171	1,939,094
Change in non-cash operating working capital:		
Accounts receivable	(3,994,182)	2,488,370
Unbilled revenue	2,961,529	(1,442,059)
Payment in lieu of taxes recoverable	6,120	(546)
Inventory	(161,355)	(196,925)
Prepaid expenses	(13,400)	(23,744)
Accounts payable	(8,512,930)	8,065,262
Customer deposits	132,317	(90,210)
	(6,512,730)	10,729,142
Cash flows from financing activities:		
Contributions in aid of construction	504,785	509,850
Cash flows from investing activities:		
Advances to PUC Services	8,056,396	(8,311,230)
Purchase of capital assets	(3,356,036)	(3,761,856)
Recovery of regulatory assets	1,307,586	834,094
	6,007,945	(11,238,992)
Cash position, end of year	$ -	$ -
Supplemental cash flow information:		
Cash paid during the year for:		
Interest	$ 2,807,650	$ 2,807,650
Payments in lieu of taxes	132,038	143,825
Cash received during the year for:		
Payments in lieu of income taxes	8,016	6,400

See accompanying notes to financial statements.

3

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

PUC Distribution Inc. (the "Company") is incorporated under the Ontario Business Corporations Act and as a wholly-owned subsidiary of PUC Inc. is the electric distribution utility for residents of the City of Sault Ste. Marie.

1. Significant accounting policies:

(a) Basis of presentation:

These financial statements have been prepared by management in accordance with the Canadian generally accepted accounting principles for rate regulated entities.

(b) Regulation:

The Ontario Energy Board Act, 1998 (Ontario) ("OEBA") conferred on the Ontario Energy Board ("OEB") increased powers and responsibilities to regulate the electricity industry in Ontario. These powers and responsibilities include approving or fixing rates for the transmission and distribution of electricity, providing continued rate protection for rural and remote electricity consumers, and ensuring that distribution companies fulfill obligations to connect and service customers. The OEB may also prescribe license requirements and conditions of service to electricity distributors which may include, among other things, record keeping, regulatory accounting principles, separation of accounts for distinct businesses, and filing and process requirements for rate setting purposes. In its capacity to approve or set rates, the OEB has the authority to specify regulatory accounting treatments that may differ from Canadian generally accepted accounting principles for enterprises operating in a non-rate regulated environment.

Under the OEBA and the decisions of the OEB, distribution charges for the electricity distribution business were to be increased annually over three years (2001, 2002 and 2003) to achieve an annual rate of return of 9.88% on the amount of common equity deemed to be allocated to this business.

Distribution charges were also to be increased to permit the recovery of costs incurred by the Corporation to prepare for the opening of the competitive electricity market in Ontario ("Market Opening"). The Company has capitalized some of these costs as regulatory assets [note 3].

In January 2004, the Company filed applications to adjust its distribution charges to provide for the recovery of its regulatory assets over a four year period. The applications were approved by the OEB effective March 1, 2004.

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

1. Significant accounting policies (continued):

In January 2005, the Company filed rate applications to adjust its distribution charges to provide for the full theoretical regulatory rate of return of 9.88% and continued recovery of its regulatory assets. As mandated by the OEB, the rate increase is subject to a financial commitment by the Company to invest $387,000 in conservation and demand management activities by September 30, 2007. The rate applications and applications for the approval of its conservation and demand management programs have since been approved by the OEB.

On August 2, 2005, the Company filed its Electricity Distribution Rate Application for 2006 distribution rates, for rates to be effective May 1, 2006. The 2006 rates were approved by the OEB at a level less than requested and will result in a return of less than the revised regulated rate of return of 9%.

The corporation has applied to be in the first group of LDCs to file for rebased rates in 2007 which would be effective May 1, 2008.

(c) Inventory:

Inventory, which consists of parts and supplies acquired for internal construction or consumption, is valued at the lower of cost and replacement cost.

(d) Revenue recognition:

The Company recognizes service revenue on the accrual basis and includes an estimate of unbilled revenue for electricity consumed since the date of each customer's last meter reading.

(e) Measurement of uncertainty:

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and note disclosures related thereto. Due to the inherent uncertainty in making estimates, actual results could differ from estimates recorded in preparing these financial statements, including changes as a result of future regulatory decisions.

Accounts receivable and regulatory assets are stated after evaluation of amounts expected to be collected and an appropriate allowance for doubtful accounts. Inventory is recorded net of provisions for obsolescence. Amounts recorded for depreciation and amortization of equipment are based on estimates of useful service life.

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

1. Significant accounting policies (continued):

(f) Capital assets:

Capital assets are recorded at cost and include contracted services, materials, labour, engineering costs and overheads. Certain assets may be acquired or constructed with financial assistance in the form of contributions from developers or customers. The OEB requires that such contributions, whether in cash or in-kind, be offset against the related asset cost. Contributions in-kind are valued at their fair market values at the date of their contribution.

When identifiable assets, such as buildings, distribution station equipment and equipment and furniture are retired or otherwise disposed of, their original cost and accumulated amortization are removed from the accounts and the related gain or loss is included in the operating results for the related fiscal period. The cost and related accumulated amortization of grouped assets such as transmission and distribution facilities is removed from the accounts at the end of their estimated service life.

Amortization of capital assets is charged to operations on a straight-line basis using the following rates:

Asset	Rate
Building	2 to 4%
Plant and equipment	2 1/2 to 20%
Transmission and distribution	2 1/2 to 4%

Construction in progress comprises capital assets under construction, assets not yet placed into service and pre-construction activities related to specific projects expected to be constructed.

Capital assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds the fair value of the asset.

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

1. **Significant accounting policies (continued):**

   (g) Asset retirement obligations:

   The Company recognizes the fair value of a future asset retirement obligation as a liability in the period in which it incurs a legal obligation associated with the retirement of tangible long-lived assets that results from the acquisition, construction, development, and/or normal use of the assets. The Company concurrently recognizes a corresponding increase in the carrying amount of the related long-lived asset that is amortized over the life of the asset. The fair value of the asset retirement obligation is estimated using the expected cash flow approach that reflects a range of possible outcomes discounted at a credit-adjusted risk-free interest rate. Subsequent to the initial measurement, the asset retirement obligation is adjusted at the end of each period to reflect the passage of time and changes in the estimated future cash flows underlying the obligation. Changes in the obligation due to the passage of time are recognized in income as an operating expense using the interest method. Changes in the obligation due to changes in estimated cash flows are recognized as an adjustment of the carrying amount of the related long-lived asset that is amortized over the remaining life of the asset.

   Some of the Company's transmission and distribution assets may have asset retirement obligations. As the Company expects to use the majority of its installed assets for an indefinite period, no removal date can be determined and consequently a reasonable estimate of the fair value of any related asset retirement obligations cannot be made at this time. If, at some future date, it becomes possible to estimate the fair value cost of removing assets that the Company is legally required to remove, an asset retirement obligation will be recognized at that time.

   (h) Customer deposits:

   Customers may be required to post security to obtain electricity or other services. Where the security posted is in the form of cash or cash equivalents, these amounts are recorded in the accounts as customer deposits and invested in term deposits, which are held in trust by PUC Services Inc. Interest is paid on customer balances at rates established from time to time by the Company in accordance with regulation.

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

1. Significant accounting policies (continued):

(i) Payment in lieu of taxes:

As a municipally owned utility, the Company is exempt from Federal corporate income taxes. However, under the Electricity Act, 1998, the Company is required to make payments in lieu of corporate income and capital taxes to Ontario Electricity Financial Corporation ("OEFC"). These payments are calculated in accordance with the rules for computing income and taxable capital and other relevant amounts contained in the Income Tax Act (Canada) and the Corporations Tax Act (Ontario) as modified by the Electricity Act, 1998, and related regulations.

The Company provides for payments in lieu of corporate income taxes using the taxes payable method. Under the taxes payable method, provisions are not made for future income taxes as a result of temporary differences between the tax bases of assets and liabilities and their carrying amounts for accounting purposes. When unrecorded future income taxes become payable, it is expected that they will be included in the rates approved by the OEB and recovered from customers.

As at December 31, 2006, future tax assets of $4,797,217 (2005 - $4,750,230) based on substantively enacted income tax rates have not been recorded.

2. Capital assets:

	Cost	Accumulated amortization	2006 Net book value	2005 Net book value
Land	$ 648,510	$ -	$ 648,510	$ 623,945
Building	1,166,784	559,010	607,774	611,140
Plant and equipment	21,444,098	9,164,299	12,279,799	12,519,554
Transmission and distribution	52,910,618	30,907,576	22,003,042	21,697,847
	$ 76,170,010	$ 40,630,885	$ 35,539,125	$ 35,452,486

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

3. Net regulatory assets (liabilities):

Net regulatory asets (liabilities) comprise:

	2006	2005
Regulatory asset recovery account	$ 2,759,790	$ -
Market opening	-	549,399
Pension contributions	294,315	30,993
OEB annual cost	186,448	116,379
Smart meters	(57,946)	-
Payments in lieu of taxes	-	(146,784)
Settlement variances	(1,964,706)	2,609,798
	$ 1,217,901	$ 3,159,785

Comparative figures have been reclassed within categories to reflect current year reporting and have been adjusted by $647,829 to reflect recoveries available in 2005 and reflected in 2006 reporting.

The regulatory assets and liabilities balances of the Company are defined as follows:

(a) Regulatory assets recovery account:

The OEB ordered that the approved regulatory asset balances be aggregated into a single regulatory account. Approved regulatory assets of $3,307,234 consisted of transition costs of $561,574, OEB annual costs of $45,234 and settlement variances of $4,052,491, less recoveries of $1,352,065 which were transferred to the "regulatory asset recovery account". This approved balance will be recovered over a period ending March 31, 2008. The account is credited with recovery amounts and is debited by OEB-prescribed carrying charges. Considering the above and additional transactions during the year the balance as of the end of December 31, 2006 was $2,759,790.

(b) Pension contributions:

The OEB has allowed the LDC to defer the incremental OMERS pension expenditures for the fiscal years starting after January 1,2005 and to end on April 30, 2006. Accordingly, the Company has deferred these expenditures in accordance with the criteria set out in the AP Handbook.

Under such regulation, the deferred expenditures would have been expensed under Canadian GAAP for unregulated businesses. The balance at the end of December 31, 2006 was $294,315.

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

3. Net regulatory assets (liabilities) (continued):

(c) OEB annual cost:

The OEB has allowed the LDC to defer a portion of the OEB annual cost assessments for the fiscal years starting after January 1, 2004 and to end on April 30, 2006. Accordingly, the Company has deferred these expenditures in accordance with the criteria set out in the AP Handbook.

Under such regulation, the deferred expenditures would have been expensed under Canadian GAAP for unregulated businesses. In April 2006, the OEB approved the recovery of the deferred amount of $ 46,234. Accordingly, the balance was transferred to the regulatory asset recovery account for recovery commencing May 1, 2006 and ending March 31, 2008. Considering the above and additional transactions during the year the balance as of the end of December 31, 2006 was $186,448.

(d) Smart meters:

Effective May 1, 2006, the OEB has allowed the LDC to defer capital expenditures, operating expenditures, depreciation expense and revenues relating to smart meters. Accordingly, the Company has deferred these items in accordance with the criteria set out in the AP Handbook.

Under such regulation, in 2006, smart meter customer revenues of $ 557,946 were deferred. The manner and timing of disposition of these smart meter regulatory assets have not been determined by the OEB at this time.

(e) Settlement variances:

The OEB has allowed the LDC to defer settlement variances from May 1, 2002 to December 31, 2006. This balance represents the variances between amounts charged by LDC to customers (based on regulated rates) and the corresponding cost of non-competitive electricity service incurred by LDC after May 1, 2002. The settlement variances relate primarily to service charges, non-competitive electricity charges, imported power charges and the global adjustment. Accordingly, the Company has deferred these recoveries in accordance with the criteria set out in the AP Handbook.

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

3. Net regulatory assets (liabilities) (continued):

Settlement variances of $4,052,491 relating to the period from May 1, 2002 to December 31, 2004, were approved for recovery by the OEB and are included in the regulatory asset recovery account balance. The remaining balance, representing settlement variances arising after January 1,2005, is deferred in a regulatory liability account. The manner and timing of disposition of the variance have not been determined by the OEB.

Considering the above and additional transactions during the year the balance as of the end of December 31, 2006 was $1,964,706.

4. Long-term debt:

	2006	2005
Note payable to parent company, PUC Inc., with 8.5% interest payable quarterly and principal payable one year after demand	$ 11,650,000	$ 11,650,000
Note payable to parent company, PUC Inc., with interest payable quarterly at rates periodically negotiated and principal payable one year after demand, average interest rate for 2006 was 5% (2005, 5%)	30,290,000	30,290,000
Total	$ 41,940,000	$ 41,940,000

5. Related party transactions:

The following entities are related parties of the Company:

The Corporation of the City of Sault Ste. Marie (City) - 100% shareholder of PUC Inc.

PUC Inc. (Inc.) - sole shareholder of the Company

PUC Services Inc. (Services) - 100% owned by PUC Inc.

PUC Telecom Inc. (Telecom) - 100% owned by PUC Inc.

PUC Energies Inc. (Energies) - 100% owned by PUC Inc.

Sault Ste. Marie Public Utilities Commission (Utility) - 100% owned by the Corporation of the City of Sault Ste. Marie.

PUC Distribution Inc. (PUC)

PUC DISTRIBUTION INC.

Notes to Financial Statements

Year ended December 31, 2006

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5. Related party transactions (continued):

The Company has a management, operation and maintenance agreement with one of its related companies, PUC Services Inc., which expires January 1, 2011 under which PUC Services Inc. manages, controls, administers and operates the business of the Company.

The Company provides electricity to the City which is the shareholder of the parent corporation, PUC Inc. Electrical energy is sold to the City at the same prices and terms as other electricity customers. The amount charged to the City for electricity consumed by streetlights is $593,744 (2005 - $452,140) and for other electricity consumption is $1,323,292 (2005 - $1,103,036).

The Company charges a related company, PUC Telecom Inc., pole rental charges which amounted to $36,006 (2005 - $35,447).

Occupancy fees were charged by the Utility in the amount of $139,389 (2005 - $120,145).

Management fees were charged by PUC Services Inc. in the amount of $2,543,735 (2005 - $2,610,651) for an allocation of joint administrative and other expenses.

These transactions are in the normal course of operations and are measured at the exchange amount which is the amount of consideration agreed to by the related parties.

6. Contingent liability:

Purchasers of electricity in Ontario are required to provide security to the IESO to mitigate the risk of their default based on their expected activity in the market. The IESO could draw on these guarantees if PUC Distribution Inc. fails to make a payment required by a default notice issued by the IESO.

7. Fair value of financial instruments:

The carrying values of accounts receivable, receivable from PUC Services Inc. customer deposits and accounts payable and accrued liabilities approximate fair value because of the short maturity of these instruments.

It is not practicable to determine the fair value of the notes payable as there are no principal repayment terms.

Exhibit: 1

PUC Distribution Inc. (PUC)

PRO FORMA FINANCIAL STATEMENTS
AT
DECEMBER 31 2007

Exhibit: 1

PUC Distribution Inc. (PUC)

FinStmt	BS	
	OK?	**YES**
Sum of Amount		
GroupDesc	AcctDesc	Total
1050-Current Assets	1005-Cash	1,607,108
	1070-Current Investments	0
	1100-Customer Accounts Receivable	5,900,000
	1104-Accounts Receivable - Recoverable Work	215,000
	1105-Accounts Receivable - Merchandise, Jobbing, etc.	0
	1110-Other Accounts Receivable	-55,000
	1120-Accrued Utility Revenues	6,800,000
	1130-Accumulated Provision for Uncollectible Accounts--Credit	0
	1140-Interest and Dividends Receivable	0
	1180-Prepayments	150,000
	1200-Accounts Receivable from Associated Companies	2,392,892
1050-Current Assets Total		17,010,000
1100-Inventory	1305-Fuel Stock	0
	1330-Plant Materials and Operating Supplies	1,425,000
	1340-Merchandise	0
1100-Inventory Total		1,425,000
1150-Non-Current Assets	1405-Long Term Investments in Non-Associated Companies	0
	1470-Past Service Costs - Employee Future Benefits	0
	1480-Portfolio Investments - Associated Companies	0
1150-Non-Current Assets Total		0
1200-Other Assets and Deferred Charges	1505-Unrecovered Plant and Regulatory Study Costs	0
	1508-Other Regulatory Assets	480,000
	1510-Preliminary Survey and Investigation Charges	0
	1518-RCVARetail	-145,000
	1520-Power Purchase Variance Account	0
	1548-RCVASTR	53,000
	1555-Smart Meters Capital Variance Account	0
	1556-Smart Meters OM&A Variance Account	0
	1562-Deferred Payments in Lieu of Taxes	-330,000
	1563-Account 1563 - Deferred PILs Contra Account	330,000
	1565-Conservation and Demand Management Expenditures and Recoveries	-200,012
	1566-CDM Contra Account	200,000
	1570-Qualifying Transition Costs	0
	1572-Extraordinary Event Costs	0
	1580-RSVAWMS	-450,000
	1584-RSVANW	-450,000
	1588-RSVAPOWER	-558,385
	1590-Recovery of Regulatory Asset Balances	908,385
1200-Other Assets and Deferred Charges Total		-162,012
1300-Intangible Plant	1605-Electric Plant in Service - Control Account	0
	1606-Organization	0
	1610-Miscellaneous Intangible Plant	0
1300-Intangible Plant Total		0
1350-Not for distributor use	1705-Land	0
	1706-Land Rights	0
	1720-Towers and Fixtures	0
	1725-Poles and Fixtures	0
	1730-Overhead Conductors and Devices	0
	1735-Underground Conduit	0
	1740-Underground Conductors and Devices	0

Exhibit: 1

PUC Distribution Inc. (PUC)

1350-Not for distributor use Total		0
1450-Distribution Plant	1805-Land	51,974
	1806-Land Rights	658,509
	1808-Buildings and Fixtures	1,148,333
	1810-Leasehold Improvements	0
	1815-Transformer Station Equipment - Normally Primary above 50 kV	5,063,477
	1820-Distribution Station Equipment - Normally Primary below 50 kV	7,825,635
	1825-Storage Battery Equipment	22,929
	1830-Poles, Towers and Fixtures	11,488,595
	1835-Overhead Conductors and Devices	7,987,222
	1840-Underground Conduit	11,327,142
	1845-Underground Conductors and Devices	11,605,435
	1850-Line Transformers	14,009,350
	1855-Services	1,571,572
	1860-Meters	4,630,355
	1875-Street Lighting and Signal Systems	0
1450-Distribution Plant Total		77,390,528
1500-General Plant	1905-Land	0
	1906-Land Rights	0
	1908-Buildings and Fixtures	0
	1910-Leasehold Improvements	0
	1915-Office Furniture and Equipment	0
	1920-Computer Equipment - Hardware	2,936
	1925-Computer Software	44,225
	1930-Transportation Equipment	0
	1935-Stores Equipment	0
	1940-Tools, Shop and Garage Equipment	0
	1945-Measurement and Testing Equipment	0
	1950-Power Operated Equipment	0
	1955-Communication Equipment	0
	1960-Miscellaneous Equipment	0
	1965-Water Heater Rental Units	0
	1970-Load Management Controls - Customer Premises	27,815
	1975-Load Management Controls - Utility Premises	0
	1980-System Supervisory Equipment	3,770,945
	1985-Sentinel Lighting Rental Units	0
	1995-Contributions and Grants - Credit	-1,962,050
1500-General Plant Total		1,883,870
1550-Other Capital Assets	2005-Property Under Capital Leases	0
	2010-Electric Plant Purchased or Sold	0
	2040-Electric Plant Held for Future Use	0
	2055-Construction Work in Progress--Electric	0
	2075-Non-Utility Property Owned or Under Capital Leases	0
1550-Other Capital Assets Total		0
1600-Accumulated Amortization	2105-Accum. Amortization of Electric Utility Plant - Property, Plant, & Equipment	-42,950,631
	2120-Accumulated Amortization of Electric Utility Plant - Intangibles	0
1600-Accumulated Amortization Total		-42,950,631
1650-Current Liabilities	2205-Accounts Payable	-8,445,523
	2208-Customer Credit Balances	6,092
	2210-Current Portion of Customer Deposits	-1,048,692
	2220-Miscellaneous Current and Accrued Liabilities	-12,000
	2240-Accounts Payable to Associated Companies	0
	2242-Notes Payable to Associated Companies	-16,040,000
	2250-Debt Retirement Charges(DRC) Payable	-120,000
	2252-Transmission Charges Payable	0
	2254-Electrical Safety Authority Fees Payable	0
	2256-Independent Market Operator Fees and Penalties Payable	0
	2268-Accrued Interest on Long Term Debt	0
	2290-Commodity Taxes	-80,000
	2292-Payroll Deductions / Expenses Payable	0
	2294-Accrual for Taxes, Payments in Lieu of Taxes, Etc.	0
1650-Current Liabilities Total		-25,740,123
1800-Long-Term Debt	2550-Advances from Associated Companies	-25,900,000
1800-Long-Term Debt Total		-25,900,000

Exhibit: 1

PUC Distribution Inc. (PUC)

1850-Shareholders' Equity	3005-Common Shares Issued	-4,656,146
	3010-Contributed Surplus	0
	3030-Miscellaneous Paid-In Capital	50
	3040-Appropriated Retained Earnings	0
	3045-Unappropriated Retained Earnings	1,182,043
	3046-Balance Transferred From Income	517,419
	3055-Adjustment to Retained Earnings	0
1850-Shareholders' Equity Total		-2,956,634
Grand Total		0

Exhibit: 1

PUC Distribution Inc. (PUC)

FinStmt	PL

Sum of Amount		
GroupDesc	AcctDesc	Total
3000-Sales of Electricity	4006-Residential Energy Sales	-47,605,372
	4025-Street Lighting Energy Sales	0
	4030-Sentinel Lighting Energy Sales	0
	4035-General Energy Sales	0
	4050-Revenue Adjustment	0
	4055-Energy Sales for Resale	0
	4060-Interdepartmental Energy Sales	0
	4062-Billed WMS	0
	4066-Billed NW	0
	4068-Billed CN	0
3000-Sales of Electricity Total		-47,605,372
3050-Revenues From Services - Distirbution	4080-Distribution Services Revenue	-11,895,372
	4082-Retail Services Revenues	-58,500
	4084-Service Transaction Requests (STR) Revenues	-1,200
3050-Revenues From Services - Distirbution Total		-11,955,072
3070-Not for distributor use	4110-Transmission Services Revenue	0
3070-Not for distributor use Total		0
3100-Other Operating Revenues	4205-Interdepartmental Rents	0
	4210-Rent from Electric Property	-303,459
	4225-Late Payment Charges	-195,000
	4235-Miscellaneous Service Revenues	-140,300
3100-Other Operating Revenues Total		-638,759
3150-Other Income & Deductions	4305-Regulatory Debits	0
	4310-Regulatory Credits	0
	4325-Revenues from Merchandise, Jobbing, Etc.	-30,000
	4330-Costs and Expenses of Merchandising, Jobbing, Etc.	0
	4355-Gain on Disposition of Utility and Other Property	0
	4360-Loss on Disposition of Utility and Other Property	0
	4375-Revenues from Non-Utility Operations	0
	4380-Expenses of Non-Utility Operations	3,490
	4385-Non-Utility Rental Income	0
	4390-Miscellaneous Non-Operating Income	-10,000
3150-Other Income & Deductions Total		-36,510
3200-Investment Income	4405-Interest and Dividend Income	-230,200
3200-Investment Income Total		-230,200
3350-Power Supply Expenses	4705-Power Purchased	40,314,676
	4708-Charges-WMS	3,677,745
	4710-Cost of Power Adjustments	0
	4714-Charges-NW	3,612,951
	4720-Other Expenses	0
	4730-Rural Rate Assistance Expense	0
3350-Power Supply Expenses Total		47,605,372
3450-Not for distributor use	4805-Operation Supervision and Engineering	0
	4810-Load Dispatching	0
	4820-Transformer Station Equipment - Operating Labour	0
	4825-Transformer Station Equipment - Operating Supplies and Expense	0
	4830-Overhead Line Expenses	0
	4835-Underground Line Expenses	0
	4840-Transmission of Electricity by Others	0
	4845-Miscellaneous Transmission Expense	0
	4905-Maintenance Supervision and Engineering	0
	4930-Maintenance of Towers, Poles and Fixtures	0
	4935-Maintenance of Overhead Conductors and Devices	0
	4940-Maintenance of Overhead Lines - Right of Way	0
	4960-Maintenance of Underground Lines	0
3450-Not for distributor use Total		0

Exhibit: 1

PUC Distribution Inc. (PUC)

3500-Distribution Expenses - Operation	5005-Operation Supervision and Engineering	181,178
	5010-Load Dispatching	165,787
	5012-Station Buildings and Fixtures Expense	386,689
	5014-Transformer Station Equipment - Operation Labour	28,404
	5015-Transformer Station Equipment - Operation Supplies and Expenses	0
	5016-Distribution Station Equipment - Operation Labour	114,260
	5017-Distribution Station Equipment - Operation Supplies and Expenses	9,494
	5020-Overhead Distribution Lines and Feeders - Operation Labour	372,477
	5025-Overhead Distribution Lines & Feeders - Operation Supplies and Expenses	122,815
	5030-Overhead Subtransmission Feeders - Operation	0
	5035-Overhead Distribution Transformers- Operation	35,108
	5040-Underground Distribution Lines and Feeders - Operation Labour	15,392
	5045-Underground Distribution Lines & Feeders - Operation Supplies & Expenses	10,247
	5050-Underground Subtransmission Feeders - Operation	0
	5055-Underground Distribution Transformers - Operation	5,077
	5060-Street Lighting and Signal System Expense	0
	5065-Meter Expense	360,422
	5070-Customer Premises - Operation Labour	15,066
	5075-Customer Premises - Materials and Expenses	2,140
	5085-Miscellaneous Distribution Expense	256,075
	5090-Underground Distribution Lines and Feeders - Rental Paid	25,875
	5095-Overhead Distribution Lines and Feeders - Rental Paid	0
	5096-Other Rent	50,000
3500-Distribution Expenses - Operation Total		2,156,507
3550-Distribution Expenses - Maintenance	5105-Maintenance Supervision and Engineering	0
	5110-Maintenance of Buildings and Fixtures - Distribution Stations	32,652
	5112-Maintenance of Transformer Station Equipment	32,637
	5114-Maintenance of Distribution Station Equipment	191,837
	5120-Maintenance of Poles, Towers and Fixtures	41,642
	5125-Maintenance of Overhead Conductors and Devices	247,543
	5130-Maintenance of Overhead Services	179,433
	5135-Overhead Distribution Lines and Feeders - Right of Way	354,527
	5145-Maintenance of Underground Conduit	75,079
	5150-Maintenance of Underground Conductors and Devices	139,009
	5155-Maintenance of Underground Services	76,669
	5160-Maintenance of Line Transformers	20,478
	5165-Maintenance of Street Lighting and Signal Systems	0
	5170-Sentinel Lights - Labour	0
	5172-Sentinel Lights - Materials and Expenses	0
	5175-Maintenance of Meters	57,038
	5185-Water Heater Rentals - Labour	0
	5186-Water Heater Rentals - Materials and Expenses	0
3550-Distribution Expenses - Maintenance Total		1,448,545
3600-Not for distributor use	5205-Purchase of Transmission and System Services	0
	5210-Transmission Charges	0
	5215-Transmission Charges Recovered	0
3600-Not for distributor use Total		0
3650-Billing and Collecting	5305-Supervision	0
	5310-Meter Reading Expense	206,551
	5315-Customer Billing	423,250
	5320-Collecting	215,190
	5325-Collecting- Cash Over and Short	0
	5330-Collection Charges	0
	5335-Bad Debt Expense	90,000
3650-Billing and Collecting Total		934,991
3700-Community Relations	5405-Supervision	0
	5410-Community Relations - Sundry	395,899
	5415-Energy Conservation	0
	5420-Community Safety Program	12,820
	5505-Supervision	0
	5510-Demonstrating and Selling Expense	0
	5515-Advertising Expense	0
3700-Community Relations Total		408,719

Exhibit: 1

PUC Distribution Inc. (PUC)

3800-Administrative and General Expenses	5605-Executive Salaries and Expenses	96,673
	5610-Management Salaries and Expenses	552,048
	5615-General Administrative Salaries and Expenses	29,914
	5620-Office Supplies and Expenses	603,743
	5630-Outside Services Employed	204,027
	5635-Property Insurance	57,472
	5640-Injuries and Damages	0
	5645-Employee Pensions and Benefits	0
	5650-Franchise Requirements	0
	5655-Regulatory Expenses	165,800
	5660-General Advertising Expenses	0
	5665-Miscellaneous General Expenses	190,596
	5670-Rent	0
	5675-Maintenance of General Plant	460,837
	5680-Electrical Safety Authority Fees	0
	5685-Independent Market Operator Fees and Penalties	0
3800-Administrative and General Expenses Total		2,361,110
3850-Amortization Expense	5705-Amortization Expense - Property, Plant, and Equipment	3,046,595
	5710-Amortization of Limited Term Electric Plant	0
	5715-Amortization of Intangibles and Other Electric Plant	0
3850-Amortization Expense Total		3,046,595
3900-Interest Expense	6005-Interest on Long Term Debt	0
	6030-Interest on Debt to Associated Companies	2,807,662
	6035-Other Interest Expense	22,000
	6042-Allowance For Other Funds Used During Construction	0
	6045-Interest Expense on Capital Lease Obligations	0
3900-Interest Expense Total		2,829,662
3950-Taxes Other Than Income Taxes	6105-Taxes Other Than Income Taxes	157,151
3950-Taxes Other Than Income Taxes Total		157,151
4000-Income Taxes	6110-Income Taxes	34,680
	6115-Provision for Future Income Taxes	0
4000-Income Taxes Total		34,680
4100-Extraordinary & Other Items	6205-Donations	0
	6215-Penalties	0
4100-Extraordinary & Other Items Total		0
Grand Total		517,419

Exhibit: 1

PUC Distribution Inc. (PUC)

PRO FORMA FINANCIAL STATEMENTS
AT
DECEMBER 31 2008

Exhibit: 1

PUC Distribution Inc. (PUC)

FinStmt	BS	
	OK?	**YES**
Sum of Amount		
GroupDesc	AcctDesc	Total
1050-Current Assets	1005-Cash	1,607,108
	1070-Current Investments	0
	1100-Customer Accounts Receivable	5,900,000
	1104-Accounts Receivable - Recoverable Work	215,000
	1105-Accounts Receivable - Merchandise, Jobbing, etc.	0
	1110-Other Accounts Receivable	-55,000
	1120-Accrued Utility Revenues	6,800,000
	1130-Accumulated Provision for Uncollectible Accounts--Credit	0
	1140-Interest and Dividends Receivable	0
	1180-Prepayments	150,000
	1190-Miscellaneous Current and Accrued Assets	0
	1200-Accounts Receivable from Associated Companies	2,392,892
1050-Current Assets Total		17,010,000
1100-Inventory	1305-Fuel Stock	0
	1330-Plant Materials and Operating Supplies	1,425,000
	1340-Merchandise	0
	1350-Other Materials and Supplies	0
1100-Inventory Total		1,425,000
1150-Non-Current Assets	1405-Long Term Investments in Non-Associated Companies	0
	1460-Other Non-Current Assets	0
	1470-Past Service Costs - Employee Future Benefits	0
	1480-Portfolio Investments - Associated Companies	0
1150-Non-Current Assets Total		0
1200-Other Assets and Deferred Charges	1505-Unrecovered Plant and Regulatory Study Costs	0
	1508-Other Regulatory Assets	0
	1510-Preliminary Survey and Investigation Charges	0
	1515-Emission Allowance Inventory	0
	1516-Emission Allowances Withheld	0
	1518-RCVARetail	0
	1520-Power Purchase Variance Account	0
	1525-Miscellaneous Deferred Debits	0
	1530-Deferred Losses from Disposition of Utility Plant	0
	1540-Unamortized Loss on Reacquired Debt	0
	1545-Development Charge Deposits/ Receivables	0
	1548-RCVASTR	0
	1550-LV Variance Account	0
	1555-Smart Meters Capital Variance Account	0
	1556-Smart Meters OM&A Variance Account	0
	1560-Deferred Development Costs	0
	1562-Deferred Payments in Lieu of Taxes	0
	1563-Account 1563 - Deferred PILs Contra Account	0
	1565-Conservation and Demand Management Expenditures and Recoveries	-0
	1566-CDM Contra Account	0
	1570-Qualifying Transition Costs	0
	1571-Pre-market Opening Energy Variance	0
	1572-Extraordinary Event Costs	0
	1574-Deferred Rate Impact Amounts	0
	1580-RSVAWMS	0
	1582-RSVAONE-TIME	0
	1584-RSVANW	0
	1586-RSVACN	0
	1588-RSVAPOWER	0
	1590-Recovery of Regulatory Asset Balances	0
	1592-2006 PILs/Taxes Variance	0
1200-Other Assets and Deferred Charges Total		-0
1300-Intangible Plant	1605-Electric Plant in Service - Control Account	0
	1606-Organization	0
	1610-Miscellaneous Intangible Plant	0
1300-Intangible Plant Total		0

Exhibit: 1

PUC Distribution Inc. (PUC)

1350-Not for distributor use	1705-Land	0
	1706-Land Rights	0
	1720-Towers and Fixtures	0
	1725-Poles and Fixtures	0
	1730-Overhead Conductors and Devices	0
	1735-Underground Conduit	0
	1740-Underground Conductors and Devices	0
1350-Not for distributor use Total		0
1450-Distribution Plant	1805-Land	51,974
	1806-Land Rights	668,509
	1808-Buildings and Fixtures	1,158,906
	1810-Leasehold Improvements	0
	1815-Transformer Station Equipment - Normally Primary above 50 kV	5,411,225
	1820-Distribution Station Equipment - Normally Primary below 50 kV	8,588,633
	1825-Storage Battery Equipment	22,929
	1830-Poles, Towers and Fixtures	12,890,396
	1835-Overhead Conductors and Devices	8,181,678
	1840-Underground Conduit	11,744,724
	1845-Underground Conductors and Devices	11,864,106
	1850-Line Transformers	14,276,301
	1855-Services	1,700,196
	1860-Meters	11,535,667
	1875-Street Lighting and Signal Systems	0
1450-Distribution Plant Total		88,095,244
1500-General Plant	1905-Land	0
	1906-Land Rights	0
	1908-Buildings and Fixtures	0
	1910-Leasehold Improvements	0
	1915-Office Furniture and Equipment	0
	1920-Computer Equipment - Hardware	24,670
	1925-Computer Software	44,225
	1930-Transportation Equipment	0
	1935-Stores Equipment	0
	1940-Tools, Shop and Garage Equipment	0
	1945-Measurement and Testing Equipment	0
	1950-Power Operated Equipment	0
	1955-Communication Equipment	0
	1960-Miscellaneous Equipment	0
	1965-Water Heater Rental Units	0
	1970-Load Management Controls - Customer Premises	27,815
	1975-Load Management Controls - Utility Premises	0
	1980-System Supervisory Equipment	3,770,945
	1985-Sentinel Lighting Rental Units	0
	1990-Other Tangible Property	0
	1995-Contributions and Grants - Credit	-1,962,050
1500-General Plant Total		1,905,604
1550-Other Capital Assets	2005-Property Under Capital Leases	0
	2010-Electric Plant Purchased or Sold	0
	2040-Electric Plant Held for Future Use	0
	2055-Construction Work in Progress--Electric	0
	2070-Other Utility Plant	0
	2075-Non-Utility Property Owned or Under Capital Leases	0
1550-Other Capital Assets Total		0
1600-Accumulated Amortization	2105-Accum. Amortization of Electric Utility Plant - Property, Plant, & Equipment	-44,827,676
	2120-Accumulated Amortization of Electric Utility Plant - Intangibles	0
	2160-Accumulated Amortization of Other Utility Plant	0
1600-Accumulated Amortization Total		-44,827,676

Exhibit: 1

PUC Distribution Inc. (PUC)

1650-Current Liabilities	2205-Accounts Payable	-75,885,082
	2208-Customer Credit Balances	6,092
	2210-Current Portion of Customer Deposits	-1,048,692
	2220-Miscellaneous Current and Accrued Liabilities	-12,000
	2240-Accounts Payable to Associated Companies	0
	2242-Notes Payable to Associated Companies	-16,040,000
	2250-Debt Retirement Charges(DRC) Payable	-120,000
	2252-Transmission Charges Payable	0
	2254-Electrical Safety Authority Fees Payable	0
	2256-Independent Market Operator Fees and Penalties Payable	0
	2260-Current Portion of Long Term Debt	0
	2268-Accrued Interest on Long Term Debt	0
	2290-Commodity Taxes	-80,000
	2292-Payroll Deductions / Expenses Payable	0
	2294-Accrual for Taxes, Payments in Lieu of Taxes, Etc.	0
1650-Current Liabilities Total		-93,179,682
1700-Non-Current Liabilities	2320-Other Miscellaneous Non-Current Liabilities	0
1700-Non-Current Liabilities Total		0
1800-Long-Term Debt	2505-Debentures Outstanding - Long Term Portion	0
	2510-Debenture Advances	0
	2515-Reacquired Bonds	0
	2520-Other Long Term Debt	34,100,000
	2525-Term Bank Loans - Long Term Portion	0
	2530-Ontario Hydro Debt Outstanding - Long Term Portion	0
	2550-Advances from Associated Companies	0
1800-Long-Term Debt Total		34,100,000
1850-Shareholders' Equity	3005-Common Shares Issued	-4,656,146
	3010-Contributed Surplus	0
	3030-Miscellaneous Paid-In Capital	50
	3040-Appropriated Retained Earnings	0
	3045-Unappropriated Retained Earnings	1,699,462
	3046-Balance Transferred From Income	-1,571,858
	3055-Adjustment to Retained Earnings	0
1850-Shareholders' Equity Total		-4,528,492
Grand Total		0

Exhibit: 1

PUC Distribution Inc. (PUC)

FinStmt	PL	
Sum of Amount		
GroupDesc	AcctDesc	Total
3000-Sales of Electricity	4006-Residential Energy Sales	0
	4010-Commercial Energy Sales	0
	4015-Industrial Energy Sales	0
	4020-Energy Sales to Large Users	0
	4025-Street Lighting Energy Sales	0
	4030-Sentinel Lighting Energy Sales	0
	4035-General Energy Sales	0
	4040-Other Energy Sales to Public Authorities	0
	4045-Energy Sales to Railroads and Railways	0
	4050-Revenue Adjustment	-49,044,109
	4055-Energy Sales for Resale	0
	4060-Interdepartmental Energy Sales	0
	4062-Billed WMS	0
	4064-Billed-One-Time	0
	4066-Billed NW	0
	4068-Billed CN	0
	4075-Billed-LV	0
3000-Sales of Electricity Total		-49,044,109
3050-Revenues From Services - Distirbution	4080-Distribution Services Revenue	-16,218,490
	4082-Retail Services Revenues	-58,520
	4084-Service Transaction Requests (STR) Revenues	-250
3050-Revenues From Services - Distirbution Total		-16,277,260
3070-Not for distributor use	4110-Transmission Services Revenue	0
3070-Not for distributor use Total		0
3100-Other Operating Revenues	4205-Interdepartmental Rents	0
	4210-Rent from Electric Property	-304,080
	4215-Other Utility Operating Income	0
	4225-Late Payment Charges	-195,000
	4235-Miscellaneous Service Revenues	-172,900
3100-Other Operating Revenues Total		-671,980
3150-Other Income & Deductions	4305-Regulatory Debits	0
	4310-Regulatory Credits	0
	4325-Revenues from Merchandise, Jobbing, Etc.	-30,000
	4330-Costs and Expenses of Merchandising, Jobbing, Etc.	0
	4355-Gain on Disposition of Utility and Other Property	0
	4360-Loss on Disposition of Utility and Other Property	0
	4375-Revenues from Non-Utility Operations	0
	4380-Expenses of Non-Utility Operations	0
	4385-Non-Utility Rental Income	0
	4390-Miscellaneous Non-Operating Income	-114,000
3150-Other Income & Deductions Total		-144,000
3200-Investment Income	4405-Interest and Dividend Income	-137,971
3200-Investment Income Total		-137,971
3350-Power Supply Expenses	4705-Power Purchased	0
	4708-Charges-WMS	0
	4710-Cost of Power Adjustments	0
	4712-Charges-One-Time	0
	4714-Charges-NW	0
	4715-System Control and Load Dispatching	0
	4716-Charges-CN	0
	4720-Other Expenses	49,044,109
	4725-Competition Transition Expense	0
	4730-Rural Rate Assistance Expense	0
	4750-Charges-LV	0
3350-Power Supply Expenses Total		49,044,109

PUC Distribution Inc. (PUC)

3450-Not for distributor use	4805-Operation Supervision and Engineering	0
	4810-Load Dispatching	0
	4820-Transformer Station Equipment - Operating Labour	0
	4825-Transformer Station Equipment - Operating Supplies and Expense	0
	4830-Overhead Line Expenses	0
	4835-Underground Line Expenses	0
	4840-Transmission of Electricity by Others	0
	4845-Miscellaneous Transmission Expense	0
	4905-Maintenance Supervision and Engineering	0
	4930-Maintenance of Towers, Poles and Fixtures	0
	4935-Maintenance of Overhead Conductors and Devices	0
	4940-Maintenance of Overhead Lines - Right of Way	0
	4960-Maintenance of Underground Lines	0
3450-Not for distributor use Total		0
3500-Distribution Expenses - Operation	5005-Operation Supervision and Engineering	336,834
	5010-Load Dispatching	172,820
	5012-Station Buildings and Fixtures Expense	445,940
	5014-Transformer Station Equipment - Operation Labour	34,824
	5015-Transformer Station Equipment - Operation Supplies and Expenses	23
	5016-Distribution Station Equipment - Operation Labour	82,062
	5017-Distribution Station Equipment - Operation Supplies and Expenses	15,442
	5020-Overhead Distribution Lines and Feeders - Operation Labour	591,724
	5025-Overhead Distribution Lines & Feeders - Operation Supplies and Expenses	183,617
	5030-Overhead Subtransmission Feeders - Operation	0
	5035-Overhead Distribution Transformers- Operation	176,335
	5040-Underground Distribution Lines and Feeders - Operation Labour	22,460
	5045-Underground Distribution Lines & Feeders - Operation Supplies & Expenses	3,596
	5050-Underground Subtransmission Feeders - Operation	0
	5055-Underground Distribution Transformers - Operation	8,318
	5060-Street Lighting and Signal System Expense	0
	5065-Meter Expense	401,124
	5070-Customer Premises - Operation Labour	18,080
	5075-Customer Premises - Materials and Expenses	3,153
	5085-Miscellaneous Distribution Expense	324,225
	5090-Underground Distribution Lines and Feeders - Rental Paid	143,743
	5095-Overhead Distribution Lines and Feeders - Rental Paid	1,400
	5096-Other Rent	53,080
3500-Distribution Expenses - Operation Total		3,018,799
3550-Distribution Expenses - Maintenance	5105-Maintenance Supervision and Engineering	0
	5110-Maintenance of Buildings and Fixtures - Distribution Stations	55,479
	5112-Maintenance of Transformer Station Equipment	19,154
	5114-Maintenance of Distribution Station Equipment	308,218
	5120-Maintenance of Poles, Towers and Fixtures	62,957
	5125-Maintenance of Overhead Conductors and Devices	385,662
	5130-Maintenance of Overhead Services	253,128
	5135-Overhead Distribution Lines and Feeders - Right of Way	606,002
	5145-Maintenance of Underground Conduit	140,744
	5150-Maintenance of Underground Conductors and Devices	270,198
	5155-Maintenance of Underground Services	60,829
	5160-Maintenance of Line Transformers	50,464
	5165-Maintenance of Street Lighting and Signal Systems	0
	5170-Sentinel Lights - Labour	0
	5172-Sentinel Lights - Materials and Expenses	0
	5175-Maintenance of Meters	64,814
	5185-Water Heater Rentals - Labour	0
	5186-Water Heater Rentals - Materials and Expenses	0
3550-Distribution Expenses - Maintenance Total		2,277,648
3600-Not for distributor use	5205-Purchase of Transmission and System Services	0
	5210-Transmission Charges	0
	5215-Transmission Charges Recovered	0
3600-Not for distributor use Total		0

Exhibit: 1

PUC Distribution Inc. (PUC)

3650-Billing and Collecting	5305-Supervision	0
	5310-Meter Reading Expense	214,368
	5315-Customer Billing	836,641
	5320-Collecting	212,459
	5325-Collecting- Cash Over and Short	0
	5330-Collection Charges	0
	5335-Bad Debt Expense	75,405
3650-Billing and Collecting Total		1,338,873
3700-Community Relations	5405-Supervision	47,022
	5410-Community Relations - Sundry	390,211
	5415-Energy Conservation	0
	5420-Community Safety Program	36,065
	5505-Supervision	0
	5510-Demonstrating and Selling Expense	0
	5515-Advertising Expense	555
3700-Community Relations Total		473,852
3800-Administrative and General Expenses	5605-Executive Salaries and Expenses	114,038
	5610-Management Salaries and Expenses	111,588
	5615-General Administrative Salaries and Expenses	247,009
	5620-Office Supplies and Expenses	198,705
	5630-Outside Services Employed	69,473
	5635-Property Insurance	70,794
	5640-Injuries and Damages	0
	5645-Employee Pensions and Benefits	0
	5650-Franchise Requirements	0
	5655-Regulatory Expenses	142,273
	5660-General Advertising Expenses	0
	5665-Miscellaneous General Expenses	154,364
	5670-Rent	0
	5675-Maintenance of General Plant	289,054
	5680-Electrical Safety Authority Fees	0
	5685-Independent Market Operator Fees and Penalties	0
3800-Administrative and General Expenses Total		1,397,297
3850-Amortization Expense	5705-Amortization Expense - Property, Plant, and Equipment	3,310,977
	5710-Amortization of Limited Term Electric Plant	0
	5715-Amortization of Intangibles and Other Electric Plant	0
	5725-Miscellaneous Amortization	0
3850-Amortization Expense Total		3,310,977
3900-Interest Expense	6005-Interest on Long Term Debt	1,984,620
	6010-Amortization of Debt Discount and Expense	0
	6015-Amortization of Premium on Debt Credit	0
	6020-Amortization of Loss on Reacquired Debt	0
	6025-Amortization of Gain on Reacquired Debt--Credit	0
	6030-Interest on Debt to Associated Companies	0
	6035-Other Interest Expense	0
	6042-Allowance For Other Funds Used During Construction	0
	6045-Interest Expense on Capital Lease Obligations	0
3900-Interest Expense Total		1,984,620
3950-Taxes Other Than Income Taxes	6105-Taxes Other Than Income Taxes	170,151
3950-Taxes Other Than Income Taxes Total		170,151
4000-Income Taxes	6110-Income Taxes	1,687,136
	6115-Provision for Future Income Taxes	0
4000-Income Taxes Total		1,687,136
4100-Extraordinary & Other Items	6205-Donations	0
	6215-Penalties	0
	6225-Other Deductions	0
4100-Extraordinary & Other Items Total		0
Grand Total		-1,571,858

PUC Distribution Inc. (PUC)

RECONCILIATION BETWEEN FINANCIAL STATEMENTS AND FINANCIAL RESULTS FILED

Reconciliation between the results filed and the 2006 Audited Statements for PUC.

OEB Account #	Difference	Rational
1706 – Land Rights	(602,307)	Transmission assets approved by the OEB to be classified as Distribution assets. Approval letter from the OEB dated October 3, 2000 Reference, ED-1999-0161.
1725 – Poles and Fixtures	(3,304,545)	
1730 – Overhead Conductors and Devices	(84,556)	
1735 – Underground Conduit	(1,399,969)	
1740 – Underground Conductors and Devices	(266,452)	
1806 – Land Rights	602,307	
1830 – Poles, towers and Fixtures	3,304,545	
1835 – Overhead Conductors and Devices	84,556	
1840 – Underground Conduit	1,399,969	
1845 – Underground Conductors and Devices	266,452	
Impact on Net Fixed Assets	0	

PUC Distribution Inc. (PUC)

PROPOSED ACCOUNTING TREATMENT

PUC has not proposed any changes in accounting treatments at the time of filing this application.

PUC Distribution Inc. (PUC)

INFORMATION ON PARENT AND SUBSIDIARIES

PUC Distribution Inc. is a subsidiary of PUC Inc. PUC Inc. is 100% owned by the City of Sault Ste. Marie. PUC Inc. owns 100% of PUC Distribution Inc., PUC Services Inc., PUC Energies Inc., and PUC Telecom Inc.

PUC Distribution Inc (PUC)

Exhibit

02 – Rate Base

PUC Distribution Inc (PUC)

RATE BASE OVERVIEW

A projection of PUC's rate base is provided for both the Bridge Year (2007) and the Test Year (2008). Historical data pertaining to rate base is presented for 2006 Board Approved (2004) and 2006 Actual.

PUC's forecast rate base for the test year is $49,406,580. The rate base underlying the test year revenue requirement included a forecast of net fixed assets plus a working capital allowance. Net fixed assets are gross assets in service minus accumulated depreciation and contributed capital. Details for PUC's working capital allowance calculation is provided in this exhibit.

Continuity Schedules for all fixed assets for the Historical Actual, Bridge and Test years are provided in this exhibit.

<u>Gross Assets – Property, Plant and Equipment and Accumulated Depreciation</u>
The bridge and test year's gross asset balance reflects the capital expenditure programs forecast for both years. These programs are described in detail in the written evidence in this exhibit. The justification for capital projects in excess of 1% of the net fixed assets are in this exhibit.

<u>Capital Budget</u>
The Capital Budget for both the bridge year and the test year are included in this Exhibit. This provides all the relevant information pertaining to the Capital Program at PUC. The review of capital projects in excess of 1% of the net fixed assets are included in this Exhibit.

<u>Allowance for Working Capital</u>
The detailed by account calculation of working capital is included in this exhibit.

Exhibit: 2

PUC Distribution Inc (PUC)

RATE BASE SUMMARY TABLE

	2006 Board Approved	2006 Actual	Variance from 2006 Board Approved	2006 Actual	2007 Bridge	Variance from 2006 Actual	2007 Bridge	2008 Test	Variance from 2007 Bridge
	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)
Gross Asset									
Asset Values at Cost	71,472,128	75,184,324	3,712,196	75,184,324	77,885,944	2,701,620	77,885,944	84,637,625	6,751,681
Accumulated Depreciation	-36,205,186	-39,688,518	-3,483,332	-39,688,518	-41,954,477	-2,265,959	-41,954,477	-43,889,154	-1,934,677
Net Fixed Asset	35,266,942	35,495,806	228,864	35,495,806	35,931,467	435,661	35,931,467	40,748,471	4,817,004
Allowance for Working Capital	7,843,561	8,165,462	321,901	8,165,462	8,260,859	95,397	8,260,859	8,658,109	397,250
Utility Rate Base	43,110,503	43,661,268	550,765	43,661,268	44,192,326	531,058	44,192,326	49,406,580	5,214,254

PUC Distribution Inc (PUC)

VARIANCE ANALYSIS ON RATE BASE SUMMARY TABLE

2008 Test Year

As shown in the above exhibit, the total rate base in the 2008 test year is forecast to be $49,406,580. Net fixed assets accounts for $40,748,471of this total. The allowance for working capital totals $8,658,109.

Comparison to 2007 Bridge Year

The total rate base is expected to be $5,214,254 or 11.8% higher in the 2008 test year than in the 2007 bridge year.

2007 Bridge Year

Comparison to 2006 Actual

The total rate base is expected to be $531,058 or 1.22% higher in the 2007 Bridge year than the 2006 Actual.

2006 Actual

Comparison to 2006 Board Approved

The total rate base was $43,661,268 or 1.29% higher in 2006 actual than in the 2006 Board approved rate base.

PUC Distribution Inc (PUC)

CONTINUITY STATEMENTS

ACCOUNT 1805 | 1805-Land

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**-**	**0**	**-**	**9,674**	**0**	**9,674**	**51,974**	**0**	**51,974**
Additions	9,674	0	9,674	42,300		42,300	0		0
Deprecia 0.0%					0	0		0	0
Retirements & Sales	0	0	0	0	0	0	0	0	0
Other (sp ARO	-					0			0
						0			0
						0			0
Closing Balance	**9,674**	**0**	**9,674**	**51,974**	**0**	**51,974**	**51,974**	**0**	**51,974**
Average Balance	4,837	-	4,837	30,824	0	30,824	51,974	0	51,974
Change in Year	-9,674	0	-9,674	42,300	0	42,300	0	0	0

ACCOUNT 1806 | 1806-Land Rights

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**623,945**	**0**	**623,945**	**648,509**	**0**	**648,509**	**658,509**	**0**	**658,509**
Additions	24,565		24,565	10,000		10,000	10,000		10,000
Deprecia 4.0%					0	0		0	0
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**648,510**	**0**	**648,509**	**658,509**	**0**	**658,509**	**668,509**	**0**	**668,509**
Average Balance	636,227	-	636,227	653,509	0	653,509	663,509	0	663,509
Change in Year	-24,565	0	-24,564	10,000	0	10,000	10,000	0	10,000

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1808 — 1808-Buildings and Fixtures

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**1,157,109**	**-535,868**	**621,241**	**1,157,109**	**-559,010**	**598,099**	**1,148,333**	**-573,288**	**575,045**
Additions	0			0		0	10,867		10,867
Deprecia 2.0%		-23,142	-23,142		-23,054	-23,054		-23,072	-23,072
Retirements & Sales				-8,776	8,776	0	-294	294	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**1,157,109**	**-559,010**	**598,099**	**1,148,333**	**-573,288**	**575,045**	**1,158,906**	**-596,067**	**562,839**
Average Balance	1,157,109	(547,439)	609,670	1,152,721	-566,149	586,572	1,153,620	-584,677	568,942
Change in Year	0	23,142	23,142	-8,776	-14,278	-23,054	10,573	-22,778	-12,205

ACCOUNT 1815 — 1815-Transformer Station Equipment - Normally Primary above 50 kV

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**4,678,224**	**-2,443,062**	**2,235,162**	**4,777,954**	**-2,561,264**	**2,216,690**	**5,063,477**	**-2,684,282**	**2,379,195**
Additions	99,730		99,730	285,523		285,523	347,748		347,748
Deprecia 2.5%		-118,202	-118,202		-123,018	-123,018		-130,934	-130,934
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**4,777,954**	**-2,561,264**	**2,216,690**	**5,063,477**	**-2,684,282**	**2,379,195**	**5,411,225**	**-2,815,216**	**2,596,009**
Average Balance	4,728,089	(2,502,163)	2,225,926	4,920,715	-2,622,773	2,297,942	5,237,351	-2,749,749	2,487,602
Change in Year	-99,730	118,202	18,472	285,523	-123,018	162,505	347,748	-130,934	216,814

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1820 1820-Distribution Station Equipment - Normally Primary below 50 kV

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**7,238,959**	**-4,830,269**	**2,408,690**	**7,409,524**	**-5,074,169**	**2,335,355**	**7,825,635**	**-5,327,835**	**2,497,800**
Additions	170,565		170,565	416,111		416,111	989,530		989,530
Deprecia 3.3%		-243,900	-243,900		-253,665	-253,665		-273,298	-273,298
Retirements & Sales				0	0	0	-226,532	226,532	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**7,409,524**	**-5,074,169**	**2,335,355**	**7,825,635**	**-5,327,835**	**2,497,800**	**8,588,633**	**-5,374,600**	**3,214,033**
Average Balance	7,324,242	(4,952,219)	2,372,023	7,617,580	-5,201,002	2,416,578	8,207,134	-5,351,218	2,855,917
Change in Year	-170,565	243,900	73,335	416,111	-253,665	162,446	762,998	-46,766	716,232

ACCOUNT 1825 1825-Storage Battery Equipment

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**8,216**	**-857**	**7,359**	**22,929**	**-1,375**	**21,554**	**22,929**	**-2,292**	**20,637**
Additions	14,713		14,713	0		0	0		0
Deprecia 3.3%		-518	-518		-917	-917		-917	-917
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**22,929**	**-1,375**	**21,554**	**22,929**	**-2,292**	**20,637**	**22,929**	**-3,209**	**19,720**
Average Balance	15,573	(1,116)	14,457	22,929	-1,834	21,096	22,929	-2,751	20,179
Change in Year	-14,713	518	-14,195	0	-917	-917	0	-917	-917

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1830 — 1830-Poles, Towers and Fixtures

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**9,735,406**	**-5,772,292**	**3,963,114**	**10,400,811**	**-5,863,167**	**4,537,645**	**11,488,595**	**-5,916,511**	**5,572,085**
Additions	983,563		983,563	1,472,228		1,472,228	1,883,905		1,883,905
Deprecia 4.0%		-226,187	-226,187		-437,788	-437,788		-487,580	-487,580
Retirements & Sales	-318,158	135,312	-182,846	-384,444	384,444	0	-482,104	482,104	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**10,400,811**	**-5,863,167**	**4,537,644**	**11,488,595**	**-5,916,511**	**5,572,085**	**12,890,396**	**-5,921,987**	**6,968,410**
Average Balance	10,068,109	(5,817,730)	4,250,379	10,944,703	-5,889,839	5,054,865	12,189,496	-5,919,249	6,270,247
Change in Year	-665,405	90,875	-574,530	1,087,784	-53,344	1,034,440	1,401,801	-5,476	1,396,325

ACCOUNT 1835 — 1835-Overhead Conductors and Devices

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**7,806,695**	**-2,871,097**	**4,935,598**	**7,951,662**	**-3,042,734**	**4,908,927**	**7,987,222**	**-3,156,955**	**4,830,267**
Additions	288,496		288,496	240,117		240,117	372,977		372,977
Deprecia 4.0%		-315,166	-315,166		-318,778	-318,778		-323,378	-323,378
Retirements & Sales	-143,529	143,529	0	-204,557	204,557	0	-178,521	178,521	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**7,951,662**	**-3,042,734**	**4,908,928**	**7,987,222**	**-3,156,955**	**4,830,267**	**8,181,678**	**-3,301,812**	**4,879,866**
Average Balance	7,879,179	(2,956,916)	4,922,263	7,969,442	-3,099,845	4,869,597	8,084,450	-3,229,383	4,855,066
Change in Year	-144,967	171,637	26,670	35,560	-114,221	-78,661	194,456	-144,857	49,599

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1840 — 1840-Underground Conduit

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**11,214,292**	**-6,841,355**	**4,372,937**	**11,215,382**	**-7,165,417**	**4,049,965**	**11,327,142**	**-7,530,667**	**3,796,475**
Additions	125,650		125,650	197,360		197,360	479,107		479,107
Deprecia 4.0%		-448,622	-448,622		-450,850	-450,850		-461,437	-461,437
Retirements & Sales	-124,560	124,560	0	-85,600	85,600	0	-61,525	61,525	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**11,215,382**	**-7,165,417**	**4,049,965**	**11,327,142**	**-7,530,667**	**3,796,475**	**11,744,724**	**-7,930,580**	**3,814,144**
Average Balance	11,214,837	-7,003,386	4,211,451	11,271,262	-7,348,042	3,923,220	11,535,933	-7,730,623	3,805,309
Change in Year	-1,090	324,062	322,972	111,760	-365,250	-253,490	417,582	-399,912	17,670

ACCOUNT 1845 — 1845-Underground Conductors and Devices

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**11,211,185**	**-5,402,615**	**5,808,570**	**11,451,196**	**-5,855,862**	**5,595,334**	**11,605,435**	**-6,298,012**	**5,307,423**
Additions	240,011		240,011	173,222		173,222	281,094		281,094
Deprecia 4.0%		-453,247	-453,247		-461,133	-461,133		-469,391	-469,391
Retirements & Sales				-18,983	18,983	0	-22,423	22,423	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**11,451,196**	**-5,855,862**	**5,595,334**	**11,605,435**	**-6,298,012**	**5,307,423**	**11,864,106**	**-6,744,979**	**5,119,127**
Average Balance	11,331,191	(5,629,239)	5,701,952	11,528,316	-6,076,937	5,451,379	11,734,771	-6,521,496	5,213,275
Change in Year	-240,011	453,247	213,236	154,239	-442,150	-287,911	258,671	-446,968	-188,297

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1850 — 1850-Line Transformers

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**13,060,600**	**-6,711,511**	**6,349,089**	**13,714,424**	**-6,982,967**	**6,731,457**	**14,009,350**	**-7,235,960**	**6,773,389**
Additions	920,913		920,913	596,408		596,408	653,590		653,590
Deprecia 4.0%		-538,545	-538,545		-554,475	-554,475		-565,713	-565,713
Retirements & Sales	-267,089	267,089	0	-301,482	301,482	0	-386,639	386,639	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**13,714,424**	**-6,982,967**	**6,731,457**	**14,009,350**	**-7,235,960**	**6,773,389**	**14,276,301**	**-7,415,034**	**6,861,266**
Average Balance	13,387,512	(6,847,239)	6,540,273	13,861,887	-7,109,464	6,752,423	14,142,825	-7,325,497	6,817,328
Change in Year	-653,824	271,456	-382,368	294,926	-252,993	41,933	266,951	-179,074	87,877

ACCOUNT 1855 — 1855-Services

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**1,152,756**	**-122,943**	**1,029,813**	**1,496,938**	**-175,937**	**1,321,001**	**1,571,572**	**-215,358**	**1,356,213**
Additions	344,182		344,182	96,583		96,583	154,550		154,550
Deprecia 4.0%		-52,994	-52,994		-61,370	-61,370		-65,435	-65,435
Retirements & Sales				-21,949	21,949	0	-25,926	25,926	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**1,496,938**	**-175,937**	**1,321,001**	**1,571,572**	**-215,358**	**1,356,213**	**1,700,196**	**-254,868**	**1,445,328**
Average Balance	1,324,847	(149,440)	1,175,407	1,534,255	-195,648	1,338,607	1,635,884	-235,113	1,400,771
Change in Year	-344,182	52,994	-291,188	74,634	-39,421	35,213	128,624	-39,509	89,115

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1860 — 1860-Meters

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**4,344,497**	**-2,368,349**	**1,976,148**	**4,389,190**	**-2,516,498**	**1,872,692**	**4,630,355**	**-2,668,393**	**1,961,962**
Additions	71,235		71,235	269,661		269,661	6,955,280		6,955,280
Deprecia 4.0%		-174,692	-174,692		-180,391	-180,391		-323,320	-323,320
Retirements & Sales	-26,543	26,543	0	-28,496	28,496	0	-49,968	49,968	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**4,389,190**	**-2,516,498**	**1,872,691**	**4,630,355**	**-2,668,393**	**1,961,962**	**11,535,667**	**-2,941,746**	**8,593,922**
Average Balance	4,366,844	(2,442,424)	1,924,420	4,509,773	-2,592,446	1,917,327	8,083,011	-2,805,069	5,277,942
Change in Year	-44,693	148,149	103,457	241,165	-151,895	89,270	6,905,312	-273,352	6,631,960

ACCOUNT 1920 — 1920-Computer Equipment - Hardware

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**2,936**	**-878**	**2,058**	**2,936**	**-1,174**	**1,762**	**2,936**	**-1,762**	**1,175**
Additions				0		0	21,734		21,734
Deprecia 10.0%		-296	-296		-587	-587		-2,761	-2,761
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**2,936**	**-1,174**	**1,762**	**2,936**	**-1,762**	**1,175**	**24,670**	**-4,522**	**20,148**
Average Balance	2,936	(1,026)	1,910	2,936	-1,468	1,468	13,803	-3,142	10,661
Change in Year	0	296	296	0	-587	-587	21,734	-2,761	18,973

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1925 1925-Computer Software

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**12,500**	**0**	**12,500**	**12,500**	**-2,500**	**10,000**	**44,225**	**-8,173**	**36,053**
Additions			0	31,725		31,725	0		0
Deprecia 20.0%		-2,500	(2,500)		-5,673	-5,673		-8,845	-8,845
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**12,500**	**-2,500**	**10,000**	**44,225**	**-8,173**	**36,053**	**44,225**	**-17,018**	**27,208**
Average Balance	12,500	-1,250	11,250	28,363	-5,336	23,026	44,225	-12,595	31,630
Change in Year	0	2,500	2,500	31,725	-5,673	26,053	0	-8,845	-8,845

ACCOUNT 1970 1970-Load Management Controls - Customer Premises

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**21,168**	**-1,626**	**19,542**	**27,815**	**-3,267**	**24,548**	**27,815**	**-5,122**	**22,693**
Additions	6,647		6,647	0		0	0		0
Deprecia 6.7%		-1,641	-1,641		-1,855	-1,855		-1,855	-1,855
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**27,815**	**-3,267**	**24,548**	**27,815**	**-5,122**	**22,693**	**27,815**	**-6,978**	**20,837**
Average Balance	24,492	(2,447)	22,045	27,815	-4,195	23,620	27,815	-6,050	21,765
Change in Year	-6,647	1,641	-5,006	0	-1,855	-1,855	0	-1,855	-1,855

Exhibit: 2

PUC Distribution Inc (PUC)

ACCOUNT 1980 1980-System Supervisory Equipment

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**3,727,346**	**-1,072,530**	**2,654,816**	**3,770,945**	**-1,319,516**	**2,451,428**	**3,770,945**	**-1,571,038**	**2,199,906**
Additions	43,599		43,599	0		0	0		0
Deprecia 6.7%		-246,986	-246,986		-251,522	-251,522		-251,522	-251,522
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**3,770,945**	**-1,319,516**	**2,451,429**	**3,770,945**	**-1,571,038**	**2,199,906**	**3,770,945**	**-1,822,560**	**1,948,384**
Average Balance	3,749,146	(1,196,023)	2,553,123	3,770,945	-1,445,277	2,325,667	3,770,945	-1,696,799	2,074,145
Change in Year	-43,599	246,986	203,387	0	-251,522	-251,522	0	-251,522	-251,522

ACCOUNT 1995 1995-Contributions and Grants - Credit

	2006 Actual			BRIDGE YEAR			TEST YEAR		
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**-1,539,291**	**84,509**	**-1,454,782**	**-1,962,050**	**166,535**	**-1,795,515**	**-1,962,050**	**245,017**	**-1,717,033**
Additions	-422,758		-422,758	0		0	0		0
Deprecia 4.0%		82,026	82,026		78,482	78,482		78,482	78,482
Retirements & Sales				0	0	0	0	0	0
Other (sp ARO						0			0
						0			0
						0			0
Closing Balance	**-1,962,049**	**166,535**	**-1,795,514**	**-1,962,050**	**245,017**	**-1,717,033**	**-1,962,050**	**323,499**	**-1,638,551**
Average Balance	(1,750,670)	125,522	(1,625,148)	-1,962,050	205,776	-1,756,274	-1,962,050	284,258	-1,677,792
Change in Year	422,758	-82,026	340,732	0	78,482	78,482	0	78,482	78,482

Exhibit: 2

PUC Distribution Inc (PUC)

TOTAL FIXED ASSETS IN SERVICE

		2006 Actual			BRIDGE YEAR			TEST YEAR	
	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value	Gross Cost	Accumulated Amortization	Net Book Value
Opening Balance	**74,456,543**	**-38,890,743**	**35,565,799**	**76,497,448**	**-40,958,323**	**35,539,125**	**79,274,399**	**-42,950,631**	**36,323,768**
Additions	**2,920,785**	**0**	**2,920,785**	3,831,238	0	3,831,238	12,160,382	0	12,160,382
Deprecia 4.0%	**0**	**-2,764,612**	**-2,764,612**	0	-3,046,595	-3,046,595	0	-3,310,977	-3,310,977
Retirements & Sales	**-879,879**	**697,033**	**-182,846**	-1,054,287	1,054,287	0	-1,433,932	1,433,932	0
Other (sp ARO				0	0	0	0	0	0
				0	0	0	0	0	0
				0	0	0	0	0	0
Closing Balance	**76,497,449**	**-40,958,322**	**35,539,126**	**79,274,399**	**-42,950,631**	**36,323,768**	**90,000,849**	**-44,827,676**	**45,173,173**
Average Balance	75,476,996	(39,924,533)	35,552,463	77,885,923	-41,954,477	35,931,446	84,637,624	-43,889,153	40,748,470
Change in Year	-2,040,906	2,067,579	26,673	2,776,951	-1,992,308	784,643	10,726,450	-1,877,045	8,849,405

Exhibit: 2

PUC Distribution Inc (PUC)

GROSS ASSETS TABLE

Exhibit: 2

PUC Distribution Inc (PUC)

GROSS ASSETS TABLE

	2006 Board Approved ($'s)	2006 Actual ($'s)	Variance form 2006 Board Approved		2006 Actual ($'s)	2007 Bridge ($'s)	Variance form 2006 Actual		2007 Bridge ($'s)	2008 Test ($'s)	Variance form 2007 Bridge	
Land and Buildings												
1805-Land		9,674	9,674		9,674	51,974	42,300		51,974	51,974	-	
1806-Land Rights	612,795	648,509	35,714		648,509	658,509	10,000		658,509	668,509	10,000	
1808-Buildings and Fixtures	1,157,109	1,157,109	-		1,157,109	1,148,333	(8,776)		1,148,333	1,158,906	10,573	
1905-Land												
1906-Land Rights												
1810-Leasehold Improvements												
Sub-Total-Land and Buildings	1,769,904	1,815,292	45,388		1,815,292	1,858,816	43,524		1,858,816	1,879,389	20,573	
TS Primary Above 50												
1815-Transformer Station Equipment	4,433,887	4,777,954	344,067		4,777,954	5,063,477	285,523		5,063,477	5,411,225	347,748	
- Normally Primary above 50 kV												
Sub-Total-TS Primary Above 50												
DS												
1820-Distribution Station Equipment	7,136,868	7,409,524	272,656		7,409,524	7,825,635	416,111		7,825,635	8,588,633	762,998	**4**
- Normally Primary below 50 kV												
Sub-Total-DS	7,136,868	7,409,524	272,656		7,409,524	7,825,635	416,111		7,825,635	8,588,633	762,998	
Poles and Wires												
1830-Poles, Towers and Fixtures	15,769,065	10,400,811	(5,368,254)	**1**	10,400,811	11,488,595	1,087,784	**3**	11,488,595	12,890,396	1,401,801	**4**
1835-Overhead Conductors and Devi	529,946	7,951,662	7,421,716	**1**	7,951,662	7,987,222	35,560		7,987,222	8,181,678	194,456	
1840-Underground Conduit	20,839,943	11,215,382	(9,624,561)	**1**	11,215,382	11,327,142	111,760		11,327,142	11,744,724	417,582	**4**
1845-Underground Conductors and D	952,570	11,451,196	10,498,626	**1**	11,451,196	11,605,435	154,239		11,605,435	11,864,106	258,671	
Sub-Total-Poles and Wires	38,091,524	41,019,051	2,927,527		41,019,051	42,408,394	1,389,343		42,408,394	44,680,904	2,272,510	

PUC Distribution Inc (PUC)

Line Transformers											
1850-Line Transformers	13,009,995	13,714,424	704,429	**2**	13,714,424	14,009,350	294,926	14,009,350	14,276,301	266,951	
Sub-Total-Line Transformers	13,009,995	13,714,424	704,429		13,714,424	14,009,350	294,926	14,009,350	14,276,301	266,951	
Services and Meters											
1855-Services	877,246	1,496,938	619,692	**2**	1,496,938	1,571,573	74,635	1,571,573	1,700,196	128,623	
1860-Meters	4,276,495	4,389,190	112,695		4,389,190	4,630,355	241,165	4,630,355	11,535,667	6,905,312	**4**
Sub-Total-Services and Meters	5,153,741	5,886,128	732,387		5,886,128	6,201,928	315,800	6,201,928	13,235,863	7,033,935	
General Plant											
1908-Buildings and Fixtures											
1910-Leasehold Improvements											
Sub-Total-General Plant	-	-	-		-	-	-	-	-	-	
IT Assets											
1920-Computer Equipment - Hardware		2,936	2,936		2,936	2,936	-	2,936	24,670	21,734	
1925-Computer Software		12,500	12,500		12,500	44,225	31,725	44,225	44,225	-	
Sub-Total-IT Assets	-	15,436	15,436		15,436	47,161	31,725	47,161	68,895	21,734	
Equipment											
1915-Office Furniture and Equipment			-				-			-	
1930-Transportation Equipment			-				-			-	
1935-Stores Equipment			-				-			-	
1940-Tools, Shop and Garage Equipment			-				-			-	
1945-Measurement and Testing Equipment			-				-			-	
1950-Power Operated Equipment											
1955-Communication Equipment			-				-				
1960-Miscellaneous Equipment											
Sub-Total-Equipment	-	-	-		-	-	-	-	-	-	

PUC Distribution Inc (PUC)

Other Distribution Assets										
1825-Storage Battery Equipment		22,929	22,929		22,929	22,929	-	22,929	22,929	-
1970-Load Management Controls - Customer Premis		27,815	27,815		27,815	27,815	-	27,815	27,815	-
1975-Load Management Controls - Utility Premises										
1980-System Supervisory Equipment	3,505,035	3,770,945	265,910		3,770,945	3,770,945	-	3,770,945	3,770,945	-
1985-Sentinel Lighting Rental Units			-				-			-
1990-Other Tangible Property										
1995-Contributions and Grants - Crec	(1,110,590)	(1,962,050)	(851,460)	**2**	(1,962,050)	(1,962,050)	-	(1,962,050)	(1,962,050)	-
Sub-Total-Other Distribution Assets	2,394,445	1,859,639	(534,806)		1,859,639	1,859,639	-	1,859,639	1,859,639	-
GROSS ASSET TOTAL	71,990,364	76,497,448	4,507,084		76,497,448	79,274,400	2,776,952	79,274,400	90,000,849	10,726,449

Ref.

1 Variances are a result of the reallocation of fixed assets between accounts as a result of a review triggered by the cost allocation study and also fixed asset additions in 2005 and 2006. Refer to the analysis of material 2006 items.

2 Consists of contributed capital for 2005 and 2006. Refer to the analysis of material 2006 items.

3 Refer to the analysis of material 2007 budget projects.

4 Refer to the analysis of material 2008 budget projects.

Note: The analysis of material 2006 items is on page 28 and 29 of this Exhibit.
The analysis of material 2007 budget projects is on page 30 and 31 of this Exhibit.
The analysis of material 2008 budget projects in on page 32 and 33 of this Exhibit.

PUC Distribution Inc (PUC)

MATERIALITY ANALYSIS ON GROSS ASSETS

The calculation of the Materiality Threshold on gross assets is shown in the following table:

Materiality threshold = 1% of net fixed assets

	2006 Actual	2007 Bridge	2008 Test
Gross Cost	76,497,449	79,274,399	90,000,849
Accumulated Amortization	(40,958,322)	(42,950,631)	(44,827,676)
Net Fixed Assets	35,539,127	36,323,768	45,173,173
1% of Net Fixed Assets	355,392	363,238	451,732

PUC has selected the lowest materiality threshold of $355,392 to allow for the most detailed review of gross asset changes.

PUC Distribution Inc (PUC)

ACCUMULATED DEPRECIATION TABLE

Exhibit: 2

PUC Distribution Inc (PUC)

ACCUMULATED DEPRECIATION TABLE

	2006 Board Approved ($'s)	2006 Actual ($'s)	Variance form 2006 Board Approved		2006 Actual ($'s)	2007 Bridge ($'s)	Variance form 2006 Actual		2007 Bridge ($'s)	2008 Test ($'s)	Variance form 2007 Bridge	
Land and Buildings												
1805-Land	-	-	-		-	-	-		-	-	-	
1806-Land Rights												
1808-Buildings and Fixtures	(525,669)	(559,010)	33,341		(559,010)	(573,288)	14,278		(573,288)	(596,067)	22,779	
1905-Land												
1906-Land Rights												
1810-Leasehold Improvements												
Sub-Total-Land and Buildings	(525,669)	(559,010)	33,341		(559,010)	(573,288)	14,278		(573,288)	(596,067)	22,779	
TS Primary Above 50												
1815-Transformer Station Equipment	(2,334,285)	(2,561,264)	226,979		(2,561,264)	(2,684,282)	123,018		(2,684,282)	(2,815,216)	130,934	
- Normally Primary above 50 kV												
Sub-Total-TS Primary Above 50	(2,334,285)	(2,561,264)	226,979		(2,561,264)	(2,684,282)	123,018		(2,684,282)	(2,815,216)	130,934	
DS												
1820-Distribution Station Equipment	(4,906,317)	(5,074,169)	167,852		(5,074,169)	(5,327,835)	253,666		(5,327,835)	(5,374,600)	46,765	
- Normally Primary below 50 kV												
Sub-Total-DS	(4,906,317)	(5,074,169)	167,852		(5,074,169)	(5,327,835)	253,666		(5,327,835)	(5,374,600)	46,765	
Poles and Wires												
1830-Poles, Towers and Fixtures	(2,926,269)	(5,863,167)	2,936,898	**1**	(5,863,167)	(5,916,511)	53,344		(5,916,511)	(5,921,987)	5,476	
1835-Overhead Conductors and Devices	(5,298,436)	(3,042,734)	(2,255,702)	**1**	(3,042,734)	(3,156,955)	114,221		(3,156,955)	(3,301,812)	144,857	
1840-Underground Conduit	(3,475,470)	(7,165,417)	3,689,947	**1**	(7,165,417)	(7,530,667)	365,250	**3**	(7,530,667)	(7,930,580)	399,913	**4**
1845-Underground Conductors and Devices	(8,078,918)	(5,855,862)	(2,223,056)	**1**	(5,855,862)	(6,298,012)	442,150	**3**	(6,298,012)	(6,744,979)	446,967	**4**
Sub-Total-Poles and Wires	(19,779,093)	(21,927,180)	2,148,087		(21,927,180)	(22,902,145)	974,965		(22,902,145)	(23,899,358)	997,213	

Exhibit: 2

PUC Distribution Inc (PUC)

Line Transformers										
1850-Line Transformers	(6,499,388)	(6,982,967)	483,579	**2**	(6,982,967)	(7,235,960)	252,993	(7,235,960)	(7,415,034)	179,074
Sub-Total-Line Transformers	(6,499,388)	(6,982,967)	483,579		(6,982,967)	(7,235,960)	252,993	(7,235,960)	(7,415,034)	179,074
Services and Meters										
1855-Services	(937)	(175,937)	175,000		(175,937)	(215,358)	39,421	(215,358)	(254,868)	39,510
1860-Meters	(2,247,505)	(2,516,498)	268,993		(2,516,498)	(2,668,393)	151,895	(2,668,393)	(2,941,746)	273,353
Sub-Total-Services and Meters	(2,248,442)	(2,692,435)	443,993		(2,692,435)	(2,883,751)	191,316	(2,883,751)	(3,196,614)	312,863
General Plant										
1908-Buildings and Fixtures										
1910-Leasehold Improvements										
Sub-Total-General Plant	-	-	-		-	-	-	-	-	-
IT Assets										
1920-Computer Equipment - Hardware	-	(1,174)	1,174		(1,174)	(1,762)	588	(1,762)	(4,522)	2,760
1925-Computer Software	-	(2,500)	2,500		(2,500)	(8,173)	5,673	(8,173)	(17,018)	8,845
Sub-Total-IT Assets	-	(3,674)	3,674		(3,674)	(9,935)	6,261	(9,935)	(21,540)	11,605
Equipment										
1915-Office Furniture and Equipment			-				-			-
1930-Transportation Equipment			-				-			-
1935-Stores Equipment			-				-			-
1940-Tools, Shop and Garage Equipment			-				-			-
1945-Measurement and Testing Equipment			-				-			-
1950-Power Operated Equipment										
1955-Communication Equipment			-			-	-	-	-	
1960-Miscellaneous Equipment										
Sub-Total-Equipment	-	-	-		-	-	-	-	-	-

Exhibit: 2

PUC Distribution Inc (PUC)

Other Distribution Assets										
1825-Storage Battery Equipment		(1,375)	1,375		(1,375)	(2,292)	917	(2,292)	(3,209)	917
1970-Load Management Controls - Customer Premises		(3,267)	3,267		(3,267)	(5,122)	1,855	(5,122)	(6,978)	1,856
1975-Load Management Controls - Utility Premises										
1980-System Supervisory Equipment	(828,454)	(1,319,516)	491,062	**2**	(1,319,516)	(1,571,038)	251,522	(1,571,038)	(1,822,560)	251,522
1985-Sentinel Lighting Rental Units			-				-			-
1990-Other Tangible Property										
1995-Contributions and Grants - Credit	-	166,535	(166,535)		166,535	245,017	(78,482)	245,017	323,499	(78,482)
Sub-Total-Other Distribution Assets	(828,454)	(1,157,623)	329,169		(1,157,623)	(1,333,435)	175,812	(1,333,435)	(1,509,248)	175,813
ACCUMULATED DEPRECIATION TOTAL	(37,121,648)	(40,958,322)	3,836,674		(40,958,322)	(42,950,631)	1,992,309	(42,950,631)	(44,827,677)	1,877,046

Ref.

1 Variances are a result of the reallocation of fixed assets between accounts as a result of a review triggered by the cost allocation study and also fixed asset additions in 2005 and 2006. Refer to the analysis of material 2006 items.

2 Consists capital additions for 2005 and 2006. Refer to the analysis of material 2006 items.

3 Result of 2007 additions. Refer to the analysis of material 2007 budget projects.

4 Result of 2008 additions. Refer to the analysis of material 2008 budget projects.

Exhibit: 2

PUC Distribution Inc (PUC)

MATERIALITY ANALYSIS ON ACCUMULATED DEPRECIATION

The calculation of the Materiality Threshold on Accumulated Depreciation is shown in the following table:

Materiality threshold = 1% of net fixed assets

	2006 Actual	2007 Bridge	2008 Test
Gross Cost	76,497,449	79,274,399	90,000,849
Accumulated Amortization	(40,958,322)	(42,950,631)	(44,827,676)
Net Fixed Assets	35,539,127	36,323,768	45,173,173
1% of Net Fixed Assets	355,392	363,238	451,732

PUC has selected the lowest materiality threshold of $355,392 to allow for the most detailed review of accumulated depreciation changes.

PUC Distribution Inc (PUC)

CAPITAL BUDGET BY PROJECT

Overview

To assist in the 2008 capital budgeting process and provide evidence for this rate application, PUC engaged BDR North America and Metsco Inc. (BDR) to provide the attached report which is entitled Review of Capex and O & M Plan.

In addition to BDR's report, also attached is a Long Term Capital and O&M Needs Report which has been prepared by PUC's V.P. of Operations and Engineering.

The following comments are drawn from the internally produced Long Term Capital and O&M Needs Report and the Review of Capex and O&M Plan prepared by BDR:

Over the past five years we have witnessed a dramatic decrease in system reliability. Power outages have increased both in overall duration and in frequency. Several factors have contributed to this, including failures of aging infrastructure, fault protection coordination with Brookfield Power (Great Lakes Power), and changes to work protection requirements. In conjunction with end-of-life replacement of infrastructure, increased maintenance or refurbishment of components is essential to ensure safe and secure supply to customers. The aging infrastructure will require greater attention to maintenance activities in order to extend usable equipment life to its maximum.

Furthermore, with growing regulatory and customer demands, there is continued impetus to improve operational efficiencies and effectiveness. This will require on-going efforts to continue to develop and maintain various operating systems such as the SCADA, GIS and Work Management System. All these initiatives will require increased resources in staffing and equipment.

Long term improvement in reliability will be contingent upon PUC Distribution achieving the higher levels of plant renewal (capital expenditures) identified in the Long Term Capital and O&M Needs report in conjunction with the higher levels of equipment maintenance and operational activities identified in Exhibit 4 Operating Costs. In order to achieve these higher levels, PUC Distribution needs to build the resource capacity outlined in the Long Term Capital and O&M Needs report.

In addition to reliability concerns, regulatory requirements over the last several years have increased pressures on existing resources.

The Distribution System Code (DSC) requires an LDC to maintain its distribution system in good working condition, as follows:

"4.4.1 A distributor shall maintain its distribution system in accordance with good utility practice and performance standards to ensure reliability and quality of electricity service, on both a short-term and long-term basis."

Furthermore, introduction of O. Reg. 22/04, Electrical Distribution Safety, in late 2004 introduced additional legislated focus on maintaining municipal distribution systems. Specifically the Regulation requires an LDC to

" Section 4. Safety standards…

(2) All distribution systems and the electrical installations and electrical equipment forming part of such systems shall be designed, constructed, installed, protected, used,

maintained, repaired, extended, connected and disconnected so as to reduce the probability of exposure to electrical safety hazards. O. Reg. 22/04, s. 4 (2)."

Section 4 goes on to identify all components of the distribution system and specifies for each component as follows:

" 1. Operating electrical equipment shall be maintained in proper operating condition."

PUC Distribution Inc. has established a documented program to address the legislated requirements. A copy of this program is provided in Appendix 3 of the Long Term Capital and O&M Needs report for reference.

As described in more detail in the attached report, existing staff and equipment resources are inadequate to achieve the program objectives. Additional resources are required to achieve these objectives. These resources are identified in the report and the costs related to the next progressive step to reach the desired resource level are included in the 2008 test year projections.

PUC Distribution has established a long term work program to address the needs identified above. The Five Year Works Plan (the Plan) takes into account the logistics associated with ramping up the Capital and O&M works to target levels within reasonable time lines.

Five year planning has been in existence now for more than fifteen years. The Plan is reviewed and updated annually to keep current with needs and costs. Also the Plan is reviewed to ensure continued focus on the long term needs of the utility in order to ensure safe and reliable delivery of energy to consumers.

The Plan consists of a detailed summary of Capital Projects and O&M activities for year one (i.e. 2008). For years 2 through 5 of the Plan (i.e. 2009 – 2012), in order to simplify the presentation, the recurring annual items are aggregated into summary allocations identified as "Recurring Capital" and "Recurring O&M".

Appendix 4 of the Long Term Capital and O&M Needs report includes a copy of the Five Year Works Plan proposed for 2008, pending successful approval of PUC Distribution's rate application.

The Review of Capex and O&M Plan is included in this Exhibit. This report prepared by BDR NorthAmerica Inc. in association with METSCO Inc., critically reviewed the capital and preventative maintenance expenditures proposed in PUC's 5-year budget for renewal and replacement of aging assets and provides an independent opinion on the adequacy of proposed expenditures.

BDR's report included the following observations:

- Approximately 80% of the medium voltage cables employed on URD system will be approaching the end of their useful life during the next 10 years.
- Results of pole testing completed over the recent years reveals approximately 5% of poles were at the end of their useful life when tested and an additional 5% to 10% were fast approaching the end of the their useful life.

PUC Distribution Inc (PUC)

- A large number of circuit breakers and disconnect switches at PUCs substations are also approaching the end of their useful lives, requiring replacement or refurbishment.
- The frequency and scope of preventative maintenance activities impacts both reliability and life expectancy of assets. The past level of preventative maintenance on the assets reviewed, including substation circuit breakers and switches, line disconnects and fused cutouts, pad-mounted switchgear and submersible vaults has been inadequate. Replacing or refurbishing aging assets in a timely fashion so they do not have significant adverse impacts on reliability, safety and operating efficiency will require a significant increase in capital and operating budgets from previous years. Budgetary estimates of additional capital costs for each of the assets reviewed are provided in the report.

Due to the need to build a resource base in order to meet the targeted capital and O & M activities, PUC's 2008 test year projections are based on the phased approach detailed in the Long Term Capital and O&M Needs Report and BDR's review.

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2006 Actual

The following table is a summary of 2006 capital expenditures by account. It is followed by a table that is the summary of 2006 capital expenditures by project.

Account Description	Account	Amount ($)
Land	1805	9,674
Land Rights	1806	24,565
Transformer Station Equipment above 50 kV	1815	99,730
Distribution Station Equipment below 50 kV	1820	170,564
Storage Battery Equipment	1825	14,713
Poles, Towers and Fixtures	1830	983,563
Overhead Conductors and Devices	1835	288,497
Underground Conduit	1840	125,650
Underground Conductors and Devices	1845	240,012
Line Transformers	1850	920,913
Services	1855	344,182
Meters	1860	71,235
Computer Software	1925	12,500
Load Management Controls	1970	6,647
System Supervisory Equipment	1980	43,599
Total		3,356,044

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Project Description	**Amount ($)**	**Ref**
Easement purchases	24,565	
Replace wood poles	420,988	**1**
Convert to 12 KV in Sub 5 area south of Wellington St E from Elizabeth St to Hugill St	288,145	
Upgrade Sub 17 Relays	8,448	
Upgrade wholesale metering installations	6,260	
Relocate poleline on Hudson Street form ACR crossing to Wellington West	10,507	
Install underground servicing in new subdivisions	163,420	
Install services to meet customer demand	776,639	**2**
Construct miscellaneous lines and switches	222,196	
Substation Battery Bank Sub.4 & Sub.1	15,000	
Convert to 12 KV in Sub 5 area north of Wellington St E from Lake St to Shannon Rd	39,015	
Repalce 35kV cables at TS2	140,309	
Replace switch SM25 at TS1	29,582	
Replace 35kV cables at Sub18	3,108	
Demand Side Management Programs	19,147	
Annual Meter Program	71,235	
SCADA System Upgrades	25,914	
GIS	17,685	
Miscellaneous small projects including substation building upgrades, substation grounding work, padmount switches, breaker replacements, system over-current protection, 10 mva - 4kV transformer, installation of reclosers and faulted circuit indicators, adjustment to transformers capital account	1,073,882	
Total	3,356,044	

1 Annual pole replacement program – refer to the attached Long Term Capital and O & M Needs report

2 Installations to meet customer demand – includes residential services, upgrades to services, new services which lie along the existing distribution system – refer to the attached Long Term Capital and O & M Needs report

Exhibit: 2

PUC Distribution Inc (PUC)

2007 Bridge Year Capital Budget by project and account

	Description		Amount $	Account #	
1	Easement purchases		10,000	1806	
2	Install underground servicing in new subdivisions		71,626	1840	
			82,629	1845	
			122,807	1850	
		Total	277,063		
3	Replace wood poles		422,997	1830	1
4	Reconstruct undersized manholes with new larger standard		42,300	1805	
			37,012	1840	
		Total	79,312		
5	Install services to meet customer demand		280,465	1830	
			68,357	1835	
			88,722	1840	
			90,593	1845	
			123,986	1850	
			96,583	1855	
		Total	748,705		2
6	Construct miscellaneous lines and switches		189,041	1830	
			42,236	1835	
			85,971	1850	
		Total	317,248		
7	Purchase substation switchgear grounding devices		42,300	1820	
8	Replace 35kV cables at Sub18		63,450	1820	
9	Upgrade wholesale metering installations		158,624	1860	
10	Convert to 12 KV in Sub 5 area north of Wellington St E from Lake St		346,575	1830	
			77,433	1835	
			157,613	1850	
		Total	581,621		3
11	Replace leaking 4kV transformer at Sub 17		12,690	1820	
12	Allowance to provide for identified pending projects		100,822	1830	
			22,526	1835	
			45,851	1850	
		Total	169,199		

PUC Distribution Inc (PUC)

13	Reconstruct Northern Ave GLP Line		**132,328**	**1830**
			29,565	**1835**
			60,180	**1850**
		Total	**222,074**	
14	Completion of approved CDM program		**31,725**	**1925**
15	Transmission Station Equipment		**285,523**	**1815**
16	Station Equipment		**297,671**	**1820**
17	Meter Installations		**111,037**	**1860**
		Grand Total	**3,831,237**	

1 Annual pole replacement program – refer to the attached Long Term Capital and O & M Needs report

2 Install services to meet customer demand – based on historical data and anticipated projects - refer to Long Term Capital and O & M Needs report

3 Voltage conversion – projected voltage conversion work to be completed in 2007 refer to attached Long Term Capital and O & M Needs report

Note: The capital Budget by Program is net of contributed capital in items 1, 5, 6 and 13.

Exhibit: 2

PUC Distribution Inc (PUC)

2008 Test Year Capital Budget by project and account

	Description		Amount $	Account #	
1	Easement purchases		10,000	1806	
2	Install underground servicing in new subdivisions – projected at 120 lots		67,425	1840	
			77,782	1845	
			115,604	1850	
		Total	260,811		
3	Replace wood poles – approximately 150 poles		700,929	1830	1
4	Extend 35 kV along Third line East & Drive Inn Rd. to provide redundant supply		190,512	1830	
			42,565	1835	
			50,532	1840	
			58,295	1845	
			86,640	1850	
			60,476	1855	
		Total	489,020		2
5	Install services to meet customer demand		296,352	1830	
			66,212	1835	
			78,605	1840	
			90,681	1845	
			134,773	1850	
			94,074	1855	
		Total	760,698		3
6	Construct miscellaneous lines and switches – to be coordinated with City projects		97,132	1830	
			21,702	1835	
			44,173	1850	
		Total	163,007		
7	Replace Distribution Switches		54,336	1820	
8	Purchase substation switchgear grounding devices		54,336	1820	
9	Convert to 12Kv in sub 5 area north of Wellington St from Lake Street to Shannon Rd.		469,471	1830	
			104,891	1835	
			213,503	1850	
		Total	787,866		4
10	Replace URD primary cables – annual program		282,545	1840	

PUC Distribution Inc (PUC)

11	Refurbish padmounted switches – annual program	**54,336**	**1845**	
12	Purchase and install second transformer for Sub 15 for load shifting	**163,007**	**1820**	
13	Install smart meters - complete installation in 2008	**6,737,612**	**1860**	**5**
14	Allowance to provide for identified pending projects	**129,509**	**1830**	
		28,936	**1835**	
		58,897	**1850**	
	Total	**217,342**		
15	Replace Restricted Wire – annual allocation to replace for safety reasons	**108,671**	**1835**	
16	Misc Distribution Buildings – energy conservation upgrades	**10,867**	**1808**	
17	Misc Transformer Station Equipment – transformer station protection upgrades to reduce magnitude of outages and replacement of defective switches	**347,748**	**1815**	
18	Misc. Distribution Equipment – substation grounding, potential transformers, replace cables to Sub 11, battery banks, breakers, relays	**717,851**	**1820**	**6**
19	Meter Installations – excluding smart meter installations	**217,668**	**1860**	
20	Computer software	**21,734**	**1920**	
	Grand Total	**12,160,383** *		

1 Annual pole replacement program – refer to the attached Long Term Capital and O & M Needs report

2 Extension of 35 kV line along Third Line and Drive Inn Road to provide redundant supply mainly for the new hospital

3 Install services to meet customer demand - based on historical data and anticipated projects - refer to Long Term Capital and O & M Needs report

4 Voltage conversion – projected voltage conversion work to be completed in 2008 - refer to attached Long Term Capital and O & M Needs report

5 Installation of smart meters – refer to the following smart meter comments

6 Miscellaneous distribution equipment – replacement of cables feeding Sub 11 $265,000 – remainder of items each $50,000 or less

* The capital budget included overhead allocations

Note: The Capital Budget by Programs is net of contributed capital in items 2, 5, 6, 14 and 19.

PUC Distribution Inc (PUC)

Smart Meter Plan Comments

PUC Distribution is a member of the "EDA Northeast District" group of Northern LDCs (the Group) who have engaged Util-assist to coordinate the installation of smart meters for the group. Current members of the group include Chapleau, Espanola, Fort Albany, Great Lakes Power, Hearst, North Bay, Northern Wires and PUC Distribution. The overall intent of the Group is to collectively draw on the experiences and information of other LDCs who have commenced the smart meter implementation and capitalize on possible synergies by moving forward as a northern group. The following comments are drawn from the reports provided by Util-assist.

To cost-effectively plan for the smart meter deployment, and ensure due diligence is accommodated, the Group members have come together, and through a concerted effort, examined the benefits of a collaborative approach to planning, as well as procurement of Advanced Metering Infrastructure (AMI) and Installation services. Satisfying the Group's due diligence requirements would entail an all-encompassing process, accounting for Planning, Implementation, Testing, and complete Back Office Integration. It is the intent of the Group members to work together throughout this initiative, in order to take full advantage of the benefits that have been documented through the financial analysis undertaken on behalf of the group.

For example, benefits will be explored in the following areas:

• Ongoing Operational Costs: by working together, the the Group members can drastically reduce the labour components associated with maintaining the health of the installed network, as well as the daily data collection requirements for the deployed system.

• Should the Group decide on similar AMI network technology, AMCC licensing costs could be reduced

• While volume pricing has not been included in this analysis, as the numbers used are considered budgetary, it is reasonable to assume that there will be preferential pricing provided to the members should they decide to work together. 78,000 meters vs. the stand alone volumes should ensure discounts in associated infrastructure, and installation costing.

HydroOne, as well as the Coalition of Large Distributors (CLD) in conjunction with the Ministry of Energy (MOE), have undergone procurement processes resulting in qualified AMI vendors and implementation service companies for Phase One of the smart meter initiative. These qualified vendors form the "short list" of vendors available for use in Phase One deployments and any Ontario LDC's procuring in 2007. Options have been presented which include awaiting the release of the Phase Two RFPQ which may or may not qualify different vendors from that approved in Phase One. The Group SMI Planning has incorporated both processes into their planning, and members are currently waiting the Phase Two outcome to reach a decision regarding AMI and Implementation vendors, which will allow contract negotiations to be finalized in early 2008.

By collaborating with Util-Assist to develop an extensive plan, the Group Members will be sufficiently prepared to accommodate the established timelines. A project of this magnitude is not without risk and potential problems and risks have been identified which may impede progress (Rate Recovery, Meter Base Repairs, etc). By considering all aspects of the forthcoming deployment, including rate recovery, regulatory requirements regarding AMI functionality, strategic planning to minimize costs for deployment, audit tools during deployment, back office integration, meter disposal, AMI security, WEB presentment, sub-metering, coordination with local municipalities, change management, and most importantly, the continued dedication to Health and Safety; the Group members are focused on mitigating associated risks, thereby ensuring the successful implementation of the Smart Meter Initiative.

PUC Distribution Inc (PUC)

To satisfy the due diligence requirements of a project of this magnitude, an all-inclusive process must be undertaken. To become educated on all aspects of the AMI initiative, the Group members have maintained involvement in the Ontario Utilities Smart Meter (OUSM) working group; a working group currently consisting of 52 utility members that have come together in an educational effort. This collaborative effort includes sharing information on the success of AMI pilots installed in utilities across the province, and reporting on the testing of different AMI technologies and components related to the AMI initiative. This will provide for an invaluable reference in analyzing AMI systems through the selection stages of this project. The Group members have supported the concept of the OUSM from the outset, embracing the collaborative approach to acquiring the required education for a successful Smart Meter Implementation. Through this involvement much has been learned regarding all prominent AMI technologies available to the North American marketplace by experiencing deployed pilots as well as the standardized testing that was completed in 2005. Standard Test Scripts were created and used for testing all AMI technologies, helping to provide comfort and back-up documentation to justify future vendor selection to a utility's board members and the OEB. The testing of products ensured an understanding not only of the functionality of the products available in this market, but also to understand the functionality that will be required of the different components of the Smart Meter system in order to accomplish the needs of the regulators. Acquiring insight into how different products deliver such components as time stamping of intervals, synchronization of register reads, network diagnostic components, etc, the Group will ensure that the chosen products can deliver the requirements of the regulators as well as accomplish the unique requirements of individual members. Acting collaboratively with the OUSM, utilities have been able to gain an understanding of the base functionality and advanced feature sets of these installed products, as well as the other prominent technologies available to the North American market.

In May of 2007 the OEB initiated a Combined Proceeding to review costs incurred by thirteen electricity distributors for certain smart metering activities. The Board conducted a combined hearing in part to allow for examination of the different technologies deployed by different utilities, as well as the cost implications. The decision from the proceeding was released in August of 2007. Throughout the proceeding utilities were required to submit evidence to demonstrate a sound process was undertaken thus far through the initiative. The level of detail the interveners requested from utilities in Phase One has been incorporated in the Group plan. All of the applicants in the proceeding requested orders approving:

- The Applicants' interpretation of Minimum Functionality.
- The Applicants' prudence in the purchasing of smart meters.
- The Applicants' proposed methodology for dealing with stranded smart meter costs.
- The Applicants' proposed methodology for recovering smart meter costs through rates.
- The Applicants' proposed accounting procedures related to the smart meter costs.

As this Smart Meter Initiative is a Government mandated program, utilities were not required to conduct cost benefit studies as part of their due diligence process; however, the Board did conduct a prudence analysis and through this process recognized the value in utilities working together to maximize buying pools which supports the process being followed by the Group. In the published Decision with Reasons the Board recognizes that the procurement process undertaken by the thirteen utilities met a very high standard and is considered prudent. Cost recovery is restricted to installed meters (costs incurred) as opposed to forecasted installation costs which is consistent with the Board's Decision on the methodology to recover costs in rates. This Decision allows utilities the opportunity to incorporate capital costs for installed smart meters in their rate base; and to calculate the revenue requirements on that basis.
As the installation of smart meters will result in a significant number of meter assets being retired prior to their full depreciation, the determination of how stranded costs will be recovered is critical to utilities. At this time, the Board has deferred a decision regarding the treatment of stranded assets; however utilities may

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bring forward applications for the recovery of stranded costs in their 2008 rates. During the hearing it was suggested by utilities that at the present time, the stranded costs associated with existing meters should stay in the rate base and the Board accepted this proposition.

Due to confidentiality and to protect a competitive bidding process, the costs published with the decision are averaged into a cost per installation for each utility. Due to the varying geographical service territories of the thirteen utilities, an actual cost comparison is difficult (considering that there is typically a higher cost to the installation of smart meters in a rural area or in older residential areas with inside meters).

PUC's has included approximately $215 per meter in 2008 fixed asset additions and an average additional monthly operating cost of $1.00 per meter per month. Under the current the Group plan, PUC is scheduled to have all smart meters installed in 2008, commencing in April.

Costing for the The Group analysis is based on several factors:
• CLD RFPQ results (associated hardware).
• Costs approved in the Board's decision.
• Quotes provided by vendors as a result of their involvement (invitation) in the Group analysis.
• Estimated costs associated with WAN connections based on Vendor estimations of the quantity of connections required.

Exhibit: 2

PUC Distribution Inc (PUC)

MATERIALITY ANALYSIS ON CAPITAL BUDGETS

The calculation of the Materiality Threshold on Capital Budgets is shown in the following table:

Materiality threshold = 1% of net fixed assets

	2006 Actual	2007 Bridge	2008 Test
Gross Cost	76,497,449	79,274,399	90,000,849
Accumulated Amortization	(40,958,322)	(42,950,631)	(44,827,676)
Net Fixed Assets	35,539,127	36,323,768	45,173,173
1% of Net Fixed Assets	355,392	363,238	451,732

The materiality thresholds of 1% of the total net assets were used in the above analysis

PUC Distribution Inc (PUC)

SYSTEM EXPANSIONS

PUC has no system expansions in 2006 Actual, 2007 Bridge year or 2008 Test year except for residential subdivisions as noted in the capital budgets.

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CAPITALIZATION POLICY

A capital expenditure is defined as any significant expenditure incurred to acquire or improve land, buildings, plant, engineering structures, machinery and equipment used in providing services to customers. Improvement or "betterment" includes increasing capacity, reliability, efficiency or economy of operation or extending the useful life of a previous capital expenditure. It includes electric plant, vehicles, office furniture, computer equipment and other equipment. A capital expenditure normally provides a benefit lasting beyond one year and results in the acquisition of or extends the life of a fixed asset.

Expenditures for repairs and/or maintenance designed to maintain an asset in its original state is not a capital expenditure but should be charged to an operating account.

	Definition	Accounting Treatment
Capital Expenditure	An expenditure to acquire or add to a capital asset – an expenditure yielding enduring benefits	Capitalize if above the materiality limit
Improvement	An expenditure made for the purpose of enhancing a fixed asset and which is an addition to the cost of the asset	Capitalize if above the materiality limit
Maintenance	The cost of keeping a property in efficient working condition	Current operations expense
Repair	The cost of replacement of parts or other restoration of plant and machinery, designed to restore normal working efficiency	Current operations expense

The following are materiality limits for the listed category of assets. Items with a cost less than the materiality levels as listed below should be charged to operations whether they are of a capital nature or of a repairs/maintenance nature.

PUC Distribution Inc (PUC)

Account #	Description	Limit
	Electric Distribution	
1705, 1805, 1905	Land	All
1706, 1806, 1906	Land Right	$500
1708, 1808, 1908	Buildings	$500
1715, 1815	Transformer Station Equipment	$500
1820, 1825	Distribution Station Equipment	$500
1720, 1725, 1830	Poles, Towers and Fixtures	$500
1730, 1835	Lines & Feeders - O/H	$500
1735, 1840	Conduit – U/G	$500
1740, 1845	Lines & Feeders - U/G	$500
1850	Distribution Transformers	$500
1850	Distribution Transformers	$500
1855	Services	All
90	Meters	All
1915	General Office Equipment	$500
1920, 1925	Computer Equipment	$500
1935	Stores Warehouse Equipment	$500
1930	Rolling Stock	$500
1940, 1945	Miscellaneous Equipment	$500
1955	Communication Equipment	$500
1980	System Supervisory Equipment	$500

PUC Distribution Inc (PUC)

Long Term Capital and O&M Needs Report

Exhibit: 2

PUC Distribution Inc (PUC)

REPORT

Subject: PUC Distribution Inc.
Long Term Capital and O&M Needs

Purpose: To support 2008 Rate Application

Prepared by: Dominic Parrella, P. Eng.
V.P. Operations & Engineering

Submitted to: Brian Curran, P. Eng.
President & C.E.O.

Date: August 30, 2007

PUC Distribution Inc (PUC)

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About PUC Distribution Inc.

The Public Utilities Commission of the City of Sault Ste. Marie (better known as "the Commission" or "the PUC") was created in 1917 to supply electricity and drinking water to the residents of Sault Ste. Marie. In July 2000 the Commission was restructured under the Electricity Act. A holding company, PUC Inc. was created and organized to hold all the shares of four newly created affiliates, as follows:

- **PUC Distribution Inc. (owns the electric distribution assets),**
- **PUC Services Inc. (now employs all the staff of the former Commission),**
- **PUC Energies Inc. (owns rental sentinel lights), and**
- **PUC Telecom Inc. (owns city-wide fibre optic network)**

The Commission continues today as a not-for-profit entity that still owns the water supply and distribution assets for the Corporation of the City of Sault Ste. Marie.

PUC Distribution Inc. serves a total of approximately 32,400 electric customers within the city of Sault Ste. Marie (population 75,000) and surrounding area, including Townships of Prince, Denis Township, and the Rankin Indian Reserve.

PUC Distribution is a winter peaking utility. Highest system peak to-date occurred first in 1989 and again in 1994 at 166 MW.

PUC Distribution is directly connected to the provincial grid (via Great Lakes Power Ltd.) at 115 kV through two Transformer Stations (115 kV - 34.5 kV) and approximately 8 kilometers of dual circuit 115 kV lines. The two stations each house 4 – 30 MVA transformers and 6 – 34.5 kV feeders. All connection assets are owned by PUC Distribution.

The distribution system includes 16 distribution substations typically housing 2-10 MVA transformers and 4 feeders or 6 feeder circuits. Most distribution stations step down from sub-transmission voltage at 34.5 kV to distribution voltage at 12.47 kV. However several stations also distribute at 4.16 kV while there are two stations that step down from 12.47 kV to distribute at 4.16 kV.

PUC Distribution delivers approximately 750,000 MWh of energy per annum, of which residential accounts for 49%, general service accounts for 50% and street lighting accounts for 1%.

In summary, PUC Distribution's profile consists of the following:

Asset Description	Quantity
Transformer Stations	**2**
TS Transformers	**8**
Distribution Stations	**16**
DS Transformers	**39**
SCADA Systems	**1**
Distribution Transformers	**~5,200**
Distribution Poles	**~15,800**
Underground Cables (equivalent 3-phase km)	**~115**
Overhead Wires (equivalent 3-phase km)	**~600**

Exhibit: 2

PUC Distribution Inc (PUC)

Electrical Meters	**~32,400**

System Characteristics	Description
Direct Connect Voltage	**115 kV**
Sub-transmission Voltage	**34.5 kV**
Distribution Voltages	**12.47 KV ; 4.16 kV**
Winter Peak (all time high)	**166 MW**
Summer Peak (2006 summer)	**89 MW**
Annual Energy Delivered (5-year average)	**747 GWh**
Total Customers (2006 year-end)	**32,400**
Residential Customers	**28,620**
Commercial Customers	**3,780**

PUC Services Inc. operates, maintains, and manages the distribution system and grid connection assets under a 10 year management contract with PUC Distribution Inc.

Load Forecasts

Distribution System Growth

From the mid 1950s and in the early 1980s, the city of Sault Ste. Marie (the City) experienced significant growth in population and land development. The electric distribution system was extended significantly over those years to meet this growth.

PUC Distribution Inc (PUC)

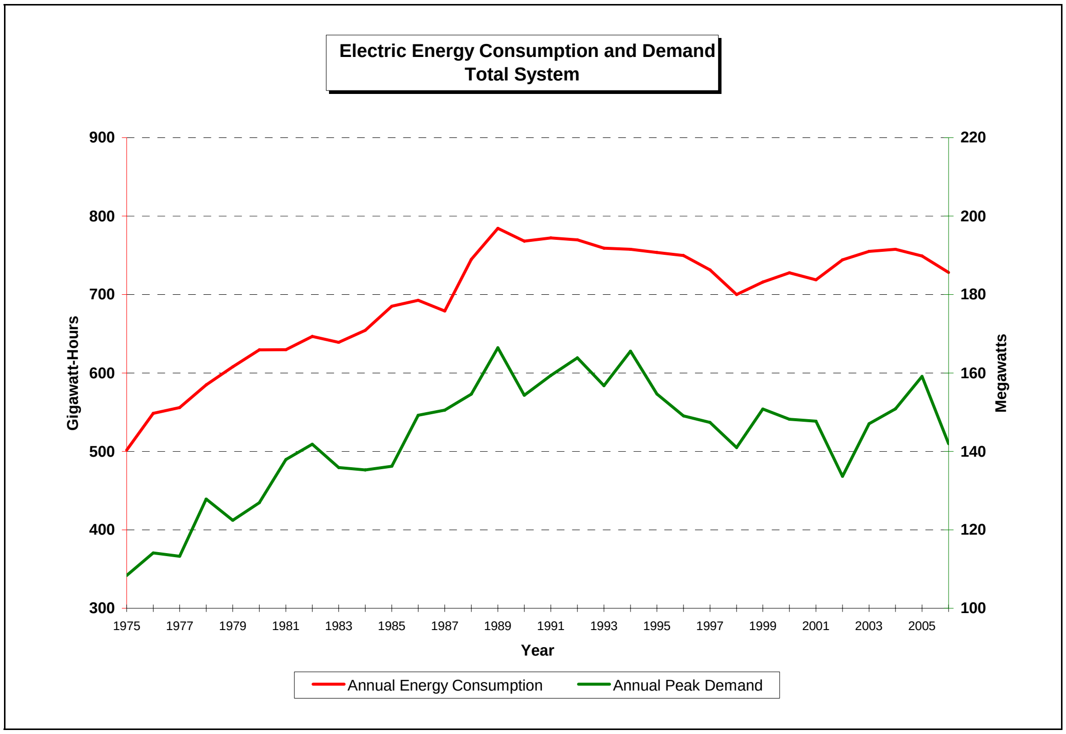

Figure 1 System Load Growth

While the City's population has declined over the past 20 years (see Figure 2 below), the system expansion that resulted from post-war decades of growth still exists today. Furthermore, that infrastructure now ranges in age from new to more than 50 years old. Relentlessly, aging infrastructure will require increasingly more attention as time progresses.

The chart in Figure 2 below compares the total number of electric customers to the City's population levels, based on Statistics Canada census data. Also included is total household counts for the last five census years.

Although the City's overall population has declined over the past twenty years, the number of electric customers has increased over that period and essentially become stagnant in the past 5 years.

PUC Distribution Inc (PUC)

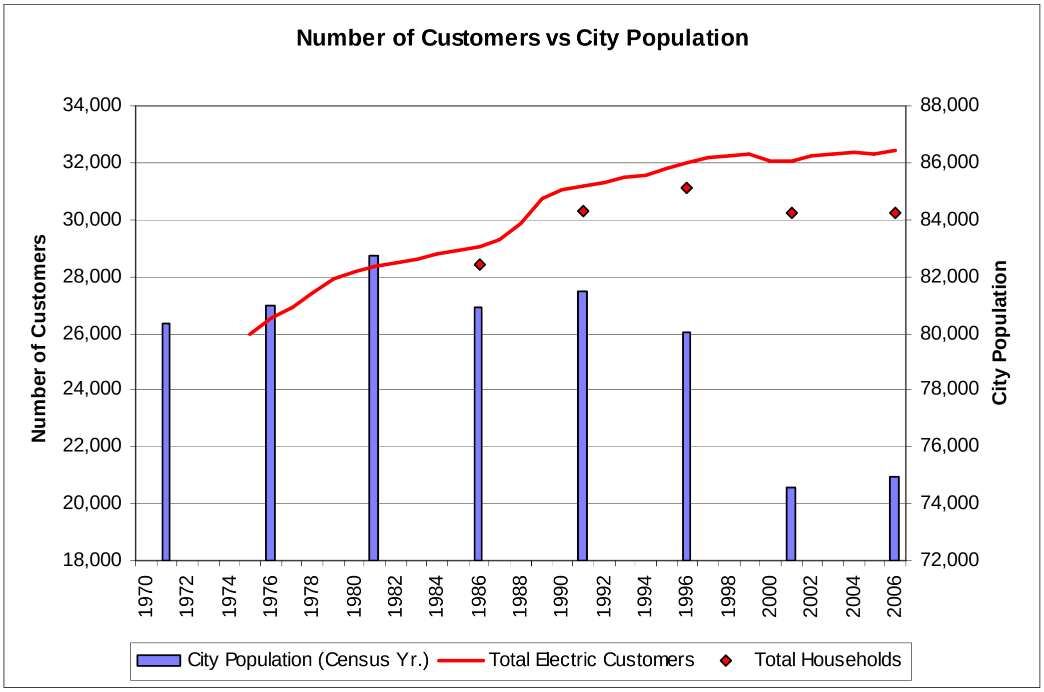

Figure 2 System Customer Growth

Load Forecast

Figure 3 below shows summer energy consumption and system peak demand since 1980. In Sault Ste. Marie, winter heating demand is greater than summer cooling requirements. There is relatively little electric cooling load in Sault Ste. Marie. Therefore summer energy is used as an indicator of real system growth since, to a large extent, it removes the weather component.

Summer energy consumption continues to exhibit a tendency towards growth since 1996. However the rate is minimal compared to pre-1989, and is projected at about 1/2% per year, not including the impact of energy conservation initiatives. The peak demand, which is highly weather dependent in Sault Se. Marie, continues generally to stagnate since the 166 MW peak of 1990 and 1994. This may be a result of various factors including conversion to fossil fuel heating, energy conservation and relatively mild winters of late. Peak demand for the winter of 2006 was 142 MW.

In 2007, system demand is expected to increase slightly due to several significant commercial and institutional developments including the East End Water Pollution Control Plant upgrade and the new Events Centre. These developments will add several megawatts of new load to the system. Also, with the new Sault Area Hospital planned to come on line in 2009, demand is expected to increase in the range of an additional 6 MW. Offsetting these increases will be the impact from concerted efforts to promote energy conservation.

Peak demand is a critical indicator in plant capacity planning. Generally accepted practice dictates that construction planning for new transformation capacity should be initiated when the system peak reaches 75% of installed capacity. Given the current installed capacity of 240 MW and projected growth rates, it is unlikely we will need to construct any

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new transformation facilities within the near future.

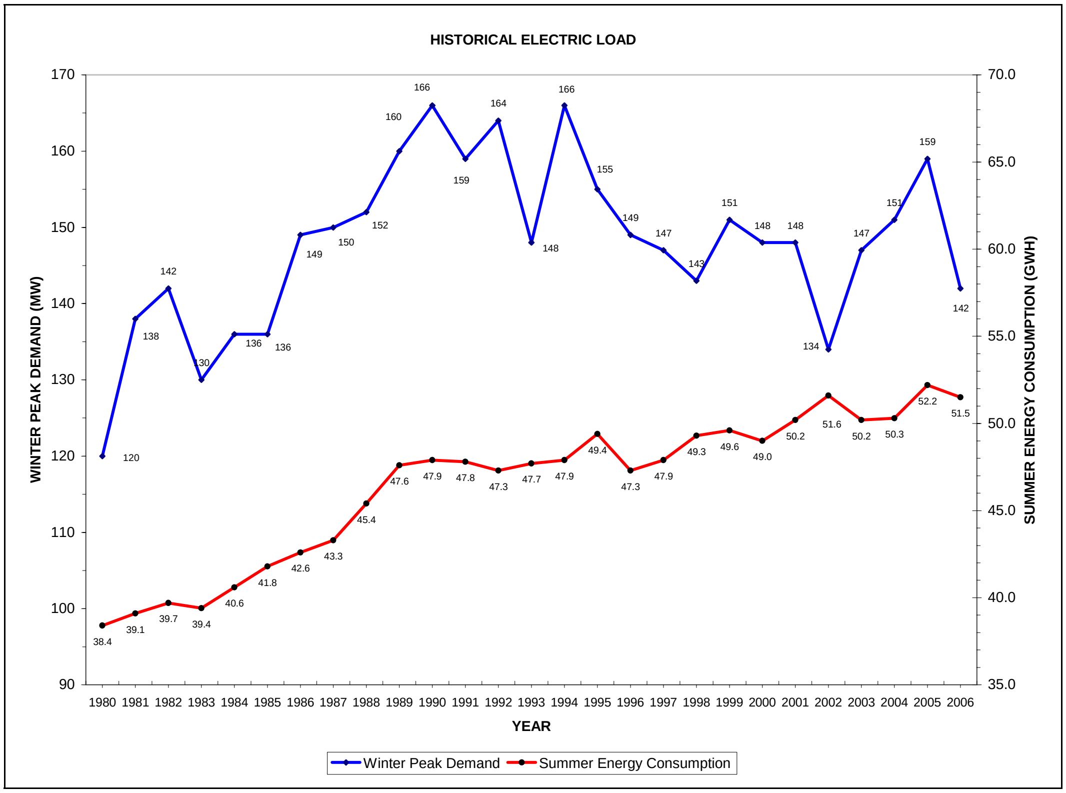

Figure 3 Winter Peak versus Summer Energy Consumption

The 2006/2007 winter loads for the transformer and distribution stations are shown in Figures 4 and 5 respectively below.

2006/2007 TRANSFORMER STATION LOADS

Transformer Station	*Peak Load kW*	*Capacity kW*
St. Mary's TS1	*58,030*	*120,000*
Tarentorus TS	*75,961*	*120,000*
Totals	***133,991***	***240,000***
OVERALL SYSTEM PEAK LOAD	***139.7 MW (February 2007)***	

Figure 4 Transformer Station Loads

PUC Distribution Inc (PUC)

2006/2007 DISTRIBUTION STATION LOADS				
	12 kV		*4 kV*	
DISTRIBUTION STATION	***LOAD***	***CAPACITY***	***LOAD***	***CAPACITY***
1 - Huron Street	*10,880*	*20,000*		
2 - Church Street	*12,956*	*20,000*		
4 - MacDonald Avenue	*5,821*	*10,000*	*960*	*10,000*
5 - Lake Street			*3,050*	*10,000*
10 - Blake Street			*1,587*	*5,000*
11 - Goulais Avenue	*10,167*	*20,000*		
12 - Boundary Road	*10,165*	*20,000*		
13 - Shafer Avenue	*14,115*	*20,000*		
14 - Willoughby Street			*2,832*	*9,000*
15 - Spring Street	*5,478*	*10,000*		
16 - Third Line	*11,201*	*15,000*		
17 - Pine Street			*2,978*	*8,000*
18 - Goulais Ave & Third Line	*13,773*	*15,000*		
19 - McNabb Street	*16,230*	*20,000*		
20 - Service Centre	*14,768*	*20,000*		
21 - Dacey Road	*11,690*	*20,000*		

Figure 5 Distribution Station Loads

Generally speaking, there is sufficient capacity within the system to meet demand requirements and provide the system security necessary in the event of failure of any component.

However the 4kV stations, although lightly loaded, are vulnerable. They are generally more than 50 years old and alternate back-up supplies are limited.

Historical Funding

Through the 1980s and 1990s, long range planning in the electric utility focused primarily on strengthening of the 35kV grid and conversion of 4kV circuits to 12kV. Ten years ago capital works were in the order of $2.5 million. Voltage conversion accounted for approximately $500,000 and 35kV grid improvement was about $800,000 of the total works. Both lines of activity contributed to renewal of deteriorated plant. Complete polelines were replaced in order to convert to the higher voltage or to strengthen and extend the 35kV grid. Poles, conductors, hardware and transformers were all replaced in the process. The balance of the capital budget, $1.2 million, addressed additions to the system to meet customer needs.

PUC Distribution Inc (PUC)

Capital spending declined since 1993, reaching approximately $1.7 total by 2004. Spending was then approximately split equally between infrastructure renewal and system additions.

This decline in capital spending was initially the impact of the Social Contract days of the Rae Government when there was a conscious effort to reduce staffing and therefore spending. This approach continued into Market Opening. Today the LDC is faced with "catching up" due to the deficit created during those years of long term under-funding for infrastructure renewal.

Capital Budgets

Long Term Forecast

In addressing total capital budget needs, we need to account for two distinct aspects; "plant renewal" versus "plant additions".

Plant renewal refers to replacement of existing infrastructure which has limited life of varying lengths, depending on the item. Maintaining that infrastructure in reliable operating condition requires ongoing investment of funds.

The quantity "plant additions" relates primarily to extensions and upgrades to the distribution system required to meet new and existing customer demands. This also includes allocations for system security improvements and similar internally driven additions.

Figure 6 below, summarizes various capital amounts allocated in past electric budgets since 1987.

The column, "Plant Renewal", identifies the component of the total capital that is related to renewal of existing plant only. In 2004, allocations for *plant renewal only* totaled $825,000. The average plant renewal allocation from 1987 to 2004 amounts to $939,500 while the average from 2000 to 2004 is $769,000.

The column, "Plant Additions", identifies the component of total capital that is primarily related to extensions and upgrades required to meet new and existing customer demands. This also includes allocations for system security improvements and similar internally driven additions. From 1987 to 2004 this has averaged $1,687,697. The average for 2000 to 2005 was $1,509,020.

Exhibit: 2

PUC Distribution Inc (PUC)

Budgeted Capital			
Year	Total Capital	Plant Renewal	Plant Additions
1987	$ 1,844,300	$ 496,000	$ 1,348,300
1988	$ 2,538,000	$ 705,000	$ 1,833,000
1989	$ 2,522,500	$ 595,000	$ 1,927,500
1990	$ 3,065,500	$ 650,000	$ 2,415,500
1991	$ 2,478,600	$ 860,000	$ 1,618,600
1992	$ 2,649,250	$ 585,000	$ 2,064,250
1993	$ 3,790,000	$ 1,935,000	$ 1,855,000
1994	$ 3,071,700	$ 1,395,000	$ 1,676,700
1995	$ 3,204,000	$ 1,280,000	$ 1,924,000
1996	$ 2,858,300	$ 1,185,000	$ 1,673,300
1997	$ 2,707,500	$ 1,100,000	$ 1,607,500
1998	$ 2,554,900	$ 1,280,000	$ 1,274,900
1999	$ 2,614,900	$ 1,000,000	$ 1,614,900
2000	$ 2,181,500	$ 620,000	$ 1,561,500
2001	$ 3,213,000	$ 1,100,000	$ 2,113,000
2002	$ 2,472,500	$ 725,000	$ 1,747,500
2003	$ 1,837,000	$ 575,000	$ 1,262,000
2004	$ 1,686,100	$ 825,000	$ 861,100
2005	$ 3,009,000	$ 1,710,000	$ 1,299,000
2006	$ 3,896,815	$ 2,155,000	$ 1,741,815
2007	$ 4,706,487	$ 2,651,500	$ 2,054,987
Future	$ 6,900,000	$ 5,400,000	$ 1,500,000

Figure 6 Historical Capital Budget Amounts

Figures 7 below provides graphic representation of the historical levels of capital budgets presented in the table above. Also indicated is the projected long term level of capital funding required to sustain renewal of the existing infrastructure and provision for customer demands.

PUC Distribution Inc (PUC)

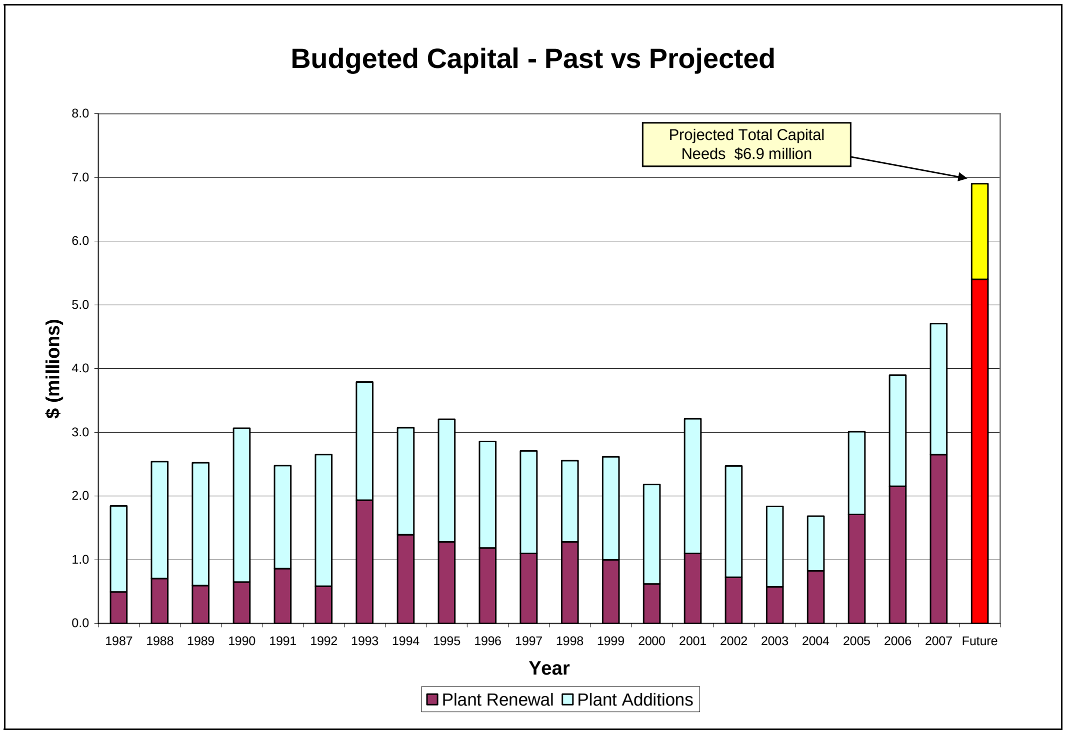

Figure 7 Budgeted Past Capital versus Future Capital

Figure 8 below identifies normal life expectancies for each of the various distribution components and the associated replacement costs, based on 2006 dollars. The table serves to identify the *sustaining annual reinvestment* **required to provide the level of funding necessary to provide for ongoing renewal of this infrastructure.**

It is essential to keep in mind that the numbers presented in this table represent the *minimum* **range of capital expenditure required, on an annualised basis, simply to match replacement of infrastructure with end-of life time frames. These numbers are based on steady-state conditions that assume no backlog of deteriorated plant, which is not the case at this time.**

However, regardless of how simplistic this analysis may seem, it serves a very useful purpose. That purpose is to establish a *minimum long-range target* **for annual spending on capital works required to maintain the existing infrastructure in a reliable and safe condition.**

The cost estimates used are generally very broad range estimates which will need to be updated with current detailed estimates over time. This table identifies “plant renewal” costs only.

Exhibit: 2

PUC Distribution Inc (PUC)

Asset Description	Quantity	Estimated Life	Estimated Replacement Cost		Range of Annual Budgets		Typical Budget	Replacement Qty /Yr
			Per Unit	Total	Low Estimate	High Estimate		
Transformer Stations	2	40	$2,780,000	$5,560,000	$0	$2,780,000	$ 220,000	n/a
Substations	16	40	$980,000	$15,680,000	$0	$980,000	$ 200,000	n/a
SCADA System	1	10	$750,000	$750,000	$75,000	$75,000	$75,000	n/a
Distribution Transformers (all types)	5,190	25 / 50	$3,080	$15,985,200	$319,704	$639,408	$426,272	138
Padmounted Switches (PMH)	23	25	$25,000	$575,000	$23,000	$23,000	$23,000	1
Padmounted Switches (Sectionalizers)	97	25	$5,000	$485,000	$23,000	$19,400	$19,400	4
Polemounted Switches (Group Op)	237	25	$9,000	$2,133,000	$85,320	$85,320	$85,320	9
Disconnect Switches (Solid and Fused)	5,060	25/50	$470	$2,378,200	$47,564	$95,128	$63,419	135
Distribution Poles (c/w hardware)	15,959	40	$4,290	$68,464,110	$1,711,603	$1,711,603	$1,711,603	399
Underground Cables Residential (1-ph meters)	105,000	30	$495	$51,975,000	$647,500	$1,732,500	$1,732,500	3,500
Underground Cables Commercial (3-ph meters)	80,000	30	$155	$12,400,000	$413,333	$413,333	$413,333	2,667
Overhead Wires (3 phase equiv. meters)	595,000	40	$25	$14,875,000	$371,875	$371,875	$371,875	14,875
Electric Meters	32,477	25	$65	$2,111,005	$84,440	$84,440	$84,440	1,299
			Totals	$193,371,515	**$3,802,339**	**$9,011,007**	**$5,426,162**	

Figure 8 Sustaining Annual Infrastructure Renewal Costs
(Note: costs shown include direct costs only)

System components such as Transformer Stations and Distribution Stations are not replaced piece-meal over time. Generally a station will be rebuilt in its entirety at the appropriate time. However, components such as underground cables or breakers need to be replaced before the entire station needs rebuilding. Other components such as distribution transformers or poles have varying ranges of life expectancies depending on the type of product and nature of the installation.

This summary does not include all components of the distribution system. For example, replacement of underground concrete structures or 115 kV towers and conductors are not included, to name a few. The total costs identified are therefore *conservative*.

Figure 8 indicates that in any given year, the amount of capital required for plant renewal may vary. The table presented identifies a range of capital budget needs, from the lowest probable estimate ($3.8M) to the highest probable estimate ($9.0M).

However, regardless of variances due to whole station replacement or 115kv transmission line replacements for example in any given year, it is possible to identify a "typical" annual renewal budget based on the most probable requirements over the long term. For example, while a substation may not be replaced in its entirety, certain components such as the breakers need to be replaced or refurbished through annual programs. Accordingly a "typical" budget target has been identified in the range of $5.4M per year.

Based on these numbers, the long-range target level for PUC Distribution's annual capital budget should be anticipated as follows:

Average Annual Plant Additions	**$1.5M**
Sustaining Infrastructure Renewal	**$5.4M**
Total Capital Budget Target	**$6.9M**

PUC Distribution has made progress in recent years, with increased budgeted spending since 2004. Clearly, moving forward, allocations for plant renewal costs need to increase dramatically compared to levels prior to 2004.

PUC Distribution Inc (PUC)

Capital Expenditures Ramp Up

Section 3.1 above provides a simplistic approach to identifying the range of capital expenditures required to ensure long term sustainability of the distribution system. The analysis presented therein is based purely on projected end-of-life time frames for each of the significant system components. Furthermore the identified long term target, $6.9 million, assumes no backlog of deteriorated plant. This is clearly not the case. As will be seen further below, there is significant backlog in several areas.

However, the backlog cannot be cleared up in the short term. There are a number of factors that impact on PUC's ability to carry out the large amounts of work required to address the short-term backlog. These include the following:

- **lack of revenues: Current rates are not adequate to fund the required levels of capital expenditures.**
- **lack of resources: Current levels of staffing and equipment are inadequate to perform the amount of work required, even if the funds were available.**
- **lack of local contractors: Sault Ste. Marie is somewhat isolated from the rest of the province. Qualified, skilled contractors are not available locally. Bringing in contractors from other areas of the province results in increased costs due to travel and accommodations.**
- **lack of resources to support contracted work: Current levels of staffing are inadequate to support the effort required to employ additional contractors beyond current levels.**
- **lack of skilled labour pool: There is a provincial shortage of available, qualified trades people.**

Therefore, given the current logistical impediments, even if PUC could afford to mount a concerted effort to clear up the backlog of capital works, there are not enough skilled people available to carry out an accelerated program.

Consequently, PUC has embarked upon a program to phase-in the increased capital expenditures over time. The plan provides for building of resources capacity over the next five to ten years.

The following Figure 9 provides a summary of this phased-in approach for capital expenditures. The annual allocations over the five-year period, 2008 to 2012, are incorporated into the Five Year Works Plan discussed later below and correspond to the addition and development of staffing resources over time.

The long term targets are identified for each item in the far right column. Achieving the long term targets is dependant on several factors including rate approval, local economic conditions, availability of work force, etc. It is not intended that the long term targets should be attained within the coming five year period, but rather within a reasonable period as conditions permit.

The table identifies an annual allowance for new services to meet customer demands. Actual expenditures for this item will vary over time depending on economic conditions within the City. Historically expenditures have varied from $400,000 to $1,500,000. More recently this area has seen costs significantly greater than this upper limit.

Note that costs identified below include only direct costs. Indirect costs such as Administration are not included.

PUC Distribution Inc (PUC)

Description	2008	2009	2010	2011	2012	Long Term Target
Replace restricted wire	$100,000	$100,000	$100,000	$100,000	$100,000	$0
Replace wood poles	$645,000	$860,000	$1,075,000	$1,290,000	$1,505,000	$1,700,000
Replace undersized underground vaults	$0	$150,000	$150,000	$150,000	$150,000	$0
Replace distribution transformers containing PCBs	$0	$150,000	$150,000	$150,000	$150,000	$425,000
Replace underground residential distribution cables	$260,000	$260,000	$480,000	$720,000	$960,000	$1,730,000
Replace underground commercial distribution cables	$0	$0	$100,000	$150,000	$200,000	$410,000
Replace underground station cables	$260,000	$260,000	$260,000	$260,000	$260,000	$130,000
Replace distribution switches and padmount gear	$100,000	$100,000	$100,000	$150,000	$215,000	$225,000
Replace station switches and breakers	$130,000	$130,000	$175,000	$175,000	$175,000	$420,000
Replace substation transformers	$0	$0	$400,000	$200,000	$400,000	$400,000
Install services to meet customer demand	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Voltage conversion program	$725,000	$1,610,000	$750,000	$1,365,000	$660,000	$0
Total Construction Related Capital	$3,720,000	$5,120,000	$5,240,000	$6,210,000	$6,275,000	$6,940,000

Figure 9 Phase In of Long Term Capital Targets
(Note: costs shown include direct costs only)

Infrastructure Renewal

While there is adequate transformation and distribution capacity and redundancy built into the system for the foreseeable future, it is essential to maintain infrastructure systems to ensure safe and secure supply to our customers.

Today, with an ageing infrastructure, we face a growing critical need to replace poles and underground plant that have reached the end of useful life. Moving forward, we will need to devote significantly greater resources to replacing all electrical infrastructure.

There are four key areas to ongoing capital expenditures that must be addressed. These include:

- **Voltage conversion,**
- **Pole replacements,**
- **Underground cable replacements, and**
- **Substation renewals.**

Voltage Conversion Program

History

Conversion of distribution circuits from 4,160 volts (4kV) to 12,470 volts (12kV) has been an ongoing program at PUC since the early 1960's. Historically, there has not been a definitive end-date established. Rather, the intent has been to work at voltage conversion towards a very long-term horizon, but to continuously move in that direction nonetheless.

PUC Distribution Inc (PUC)

Voltage conversion achieves three objectives. The first is to reduce system energy losses. Increasing the operating voltage three-fold results in a decrease of nine-fold in losses, for the same load being served. This translates into lower operating costs.

The second objective is infrastructure renewal. Deteriorated plant is replaced during the conversion work. Since 12kV replaced 4kV for new line construction more than forty years ago, the poles in most of the remaining 4kV circuits now need to be replaced.

The third benefit of conversion is that old transformers that are more likely to contain PCB's are removed from service.

At 2007 budgetary levels, voltage conversion is planned to be completed around the year 2016.

Conversion Schedule

Voltage conversion has taken a sideline role as a "fill-in" job whenever customer demands permit it. This change occurred in the early 1990's during the Social Contract days of the Rae Government. There has not been a focused conversion program since prior to those days when Line Department staffing was cut by about 30%.

In the early 90's a conscious decision was made to reduce staffing on the basis that voltage conversion would be complete by 2002. However, the anticipated schedule could not be maintained, due to staff reductions, and today current planning calls for all conversion to be completed by 2016.

Maintaining this schedule is critical. Substation switchgear and transformers that supply the 4kV loads are today in the range of 50 years old (normal life expectancy is typically 40 years). Over the past 10 years, we have had little success in keeping up with the schedule due to lack of resources.

Unfortunately, the remaining system will not tolerate any significant equipment failure. We will quickly run out of alternatives to maintain supply and there will be no simple remedy to restore power once that point is reached.

Repeatedly over the past few years, we have not been able to carry out the complete scheduled work. This was due primarily to external demands to meet the needs of customers, including new customers, developers and City road projects. Also, some conversion funds have typically had to be redirected to other more urgent areas. More recently, in an effort to control costs within available funding levels, elimination of discretionary overtime took its toll on productivity.

It is imperative that the existing conversion schedule be honoured. We cannot afford to extend the schedule any further. Already the remaining 4kV stations and circuits are typically more than 50 years old and yet we are expecting them to last another 10 years more. In the meantime, the utility remains highly exposed with the potential for serious equipment failures that will be very difficult to mitigate.

Attached in Appendix 1 is a summary of the complete conversion program, listed by scheduled year.

Pole Replacement Program

PUC Distribution Inc (PUC)

History

Pole replacement has traditionally been linked to other works. Typically, poles were replaced in conjunction with voltage conversion, customer servicing needs and relocation of lines to suit municipal road works.

Historically, annual replacement of poles has been in the range of about 80 poles. Furthermore, not all poles that were replaced needed to be replaced due to deterioration. For example, a City road reconstruction may have required the distribution poles to be relocated (i.e. replaced) even though the poles may have only been, for example, twenty years old.

Available GIS data indicates there are approximately 15,959 wood poles in the system used for electricity distribution. The vast majority of poles are Western Red Cedar. The oldest poles in the system are native cedar.

Average life expectancy for wood poles is generally accepted in the industry as 40 years. In order to simply keep up with normal end-of-life replacements, we need to replace approximately 399 (15,959/40) poles per year. This is an ongoing requirement that will not diminish with time.

Clearly, replacement of deteriorated poles has not been adequately funded over time.

Age Distribution

Figure 10 summarizes the number of poles in the system based on age as determined from field inventory and recorded in the GIS. Figure 11 provides a graphic summary of the age distribution of these poles. The chart clearly demonstrates the magnitude of the challenge facing PUC Distribution with respect to replacement of age deteriorated poles over the long term. The chart identifies that by the reference year 2010 (i.e. the last year of the this rate application), nearly 42% of all poles (i.e. approximately 6,703 poles) will be aged 40 years or more.

PUC Distribution Inc (PUC)

PUC DISTRIBUTION INC. - POLE DATA

POLE SIZE	POLE CLASS	COUNT
25	5	1
25	7	1
25	NOT AVAILABLE	4
30	4	8
30	5	18
30	6	13
30	7	4
30	NON STANDARD	2
30	NOT AVAILABLE	95
35	3	10
35	4	911
35	5	214
35	6	16
35	7	2
35	NOT AVAILABLE	2126
40	1	1
40	2	4
40	3	28
40	4	2496
40	5	407
40	6	11
40	A	1
40	NON STANDARD	1
40	NOT AVAILABLE	2745
45	2	1
45	3	100
45	4	1007
45	5	14
45	7	1
45	NOT AVAILABLE	561
50	3	297
50	4	22
50	NOT AVAILABLE	206
55	1	4
55	2	20
55	3	654
55	4	2
55	NOT AVAILABLE	96
60	1	2
60	2	28
60	3	218
60	NOT AVAILABLE	60
65	1	30
65	2	37
65	3	1
65	4	1
65	NOT AVAILABLE	2
70	2	1
70	NOT AVAILABLE	1
80	2	1
NOT AVAILABLE	NOT AVAILABLE	8
TOTAL PUC OWNED DISTRIBUTION POLES		**12494**

INSTALL DATE	COUNT
NOT AVAILABLE	7706
1950	1
1952	3
1954	1
1957	3
1958	4
1959	6
1960	17
1961	5
1963	5
1964	10
1965	19
1966	7
1967	4
1968	17
1969	55
1970	6
1971	27
1972	25
1973	43
1974	38
1975	68
1976	36
1977	279
1978	87
1979	122
1980	193
1981	327
1982	204
1983	126
1984	213
1985	175
1986	116
1987	206
1988	94
1989	104
1990	283
1991	58
1992	128
1993	140
1994	221
1995	171
1996	214
1997	27
1998	138
1999	52
2000	45
2001	9
2002	49
2003	101
2004	124
2005	213
2006	148
2007	21
TOTAL PUC OWNED DISTRIBUTION POLES	**12494**

POLE MATERIAL	COUNT
NOT AVAILABLE	108
STEEL	26
STEEL GALVANIZED	31
WOOD	773
WOOD NATIVE CEDAR	27
WOOD PRESSURE TREATED PINE	104
WOOD WESTERN RED CEDAR	11425
TOTAL PUC OWNED DISTRIBUTION POLES	**12494**

NOTE: PUC PLANT ALSO INSTALLED ON POLES OWNED BY OTHER PARTIES AS FOLLOWS:

OWNER	COUNT
BELL	3280
GLP	185
TOTAL POLES OWNED BY OTHERS WITH PUC INFRASTRUCTURE	**3465**

Figure 10 Distribution Poles Summary

PUC Distribution Inc (PUC)

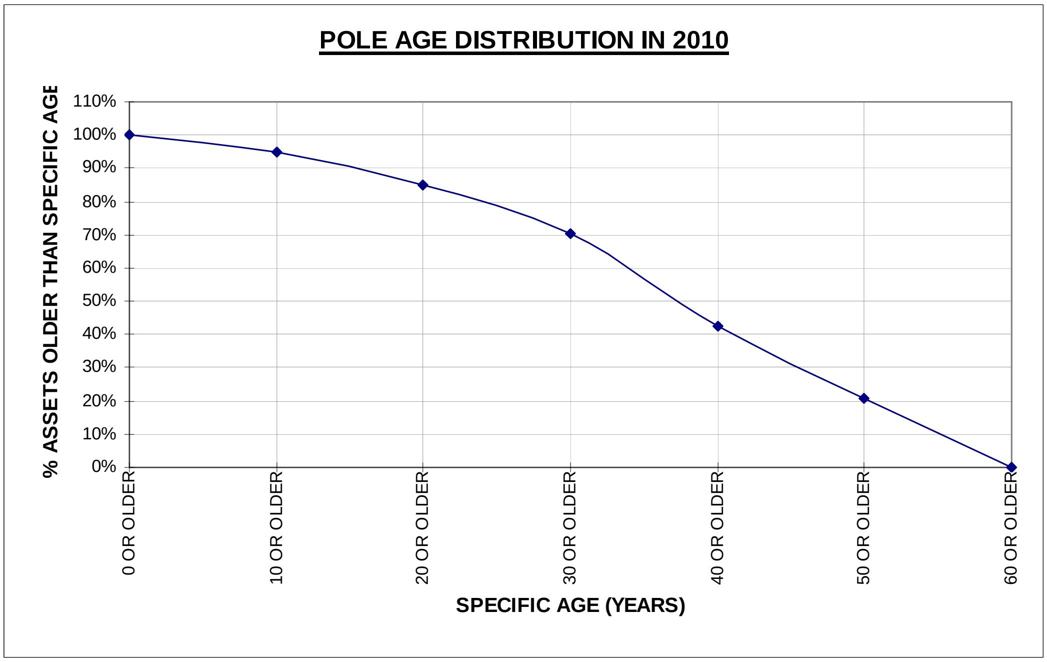

Figure 11 Wood Poles Age Distribution Chart

Prudent system planning and management would focus efforts on establishing a uniform annual replacement program that ideally would follow normal plant life cycles. A consistent, uniform annual volume of pole replacements would provide the most economical means to ensure reliable infrastructure over the long to very long term.

Prior to 2004, we typically replaced no more than 80 poles per year through typical construction and maintenance activities. In order to reach the target level (399 poles per year), it was determined that three additional crews dedicated year-round to pole replacements were required.

In 2005 an additional Line Department crew was added in order to increase the rate of annual pole replacements. While the crew was not in place until mid-April, good progress was made with 172 deteriorated poles being replaced in 2005.

In 2006 a second crew was added. In line with typical hiring time frames, the crew was not in place until mid-May. Also, due to customer demands and budget constraints, efforts were diverted away from pole replacements and we again were unable to achieve the full program in 2006. Furthermore productivity actually declined due to the high number of apprentices that were introduced.

The 2006 rate approval came in $800,000 less than requested, resulting in a severe restriction on cash flow. Therefore, in order to preserve cash flow, all discretionary overtime was eliminated. This move impacted severely on our ability to meet the 2006 pole replacement targets. We had targeted 250 replacements but were only able to achieve 152 replacements in 2006.

Again in 2007, the shortfall in revenue resulting from the reduced rate approval continues

to take its toll on our efforts to accelerate pole replacements. Also there is a growing backlog of poles identified in prior year's testing that have not yet been replaced.

Previous discussion anticipated the need for a third pole replacement crew to be added in 2007. At this time, available funds will not allow this. Furthermore, qualified Power Line Maintainers are not readily available in the labour market and we are approaching our limit of allowable apprentices to journeyperson ratio. Therefore we anticipate adding the third pole crew in 2009 and a fourth in 2012. Implementation of the full pole replacement program will be delayed until then.

Pole Testing

In order to ensure the most effective use of resources in conducting pole replacements, an effective pole testing program is critical. PUC started testing poles in 2003 and is committed to continuing with an ongoing program. Current budgeting calls for projected testing of approximately 2,000 poles annually.

The initial round of pole testing completed in 2003 indicated an immediate need to replace about 5.6% of the poles tested. It was thought this figure was probably on the high side (when extrapolated to the entire system) since this first round of testing concentrated primarily on the known older areas.

Continued testing in 2004 provided further data. Of the 1706 poles tested, 70 were found to need immediate replacement (i.e. within 2 years, as defined by the testing consultant) which equates to a 4.1% immediate replacement rate. Testing in 2005 confirmed the previous testing. Another 1,708 poles were tested and 90 poles were determined to need immediate replacement. This represents 5.3% of the total poles tested. The planned 2006 testing was delayed to early 2007 and found 3.5% of poles needing immediate replacement.

Based on pole typical life expectancy of 40 years, we could expect to replace around 399 poles per year (i.e. 2.5%) in the best scenario, for as long as there are wood poles in the system. So far testing has indicted an average 4.6% replacement rate, almost double the normal life cycle rate.

The assumption has been that a 5% replacement rate is probably on the high side, due to a focus on known older poles in the first few rounds of testing. While it is probably too early to confirm this expectation due to the relatively small numbers tested, this high replacement rate is in keeping with our continued focus on the known older installations.

This finding is consistent with the age distribution discussed above. Due to the historic short fall in the rate of annual replacements, we now face an extended period of higher than normal pole replacements. At a 5% rate, extrapolated to the 15,959 total wood poles in the system, we would need to replace as many as 798 poles per year.

Continued pole testing is critical to ensure an effective replacement program. Further analysis of the data from ongoing testing will no doubt impact on future budgets and long term infrastructure renewal plans.

A paper published in the Journal of Arboriculture 5(3) March 1979 by Robert E. Birtz looked at the effectiveness of various pole inspection and treatment methods used throughout the United States. Birtz noted that the use of proper pole inspection techniques by experts in the field was key to avoiding unnecessary pole replacements. He emphasized that treatment of deteriorated poles was effective in prolonging useful pole life.

PUC Distribution Inc (PUC)

Birtz noted that for utilities performing testing only without ground line treatment, the inspection cycle should not go more that 5 years. The addition of treatment would extend the testing cycle to 8 to 10 years.

A study conducted by Hydro-Quebec and published in T&D World, December 2002, involved destructive testing of poles to confirm non-destructive testing results. They determined that the use of modern in-situ testing techniques could reduce unnecessary pole replacement costs by 67%, thereby confirming the value of pole testing.

The contractor we have been using recommends we retest poles every 5 years. Our current planning is based on an 8 year cycle. We will need to step up expenditures on this program to achieve the 5 year cycle. Also, future budget allocations should include costs for treatment that is recommended by the contractor.

Appendix 2 includes summary reports from each year of available pole testing data.

Underground Cable Replacements

The discussions that follow refer strictly to underground high voltage cables. The discussions do not consider the status of underground secondary cables, which are expected to last much longer than primary cables due to the much lower levels of voltage stress on the insulating materials.

Historical Review

As in many communities across Ontario, historical evolution of residential distribution in Sault Ste. Marie followed the typical progression from overhead front lot to overhead rear lot to underground front lot.

Subdivisions were serviced from overhead systems built rear lot up until 1969 when Bylaw 98 was passed by the Commission. Bylaw 98 required all residential developments within the urban area to be serviced underground. From 1969 to about 1988 residential distribution was installed underground at the front lot line using submersible transformers in boulevard vaults. Since 1988 submersible transformers have no longer been used in new installations and have been replaced by above ground mini-pad transformers.

Age Distribution (Cables)

GIS data indicates there are approximately 105 km of underground residential distribution (URD) cables currently in place. Furthermore there are approximately 80 km of three phase cables in place which primarily supply commercial customers in the downtown core of the City.

Early vintage underground distribution cables had a life expectancy of about 25 years while more recently manufactured cables are expected to last 30 years. The oldest of the underground subdivisions are now about 35 years old. Based on the quantities of cables currently in the ground, we need to replace about 3,500 meters of URD per year simply to keep up with the normal life expectancy. Cable replacements will be an ongoing long-term commitment that will not decrease with time. To-date, while there has been significant

replacement over the years of commercial cables, there has been no replacement of URD cables in residential subdivisions.

Figure 12 below provides a graphic summary of the age distribution of URD cables.

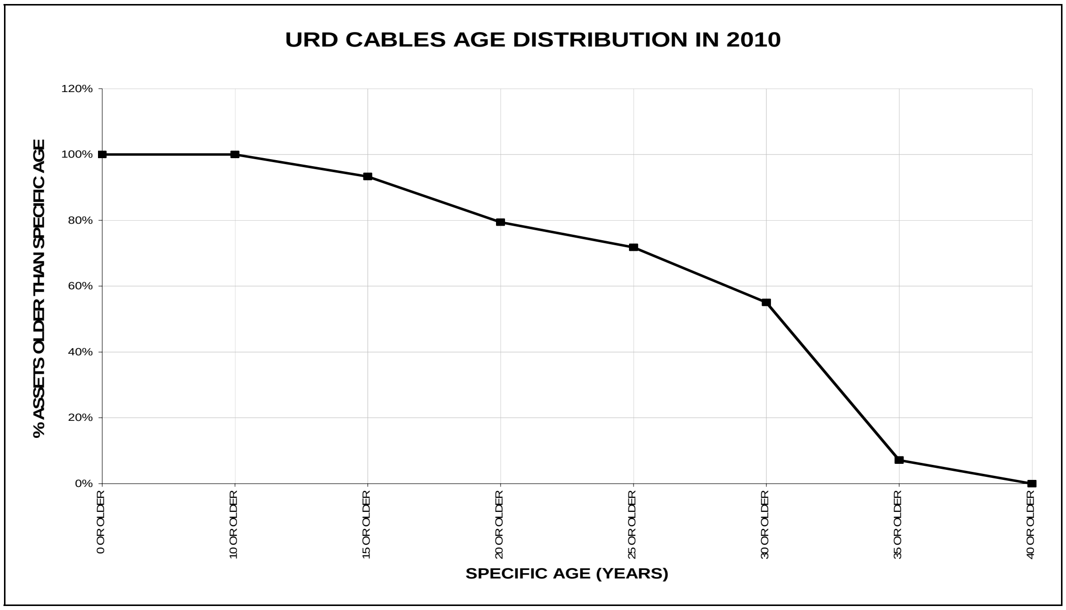

Figure 12 Underground Residential Cables Age Distribution

The chart clearly demonstrates the magnitude of the challenge facing PUC Distribution with respect to replacement of end-of-life cables over the long term. The chart identifies that approximately 55% of all underground subdivision streets are today aged 30 years or more.

Underground distribution, while generally very reliable and immune to weather conditions, requires extensive resources to repair or replace when the need arises. Prudent system planning and management would focus efforts on establishing a uniform annual replacement program that ideally would follow normal plant life cycles. A consistent, annual volume of cable replacements at predicted end-of-life would provide the most economical means of ensuring reliable infrastructure over the long to very long term horizon.

So far there have been virtually no URD cable replacements. A significant backlog has developed that places continued reliable supply at jeopardy. It is imperative that we establish a comprehensive program now to deal with replacement of these cables on a systematic basis. Immediate action is required.

Underground Vaults and Ducts

Older underground vaults in the downtown core that were constructed to a smaller standard suitable for the lower voltage levels must now be rebuilt to allow for adequate working conditions at today's voltage levels. These undersized vaults present significant

impediment to the day-to-day operations. These vaults are too small to allow for separable connectors. Consequently, in order to work on one vault often requires extensive switching activities and large interruption areas in order to isolate the connectors.

There are a total of 120 manholes in the system. Approximately 95 are undersized and will need to be reconstructed to the new standard.

Reconstruction of these vaults is very expensive and requires extensive time and resources to accomplish. In many cases it is necessary to construct alternate temporary servicing to maintain supply to customers through extended construction periods.

Substation Renewal

In addition to replacement of distribution poles and underground cables noted above, we need to consider the typical useful life of the transformer stations (TS), distribution stations (DS), station transformers, switchgear and other major components.

Inventory of Stations

The table below identifies the age distribution of substations currently in the system. Missing numbers indicate stations that have been eliminated over time.

Station ID	Originally Built	Station Rebuilt
1	1918	1983 + mid-90's
2	1940	1974 + mid 90's
4	1951	scheduled for 2015
5	1954	1971
10	1959	elliminate in 2016
11	1959	1977
12	1961	1977
13	1961	1988
14	1961	scheduled for 2016
15	1964	1994
16	1965	
17	1966	eliminate in 2014
18	1968	
19	1973	
20	1979	
21	1985	
TS-1	1973	
TS-2	1977	

Figure 13 Electric Stations Summary

Some stations have been rebuilt. The remaining 4kV stations are planned, under the voltage conversion program, to be rebuilt or eliminated sometime in the future as indicated

above.

Age of Transformers

The following table identifies the age of station transformers relative to the reference year 2010, being the third year of this subject rate application.

PURCHASE YEAR	COUNT	AGE IN 2010
1960	2	50
1961	1	49
1962	1	48
1965	1	45
1966	2	44
1967	1	43
1968	1	42
1970	2	40
1972	1	38
1973	3	37
1974	1	36
1975	1	35
1976	4	34
1977	3	33
1979	2	31
1980	3	30
1981	1	29
1983	1	27
1984	1	26
1985	1	25
1988	2	22
1990	1	20
1991	1	19
1992	1	18
1994	1	16
TOTAL >= 1960	**39**	

Figure 14 Station Transformers Summary

The following chart summarizes the age distribution of station transformers. It is noted that by the year 2010, 5% of all station transformers will be 50 years old or older. Typical life expectancy is 50 years. Beginning in 2010 we need to replace, on average 2 station transformers per year for the next 15 years.

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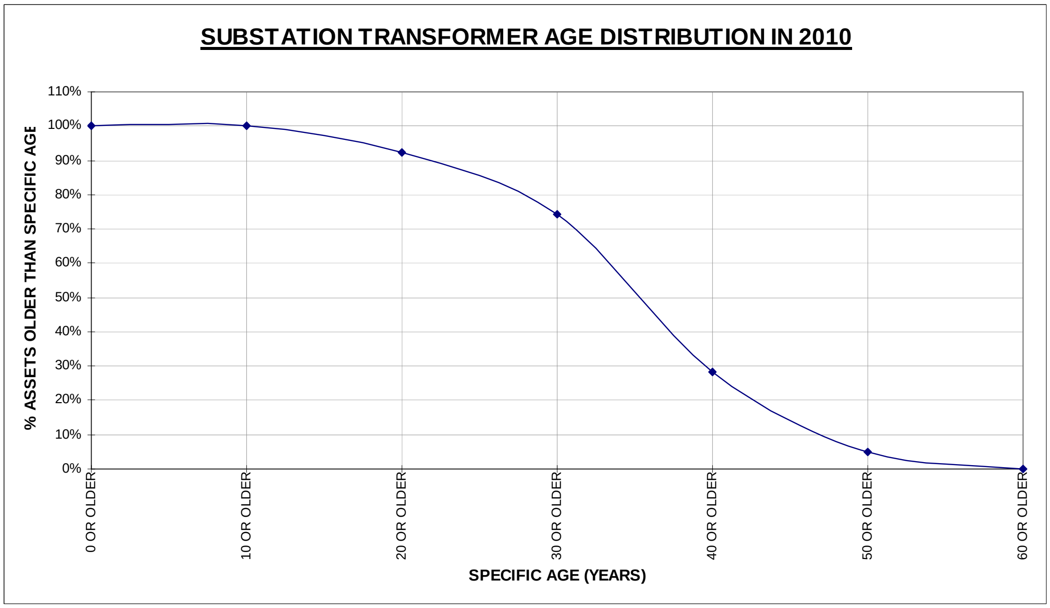

Figure 15 Station Transformers Age Distribution

Age of Cables

The following table identifies the projected end-of-life for underground cables supplying the feeder circuits out of the stations.

Station ID	Originally Built	Station Rebuilt	Cables 30 yr Life	Cables were Replaced	Cables to be Replaced
1	1918	1983 + mid-90's		mid 90's	2024
2	1940	1974 + mid 90's		mid 90's	2025
4	1951	scheduled for 2015	1981	unknown	2015
5	1954	1971	2001	1971	2010
10	1959	elliminate in 2016	1989	unknown	--
11	1959	1977	2007	1977	2008
12	1961	1977	2007	1977	2011
13	1961	1988	2018	1988	2018
14	1961	scheduled for 2016	1991	unknown	2016
15	1964	1994	2024	1994	2024
16	1965		1995	unknown	2009
17	1966	eliminate in 2014	1996	original	--
18	1968		1998	original	2007
19	1973		2003	original	2009
20	1979		2009	original	2010
21	1985		2015	original	2016
TS-1	1973		2003	2003-04	2034
TS-2	1977		2007	2005-06	2036

Figure 16 Stations Underground Cables Summary

PUC Distribution Inc (PUC)

The chart below summarizes age distribution of station cables by the third year of this subject rate application, 2010. A quick review of the data confirms approximately 57% of stations will have cables that are more than 30 years old. The need to replace substation cables is clearly an urgent matter.

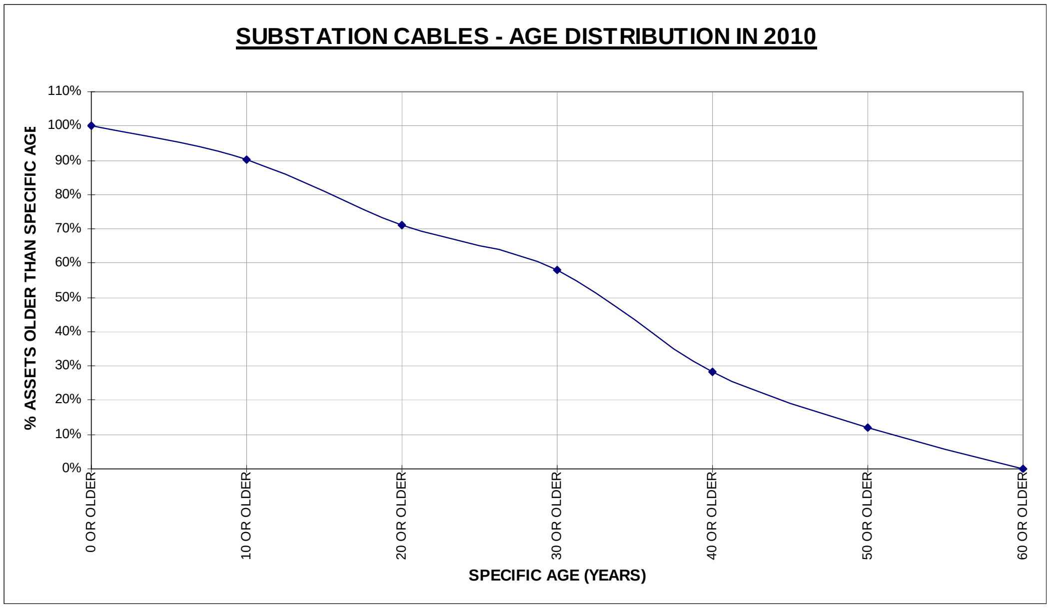

Figure 17 Station Underground Cables Age Distribution

Age of Switchgear

The table of Figure 13 above in section 4.4.1 also identifies the age of switchgear in the system. Figure 18 below summarizes this data and identifies that in 2010, 10% of switchgear will be 50 years old or older.

In order to prolong switchgear operating life, we have initiated a program to refurbish station breakers. The program involves refurbishing approximately 5 breakers per year for the next 20 years.

PUC Distribution Inc (PUC)

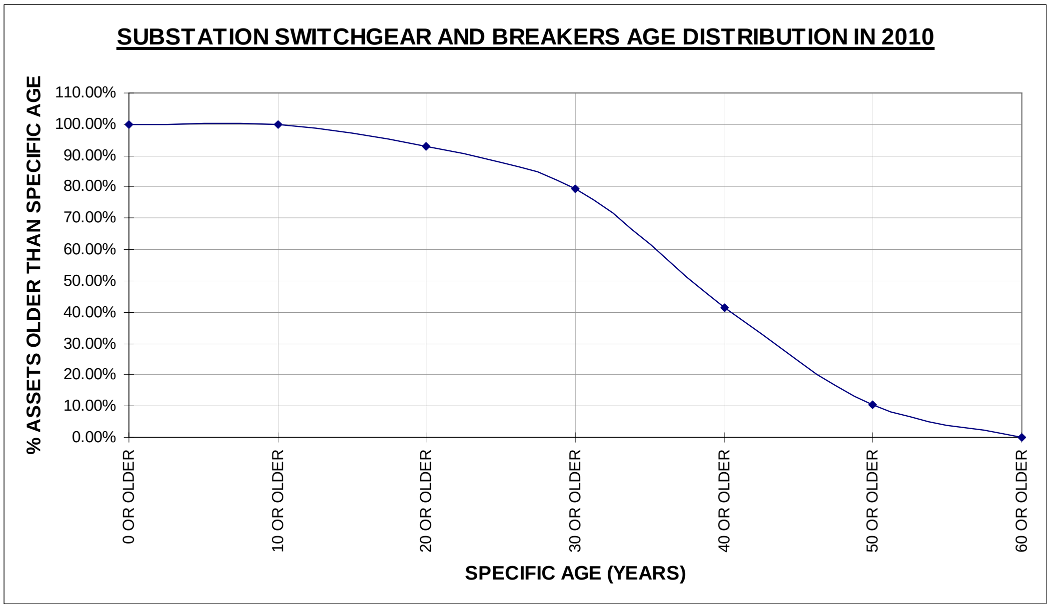

Figure 18 Stations Switchgear – Age Distribution in 2010

System Reliability

Over the past five years we have witnessed a dramatic decrease in system reliability. Power outages have increased both in overall duration and in frequency. Several factors have contributed to this, including failures of aging infrastructure, fault protection coordination with Brookfield Power (Great Lakes Power), and changes to work protection requirements.

Figure 19 below summarizes our performance indices since 1986. These include System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI) and Customer Average Interruption Duration Index (CAIDI).

PUC Distribution Inc (PUC)

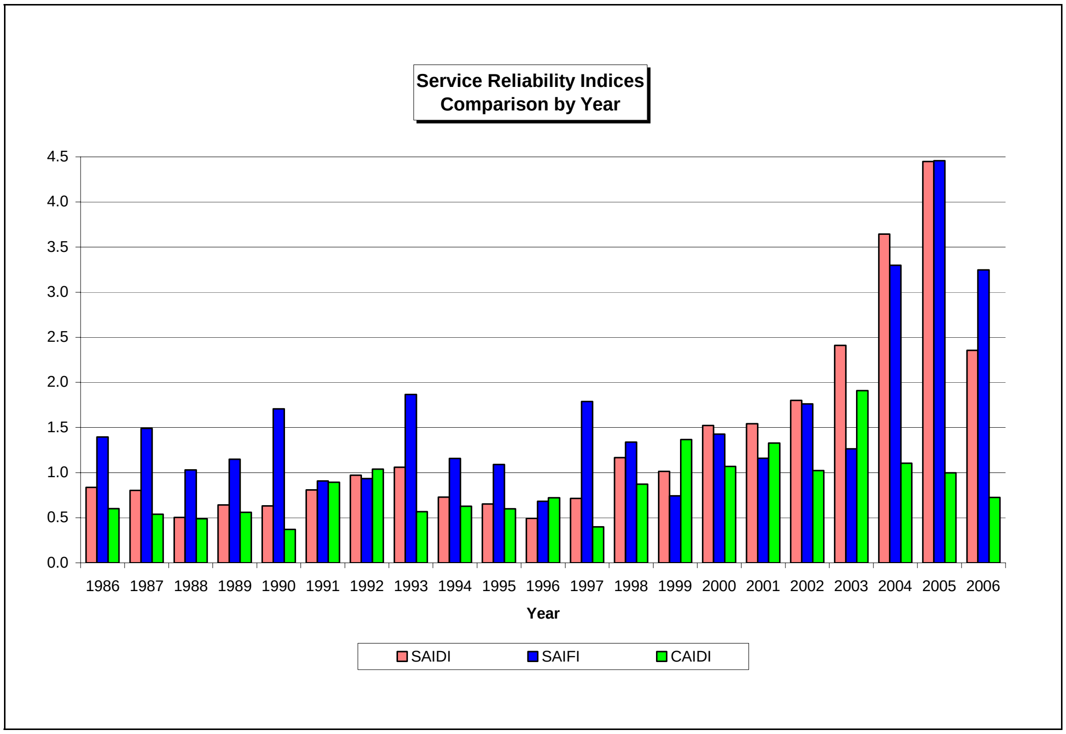

Figure 19 System Historical Reliability Performance

CAIDI has gone from an average of about 0.75 hours to about 1.0 hour. But SAIDI and SAIFI have dramatically increased over the past three to four years. SAIDI has gone from average 0.75 hours to almost 4.5 hours in 2005 and SAIFI has gone from average 1.25 outages per customer to almost 4.5 outages per customer in 2005.

Failures of underground cables and lightning arrestors at the transformer stations and substations have contributed significantly to the deterioration in performance since around 2002. Such failures affect large numbers of customers usually for long durations. We have since replaced all 35 kV cables at both transformer stations as well as all lightning arrestors, which has contributed to improvement of performance recently. However, failures of other deteriorated plant such as high voltage switches, lightning arrestors and insulators continue to affect reliability.

Figure 20 compares reliability indices for the combined first three quarters since 1999.

Exhibit: 2

PUC Distribution Inc (PUC)

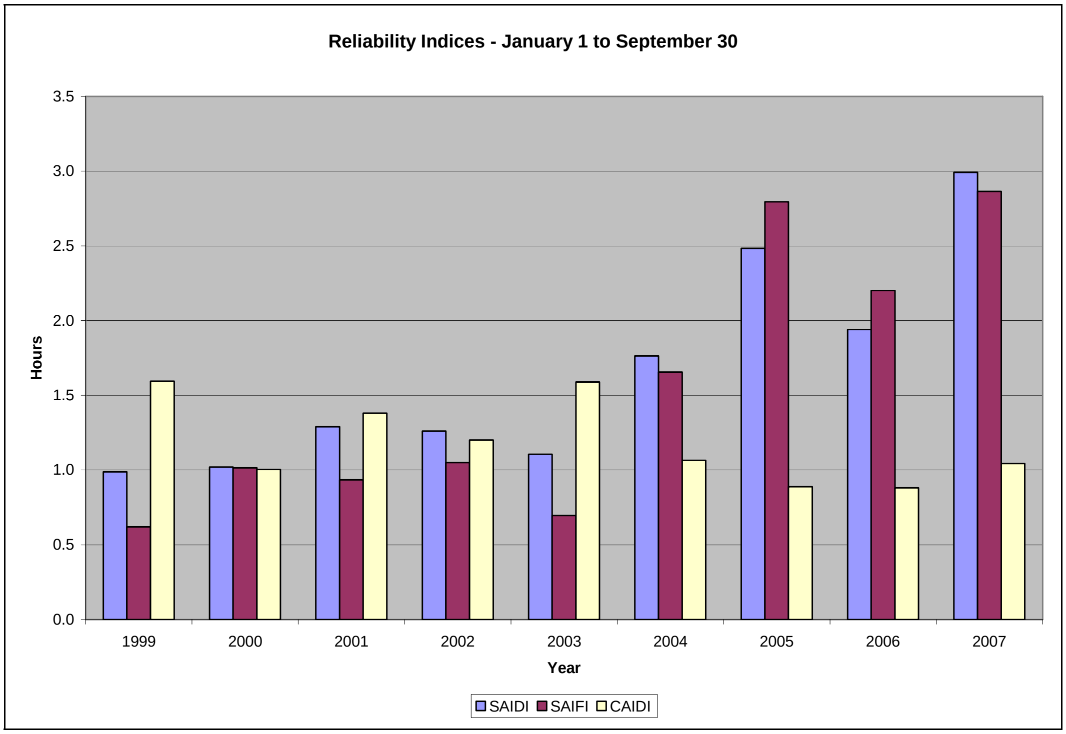

Figure 20 Five Year Third Quarter Year-to-date Reliability Performance

Second and third quarter results for 2007 have been especially impacted by unusual lightning strike activity. The chart below shows results with lightning related outages removed.

PUC Distribution Inc (PUC)

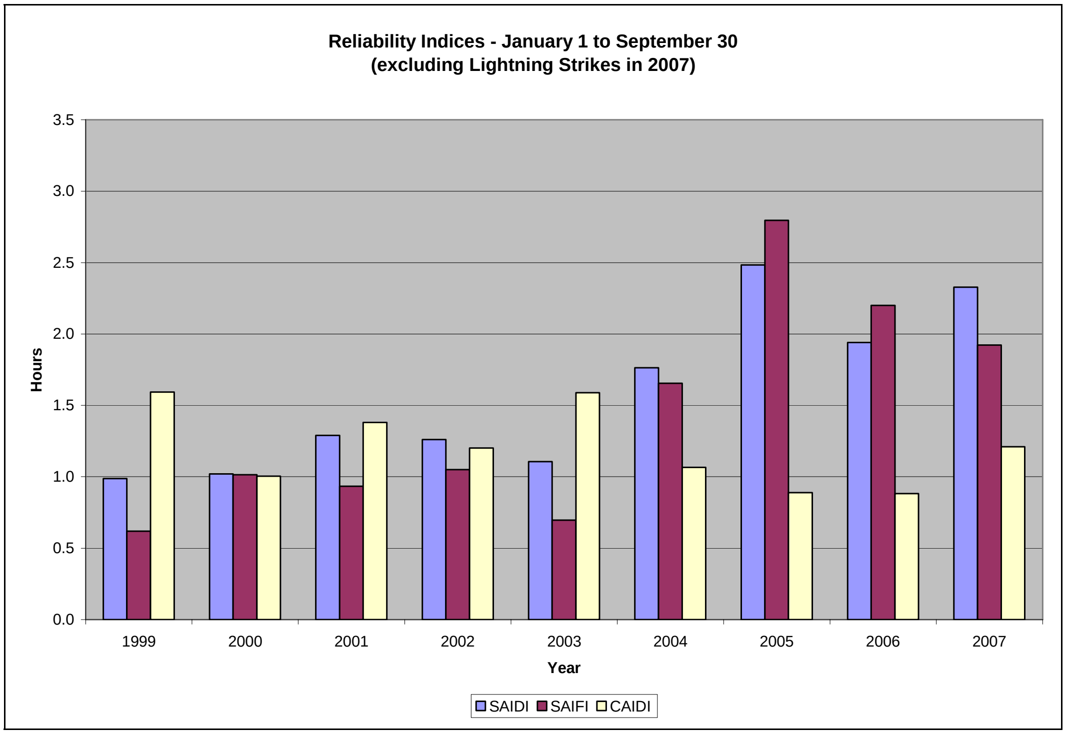

Figure 21 Five Year Third Quarter Year-to-date Reliability Performance (modified)

Lightning on May 15, 2007 interrupted a total of 16,812 customers and resulted in 11,836 customer-hours of interruptions. Also, on June 7 lightning took out a combined total of 12,377 customers resulting in 6,751 customer-hours of interruptions.

In 2007, the next largest contributor to extensive outages has been broken insulators. On May 16 an insulator failure interrupted 10,238 customers and resulted in 2,645 customer-hours of interruptions. On April 14 broken insulators interrupted a combined total of 5,869 customers and resulted in 12,150 customer-hours of interruptions.

However, coordination between Brookfield Power's over-current protection and ours remains as the biggest single impediment to further improvement. In conjunction with market opening, Brookfield upgraded their protection systems and, due to inadequate protection at our transformer stations, adjusted their range of fault detection to overlap our systems. As a result, some faults on our system that would normally trip only the affected station feeder circuit end up tripping the Brookfield supply to the entire station. The outage therefore ends up affecting far greater numbers of customers than necessary. Brookfield will not adjust their protection until we upgrade our station protections to the new market standards.

The 2007 budget includes an allowance to perform the required upgrades in the amount of $540,000. This work is currently in progress and will be completed in 2008.

Long term improvement in reliability, beyond the measures identified above, will be contingent upon PUC Distribution achieving the higher levels of plant renewal identified above in conjunction with the higher levels of equipment maintenance and operational activities identified below. In order to achieve these higher levels, PUC Distribution needs to build the resources capacity outlined in this report.

Operations & Maintenance

General

In conjunction with end-of-life replacement of infrastructure, increased maintenance or refurbishment of components is essential to ensure safe and secure supply to customers. The aging infrastructure will require greater attention to maintenance activities in order to extend usable equipment life to its maximum.

In addition, vegetation management has historically been undervalued and therefore has received inadequate commitment of resources. Moving forward, greater attention must be given to this area.

Furthermore, with growing regulatory and customer demands, there is continued impetus to improve operational efficiencies and effectiveness. This will require on-going efforts to continue to develop and maintain various operating systems such as the SCADA, GIS and Work Management System.

All these initiatives will require increased resources in staffing and equipment.

Regulatory Requirements

The Distribution System Code (DSC) requires an LDC to maintain its distribution system in good working condition, as follows:

> "4.4.1 A distributor shall maintain its distribution system in accordance with good utility practice and performance standards to ensure reliability and quality of electricity service, on both a short-term and long-term basis."

Furthermore, introduction of O. Reg. 22/04, Electrical Distribution Safety, in late 2004 introduced additional legislated focus on maintaining municipal distribution systems. Specifically the Regulation requires an LDC to

> **" Section 4. Safety standards…**
>
> **(2) All distribution systems and the electrical installations and electrical equipment forming part of such systems shall be designed, constructed, installed, protected, used, maintained, repaired, extended, connected and disconnected so as to reduce the probability of exposure to electrical safety hazards. O. Reg. 22/04, s. 4 (2)."**

Section 4 goes on to identify all components of the distribution system and specifies for each component as follows:

> **" 1. Operating electrical equipment shall be maintained in proper operating condition."**

PUC Distribution Inc. has established a documented program to address the legislated requirements to maintain its distribution system. A copy of this program is provided in

Appendix 3 for reference. As described in more detail below, existing staff and equipment resources are inadequate to achieve the program objectives. Additional resources are required to achieve these objectives. These resources are identified below.

Equipment Maintenance

Historically maintenance of existing equipment and facilities has generally received inadequate attention. For a number of years now, budgets have carried allowances for some form of equipment maintenance. But typically, the work has not been done due to unavailability of staff. Given today's substantial extent of aged equipment, maintenance activities now require significant increased resources to ensure reliability of service.

In the Line Department, there is a real need to maintain polemounted switches and padmounted gear. For example, group operated switches should be taken out of service on a regular basis to be inspected, lubricated and operated in order to ensure proper functioning when required. In the Stations area, breakers should be regularly taken out of service, inspected, lubricated and operated, again, in order to ensure proper functioning when required.

However, such basic maintenance needs have long been neglected. Current staffing levels, both in the Line and Stations areas are quite inadequate to perform such work. Additional staff is required. Figure 21 and 22 below identify maintenance activities that need to be performed and the associated staffing needs beyond current levels within the Line and Stations areas respectively. The activities listed are currently not being performed.

Structure	Quantity	Mtce Cycle Yrs	Qty per Year	Crew Size	Hours to Maintain	Annual Crew Hrs	Total Staff
Switches (lubricate and operate)							
Group Operated	237	5	47.4	3	4	189.6	0.39
Fused Disconnect	2,471	5	494	2	0.5	247.1	0.34
Solid Blade Disconnect	2,587	5	517	2	0.5	258.7	0.35
PMH Switches (swap out)	23	9	2.6	3	8	20.4	0.04
Kbar Sectionalizers	97	9	10.8	3	4	43.1	0.09
Transformers (check connections and leaks)							
Padmounts	673	9	74.8	3	4	299.1	0.61
Submersibles	511	9	56.8	3	4	227.1	0.47
Vaults (using vacuum truck)							
Boulevard	687	9	76.3	3	1	76.3	0.16
Mntce Vaults	245	9	27.2	3	3	81.7	0.17
						Line Department Totals	**2.6**

Figure 22 Line Department Additional Maintenance Needs

PUC Distribution Inc (PUC)

Structure		Quantity	Mtce Cycle Yrs	Qty per Year	Crew Size	Hours to Maintain	Annual Crew Hrs	Total Staff
Distribution Stations (lubricate, operate, inspect, test)								
	Breakers	116	3	38.7	2	8	309.3	0.40
	Switches	167	5	33.4	2	4	133.6	0.17
Transformer Stations (lubricate, operate, inspect, test)								
	Breakers (testing only)	19	3	6.3	2	4	25.3	0.03
	Switches (motor oprt'd)	14	5	2.8	2	4	11.2	0.01
	Air Disconnects (manual)	36	1	36	2	4	144	0.19
Distribution & Transformer Stations								
	Batteries maintenance	18	0.5	36.0	2	8	288.0	0.38
	Transformers maintenance	36	1	36.0	2	8	288.0	0.38
Switchgear (open all cubicles, check buss bar connections and terminal blocks, clean cubicles and air filters)								
	4 kV Switchgear	5	1	5.0	2	4	20.0	0.03
	12 kV Switchgear	11	1	11.0	2	8	88.0	0.11
	35 kV Switchgear	13	1	13.0	2	4	52.0	0.07
Protective Relays (test and confirm operation)		112	2	56.0	1	4	224.0	0.15
Electric SCADA (check RTU UPS's)		18	1	18.0	1	2	36.0	0.02
							Stations Department Totals	**1.94**

Figure 23 Stations Department Additional Maintenance Needs

Vegetation Management

Current line clearing practices are inadequate. The lack of in-house expertise and dedicated attention to proper vegetation control has, over time, resulted in sub-optimal clearing methods. We need to progress from simply cutting branches in order to "clear the lines" to implementation of an effective "vegetation management" approach that targets activities and resources to achieve better long term results.

An effective Vegetation Management Program will mean increased costs in the short term compared to maintaining the status quo. But, in the long term, this shift in focus will be more effective in controlling costs. Furthermore, effective vegetation management will also improve reliability performance and greater customer satisfaction, in the long term.

A full-time Forestry Technician is required to move the utility forward towards implementing an effective Vegetation Management Program. Such a program requires:

- **regular and involved customer communications in order to manage complaints and public expectations,**
- **close customer interaction to plan and arrange for increased trimming on private property and increased swath clearing on the right-of-way,**
- **increased preparatory work to better define annual scope of work and contract requirements, thereby obtaining more accurate competitive bids,**
- **effective implementation of proper arborist pruning techniques to control spurious growth of "sucker shoots"**

The benefits to be derived from an effective Vegetation Management Program include:

- **reduced trimming needs over time,**
- **improved customer relations,**

- reduced customer complaints, and
- improved regulatory compliance.

Work Planning

With the growing need to devote greater resources to operating and maintenance activities in the immediate future, it is essential that we use those resources to the greatest advantage possible. In order to free up Line Operations staff to concentrate on performing the field work and to ensure crews are utilized to their fullest, greater resources need to be dedicated to the planning of the work. Work Planners would provide the dedicated attention to planning that is needed.

Work Planners would be primarily involved with planning maintenance and operational activities, but would also provide the preliminary input to capital works planning in conjunction with Engineering. They would free up the Lead Hands to concentrate on organizing the work on the job site rather than having them spend time in the shop preparing for the work. They would free up the Engineering Technician to concentrate on generating capital work orders. They would furthermore relieve some of the burden on management to plan work so they can devote their efforts to supervising the workers rather than performing the work.

Work Planners are required to perform the time-consuming activities associated with O&M activities and capital works such as:

- arranging power outages with affected customers,
- arranging for utility locates,
- coordinating construction schedules,
- coordinating materials to ensure the proper materials are available when required and delivered to the work site as necessary.

Work Planners would perform the following typical activities:

- inspect the distribution system (annual inspections),
- generate work orders through the computerized Work Management System (WMS) to perform repairs to plant resulting from annual inspections,
- track recurring problems and take corrective action,
- deal with customers that block access to padmounts and vaults,
- organize the work for crews assigned to:
    - replace defective cutout switches,
    - replace defective insulators,
    - maintain group-operated switches,
    - maintain padmount switches,
    - treat wood poles to extend usable life,
    - clean out and maintain vaults and chambers.
- monitor and administer contractors hired to, for example, test distribution poles or replace/repair vaults and vault lids.

The addition of Work Planners is essential to advance the functionality of the Department in order to improve productivity.

System Protection Coordination

System over-current protection is critical to ensuring a reliable electricity supply. Well tuned, properly coordinated protections are key to minimizing the extent and duration of power outages. Our system reliability performance has deteriorated substantially over time, primarily due to failing infrastructure, but also due to lack of adequate coordination of protection devices. Protection systems have traditionally been neglected.

A dedicated resource, in the form of a P&C Engineer is required to ensure system over-current protection receives the attention it needs. Also, continued development of our SCADA systems will require the same dedicated attention.

The typical duties of the P&C Engineer include:

- Ensure protection components are properly selected, properly applied and properly coordinated. This includes protection devices such as relays, fuses, reclosers and sectionalizers,
- Perform system coordination studies,
- Perform load-flow studies to support compliant voltage levels and troubleshoot customer complaints,
- Ensure embedded generators incorporate adequate protection schemes for interconnection to the distribution system,
- Support SCADA systems; to specify and select components, coordinate contracts and vendors, ensure ongoing development,
- Ensure proper selection and application of communication systems associated with protection schemes as well as SCADA and voice radio systems,
- Support refurbishment of substations; replacement of cables, switches, and breakers; upgrades to protection relays and protection schemes,
- Coordinate and administer ongoing testing and verification of protection systems,
- Ensure substation schematics are kept current and accurate.

The addition of a P&C Engineer is essential to improving system reliability and maintaining protection systems.

Resources Requirements

Succession Planning

A number of staff will be retiring over the next five to ten years within the operations and engineering areas. These positions are all technical in nature and generally involve 3 to 5 years of development to become fully effective. Line, Metering and Stations positions involve 4 year apprenticeship programs. Engineering involves up to five years on the job training to achieve full proficiency.

PUC Distribution Inc (PUC)

Replacement of existing staff required for succession planning will result in duplication of a number of staff positions for extended periods of time. Over the next 5 to 7 years we will typically need to carry one additional staff in each of the Stations, Metering and Engineering departments.

New Staffing Additions

The discussion above has identified the need for additional staff and associated equipment to several departments that are required to achieve the long term targets, both in capital works and O&M activities. Addition of staff will not increase productivity in the short term. As in succession planning, the new positions identified are all technical in nature that require several years of apprenticeship or on the job training to achieve full proficiency. However, as mentioned above, the need is to build capacity **within the utility to support the increased operational activities moving forward.**

Overall Staffing Needs

Figure 23 below provides a summary of the additional staffing needs over the next 6 years due to succession planning or addition of new positions to support increased O&M and Capital spending.

Most of the required positions were identified in 2005 while others are noted at this time. This table also provides a summary of positions already filled since 2005, which accounts for some of the increased OM&A costs since 2005.

Department	2005 Identified Needs		Filled in 2006	Filled in 2007	2008	2009	2010	2011	2012	2013
	Positions Required	Total								
Engineering	• Technician – Electric succession planning	3			2	1				
	• Technician – Electric new positions	4	1					1	1	1
	• P&C Engineer (identified May 2007)	1			1					
Line Department	• Pole Crews	9	3			3			3	
	• Maintenance Crew	3			3					
	• Succession Planning	1			1					
	• Supervisor	1	1							
	-- Identified May 2007 --									
	• Forestry Technician	1			1					
	• Work Planner	2			1		1			
Stations	• Substation Electrician succession planning	1	1							
	• Substation Electrician maintenance needs	2			1		1			

Figure 24 Projected Six Year Staffing Needs

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In order to complete the discussion of future budgeting needs, we need to consider the allocation for operating and maintenance expenses (O&M).

The table below provides a summary of the additional costs, beyond current 2007 levels, for the required additional O&M activities identified earlier in this report. The labour rates noted are projected typical rates which will be subject to negotiated settlement.

The column labeled "Years to Carry" identifies the number of years over the next six years during which the subject position will need to be "carried" as an additional operating cost above and beyond current 2007 costs. For example, for the Work Planner, there are 2 positions required over the nest six years. The first will be added in 2008 and therefore will be carried for the full six years. The second position will be added in 2010 and therefore will be carried for only four years.

The column "O&M Allocation" identifies the percentage of annual labour for the position that will be devoted to operating and maintenance activities.

Based on the analysis below, the average increase in O&M costs, on an annual basis over the next six years, is approximately $700,000.

Department	Position		Total Positions	Years to Carry	Burdoned Labour	O&M Allocation	Support Equipment	Associated A/P's	Total Incremental O&M Costs
	New	Succession							
Line Department	Work Planner		2	6+4	$ 86,736	50%	$53,250	0	$ 486,930
	Maintenance Crew		3	6	$ 86,736	100%	$237,000	0	$ 1,798,248
	Forestry Technician		1	6	$ 86,736	100%	$61,200	$25,000	$ 606,616
		Power Line Maintainer	1	nil			0	0	nil
Stations	Substation Electrician		2	6+4	$ 86,736	100%	$76,000	0	$ 943,360
Engineering	P&C Engineer		1	6	$ 118,150	38%	$3,150	0	$ 268,988
	Engineering Technician		3	3+2+1	$ 86,736	10%	$6,420	0	$ 58,462
		Engineering Technician	3	2+2+1	$ 86,736	10%	$1,300	0	$ 44,668
							Total for 6 Years		**$ 4,207,271**
							Average per Year		**$ 701,212**

Figure 25 Incremental O&M Costs 2008 – 2013 (Beyond 2007 Levels)

Figure 25 below provides a summary of O&M budgeted amounts since 1987. Factoring in the increased costs noted above, the target for 2008 and beyond is estimated at approximately $3.85 million annually.

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Year	*Budgeted O&M*
1987	$1,627,300
1988	$1,896,100
1989	$2,347,900
1990	$2,789,900
1991	$2,624,800
1992	$2,777,200
1993	$2,646,800
1994	$2,481,000
1995	$2,322,000
1996	$2,333,800
1997	$2,489,900
1998	$2,585,300
1999	$2,842,400
2000	$2,868,100
2001	$2,860,190
2002	$2,493,935
2003	$2,775,959
2004	$3,060,702
2005	$2,845,320
2006	$3,137,561
2007	$3,167,799
Future	$3,852,680

Average 2006 - 2007	**$3,152,680**
Additional Identified Needs	**$700,000**
Total Forecasted	**$3,852,680**

Figure 26 Forecasted O&M Expense (beyond 2007)

Figure 26 below provides a graphic summary of the above table and compares past O&M costs to projected 2008 requirements.

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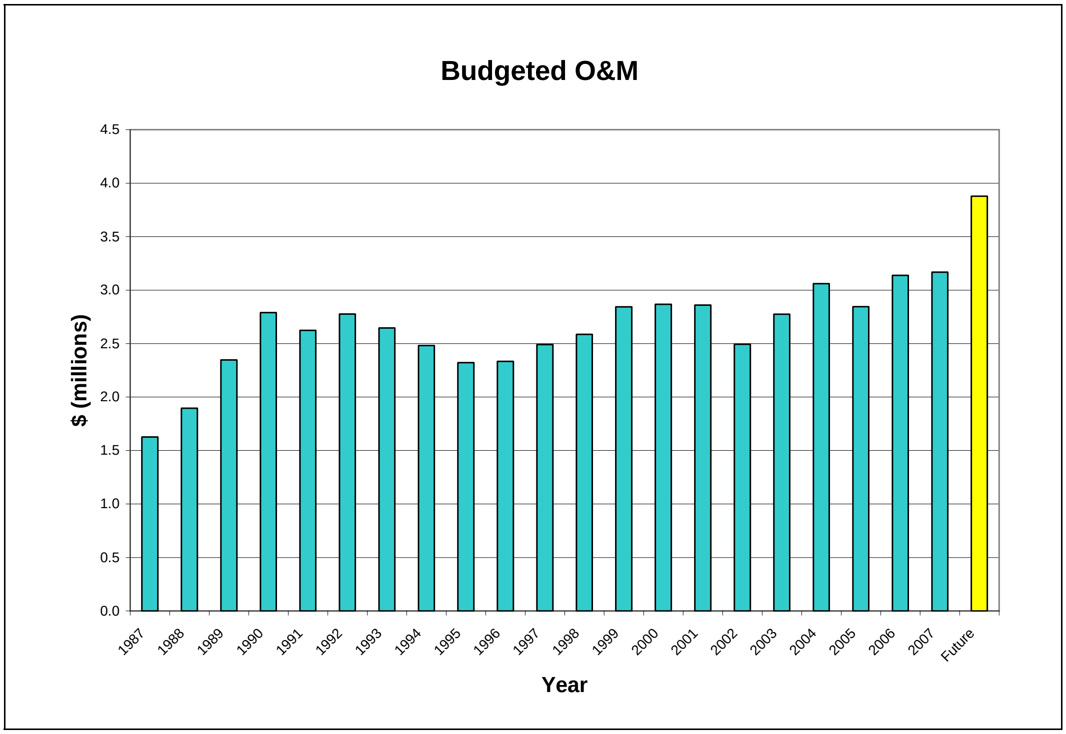

Figure 27 Historical O&M Budgets

Five Year Works Plan

PUC Distribution has established a long term work program to address the needs identified above. The Five Year Works Plan (the Plan) takes into account the logistics associated with ramping up the Capital and O&M works to target levels within reasonable time lines. As discussed earlier, it is not logistically possible to attain the identified long term capital targets for sustaining infrastructure renewal in less than five years. The ultimate targets will be achieved in subsequent years as funding and resources are available.

Five year planning has been in existence now for more than fifteen years. The Plan is reviewed and updated annually to keep current with needs and costs. Also the Plan is reviewed to ensure continued focus on the long term needs of the utility in order to ensure safe and reliable delivery of energy to consumers.

The Plan consists of a detailed summary of Capital Projects and O&M activities for year one (i.e. 2008). For years 2 through 5 of the Plan (i.e. 2009 – 2012), in order to simplify the presentation, the recurring annual items are aggregated into summary allocations identified as “Recurring Capital” and “Recurring O&M”.

Appendix 4 includes a copy of the Five Year Works Plan proposed for 2008, pending successful approval of PUC Distribution’s rate application.

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APPENDICES

Exhibit: 2

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Appendix 1

Long-Term Construction Forecast - Voltage Conversion Program

Year	Description	Budget	Comments
Convert Sub 10			
2011	Convert to 12 KV in the balance of the Sub 10 area	$600,000	On-going voltage conversion. Mostly rear lot construction
		$600,000	
Convert Sub 14			
2012	Convert to 12 KV in the Sub 14 area along Chapple St	$330,000	On-going voltage conversion. Mostly underground commercial services
2012	Convert to 12 KV in the Sub 14 area in the Caledon - Leslie St area	$330,000	On-going voltage conversion. Mostly rear lot construction
2014	Convert to 12 KV in the Sub 14 area in the Pine St area	$330,000	On-going voltage conversion. Mostly rear lot construction commercial services
2015	Construct 35 KV lines on Willoughby St from Reid St to Sub 14	$550,000	To provide 35 KV source for Sub 14
2015	Purchase 12 & 35 KV switchgear and transformers for Sub 14	$985,000	Installation for the following year
2016	Construct 35 KV lines on Pine St and Second Line from Sub 14 to Grt Northern Rd	$660,000	To provide a looped 35 KV supply for Sub 14
2016	Construct building at Sub 14 and install switchgear and transformers	$440,000	Residential area - will require an enclosed building such as Shafer St substation
		$3,625,000	
Convert Sub 17			
2011	Convert to 12 KV in the Laronde St area	$765,000	On-going voltage conversion. Mostly underground 4 KV plant that must be rebuilt
2013	Convert to 12 KV in the Sub 17 area south of Wellington between Pine and Simpson St's	$725,000	On-going voltage conversion within road allowance. Poles are in need of replacement.

Tuesday, November 27, 2007 *Page 1 of 2*

PUC Distribution Inc (PUC)

Year	Description	Budget	Comments
2014	Convert to 12 KV in the Sub 17 area along Ontario Ave - Forest Ave area	$330,000	On-going voltage conversion within road allowance. WO #568
		$1,820,000	
Convert Sub 4			
2009	Rebuild to 35 & 12 KV lines on MacDonald from Pim to Pine St.	$600,000	On-going voltage conversion and improve grid security
2010	Rebuild to 35 & 12 KV lines on MacDonald from Pine St. to Lake St.	$600,000	On-going voltage conversion and improve grid security
2014	Purchase 12 KV switchgear and construct building at Sub 4	$725,000	Residential area - will require an enclosed building such as Shafer St substation
2015	Install 12 KV switchgear and relocate transformers at Sub 4	$165,000	Final step in conversion of Sub 4
		$2,090,000	
Convert Sub 5			
2008	Convert to 12 KV in Sub 5 area north of Wellington St E from Lake St to Shannon Rd -	$725,000	Mostly rear lot construction.
2009	Purchase switchgear and transformers for Sub 5	$1,010,000	For installation the following year
2010	Install switchgear and transformers at Sub 5	$150,000	Final step in conversion of Sub 5
		$1,885,000	
	Overall Total	*$10,020,000*	

Tuesday, November 27, 2007 *Page 2 of 2*

PUC Distribution Inc (PUC)

Appendix 2

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PoleCare International Inc.

CD containing database is enclosed
Sam

NON-DESTRUCTIVE TESTING OF WOOD POLES
For PUC Services Inc. of Sault Ste. Marie

Note: Attached to this report are typical pages of all the Tables (except Table 2: Poles for Replacement). Table 2 is included in its entirety. All the tables in their entirety are included in the MS Database.

August 2007

NOTICE

It is recommended that wood poles are inspected and tested every 5 years. The final recommendations made in this report are based on the assumption that the 5-year inspection cycle will be adhered to by the utility. In other words the conclusions and recommendations contained in the report are valid only for a five-year period from the year in which the poles were tested.

It should also be noted that no engineering analysis has been done to verify the structural capacity of the poles to sustain the design wind and ice loads.

Neither PoleCare International Inc., nor PUC Services Inc. nor any other person acting on their behalf makes any warranty, express or implied, or assumes any legal responsibility for the information presented in this report or accepts liability resulting from its use.

EXECUTIVE SUMMARY

A total of about 1899 in-service poles were inspected to assess their structural integrity. The residual strengths of these poles were measured by using non-destructive testing equipment called Poletest.

Based on the preliminary assessment of the information gathered a number of poles were identified of having varying degree of degradation. These poles were reassessed using a Resistograph that is capable of determining the extent of degradation in wood poles.

Based on a systematic analysis of the field data and engineering judgment the following conclusions are made:

- A total of 67 poles need replacement in a period of 1 - 2 years. These poles have a varying degree of visible extensive degradation at or below ground line and low strength.
- A total of 129 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to accurately predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested in the next 2 or 4 years before making a final decision about them. This approach allows extending the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.*
- A total of 52 poles with moderate or extensive rotting cross arms were identified.
- A total of 297 poles with moderate or excessive top feathering and/or excessive mechanical damage were identified for close inspection.
- A total of 599 poles were identified for remedial treatment
- A total of 103 poles were identified with carpenter ants infestation.
- About 20 poles were not accessible for inspection.

PUC Distribution Inc (PUC)

To:

Mr. Claudio Stefano
Manager of Engineering
PUC Services Inc.

NON-DESTRUCTIVE TESTING OF WOOD POLES FOR
PUC SERVICES INC.

INTRODUCTION

In the summer 2007, as part of its ongoing pole management program, PUC Services Inc. tested a total of about 1899 in-service wood poles. A non-destructive testing (NDT) technique was utilized as a key component of the program. The NDT equipment, POLETEST ™, originally developed by Electric Power Research Institute (EPRI) and marketed by Engineering Data Management (EDM), was used. A Resistograph, capable of measuring the relative density of wood, was used to determine the extent of degradation in selected poles.

The following is a list of major data gathered on each pole:

- Pole strength at or closer to ground line
- Physical condition at ground line area
  - Ground line rot
  - Below ground line rot
  - Carpenter ants damage
  - Surface rot etc.
- Overall physical condition of pole (poor, fair or good)
- Equipment mounted on to poles
- Other related information

The information gathered was analyzed to identify the condition of each pole and sort out the poles that need replacement or re-testing before the recommended testing frequency of 5 years.

TESTING TECHNIQUES

The EDM non-destructive testing technique applies the principles of sonic spectral wave analysis. The sonic test signal, obtained from applying the NDT technique to a wood pole, is analyzed and compared to a machine-stored database relating the sonic signal and pole strength. The sonic signal varies depending on the type of pole species, the degree of mechanical degradation as well as other parameters that affect the material properties. By comparing the received signal to that of the stored database for the pole species, a measure of the pole strength is determined. The equipment that incorporates this technique is marketed under the name POLETEST™. The equipment is data dependent and uses a database established by EDM.

The Resistograph is a special type of drill with a drill bit of approximately 2 mm to 3mm in diameter and about 400 mm in length. The instrument is battery operated and self-powered to eliminate any external influence on the measurements. The instrument provides a measure of relative density of wood by measuring its resistance. The results are presented in a graphic form showing the relative density of wood across the pole cross section. The graph could be used to assess qualitatively the amount of degradation in the pole.

PUC Distribution Inc (PUC)

FIELD MEASUREMENTS AND OBSERVATIONS

STEP 1: The EDM Poletest was used in assessing pole strength:

- Sound the pole for weak points at various pole heights.
- Take strength reading at GL (Ground Line), perpendicular to line direction.
- If strength reading at GL is good then take readings at suspected weak points.
    - End the testing.
- If no strength reading or a very low reading is obtained then take readings at various orientations at GL.
    - End the testing.
- If a reading can't be obtained at GL then take more readings at locations above GL.
    - End the testing.
- Take as many readings as necessary for a good assessment.
- Check pole for decay, rot, mechanical damage etc.
- Using a shovel check for any decay below GL

STEP 2: After completion of testing with EDM Poletest, poles that showed marginal mechanical strength and poles for which the results were not conclusive were tested with the Resistograph

PRESENTATION OF FIELD DATA

The strength and other information gathered in the field along with the analysis done are summarized in Table 1. The information contained in **Table 1** are listed below:

- Name of the street in which pole is located
- Pole ID Number
- House number if appropriate
- Pole species (from information stamped on poles)
- Pole diameter (from measurements)
- Pole strength (from measurements)
- Pole mechanical condition (from observations)
- Comments
- Recommendations
- Probable remaining pole life

ANALYSIS AND RECOMMENDATIONS

Based on a systematic analysis procedure the following recommendations are made:

- **Poles for Replacement (Table 2)**

A total of 67 poles need replacement in a period of 1 - 2 years. These poles have varying degree of extensive degradation, both visible and hidden, at or below ground line.

- **Poles for Retesting (Table 3)**

A total of 129 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested with Resistograph after a period of 2 to 3 years before making a final decision.* ***This approach allows PUC Services Inc. to extend the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.***

The above decisions are not only based on the strength and general physical conditions of the poles but also on sound engineering judgment. This is to make certain that the poles are not removed prematurely and at the same time "not- so-good" poles do not remain in service. This decision-making procedure provides adequate flexibility to plan and implement a gradual and cost-effective pole management program.

- **Poles with Extensive Feathering and Mechanical Damage (Table 4)**

Extensive pole top feathering and or mechanical damage were noticed in about 297 poles. These poles need a closer inspection, by line crew.

- **Poles with Cross arm Rotting (Table 5)**

A total of about 52 poles were identified as having cross arms with varying degree of rotting.

- **Poles for Remedial Treatment (Table 6)**

About 599 poles were selected for remedial treatment in order to extend their usable lives. The types of treatments recommended are boron rod and wraparound paper.

- **Poles not Accessible for Testing (Table 7)**

Twenty poles were not accessible for full inspection and testing

- **Poles Affected by Carpenter Ants (Table 8)**

  A total of 103 poles were identified as having various stages of carpenter ants infestation.

- **Individual Pole Records (Table 9)**

  An electronic record for each of the 1899 pole tested is given in Table 10.

Note: **It should be noted that a number of poles appear under different categories because these poles have multiple mechanical defects**

Because of the unpredictable nature of the external influences that would affect the remaining life of a pole it is recommended that any life prediction beyond 5 years be used with caution. It is also recommended that the poles be tested on a 5-year cycle to maintain the necessary reliability and safety.

In analyzing the poles the effects of external load such as wind and ice are not considered; only the pole strength and mechanical condition of the poles are used. In other words the client requested no engineering analysis and none was done.

COMPREHENSIVE DATABASE

- A comprehensive database containing all the information discussed in this report is provided in MS Access format.

- Also attached to this report are the first pages of all the tables except Table 2, which is included in its full form.

PUC Distribution Inc (PUC)

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PoleCare International Inc.

NON-DESTRUCTIVE TESTING OF WOOD POLES
For PUC Services Inc. of Sault Ste. Marie

Note: Attached to this report are typical pages of all the Tables (except Table 2: Poles for Replacement). Table 2 is included in its entirety. All the tables in their entirety are included in the MS Database.

November 2005

PUC Distribution Inc (PUC)

NOTICE

It is recommended that wood poles are inspected and tested every 5 years. The final recommendations made in this report are based on the assumption that the 5-year inspection cycle will be adhered to by the utility. In other words the conclusions and recommendations contained in the report are valid only for a five-year period from the year in which the poles were tested.

It should also be noted that no engineering analysis has been done to verify the structural capacity of the poles to sustain the design wind and ice loads.

Neither PoleCare International Inc., nor PUC Services Inc. nor any other person acting on their behalf makes any warranty, express or implied, or assumes any legal responsibility for the information presented in this report or accepts liability resulting from its use.

PUC Distribution Inc (PUC)

EXECUTIVE SUMMARY

A total of about 1708 in-service poles, including 101 retest poles, were inspected to assess their structural integrity. The residual strengths of these poles were measured by using non-destructive testing equipment called Poletest.

Based on the preliminary assessment of the information gathered a number of poles were identified of having varying degree of degradation. These poles were reassessed using a Resistograph that is capable of determining the extent of degradation in wood poles.

Based on a systematic analysis of the field data and engineering judgment the following conclusions are made:

- A total of 90 poles need replacement in a period of 1 - 2 years. These poles have a varying degree of visible extensive degradation at or below ground line and low strength. $\frac{90}{1708} \cong 5.3\%$
- A total of 116 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to accurately predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested in the next 2 or 4 years before making a final decision about them. This approach allows extending the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.*
- A total of 2 poles with moderate or extensive rotting cross arms were identified.
- A total of 65 poles with moderate or excessive top feathering and/or excessive mechanical damage were identified for close inspection.
- A total of 281 poles were identified for remedial treatment
- A total of 112 poles were identified with carpenter ants infestation.
- About 2 poles were not accessible for inspection.
- About 46 poles are in the rear lot.

Exhibit: 2

PUC Distribution Inc (PUC)

To:

Mr. Claudio Stefano
Manager of Engineering
PUC Services Inc.

NON-DESTRUCTIVE TESTING OF WOOD POLES FOR PUC SERVICES INC.

INTRODUCTION

In the summer 2005, as part of its ongoing pole management program, PUC Services Inc. tested a total of about 1708 in-service wood poles, which includes 101 retest poles. A non-destructive testing (NDT) technique was utilized as a key component of the program. The NDT equipment, POLETEST ™, originally developed by Electric Power Research Institute (EPRI) and marketed by Engineering Data Management (EDM), was used. A Resistograph, capable of measuring the relative density of wood, was used to determine the extent of degradation in selected poles.

The following is a list of major data gathered on each pole:

- Pole strength at or closer to ground line
- Physical condition at ground line area
  - Ground line rot
  - Below ground line rot
  - Carpenter ants damage
  - Surface rot etc.
- Overall physical condition of pole (poor, fair or good)
- Equipment mounted on to poles
- Other related information

The information gathered was analyzed to identify the condition of each pole and sort out the poles that need replacement or re-testing before the recommended testing frequency of 5 years.

TESTING TECHNIQUES

The EDM non-destructive testing technique applies the principles of sonic spectral wave analysis. The sonic test signal, obtained from applying the NDT technique to a wood pole, is analyzed and compared to a machine-stored database relating the sonic signal and pole strength. The sonic signal varies depending on the type of pole species, the degree of mechanical degradation as well as other parameters that affect the material properties. By comparing the received signal to that of the stored database for the pole species, a measure of the pole strength is determined. The equipment that incorporates this technique is marketed under the name POLETEST™. The equipment is data dependent and uses a database established by EDM.

The Resistograph is a special type of drill with a drill bit of approximately 2 mm to 3mm in diameter and about 400 mm in length. The instrument is battery operated and self-powered to eliminate any external influence on the measurements. The instrument provides a measure of relative density of wood by measuring its resistance. The results are presented in a graphic form

PUC Distribution Inc (PUC)

showing the relative density of wood across the pole cross section. The graph could be used to assess qualitatively the amount of degradation in the pole.

FIELD MEASUREMENTS AND OBSERVATIONS

STEP 1: The EDM Poletest was used in assessing pole strength:

- Sound the pole for weak points at various pole heights.
- Take strength reading at GL (Ground Line), perpendicular to line direction.
- If strength reading at GL is good then take readings at suspected weak points.
    - End the testing.
- If no strength reading or a very low reading is obtained then take readings at various orientations at GL.
    - End the testing.
- If a reading can't be obtained at GL then take more readings at locations above GL.
    - End the testing.
- Take as many readings as necessary for a good assessment.
- Check pole for decay, rot, mechanical damage etc.
- Using a shovel check for any decay below GL

STEP 2: After completion of testing with EDM Poletest, poles that showed marginal mechanical strength and poles for which the results were not conclusive were tested with the Resistograph

PRESENTATION OF FIELD DATA

The strength and other information gathered in the field along with the analysis done are summarized in Table 1. The information contained in **Table 1** are listed below:

- Name of the street in which pole is located
- Pole ID Number
- House number if appropriate
- Pole species (from information stamped on poles)
- Pole diameter (from measurements)
- Pole strength (from measurements)
- Pole mechanical condition (from observations)
- Comments
- Recommendations
- Probable remaining pole life

PUC Distribution Inc (PUC)

ANALYSIS AND RECOMMENDATIONS

Based on a systematic analysis procedure the following recommendations are made:

- **Poles for Replacement (Table 2)**

A total of 90 poles need replacement in a period of 1 - 2 years. These poles have varying degree of extensive degradation, both visible and hidden, at or below ground line.

- **Poles for Retesting (Table 3)**

A total of 116 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested with Resistograph after a period of 2 to 3 years before making a final decision.* ***This approach allows PUC Services Inc. to extend the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.***

The above decisions are not only based on the strength and general physical conditions of the poles but also on sound engineering judgment. This is to make certain that the poles are not removed prematurely and at the same time "not- so-good" poles do not remain in service. This decision-making procedure provides adequate flexibility to plan and implement a gradual and cost-effective pole management program.

- **Poles with Extensive Feathering and Mechanical Damage (Table 4)**

Extensive pole top feathering and or mechanical damage were noticed in about 65 poles. These poles need a closer inspection, by line crew.

- **Poles with Cross arm Rotting (Table 5)**

A total of about 2 poles were identified as having cross arms with varying degree of rotting.

- **Poles for Remedial Treatment (Table 6)**

About 281 poles were selected for remedial treatment in order to extend their usable lives. The types of treatments recommended are boron rod and wraparound paper.

- **Poles not Accessible for Testing (Table 7)**

Two poles were not accessible for full inspection and testing

- **Poles Affected by Carpenter Ants (Table 8)**

A total of 112 poles were identified as having various stages of carpenter ants infestation.

- **Rear Lot Poles (Table 9)**

About 46 poles are in the rear lot.

- **Individual Pole Records (Table 10)**

An electronic record for each of the 1708 pole tested is given in Table 10.

Note: **It should be noted that a number of poles appear under different categories because these poles have multiple mechanical defects**

Because of the unpredictable nature of the external influences that would affect the remaining life of a pole it is recommended that any life prediction beyond 5 years be used with caution. It is also recommended that the poles be tested on a 5-year cycle to maintain the necessary reliability and safety.

In analyzing the poles the effects of external load such as wind and ice are not considered; only the pole strength and mechanical condition of the poles are used. In other words the client requested no engineering analysis and none was done.

COMPREHENSIVE DATABASE

- A comprehensive database containing all the information discussed in this report is provided in MS Access format.
- Also attached to this report are the first pages of all the tables except Table 2, which is included in its full form.

PUC Distribution Inc (PUC)

PoleCare International Inc.

NON-DESTRUCTIVE TESTING OF WOOD POLES
For PUC Services Inc. of Sault Ste. Marie

Note: Attached to this report are typical pages of all the Tables (except Table 2: Poles for Replacement). Table 2 is included in its entirety. All the tables in their entirety are included in the MS Database.

November 2004

PUC Distribution Inc (PUC)

NOTICE

It is recommended that wood poles are inspected and tested every 5 years. The final recommendations made in this report are based on the assumption that the 5-year inspection cycle will be adhered to by the utility. In other words the conclusions and recommendations contained in the report are valid only for a five-year period from the year in which the poles were tested.

It should also be noted that no engineering analysis has been done to verify the structural capacity of the poles to sustain the design wind and ice loads.

Neither PoleCare International Inc., nor PUC Services Inc. nor any other person acting on their behalf makes any warranty, express or implied, or assumes any legal responsibility for the information presented in this report or accepts liability resulting from its use.

PUC Distribution Inc (PUC)

EXECUTIVE SUMMARY

A total of about 1706 in-service poles were inspected to assess their structural integrity. The residual strengths of these poles were measured by using non-destructive testing equipment called Poletest.

Based on the preliminary assessment of the information gathered a number of poles were identified of having varying degree of degradation. These poles were reassessed using a Resistograph that is capable of determining the extent of degradation in wood poles.

Based on a systematic analysis of the field data and engineering judgment the following conclusions are made:

- A total of 70 poles need replacement in a period of 1 - 2 years. These poles have a varying degree of visible extensive degradation at or below ground line and low strength.
- A total of 104 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to accurately predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested in the next 2 or 4 years before making a final on them. This approach allows extending the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.*
- A total of 14 poles with moderate or extensive rotting cross arms were identified.
- A total of 176 poles with moderate or excessive top feathering and/or excessive mechanical damage were identified for close inspection.
- A total of 945 poles were identified for remedial treatment
- A total of 45 poles were identified with carpenter ants infestation.
- About 9 poles were not accessible for inspection.
- About 25 poles are in the rear lot.

PUC Distribution Inc (PUC)

To:

Mr. Claudio Stefano
Manager of Engineering
PUC Services Inc.

NON-DESTRUCTIVE TESTING OF WOOD POLES FOR PUC SERVICES INC.

INTRODUCTION

In the summer 2004, as part of its ongoing pole management program, PUC Services Inc. tested a total of about 1706 in-service wood poles. A non-destructive testing (NDT) technique was utilized as a key component of the program. The NDT equipment, POLETEST ™, originally developed by Electric Power Research Institute (EPRI) and marketed by Engineering Data Management (EDM), was used. A Resistograph, capable of measuring the relative density of wood, was used to determine the extent of degradation in selected poles.

The following is a list of major data gathered on each pole:

- Pole strength at or closer to ground line
- Physical condition at ground line area
  - Ground line rot
  - Below ground line rot
  - Carpenter ants damage
  - Surface rot etc.
- Overall physical condition of pole (poor, fair or good)
- Equipment mounted on to poles
- Other related information

The information gathered was analyzed to identify the condition of each pole and sort out the poles that need replacement or re-testing before the recommended testing frequency of 5 years

TESTING TECHNIQUES

The EDM non-destructive testing technique applies the principles of sonic spectral wave analysis. The sonic test signal, obtained from applying the NDT technique to a wood pole, is analyzed and compared to a machine-stored database relating the sonic signal and pole strength. The sonic signal varies depending on the type of pole species, the degree of mechanical degradation as well as other parameters that affect the material properties. By comparing the received signal to that of the stored database for the pole species, a measure of the pole strength is determined. The equipment that incorporates this technique is marketed under the name POLETEST™. The equipment is data dependent and uses a database established by EDM

The Resistograph is a special type of drill with a drill bit of approximately 2 mm in diameter and about 400 mm in length. The instrument is battery operated and self-powered to eliminate any external influence on the measurements. The instrument provides a measure of relative density of wood by measuring its resistance. The results are presented in a graphic form showing the

PUC Distribution Inc (PUC)

relative density of wood across the pole cross section. The graph could be used to assess qualitatively the amount of degradation in the pole.

FIELD MEASUREMENTS AND OBSERVATIONS

STEP 1: The EDM Poletest was used in assessing pole strength:

- Sound the pole for weak points at various pole heights.
- Take strength reading at GL (Ground Line), perpendicular to line direction.
- If strength reading at GL is good then take readings at suspected weak points.
    - End the testing.
- If no strength reading or a very low reading is obtained then take readings at various orientations at GL.
    - End the testing.
- If a reading can't be obtained at GL then take more readings at locations above GL.
    - End the testing.
- Take as many readings as necessary for a good assessment.
- Check pole for decay, rot, mechanical damage etc.
- Using a shovel check for any decay below GL

STEP 2: After completion of testing with EDM Poletest, poles that showed marginal mechanical strength and poles for which the results were not conclusive were tested with the Resistograph

PRESENTATION OF FIELD DATA

The strength and other information gathered in the field along with the analysis done are summarized in Table 1. The information contained in **Table 1** are listed below:

- Name of the street in which pole is located
- Pole ID Number
- House number if appropriate
- Pole species (from information stamped on poles)
- Pole diameter (from measurements)
- Pole strength (from measurements)
- Pole mechanical condition (from observations)
- Comments
- Recommendations
- Probable remaining life

PUC Distribution Inc (PUC)

ANALYSIS AND RECOMMENDATIONS

Based on a systematic analysis procedure the following recommendations are made:

- **Poles for Replacement (Table 2)**

A total of 70 poles need replacement in a period of 1 - 2 years. These poles have varying degree of extensive degradation, both visible and hidden, at or below ground line.

- **Poles for Retesting (Table 3)**

A total of 104 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested with Resistograph after a period of 2 to 3 years before making a final decision.* ***This approach allows PUC Services Inc. to extend the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.***

The above decisions are not only based on the strength and general physical conditions of the poles but also on sound engineering judgment. Also taken into consideration is the built-in redundancy in the overall system. This is to make certain that the poles are not removed prematurely and at the same time "not- so-good" poles do not remain in service. This decision-making procedure provides adequate flexibility to plan and implement a gradual and cost-effective pole management program.

- **Poles with Extensive Feathering and Mechanical Damage (Table 4)**

Extensive pole top feathering and or mechanical damage were noticed in about 176 poles. These poles need a closer inspection, by line crew.

- **Poles with Cross arm Rotting (Table 5)**

A total of about 14 poles were identified as having cross arms with varying degree of rotting.

- **Poles for Remedial Treatment (Table 6)**

About 945 poles were selected for remedial treatment in order to extend their usable lives. The types of treatments recommended are boron rod and wraparound paper.

- **Poles not Accessible for Testing (Table 7)**

Nine poles were not accessible for full inspection and testing

PUC Distribution Inc (PUC)

- **Poles Affected by Carpenter Ants (Table 8)**

A total of 45 poles were identified as having various stages of carpenter ants infestation.

- **Rear Lot Poles (Table 9)**

About 25 poles are in the rear lot.

- **Individual Pole Records (Table 10)**

An electronic record for each of the 1706 pole tested is given in Table 10.

Note: **It should be noted that a number of poles appear under different categories because these poles have multiple mechanical defects**

Because of the unpredictable nature of the external influences that would affect the remaining life of a pole it is recommended that any life prediction beyond 5 years be used with caution. It is also recommended that the poles be tested on a 5-year cycle to maintain the necessary reliability and safety.

In analyzing the poles the effects of external load such as wind and ice are not considered; only the pole strength and mechanical condition of the poles are used. In other words the client requested no engineering analysis and none was done.

COMPREHENSIVE DATABASE

- A comprehensive database containing all the information discussed in this report is provided in MS Access format.

- Also attached to this report are the first pages of all the tables except Table 2, which is included in its full form.

PUC Distribution Inc (PUC)

PoleCare International Inc.

NON-DESTRUCTIVE TESTING OF WOOD POLES
For PUC Services Inc. of Sault Ste. Marie

Note: Attached to this report are typical pages of all the Tables (except Table 2: Poles for Replacement). Table 2 is included in its entirety. All the tables in their entirety are included in the MS Database.

July 2003

PUC Distribution Inc (PUC)

NOTICE

It is recommended that wood poles are inspected and tested every 5 years. The final recommendations made in this report are based on the assumption that the 5-year inspection cycle will be adhered to by the utility. In other words the conclusions and recommendations contained in the report are valid only for a five-year period from the year in which the poles were tested.

It should also be noted that no engineering analysis has been done to verify the structural capacity of the poles to sustain the design wind and ice loads.

Neither PoleCare International Inc., nor PUC Services Inc. nor any other person acting on their behalf makes any warranty, express or implied, or assumes any legal responsibility for the information presented in this report or accepts liability resulting from its use.

Exhibit: 2

PUC Distribution Inc (PUC)

TABLE OF CONTENTS

PUC Distribution Inc (PUC)

EXECUTIVE SUMMARY

A total of about 1993 in-service poles were inspected to assess their structural integrity. The residual strengths of these poles were measured by using non-destructive testing equipment called Poletest.

Based on the preliminary assessment of the information gathered a number of poles were identified of having varying degree of degradation. These poles were reassessed using a Resistograph that is capable of determining the extent of degradation in wood poles.

Based on a systematic analysis of the field data and engineering judgment the following conclusions are made:

- A total of 111 poles need replacement in a period of 1 - 2 years. These poles have a varying degree of visible extensive degradation at or below ground line and low strength.
- A total of 164 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to accurately predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested in the next 2 or 4 years before making a final on them. This approach allows extending the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.*
- A total of 25 poles with moderate or extensive rotting cross arms were identified.
- A total of 810 poles with moderate or excessive top feathering and/or excessive mechanical damage were identified for close inspection.
- A total of 591 poles were identified for remedial treatment
- A total of 123 poles were identified with carpenter ants infestation.
- About 24 poles were not accessible for inspection.
- About 15 poles were recommended for immediate replacement

Exhibit: 2

PUC Distribution Inc (PUC)

To:

Mr. Claudio Stefano
Manager of Engineering
PUC Services Inc.

NON-DESTRUCTIVE TESTING OF WOOD POLES FOR PUC SERVICES INC.

INTRODUCTION

In the summer 2003, as part of its ongoing pole management program, PUC Services Inc. tested a total of about 1993 in-service wood poles. A non-destructive testing (NDT) technique was utilized as a key component of the program. The NDT equipment, POLETEST ™, originally developed by Electric Power Research Institute (EPRI) and marketed by Engineering Data Management (EDM), was used. A Resistograph, capable of measuring the relative density of wood, was used to determine the extent of degradation in selected poles.

The following is a list of major data gathered on each pole:

- Pole strength at or closer to ground line
- Physical condition at ground line area
  - Ground line rot
  - Below ground line rot
  - Carpenter ants damage
  - Surface rot etc.
- Overall physical condition of pole (poor, fair or good)
- Equipment mounted on to poles
- Other related information

The information gathered was analyzed to identify the condition of each pole and sort out the poles that need replacement or re-testing before the recommended testing frequency of 5 years

TESTING TECHNIQUES

The EDM non-destructive testing technique applies the principles of sonic spectral wave analysis. The sonic test signal, obtained from applying the NDT technique to a wood pole, is analyzed and compared to a machine-stored database relating the sonic signal and pole strength. The sonic signal varies depending on the type of pole species, the degree of mechanical degradation as well as other parameters that affect the material properties. By comparing the received signal to that of the stored database for the pole species, a measure of the pole strength is determined. The equipment that incorporates this technique is marketed under the name POLETEST™. The equipment is data dependent and uses a database established by EDM

The Resistograph is a special type of drill with a drill bit of approximately 2 mm in diameter and about 400 mm in length. The instrument is battery operated and self-powered to eliminate any external influence on the measurements. The instrument provides a measure of relative density of wood by measuring its resistance. The results are presented in a graphic form showing the relative

PUC Distribution Inc (PUC)

density of wood across the pole cross section. The graph could be used to assess qualitatively the amount of degradation in the pole.

FIELD MEASUREMENTS AND OBSERVATIONS

STEP 1: The EDM Poletest was used in assessing pole strength:

- Sound the pole for weak points at various pole heights.
- Take strength reading at GL (Ground Line), perpendicular to line direction.
- If strength reading at GL is good then take readings at suspected weak points.
  - End the testing.
- If no strength reading or a very low reading is obtained then take readings at various orientations at GL.
  - End the testing.
- If a reading can't be obtained at GL then take more readings at locations above GL.
  - End the testing.
- Take as many readings as necessary for a good assessment.
- Check pole for decay, rot, mechanical damage etc.
- Using a shovel check for any decay below GL

STEP 2: After completion of testing with EDM Poletest, poles that showed marginal mechanical strength and poles for which the results were not conclusive were tested with the Resistograph

PRESENTATION OF FIELD DATA

The strength and other information gathered in the field along with the analysis done are summarized in Table 1. The information contained in **Table 1** are listed below:

- Name of the street in which pole is located
- Pole ID Number
- House number if appropriate
- Pole species (from information stamped on poles)
- Pole diameter (from measurements)
- Pole strength (from measurements)
- Pole mechanical condition (from observations)
- Comments
- Recommendations
- Probable remaining life

PUC Distribution Inc (PUC)

ANALYSIS AND RECOMMENDATIONS

Based on a systematic analysis procedure the following recommendations are made:

- **Poles for Replacement (Table 2)**

A total of 111 poles need replacement in a period of 1 - 2 years. These poles have varying degree of extensive degradation, both visible and hidden, at or below ground line.

- **Poles for Retesting (Table 3)**

A total of 164 poles have been identified as having varying degree of internal decay. *Even though these poles need not be replaced in the next 2 or 3 years, it is difficult to predict the rate at which the degradation will accelerate and significantly reduce their usable life. Therefore it is recommended that these poles be retested with Resistograph after a period of 2 to 3 years before making a final decision.* ***This approach allows PUC Services Inc. to extend the usable life of these poles by keeping them in the system as long as it is possible. The cost saving in extending the life of these poles considerably outweighs the small cost involved to retest them.***

The above decisions are not only based on the strength and general physical conditions of the poles but also on sound engineering judgment. Also taken into consideration is the built-in redundancy in the overall system. This is to make certain that the poles are not removed prematurely and at the same time "not- so-good" poles do not remain in service. This decision-making procedure provides adequate flexibility to plan and implement a gradual and cost-effective pole management program.

- **Poles with Extensive Feathering and Mechanical Damage (Table 4)**

Extensive pole top feathering and or mechanical damage were noticed in about 810 poles. These poles need a closer inspection, by line crew.

- **Poles with Cross arm Rotting (Table 5)**

A total of about 25 poles were identified as having cross arms with varying degree of rotting.

- **Poles for Remedial Treatment (Table 6)**

About 591 poles were selected for remedial treatment in order to extend their usable lives. The types of treatments recommended are boron rod and wraparound paper.

- **Poles not Accessible for Testing (Table 7)**

Twenty-four poles were not accessible for full inspection and testing

PUC Distribution Inc (PUC)

- **Poles Affected by Carpenter Ants (Table 8)**

A total of 123 poles were identified as having various stages of carpenter ants infestation.

- **Individual Pole Records (Table 9)**

An electronic record for each of the 1993 pole tested is given in Table 9.

- About 15 poles were recommended for immediate replacement

Note: **It should be noted that a number of poles appear under different categories because these poles have multiple mechanical defects**

Because of the unpredictable nature of the external influences that would affect the remaining life of a pole it is recommended that any life prediction beyond 5 years be used with caution. It is also recommended that the poles be tested on a 5-year cycle to maintain the necessary reliability and safety.

In analyzing the poles the effects of external load such as wind and ice are not considered; only the pole strength and mechanical condition of the poles are used. In other words the client requested no engineering analysis and none was done.

COMPREHENSIVE DATABASE

- A comprehensive database containing all the information discussed in this report is provided in MS Access format.
- Also attached to this report are typical pages of all the tables except Table 2, which is included in its full form.

PUC Distribution Inc (PUC)

Appendix 3

Distributor Name	**PUC Distribution Inc.**
Process Title	**Operations and Maintenance**
Document Number	**EDS-P09**
Revision Date	**August 30, 2007**
Revision Number	**0 Draft B**
Process Owner	**V.P. Operations & Engineering**

PUC Distribution Inc (PUC)

Purpose

To ensure the electrical distribution system owned by PUC Distribution Inc. (PUC),and managed and operated by PUC Services, continues to meet applicable safety standards and to maintain the system in proper operating condition, in accordance with the requirements of Ontario Regulation 22/04 Electrical Distribution Safety.

Scope

This procedure applies to all operating and maintenance (preventive, corrective, emergency and repair of equipment) activities associated with the distribution system.

Responsibility

System Operator
Water Treatment Plant Operator
Line Department
Stations and Metering Department

Procedure

Operations

The System Operator monitors the system to ensure continuing operations and safety of the electrical distribution system. All events identified through a customer complaint, trouble call or a system alarm are logged in the event database. The Water Treatment Plant Operator is responsible for any event that occurs after hours.

The operator takes actions on each event through the controls in the control room or by dispatching a crew to the site of the problem. Upon correction of the problem the operator describes the action taken in the event log and closes out the event.

Preventive Maintenance

Line, Stations and Metering personnel assess the equipment that makes up the electrical distribution system to determine the requirements for preventive maintenance. The result of this assessment is the preparation of a list of required preventive maintenance activities, which includes a description of the inspection and maintenance required and the frequency.

On a weekly basis, a selected number of prioritized preventive maintenance activities are assigned, through the use of Maintenance Work Orders, for completion during that week. Maintenance personnel complete the identified preventive maintenance and inspection activities and the status is recorded on the work order documentation. If a deficiency is detected, a new Maintenance Work Order is initiated to have the deficiency corrected (refer to the corrective maintenance process).

Maintenance Schedule – Lines

Line Department is responsible to for the overhead and underground lines comprising the distribution system, including all associated equipment and components. Line personnel are responsible to assess preventive maintenance needs for the equipment, establish a schedule for ongoing maintenance and conduct the prescribed maintenance.

Exhibit: 2

PUC Distribution Inc (PUC)

The following table summarizes the various Lines related equipment and defines the prescribed maintenance schedule. Line Department personnel will perform the required maintenance and maintain adequate records to document the work.

Structure	Quantity	Maintenance Cycle Years	Quantity per Year
Switches (lubricate and operate)			
Group Operated	237	5	47.4
Fused Disconnect	2,471	5	494
Solid Blade Disconnect	2,587	5	517
PMH Switches (swap out)	23	9	2.6
Kbar Sectionalizers	97	9	10.8
Transformers (check connections and leaks)			
Padmounts	673	9	74.8
Submersibles	511	9	56.8
Vaults (using vacuum truck)			
Boulevard Vaults	687	9	76.3
Maintenance Vaults	245	9	27.2

Maintenance Schedule – Stations

Stations Department is responsible to for the distribution and transmission stations comprising the distribution system, including all associated equipment and components. Stations personnel are responsible to assess preventive maintenance needs for the equipment, establish a schedule for ongoing maintenance and conduct the prescribed maintenance.

The following table summarizes the various Stations related equipment and defines the prescribed maintenance schedule. Stations Department personnel will perform the required maintenance and maintain adequate records to document the work.

Structure	Quantity	Maintenance Cycle Yrs	Quantity per Year
Distribution Stations (lubricate, operate, inspect, test)			
Breakers	116	3	38.7
Switches	167	5	33.4
Transformer Stations (lubricate, operate, inspect, test)			
Breakers (testing only)	19	3	6.3
Switches (motor oprt'd)	14	5	2.8

Air Disconnects (manual)	36	1	36
Distribution & Transformer Stations			
Batteries maintenance	18	0.5	36.0
Transformers maintenance	36	1	36.0
Switchgear (open all cubicles, check buss bar connections and terminal blocks, clean cubicles and air filters)			
4 kV Switchgear	5	1	5.0
12 kV Switchgear	11	1	11.0
35 kV Switchgear	13	1	13.0
Protective Relays (test and confirm operation)	112	2	56.0
Electric SCADA (check RTU UPS's)	18	1	18.0

Corrective Maintenance

When any part of the distribution system fails, the corrective maintenance requirements are assessed and scheduled on a priority basis. For corrective maintenance, a Maintenance ?? Work Order is generated and a work crew dispatched to correct the situation. The crew is responsible for ensuring that the situation is secured and brought into a safe condition. The crew isolates the problem and performs the appropriate repairs to restore the system.

Any deviation from standards must be processed in accordance with the deviation procedure and approved by the authorized Engineer.

All corrective maintenance will be inspected in accordance with the Construction Verification Program prior to connecting and energizing the system for use. The corrective maintenance, inspection activities, and status are recorded on the work order documentation.

Unplanned Maintenance (Including Emergency Repairs)

The System Operator or Water Plant Operator dispatches the crew during emergency situations. A Dispatch ?? Service Order is prepared to document the requirements and activities performed. The crew is responsible for ensuring that the emergency situation is secured and brought into a safe situation. The crew isolates the problem and performs the appropriate repairs to restore the system.

Any deviation from standards must be processed in accordance with the deviation procedure and approved by the authorized Engineer.

All emergency maintenance will be inspected in accordance with the Construction Verification Program prior to connecting and energizing the system for use. Personnel completing the identified maintenance and inspection activities record the status on the work order documentation.

Metering Maintenance

For preventive, corrective or emergency maintenance requiring disconnection, removal, replacement or installation of electricity metering, a Metering Work Order is prepared. Metering personnel, working in conjunction with activities of other maintenance personnel, address the metering responsibilities.

PUC Distribution Inc (PUC)

The metering maintenance will be inspected in accordance with the Construction Verification Program prior to connecting and energizing the system for use. Metering maintenance personnel completing the identified maintenance and inspection activities record the status on the work order documentation.

Equipment Repairs

All major equipment requiring repair is returned to the manufacturer. The returns are processed through the Purchasing Department in accordance with the Purchasing procedure. It is the responsibility of the manufacturer to ensure that the equipment conforms to all original requirements, appropriate tests have been performed, and test results provided to PUC for review and approval. PUC Engineering must approve any deviations from original requirements.

References

<Body text>

Records

List of maintenance activities
Work orders (Maintenance, Dispatch Order, Metering)
Construction Verification Records
Deviation Requests

Revision History

Rev #	Description	Date	Approval
0 Draft A	First Draft – New Procedure	03/07/2005	
0 Draft B	Revised maintenance schedules	30/08/2007	

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Appendix 4

PUC Distribution Inc (PUC)

Five Year Works Forecast - PUC Distribution Inc.

Project Code	Description	Budget	Comments
2008			
Annual capital	Easement purchases	$10,000	Annual allocation as required
Annual Metering	Electric meters and equipment (excludes Smart Meters)	$219,500	Annual allocation to provide new and replacement electric meters and related equipment (excludes smart meters)
Annual plant renewal	Replace 12 kV Breakers	$80,000	Annual program to refurbish obsolete breakers and provide emergency spares. Covers purchase and installation of 5 Breakers. (20 years to refurbish all breakers)
Annual plant renewal	Replace cables at Sub 11	$260,000	Cables are 35 years old. One phase faulted twice.
Annual plant renewal	Replace distribution switches	$50,000	Ongoing program to replace defective overhead cut-out switches to improve service reliability.
Annual plant renewal	Replace padmounted switches	$50,000	Annual allocation to refurbish padmounted switches. Existing units to be swapped out with refurbished units.
Annual plant renewal	Replace restricted wire	$100,000	Annual allocation to replace restricted wire (#4 ACSR, #6 & #8 copper) to elliminate safety hazard to workers and the public.
Annual plant renewal	Replace substation switches	$50,000	Annual allocation to replace end-of-life or deteriorated switches in substations.
Annual plant renewal	Replace URD primary cables	$260,000	Annual allocation to repoace end-of-life URD cables in residential subdivisions
Annual plant renewal	Replace wood poles	$645,000	Replace deteriorated wood poles identified through annual pole testing. Covers 150 poles at $4,300 each ($3,150 labour & $1,150 materials) beyond other regular works
Annual plant renewal	Substation battery bank replacements	$30,000	Annual allowance to replace battery banks at two stations
Convert Sub 5	Convert to 12 KV in Sub 5 area north of Wellington St E from Lake St to Shannon Rd - part 2	$725,000	Mostly rear lot construction.
Customer demand	Construct miscellaneous lines and switches	$200,000	To coordinate with City projects and as required to meet customer demand or ensure reliability.
Customer demand	Install services to meet customer demand - general allocation	$850,000	Annual allowance based on historical levels.

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Project Code	Description	Budget	Comments
Customer demand	Install services to meet customer demand - Third Line E & Drive Inn Rd. (Hospital redundant supply)	$450,000	Extend 35kV along Third Line E. and along Drive Inn Rd to supply new Sault Area Hospital.
Customer demand	Install underground servicing in new subdivisions	$600,000	Annual allowance, as required, based on 120 lots at $5,000 each (recovery of 60%)
Projects Pending	Allowance to provide for identified pending projects	$250,000	General allowance for unknown needs to meet externally driven demands
Projects Pending	Gateway Servicing		Extension of the distribution system will probably be required in 2008 to service the Gateway site.
Projects Pending	Sault College Wind Generator		Requirements if any are unknown at this time.
Projects Pending	Southmarket Street Extension		Requirements unknown at this time, but we will have to relocate plant and possibly extend the distribution system.
Smart Meters	Install Smart Meters	$6,200,000	Supply and install Smart Meters in 2008
System reliability	Purchase second transformer for Sub 15	$150,000	Voltage conversion has increased loading on 12kV system. Second transformer required to shift more load to Sub 15. Purchase and install in 2008.
System reliability	Purchase substation switchgear grounding devices	$50,000	Grounding devices required for nine 12kV Substations and three 4kV Substations in order to provide safe work conditions to isolate underground feeder cables at substations and to test and maintain switchgear.
System reliability	Upgrade Sub 19 switching	$50,000	Install motor operators at TS1 connections to Sub 19 to improve operational functionality
System reliability	Upgrade system over-current protection at TS1 and TS2	$270,000	Complete installation of equipment purchased in 2007. See budget requests for details.
Summary for : **PUC Distribution Inc.**	**Capital**	*$11,549,500*	
Annual O&M	Refurbish TS breakers	$100,000	Hire contractor to refurbish remaining breakers at TS1 & TS2 not done previously.
Annual O&M	Repair boulevard vaults	$20,000	Annual allowance as required to extend system life.
Annual O&M	Revise underground cable tagging	$110,000	To standardize identification of underground plant to facilitate safer work conditions and perform maintenance.
Annual O&M	Substation maintenance (ESA inspections)	$75,000	Carry out repairs and maintenance to substations identified from ESA inspections, including repairs to concrete structures.

PUC Distribution Inc (PUC)

Project Code	Description	Budget	Comments
Annual O&M	Test transformer oil	$13,000	Mtce program for transformers & breakers. Estimated contractor cost $12,000 per yr. Previous 3yr program ended in 2005
Summary for : **PUC Distribution Inc. Maintenance**		*$318,000*	
Annual O&M	Infrared scanning - substations, overhead lines, & underground connectors	$10,000	Contracted cost to perform thermovision survey to detect equipment needing repair before failure occurs. Expand scope to include cable connections in underground vaults.
Annual O&M	Relay & breaker testing program	$50,000	Engage consultant to test substation protection schemes and develop testing procedures. Testing required to comply with Reg 22/04 and provide reliable work protection.
Annual O&M	Update substation schematics	$45,000	Contract costs to update all SCADA drawings associated with one substation including RTU schematics and interconnection diagrams with crossreferencing to SCADA I/O points, with internal support from PUC electricians.
Annual operations	Annual line clearing	$495,000	Includes contract costs, internal labour for contractor administration and allowance for surveying costs
Annual operations	Clear 115kV ROW to the east	$100,000	Engage contractor to clear trees from the 115kV Right-of-Way to the east (required every 6 years, staggered 3 yrs between east and west ROW's)
Annual operations	Test distribution poles	$55,000	Contracted cost to test for deterioration of distribution poles and provide detailed report for action. Covers about 3,200 poles per year (16,000 poles on 5 year cycle)
Regulatory requirement	PCB removal program	$150,000	Initial allowance to test all padmount transformers. All contaminated padmounts must be removed by 2009 and all polemounts by 2025.
System reliability	Inspect 115 kV towers	$75,000	Hire contractor to inspect 115 kV steel latice towers and insulators - repair costs extra.
System reliability	Station grounding repairs	$50,000	Engage consultant to inspect grounding at stations and report on repairs required. Annuall allowance to repair and upgrade deteriorated grounding.
System reliability	Update coordination study	$50,000	Required to improve system reliability. Consultant to update the system overcurrent coordination study. A) Third Line T.S. to both TS1 and TS2 B) TS1 and TS2 to 34.5 kV Distribution Substations
Summary for : **PUC Distribution Inc. Operations**		*$1,080,000*	
2009			
Convert Sub 4	Rebuild to 35 & 12 KV lines on MacDonald from Pim to Pine St.	$600,000	On-going voltage conversion and improve grid security

PUC Distribution Inc (PUC)

Project Code	Description	Budget	Comments
Convert Sub 5	Purchase switchgear and transformers for Sub 5	$1,010,000	For installation the following year
Market Compliance	Engineering for wholesale metering upgrade	$75,000	Engage consultant to perform engineering required to upgrade wholesale metering installations to full standard.
Recurring Capital	Allocation for annual PUC Distribution capital items (includes infrastructure renewal)	$3,510,000	Annual easements, install services, construct misc. lines, subdivisions, replace wood poles & u/g cables, reconstruct vaults, replace switches
Regulatory requirement	PCB removal program	$150,000	Initial allowance to remove all contaminated padmount transformers from sensitive areas by 2009 (other areas by 2014)
Summary for :	**PUC Distribution Inc. Capital**	*$5,345,000*	
Recurring O&M	Allocation for annual PUC Distribution operations and maintenance items	$910,000	Test poles, revise u/g tags, line clearing, maintain/repair vaults and padmounted gear, IR scans, etc.
Summary for :	**PUC Distribution Inc. O&M**	*$910,000*	
2010			
Convert Sub 4	Rebuild to 35 & 12 KV lines on MacDonald from Pine St. to Lake St.	$600,000	On-going voltage conversion and improve grid security
Convert Sub 5	Install switchgear and transformers at Sub 5	$150,000	Final step in conversion of Sub 5
Recurring Capital	Allocation for annual PUC Distribution capital items (includes infrastructure renewal)	$4,490,000	Annual easements, install services, construct misc. lines, subdivisions, replace wood poles & u/g cables, reconstruct vaults, replace switches
Summary for :	**PUC Distribution Inc. Capital**	*$5,240,000*	
Recurring O&M	Allocation for annual PUC Distribution operations and maintenance items	$990,000	Test poles, revise u/g tags, line clearing, maintain/repair vaults and padmounted gear, IR scans, etc.
Summary for :	**PUC Distribution Inc. O&M**	*$990,000*	
2011			
Convert Sub 10	Convert to 12 KV in the balance of the Sub 10 area	$600,000	On-going voltage conversion. Mostly rear lot construction

Exhibit: 2

PUC Distribution Inc (PUC)

Project Code	Description	Budget	Comments
Convert Sub 17	Convert to 12 KV in the Laronde St area	$765,000	On-going voltage conversion. Mostly underground 4 KV plant that must be rebuilt
Recurring Capital	Allocation for annual PUC Distribution capital items (includes infrastructure renewal)	$4,845,000	Annual easements, install services, construct misc. lines, subdivisions, replace wood poles & u/g cables, reconstruct vaults, replace switches
Summary for : **PUC Distribution Inc.**	**Capital**	*$6,210,000*	
Recurring O&M	Allocation for annual PUC Distribution operations and maintenance items	$1,090,000	Test poles, revise u/g tags, line clearing, maintain/repair vaults and padmounted gear, IR scans, etc.
Summary for : **PUC Distribution Inc.**	**O&M**	*$1,090,000*	
2012			
Convert Sub 14	Convert to 12 KV in the Sub 14 area along Chapple St	$330,000	On-going voltage conversion. Mostly underground commercial services
Convert Sub 14	Convert to 12 KV in the Sub 14 area in the Caledon - Leslie St area	$330,000	On-going voltage conversion. Mostly rear lot construction
Recurring Capital	Allocation for annual PUC Distribution capital items (includes infrastructure renewal)	$5,615,000	Annual easements, install services, construct misc. lines, subdivisions, replace wood poles & u/g cables, reconstruct vaults, replace switches
Summary for : **PUC Distribution Inc.**	**Capital**	*$6,275,000*	
Recurring O&M	Allocation for annual PUC Distribution operations and maintenance items	$990,000	Test poles, revise u/g tags, line clearing, maintain/repair vaults and padmounted gear, IR scans, etc.
Summary for : **PUC Distribution Inc.**	**O&M**	*$990,000*	

PUC Distribution Inc (PUC)

Review of Capex and O&M Plan

Appendix excluded due to confidential nature

PUC Distribution Inc (PUC)

REVIEW OF CAPEX and O&M PLAN

Submitted to
PUC Distribution Inc.
September, 2007

BDR

METSCO

PUC Distribution Inc (PUC)

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PUC Distribution Inc (PUC)

EXECUTIVE SUMMARY

This report prepared by BDR NorthAmerica Inc. in association with METSCO Inc. critically reviews the capital and preventative maintenance expenditures proposed in PUC's 5-year budget for renewal and replacement of aging assets and provides an independent opinion on the adequacy of proposed expenditures.

In our opinion, approximately 80% of the medium voltage cables employed on URD system will be approaching the end of their useful life during the next 10 years. Results of pole testing completed over the recent years reveals approximately 5% of poles were at the end of their useful life when tested and an additional 5% to 10% were fast approaching the end of the their useful life. A large number of circuit breakers and disconnect switches at PUCs substations are also approaching the end of their useful lives, requiring replacement or refurbishment.

The frequency and scope of preventative maintenance activities impacts both reliability and life expectancy of assets. The past level of preventative maintenance on the assets reviewed, including substation circuit breakers and switches, line disconnects and fused cutouts, pad-mounted switchgear and submersible vaults has been inadequate. Replacing or refurbishing aging assets in a timely fashion so they do not have significant adverse impacts on reliability, safety and operating efficiency will require a significant increase in capital and operating budgets from previous years. Budgetary estimates of additional capital costs for each of the assets reviewed are provided in the report.

PUC Distribution Inc (PUC)

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1 INTRODUCTION

This report is prepared by BDR NorthAmerica Inc. in association with METSCO Inc. for PUC Distribution Inc. ("PUC"). The report critically reviews the capital and preventative maintenance expenditures proposed in PUC's 5-year budget for renewal and replacement of major distribution assets and provides an independent opinion on the adequacy of budgeted expenditures for the following specific assets:

- wood poles
- medium voltage cables in residential subdivisions
- medium voltage cables in commercial substations
- medium voltage cables at station egresses
- distribution switches and pad-mounted switchgear
- station switches and breakers; and
- manholes and vaults in the downtown area.

The report is organized in 13 sections and an appendix. Sections 2 through 8 review the demographic information, describe degradation and deterioration processes, identify end-of-life criteria and provide estimates of capital expenditure requirements for each of the assets listed above. Section 9 describes the basis of per-unit cost assumptions used in the report. Sections 10 and 11, respectively, critique the proposed maintenance schedules and crew compositions. Section 12 briefly lists the criteria that could be used to prioritize voltage conversion projects. Section 13 presents recommendations for creation of staff positions to manage the higher volume of work, and for continuation of a program of replacement of small size conductors.

2 MEDIUM VOLTAGE CABLES

2.1 *Demographics*

The medium voltage cables employed on PUC's distribution system are classified into three categories:

- URD Cables
- Commercial Cables
- Substation Cables

URD cables are typically installed in 1-phase sub-loop configurations and supply distribution transformers in residential subdivisions. These cables employ copper conductors with concentric neutrals and cross linked polyethylene (XLPE) insulation. Approximately 105 km length of these cables is in service. Approximate age profiles for the cables are indicated in Figures 2.1 and 2.2. Only about 1.8 km of URD cable has been replaced so far; the remaining cable circuits are all from the original installations.

The average length of a URD sub-loop is approximately 1 km. with approximately 100 to 150 customers supplied from a sub-loop. These cables are relatively lightly loaded. When a URD cable fails in service, all customers supplied from the affected section of the sub-loop experience a power outage. Supply to the affected customers is restored by isolating the faulted section through a manual switching operation. The faulty cable is then repaired by establishing the fault location and excavating the faulty section.

Commercial cables either supply transformers serving commercial customers in the downtown core or they serve a combination of commercial/residential and multi-unit residential in the Urban Renewal Area. These cables are installed in duct in 3-phase configurations and employ either tape shield or concentric neutral designs with copper conductors and XLPE insulation. Approximately 80 km circuit length of commercial cables is in service. The age profiles are not known but about 50% of the existing cables were installed during the last 15 -20 years to replace cables that were experiencing high failure rates. All the cables in the Urban Renewal Area were installed between 1974 and 1976. The number of customers and load (kW) supplied from commercial cable circuits is significantly higher than the URD cables.

When a fault occurs on a three phase commercial cable, all customers supplied from the circuit are interrupted. In most cases, power to affected customers can be restored through switching operations. The faulty sections of the cable can then be repaired and replaced by pulling new cables in existing ducts, without having to excavate.

Commercial cables of older vintage have been experiencing failures for a number of years and many poorly performing circuits have been replaced. The program of replacing aging commercial cables will need to continue for several years.

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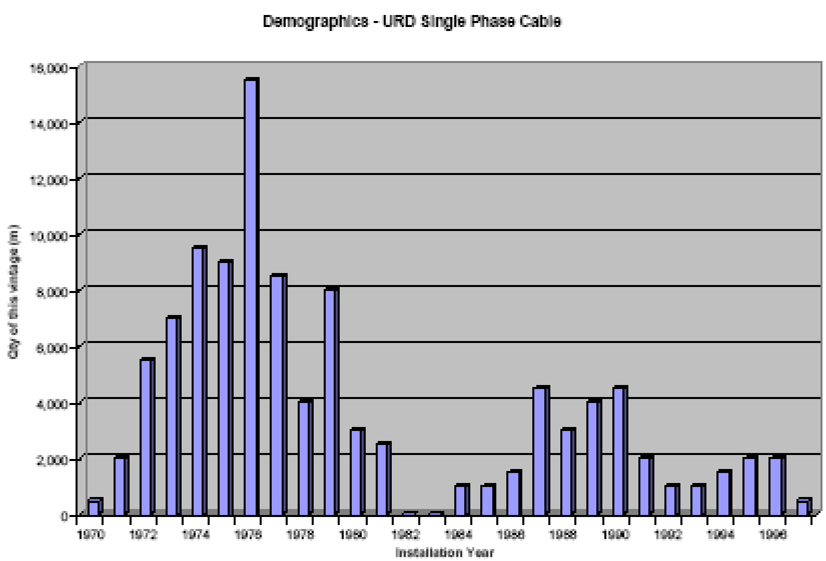

Figure 2.1: URD Cable Demographics – Qty Installed in a year

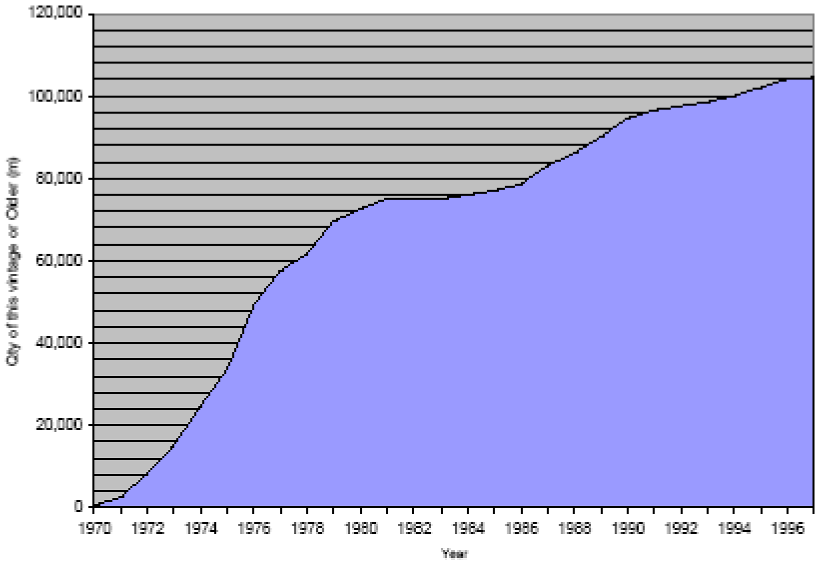

Figure 2.2: URD Cable Demographics – Accumulated Qty in a year

Substation cables connect the overhead feeders to substations. These cables are also three phase, with copper conductors and XLPE insulation and are installed either in duct or in a direct buried configuration. The cable circuit lengths vary from one feeder to another, but the average circuit length per feeder is approximately 75 m. Among the three classes of medium voltage cables, substation cables are most heavily loaded and failures on these cables result in interruptions to the entire group of customers supplied from a feeder.

Figure 2.3 indicates the original installation year and the year during which cables were last replaced. The cables at substations #11, #12, #16, #18, #19 and #20 are approaching the end of their useful life and will require replacement to maintain reliability within acceptable levels. A tentative schedule for replacement of these cables is indicated in Figure 2.3. In addition to these, cables will also need to be replaced at 4 kV substations (shown in blue in the table), as these substations are rebuilt or converted to 12 kV.

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Station ID	Original Construction Year	Cables Replaced in year	Planned Cable Replacement Year	Cable Life at Planned Replacement	Average No of Customers per Circuit	
					Res	Comm
1	1918	mid 90's	2024	30		
2	1940	mid 90's	2025	30		
4	1954	unknown	2015	unknown	221	28
5	1954	1971	2010	39	120	16
10	1959	unknown	Stn to be eliminated in 2016	n/a	156	6
11	1959	1977	2008	31	695	22
12	1961	1977	2011	34	664	4
13	1961	1988	2018	30	985	81
14	1961	unknown	2016	n/a	187	4
15	1964	1994	2024	30	205	62
16	1965	unknown	2009	44	479	60
17	1966	original	Stn to be eliminated in 2014	n/a	262	1
18	1969	original	2007	38	766	15
19	1974	original	2009	35	537	26
20	1979	original	2010	31	405	80
21	1985	original	2016	31	662	28
TS1	1972	2003-04	2034	30		
TS2	1977	2005-06	2036	30		

4 kV Stations which will be either eliminated or rebuilt as 12 kV stations

Figure 2.3: Substation Cable Demographics and Replacement Schedule

2.2 *Degradation and Failure Modes*

XLPE insulated cables were introduced in the market place in early 1970's as an economically viable alternative to paper insulated lead covered (PILC) cables. The insulation system in XLPE cables consists of a semi-conducting sheath over the conductor, a thermo setting insulation, a second semi-conducting layer over the insulation, a copper tape shield or concentric neutral and a jacket. The XLPE insulation ages and degrades with time as a function of operating temperature. The insulation was expected to provide a service life of approximately 35 years under normal operating conditions.

For the early vintages of XLPE cables, manufactured in the 1970's and 1980's two unexpected factors entered into the failure mechanism:

- Presence of impurities in semi conducting materials and voids in insulation combined with insulation's susceptibility to moisture ingress made these cables vulnerable to premature failures due to insulation breakdown under electrical stress. This insulation failure mode is commonly referred to as water treeing. Water treeing reduced the average life expectancy of these early vintage XLPE cables significantly, in some cases to as low as 25 years. While the problem was eventually overcome through development of tree retardant XLPE cables in late 1980's, the earlier vintage cables have cost the electric utility industry significantly in replacing these earlier vintage cables.

- Corrosion of concentric neutral conductors is another potential mode of failure for some of these earlier vintage cables, caused by the accumulation of moisture between neutral strands.

Since no reliable in-situ tests are available to ascertain the health, condition and remaining useful life of XLPE cables, the best industry practice to determine the remaining useful life of cables is based on operating performance by taking into consideration the frequency of failures and their impacts on reliability. When reliability of a cable circuit falls below acceptable level, it is determined to be at the end of its useful life. While there are no practical means of testing XLPE cables, microscopic analysis of failed cable samples can provide an indication of the extent of water trees in cable insulation.

Figure 2.4 shows the statistical relationship between cable age and insulation failures per km of circuit length for these earlier vintage XLPE cables. Because life expectancy of insulation is also a function of cable operating temperature and is determined by circuit loading and heat dissipation characteristics of the soil in which cables are installed, the failure experience in specific subdivisions may differ; however, as indicated in Figure 2.4, the failure rate curve gathers significant steepness between 25 and 35 years of service life, spelling the end of life for these earlier vintage cables.

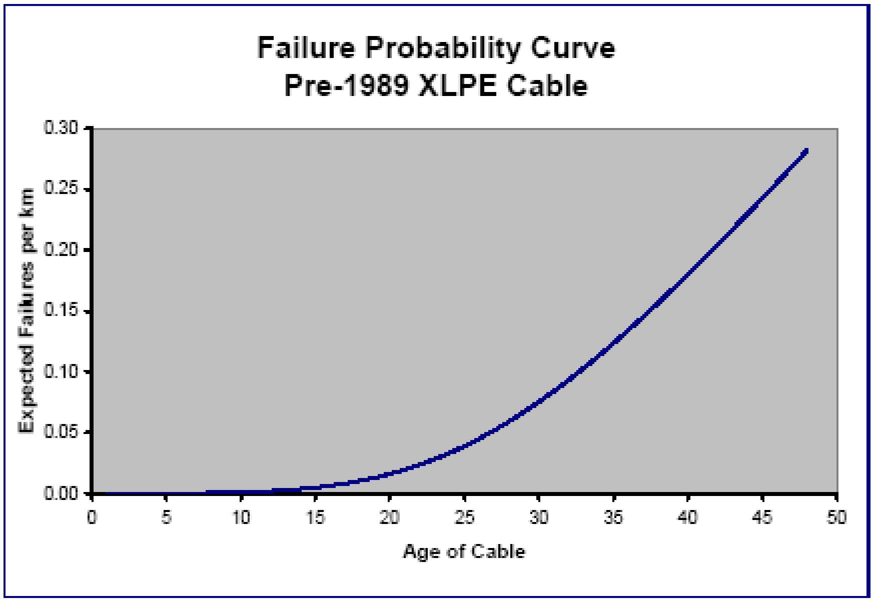

Figure 2.4: Typical Life Expectancy of Earlier Vintage XLPE Cables

An examination of Figures 2.1 and 2.2 reveals that over 80% of the cables employed on PUC's URD system are these early vintage XLPE cables, with approximately 75 km of circuits installed in the 1970's that will be reaching an age of 35 years or more during the next 10 years. While some utilities have had to replace some of the cable circuits of this vintage as early as 25 years after initial installation, PUC is quite fortunate to get a service life of more than 30 years from these cables, likely due to the light load conditions on URD circuits. However, as evidenced by the worsening of reliability and increase in the number of cables and cable termination failures over the recent years, a majority of these URD cables are expected to reach the end of their useful service life over the next 10 years.

2.3 *EOL Criteria and Capital Investment Plan*

As distribution cables approach the end of their useful life, failure rates per year will continue to increase at an exponential rate with age and eventually reach a point where the resulting degradation in reliability becomes unacceptable. Figure 2.5 shows the expected increase in failure rates, as a cable circuit of an earlier vintage of XLPE insulation approaches the end of its useful life and progresses through ages of 25, 30, 35 and 40 years. Since there is a direction relationship between cable failure rates and reliability indices, if the cable failure rates increase by 400% from their present level, SAIFI and SAIDI will also increase from their existing levels by 400%.

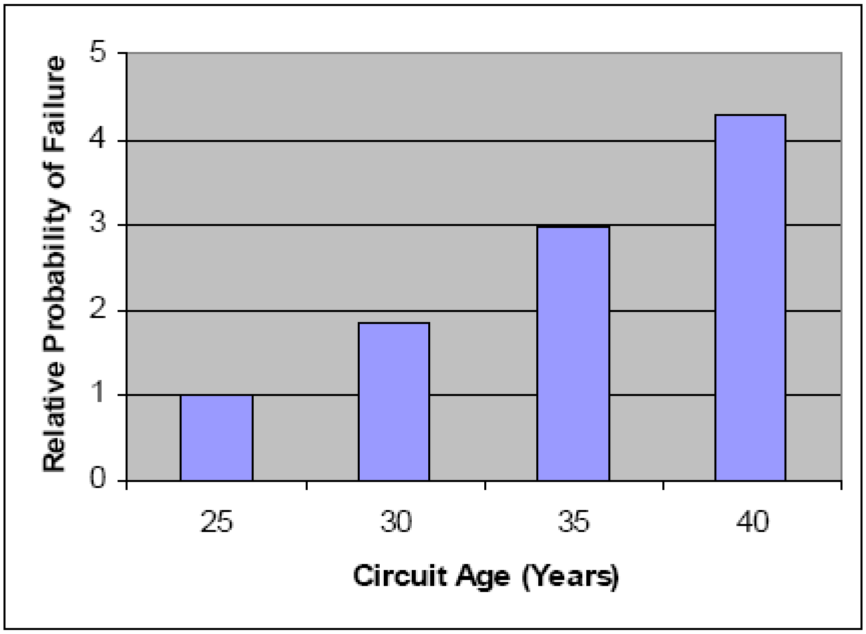

Figure 2.5: Relative Risk of Cable Failures with Age

A cable failure on a URD loop typically causes a power interruption of approximately 3 to 4 hours to customers supplied from the loop. While the actual cable repairs may take longer than a day or two, power is restored through a switching operation by isolating the faulty section of the loop. However, if a second cable failure occurs on the same loop before repairs to the first faulty section have been completed, customers may be out of power for days instead of hours. Since a significant number of PUC's residential customers use electric heating as the primary source of home heating, this may have serious implications on public safety. For example, outages of up to 18 hours have occurred in the middle of winter in the Urban Renewal Area.

If a plan to replace and renew the aging cables is not adopted, the situation described above may arise quite frequently, as the number of cable failures begin to increase and the staff is not able to keep up with the repairs. Emergency repairs of frequently failing cable circuits may also become uneconomic.

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In view of the above, it is recommended that PUC adopt a proactive plan to replace aging cable circuits in URD subdivisions. While the scope, extent and prioritization of the cable replacement program should be decided by taking into consideration the actual number of failures in different subdivisions, as a general rule the earlier vintage of cable circuits should be replaced between the ages of 30 to 35 years. To meet this objective would require replacement of approximately 75 km of URD cables over the next 10 year period and allocation of sufficient funds for the required capital investments.

A single URD cable replacement project for a 3-phase circuit recently completed by PUC resulted in cost of approximately $495 per meter. A significant portion of these costs are related to directional boring. There may be opportunities to reduce per unit costs by negotiating a long term contract for steady work with a directional boring contractor. In projecting CAPEX requirements for URD cables in Figure 2.6, we have used a slightly lower per unit cost for URD cable replacement. The actual per unit cost will not be known until the program is under way.

Commercial cable replacement program will also need to continue. Since these cables are installed in duct, a lower per unit cost has been used in Figure 2.6. The substation cable replacement schedule as indicated in Figure 2.3 is recommended to be continued. Figure 2.6 is based on an average circuit length of 500 m per substation.

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Year	2008	2009	2010	2011	2012	2013	2014	2015
URD Cable (m)	7500	7500	7500	7500	7500	7500	7500	7500
Avg Cost ($/m)	400	400	400	400	400	400	400	400
Budget for URD Cable	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000	$3,000,000
Commercial Cable (m)	1000	1000	1000	1000	1000	1000	1000	1000
Avg Cost ($/m)	150	150	150	150	150	150	150	150
Budget for URD Cable	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000
Substation Cable (m) Avg Cost ($/m)	1 260000	1 260000	1 260000	1 260000	1 260000	1 260000	1 260000	
Budget for URD Cable	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	$260,000	
Total Cable Replacement Budget	$3,410,000	$3,410,000	$3,410,000	$3,410,000	$3,410,000	$3,410,000	$3,410,000	$3,150,000

Figure 2.6: Capex Budget for Cables

2.4 *Preventative Maintenance*

There is no preventative maintenance required or available to extend the useful service life of cables. Some utilities have attempted silicone injection technology on frequently failing cable circuits, which is believed to increase the life of cables suffering from cable tree failure by 15 to 20 years. Silicone injection of cables is quite expensive and may not necessarily be an economical option for all installations. It is an alternative that can be helpful in spreading the capital funding requirements over a longer period of time.

3 Wood Poles

3.1 *Demographics*

Although there are a handful of steel poles in use, wood poles are the most common form of support for overhead lines and equipment. Poles ranging in height form 25 ft to 80 ft are in use on PUC's distribution system. PUC owns approximately 12,495 poles. There are an additional 3,465 poles owned by third parties on which PUC's lines and line equipment is installed. Wood species are predominately western red cedar, although some poles are made of pine and native cedar. A majority of the poles are either butt treated or fully treated with preservatives to protect them against decay.

Available demographic information on the poles is provided in Figure 3.1. Since existing cable rental agreements require PUC to pick up a major portion (75% to 80%) of the capital costs during pole replacement, 3,465 third party poles have also been included in the foregoing analysis. Although the exact age of a large number of poles is unknown, based on the best available estimates, existing pole population is believed to fit the age profiles indicated in Figure 3.2.

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PUC DISTRIBUTION INC. - POLE DATA

POLE SIZE	POLE CLASS	COUNT
25	6	1
25	7	1
25	NOT AVAILABLE	4
30	4	6
30	5	18
30	6	13
30	7	4
30	NON STANDARD	2
30	NOT AVAILABLE	95
35	3	19
35	4	811
35	5	214
35	6	16
35	7	2
35	NOT AVAILABLE	2126
40	1	1
40	2	4
40	3	28
40	4	7406
40	5	407
40	6	11
40	A	1
40	NON STANDARD	1
40	NOT AVAILABLE	2745
45	2	1
45	3	100
45	4	1007
45	5	14
45	7	1
45	NOT AVAILABLE	551
50	3	247
50	4	22
50	NOT AVAILABLE	206
55	1	4
55	2	29
55	3	654
55	4	2
55	NOT AVAILABLE	86
60	1	2
60	2	26
60	3	216
60	NOT AVAILABLE	60
65	1	30
65	2	37
65	3	1
65	4	1
65	NOT AVAILABLE	2
70	2	1
70	NOT AVAILABLE	1
80	2	1
NOT AVAILABLE	NOT AVAILABLE	0
TOTAL PUC OWNED DISTRIBUTION POLES		12484

POLE MATERIAL	COUNT
NOT AVAILABLE	108
STEEL	25
STEEL GALVANIZED	31
WOOD	[illegible]
WOOD NATIVE CEDAR	27
WOOD PRESSURE TREATED PINE	101
WOOD WESTERN RED CEDAR	11925
TOTAL PUC OWNED DISTRIBUTION POLES	12484

INSTALL DATE	COUNT
NOT AVAILABLE	7706
1950	1
1952	3
1954	1
1957	3
1958	1
1959	8
1960	17
1961	5
1963	5
1964	10
1965	19
1966	7
1967	4
1968	17
1969	55
1970	8
1971	27
1972	75
1973	43
1974	38
1975	60
1976	36
1977	274
1978	87
1979	122
1980	183
1981	227
1982	204
1983	125
1984	213
1985	175
1986	118
1987	205
1988	94
1989	104
1990	283
1991	50
1992	120
1993	140
1994	221
1995	171
1996	244
1997	27
1998	138
1999	52
2000	45
2001	8
2002	49
2003	101
2004	121
2005	213
2006	145
2007	21
TOTAL PUC OWNED DISTRIBUTION POLES	12484

NOTE: PUC PLANT ALSO INSTALLED ON POLES OWNED BY OTHER PARTIES AS FOLLOWS:

OWNER	COUNT
BELL	3200
GLP	185
PRIVATE (WITH PRIMARY ONLY)	880
TOTAL POLES OWNED BY OTHERS WITH PUC INFRASTRUCTURE	4325

Figure 3.1 Pole Demographics

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Age Group	Number of Poles		Representative Age
0-10	914		5
10-20	1449		15
20-30	2361		25
30-40	4929		35
40-50	3273		45
50-60	3033		55
>60	1		65
Total	15960		

Figure 3.2 Estimates for Age Profiles of Poles

3.2 *Degradation and Failure Modes*

For wood poles, the most critical degradation processes involve biological and environmental mechanisms such as fungal decay, wildlife damage and effects of weather. Fungi attack both external surfaces and the internal heartwood of wood poles. The process of fungal decay accelerates in the presence of fungus spores, moisture and oxygen. For this reason, the area of the pole most susceptible to fungal decay is at and around the ground line. To prevent the decay of wood poles, they are treated with preservatives before installation. Preservatives help keep out moisture and kill off fungal spores. Typically, preservative treated poles have a mean life of approximately 50 years.

In addition to fungal decay, various wildlife forms can also cause damage to wood poles, such as termites, carpenter ants and woodpeckers. Some other common causes of damage to wood poles include:

- rock and earth slides;
- snow slides and creep;
- ice or heavy snow drop off;
- random impact, i.e. motor vehicle accidents;
- vandalism;
- lightning;
- forest fires (wild fires); and
- ineffective grounding, which causes fires.

3.3 *EOL Criteria and Capital Investment Plan*

Rather than basing the end of life for wood poles on age, pole retirement decisions are usually made based on assessment of the health and condition of a pole. While the condition of all wood poles does deteriorate with age, the rate of deterioration may vary significantly depending on external factors described in section 3.2. While some forms of damage can be detected through visual inspections, internal decay usually requires in-situ testing of poles using non-destructive techniques and estimation of their remaining strength. Since the consequences of a pole failure can be extremely costly, when the remaining strength of a pole fails to provide adequate safety margins, it must be retired from service and replaced.

Based on the number of poles on a line requiring replacement, a decision is made whether to replace the entire pole line or replace only the selected poles. Replacing individual poles on a line rather the entire line may result in significantly higher per unit cost, so the decisions to replace individual poles or the entire line must be based on analysis of overall costs and benefits.

A pole testing program is currently in place at PUC. Figure 3.3 summarizes the results of PUC's pole testing program, under which approximately 5,407 poles, selected at random, were tested over a 3 year period from 2003 to 2005. The reports also indicate a need for continued on-going testing each year as with passage of time, the condition of additional poles is expected to change from fair to poor.

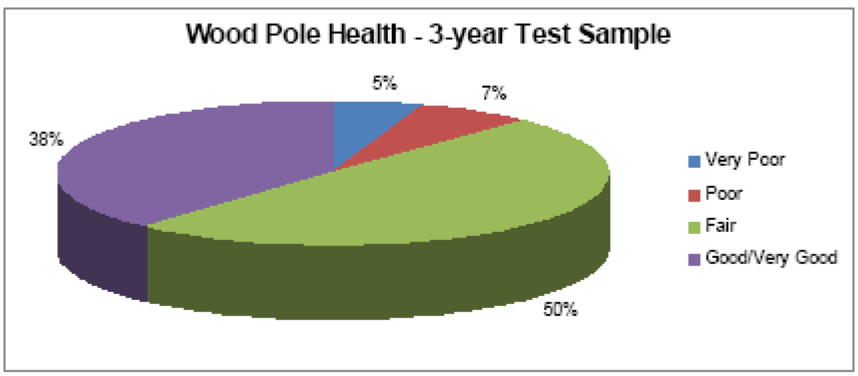

Figure 3.3 Existing Condition of Asset Based on Test Results

Based on these test reports and available demographic information, Figure 3.4 provides an estimate of the poles that would require replacement each year.

Six pole replacement projects completed in 2006-07 resulted in an average per unit cost of $4,289 per pole. Significant variation in price is also noted, resulting from varying degrees of difficulty and work effort needed for poles in different locations. We believe per unit costs will come down, once enough experience is gained in replacing poles and

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the size of projects becomes larger. CAPEX projection provided in Figure 3.5 are based on an average per unit cost of $4,000 per pole.

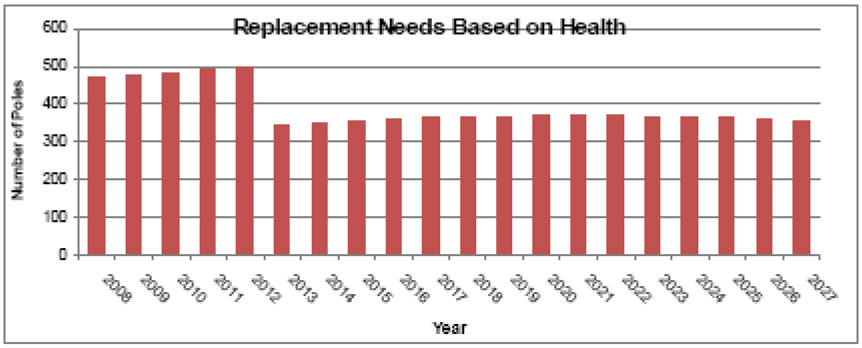

Figure 3.4 Estimated Pole Replacement Needs

3.4 *Preventative Maintenance*

Aside from the pole testing recommended to be carried out on a seven year cycle, visual inspections of poles are also recommended during line patrols. Remedial treatments such as boron rods or wraparound paper should be implemented promptly where required after completion of the pole testing.

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Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
# of Poles	468	477	485	492	499	344	350	355	359	363
Avg Cost	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Total Budget	$1,872,712	$1,906,391	$1,938,244	$1,968,075	$1,995,696	$1,377,901	$1,400,579	$1,420,554	$1,437,696	$1,451,893

Figure 3.5 CAPEX for Pole Replacement

4 Overhead Line Switches and Fused Cutouts

4.1 *Demographics*

Overhead disconnect switches and fused cutouts are used to isolate pole mounted equipment, line sections or underground laterals for maintenance, safety, and other operating requirements. The fuses also provide overload or short circuit protection. Line switches designed for hot stick operation under off load, are primarily used for sectionalizing lines during outages or for moving open points in the system. Load break group operated switches can be opened under load. Fused cutouts are designed to isolate a faulty equipment or section of line. There are two major components in a fused cutout unit: the fuse base and the fuse carrier. The fuse base consists of an insulator and front and bottom electrical connections into which the fuse connects. The fuse carrier holds a distribution expulsion fuse link. Under overload or fault conditions the fuse link will melt and the carrier will drop down and hang from the bottom contact of the fuse base providing easy identification of operation.

Information on in-service age of disconnect switches and fused cutouts is unavailable. Figure 4.1 provides approximate quantities of solid blade switches and fused cutouts on line and transformers employed on PUC's distribution system.

Voltage Class	Solid Blade Line Switches	Line Fused Cutouts	Transformer Cutouts	Total
5 kV	101	84		185
15 kV	659	1182		1841
35 kV	102	6		108
Unknown	24	66	5000	5090
Total	886	1338	5000	7224

Figure 4.1: Solid Blade Line Switches and Fused Cutouts

4.2 *Degradation and Failure Modes*

In general, line switches consist of copper blades supported on insulators and mounted on steel brackets. Their operating mechanism is either via hook-stick or manually operated handle. Virtually all of the disconnect switches and fused cutouts on PUC's distribution system employ air insulated designs. Aging and degradation processes associated with line switches include:

- Burning of electrical contacts
- Rusting and corrosion of operating mechanism and mounting brackets

- Cracking and failure of insulated standoffs
- Mechanical deterioration of operating mechanism,
- Effects of pollution.

The rate and severity of these degradation processes depends on operating duties, environmental conditions and preventative maintenance. In most cases, corrosion represents the critical degradation. Corrosion of mechanical linkages can lead to seizing. When lubrication dries out it offers no movement assistance and allows moisture ingress that initiates corrosion. Re-lubricating moving parts of the switch during preventative maintenance can significantly extend service life.

4.3 *EOL Criteria and Capital Investment Plan*

Line switches and fused cutouts typically provide a service life of approximately 40 years, but depending on the maintenance and environmental conditions, there could be significant deviations from the mean. Rather than basing the asset retirement decisions on age, we propose these decisions be based on physical condition determined by site inspections.

PUC has not had a planned preventative maintenance program in place for the line switches and fused cut outs and due to lack of maintenance, a significantly large number of switches and fused cutouts have deteriorated in condition to the point where they can no longer be operated safely. Under a planned switch inspection program, 35% of the total solid blade switches and fused cutouts have been inspected to date and approximately 1,250 switches and fused cutouts have been determined to require major refurbishment or replacement. As indicated in Figure 4.2 below, prorating these ratios to the entire population base projects approximately 3,571 switches and fused cutouts may need to be overhauled or replaced, requiring an investment of approximately $1.6 million over the next 10 years.

	Switches and Cutouts
Total Population of Line switches and Cutouts	7224
% at reaching EOL in next 10 years	49%
Number reaching EOL in next 10 years	3571
Approximate pu replacement/refurbishment cost	450
Total budget required	$1,607,143
Annual Budget	$160,714

Figure 4.2: CAPEX Projections

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4.4 *Preventative Maintenance*

To prevent asset impairment in the future, a preventative maintenance program is recommended to be adopted for this asset.

The best practice is to perform maintenance on a cyclic basis, approximately on a five year cycle. Maintenance involves cleaning, lubricating and adjusting switch contact alignments. Visual inspections during Line Patrols are also effective in identifying problems before they become serious. Thermo graphic surveys using infrared cameras represent one of the easiest and most cost-effective tests to detect overheating switch blades.

5 Pad Mounted Switchgear and Junction Units

5.1 *Demographics*

Pad mounted switchgear and junction units provide the same functions on underground distribution system as switches and cutouts on overhead lines. While the pad mounted switchgear is designed to switch load current, junction units provide fast isolation means on de-energized circuits.

PMH Units

Type	Count
PMH-4	1
PMH-5	2
PMH-9	8
PMH-10	2
PMH-11	10
Total	23

Cable Junction Units

Type	Count
3-position	56
4-position	61
Total	117

Figure 5.1: Underground Switchgear and Cable Junction Units

5.2 *Degradation and Failure Modes*

These pieces of equipment are designed to provide a service life of approximately 35 years under normal operating environment. Common deterioration and failure modes for these assets include:

- Rusting of enclosures which can lead to perforation, allowing rodent entry into switchgear and compromising public safety. Touch-up and re-painting may delay the rusting process, but eventually a planned replacement of the equipment is required.

- Accumulation of dirt and debris, which can deteriorate switch operating mechanism and/or cause tracking over insulator surfaces.

- Broken or damaged inter-phase barriers can lead to a catastrophic switch failure during opening under load.

5.3 *EOL Criteria and Capital Investment Plan*

Both the PMH switchgear and cable junctions have a service life of approximately 35 years, but depending on the maintenance and environmental conditions, there could be significant deviations from the mean. Rather than basing the asset retirement decisions on age, they should be based on physical condition of the asset. In the absence of the benefit of inspection reports, the estimate of asset renewal costs provided in Figure 5.2 is only a crude estimate:

	PMHs	Cable junctions	Total
Total Population of Underground switches and juntions	23	117	
% reaching EOL in next 10 years	30%	30%	
Number reaching EOL in next 10 years	7	35	
Approximate pu replacement/refurbishment cost	30000	1500	
Total budget required	$207,000	$52,650	$259,650
Approximate Annual Budget			$25,965

Figure 5.2 CAPEX Projections

5.4 *Preventative Maintenance*

Preventative maintenance can extend service life for this asset. Preventative maintenance activities include periodic inspections and replacing worn and damaged parts on a 5 year cycle, painting of enclosures and cleaning and clearing debris, using dry ice.

6 Substation Circuit Breakers

6.1 *Demographics*

Substation circuit breakers are the most critical asset. Their main function is to interrupt load current and short circuit current during system faults. They are called upon to interrupt short circuit current only occasionally, but when an electrical fault does occur, they must operate reliably, correctly and with sufficient speed to prevent damage to equipment from short circuit current.

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Figure 6.1 summarizes the type and vintage of circuit breakers installed at different substations. Substations #4, #5, #10, #14 and #17 are 4 kV substations. The following three types of circuit breakers are in use:

- Oil Circuit Breakers
- Air Circuit Breakers
- Vacuum Circuit Breakers

Station ID	Original Construction	Oil Circuit Brkeakers		Air Circuit Breakers		Vacuum Breakers		Service Life 2007
		Vintage	#	Vintage	#	Vintage	#	
1	1918			1983	6			24
2	1940			1974	9			33
4	1954	1950's	7					52
5	1954			1971	10			36
10	1959	1964	4					43
11	1959			1977	7			30
12	1961			1977	7			30
13	1961			1988	6			19
14	1961			1961	8			46
15	1964					1994	6	13
16	1965			1965	7			42
17	1966			1966	8			41
18	1969			1968	7			39
19	1974			1973	6	2006	1	34
20	1979			1979	6	2006	1	28
21	1985			1984	6			23
TS1	1972	1970's	10			1992	2	32
TS2	1977	1970's	7					32

Figure 6.1 Circuit Breaker Demographics Summary

Oil circuit breakers are the oldest vintage of circuit breakers that have been in use in the industry for over 70 years. Due to excessive contact erosion and carbonization of insulating oil during fault interruptions, these breakers require major maintenance after 4 to 8 fault interruptions. As these types of breakers have not been in production for many years, it is becoming increasing difficult to acquire spares for these breakers.

Air magnetic breakers employ the magnetic effects of current during fault interruption, using arc chutes to elongate and extinguish electrical arc. Air magnetic breakers have also been out of regular production since the 1980's. These breakers, compared to modern vacuum or SF6 breakers have longer interrupting times and require extensive maintenance, particularly when they approach the end of their useful life.
Vacuum breakers consist of fixed and moving butt type contacts in vacuum bottles. Like fuses, arc interruption in this type of breaker design occurs at current zero. Modern vacuum breakers require low mechanical drive energy, have high endurance, can interrupt fully rated short circuits up to 100 times, and operate reliably over 30,000 or more switching operations.

6.2 *Degradation and Failure Modes*

Circuit breakers have many moving parts in their operating mechanism that are subject to wear. The condition of breaker contacts degrades every time they interrupt current. The heat produced in electrical arcs during current interruption also causes degradation of the insulation. The mechanical energy required for high contact velocities also results in wear of the operating mechanism and contact assemblies. With wearing of operating parts friction at the moving linkages begins to increase and starts impacting the circuit breaker performance.

In oil circuit breakers, load and short circuit interruptions result in degradation of the insulating oil and breaker contacts, requiring frequent maintenance. Similarly magnetic air circuit breakers require cleaning of the arc chutes and contact adjustments after major fault interruptions. Lack of maintenance can lead to catastrophic breaker failures.

6.3 *EOL Criteria and Capital Investment Plan*

While the average age for circuit breakers is approximately 35 years, the following factors combined together determine the end of life:

- Decreasing reliability/availability/maintainability;
- High maintenance and operating costs;
- Changes in operating duties;
- Maintenance overhaul requirements; and
- Circuit breaker age.

An examination of Figure 6.1 reveals with the exception of Substation #15, all the remaining substations are equipped with breakers of older technologies and, based on age alone, are either already past their useful service life or will be reaching the end of their useful life during the next 10 years. To manage the risk of aging fleet of circuit breakers, we recommend the condition of all breakers with service life in excess of 30 years be thoroughly assessed with assistance of a switchgear specialist to determine their operating condition and remaining life. It may be possible to extend the life of some circuit breakers through refurbishment and overhaul, but it would require the switchgear to be taken apart for a closer inspection by qualified technicians. In either case, major capital investments are needed for renewal or refurbishment of this asset.

Some of the 4 kV substations are planned to be removed from service in conjunction with the voltage conversion project. There may be economic advantages in accelerating and reprioritizing the voltage conversion projects to retire some of the 4 kV substations early rather than investing large amounts in switchgear renewal at these substations.

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The capital cost requirements for switchgear renewal can be accurately estimated only after a condition assessment of the circuit breakers have been completed. Figure 6.2 provides rough budgetary estimates of capital requirements over the next 5 years:

Station ID	Oil Circuit Breakers	Air Circuit Breakers	Vaccum Breakers	Age in 2007	Estimated Renewal Cost	Comments
	#	#	#	Years		
1		6		24		
2		9		33	90,000	Refurbish
4	7			52	70,000	Refurbish
5		10		36	100,000	Refurbish
10*	4			43	40,000	Refurbish
11		7		30	70,000	Refurbish
12		7		30	70,000	Refurbish
13		6		19		
14		8		46	80,000	Refurbish
15			7	13		
16		7		42	250,000	Replace
17**		8		41	80,000	Refurbish
18		7		39	250,000	Replace
19		6		34	60,000	Refurbish
20		6		28		
21		6		23		
TS1	10			32	150,000	Refurbish
TS2	7			32	105,000	Refurbish
Total Estimated CAPEX					1,415,000	

* Planned to be removed from service ** Planned to be converted to 34.5 kV switching station

4 kV stations

Figure 6.2: CAPEX Requirements for Substation Circuit Breakers

6.4 *Preventative Maintenance*

For substation switchgear, many utilities are adopting risk based preventative maintenance programs, where the actual maintenance is scheduled based on risk and condition of breakers obtained through tests. Some of the common tests for assessing condition of the breakers are listed below:

a) Visual Inspections

Visual inspections can detect external contamination, corrosion, evidence of overheating, misalignment, plus cracks and leaks on bushings, support insulators, tanks, enclosures, drives, linkages and fittings. Visual inspections also can verify the condition of gaskets and seals. Internal conditions, control components, and mechanism cabinets can be inspected visually as well.

b) Time/Travel Testing

This testing measures velocity of contact movement, close and trip times and offers means of evaluating a circuit breaker's mechanical condition and ensures that mechanism/linkage performance meets the manufacturer's specifications.

c) Contact Resistance Testing

This test measures the resistance of breaker contacts in closed position. Resistance readings outside of manufacturer's recommendations require realignment/readjustment of contacts or refinishing of contact surfaces. It also is important to review trends in these measurements over time to see whether or not resistance values have increased.

d) Insulating Oil Assessment

For oil circuit breakers, a number of tests are available to assess the condition of insulating oil involving measurements of moisture, contaminants, and decomposition products in oil.

e) Breaker Operating Mechanism

Depending on the breaker design, different tests may be required to assess the performance of stored energy springs and other mechanical parts.

7 Substation Switches

7.1 *Demographics*

None of the substations on PUC's distribution system employ circuit breakers on primary side of transformers. Circuit interrupter switches provide critical functions of primary line switching, line bypass and transformer switching. Load break disconnect switches on the secondary side typically provide bus tie or bus transfer functions. In addition the 35 kV switches at transformer stations provide means of breaker isolating. In either of these roles, the consequences of switch failure in service are serious because a switch failure can cause an outage on the substation bus.

Figure 7.1 summarizes the number of switches employed at each substation in different functions. The column Service Life in 2007 indicates the service life (age) of switch in 2007.

		115 kV		35 kV		12 kV		4 kV	
Station ID	Service Life 2007	Switch	Grounding Switch	Transformer Interrupter with Fuse	Line or Tie Interrupter	Bus Tie Switch	Bus Transfer Switch	Bus Tie Switch	Bus Transfer Switch
1	24			2	3			1	
2	33			2	4				
4	52			2	3			3	
5	38			2	3			2	7
10	43					1		1	
11	30			2	5	2	4		
12	30			2	3	2	1		
13	19			2	5	1			
14	46					5		3	
15	13			2	4	1			
16	12			2	2	2	1		
17	41			2	4				7
18	39			2	3	2			
19	34			2	1	2	4		
20	28			2	3	2	1		
21	23			2	5	1			
TS1	42	7	2		10				
TS2	[illegible]	7			18				

Figure 7.1 Substation Switch Demographics

7.2 *Degradation and Failure Modes*

End of life for disconnect switches is generally based on their health and condition rather than age, determined through visual inspections and operating tests. We therefore recommend, the disconnect switches be carefully inspected to determine their condition and then an appropriate plan be adopted to implement preventative maintenance, refurbishment or replacement. Considering the number of switches, it would be prudent to allow approximately $100,000 per year for renewal and refurbishment of the switches over the next 5 years.

7.3 *Preventative Maintenance*

The best practice is to perform maintenance on a cyclic basis, approximately on a five year cycle. Maintenance involves cleaning, lubricating and adjusting switch contact alignments. Visual inspections are also effective in identifying problems before they become serious. Thermo graphic surveys using infrared cameras represent one of the easiest and most cost-effective tests to detect overheating switch blades.

8 Manholes/Vaults

Commercial cables are installed in ducts. Manholes provide the means of pulling cables in ducts and provide access to cable splice locations for inspections. There are approximately 116 manholes on PUC's distribution system. Occupational Health and

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Safety Act designates manholes as "confined spaces" requiring special work procedures to be followed, when entering or working inside manholes.

Although there is no legislation on minimum dimensional requirements for manholes, in line with the best utility practices, a manhole needs to be sufficiently large to provide a safe and ergonomic work environment. Utilities select manhole size for a particular location based on the size and number of cables required to pass through that location.

The standard manhole dimensions adopted by PUC for future construction are 15'4" x 11'4". The smallest manhole size is use is 9'0" x 7'3" and there are approximately 16 manholes of this size in use. Based on the number of underground cable circuits passing through these manholes, these are considered less than adequate in size. A planned program to enlarge these manholes to the current standard is recommended. This work will require a budget allocation of $50,000 per manhole or approximately $800,000 over the next 5 years.

9 Per-Unit Costs Employed in CAPEX Estimates

All cost estimates provided in this report are based on constant 2007 $ and do not include the impact of inflation. The following sections describe the rationale behind per unit costs employed to develop the cost estimates.

9.1 *Cable Replacement*

Replacing direct buried URD cables require significant civil works, either in form of excavating and refinishing landscaped areas or using directional drilling using water jet technology. The best practice of installing URD cable involves installing a spare duct besides the cable, for future use. PUC has recently started replacing URD cable and based on completion of a single project incurred costs of approximately $495 per meter.

We inquired about the typical costs incurred by LDCs within the Greater Toronto Area for URD cable replacement. While there can be significant variation in civil costs, the overall cost of $400 to $500 per meter is typical. There may be opportunities to reduce per unit costs by negotiating a long term contract for steady work with a directional boring contractor. Our cost estimates are based on per unit cost of $400 per meter, which is quite tight and would require significant efficiency gains through improved planning.

Commercial cables are pulled in existing ducts. Per unit cost of $150 per m has been used for 3-phase cable circuits with copper conductors and TRXLPE insulation. Substation cables are short in length but require significant termination costs at both ends. Based on historic PUC costs in replacing substation cables, cost of $160,000 per station has been used.

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9.2 *Pole Replacement*

Pole replacement requires live line work and the costs can vary significantly depending upon the pole height, number of circuits on the pole, location of the pole line (back yard or busy highway etc.) and the difficulty involved in boring holes for pole installation.

Six pole replacement projects completed by PUC in 2006-07 resulted in an average cost of $4,289 per pole. We inquired about the typical pole replacement costs incurred by LDCs within the Greater Toronto Area and found out that LDCs were typically incurring costs of approximately $4000 to $5000 per pole. We also contacted two independent line contractors and one of them responded with a sample quotation (included in Appendix A), quoting a crew rate of $20,800 per 40 hour week for a three man crew with bucket truck. Based on the quoted rates, contracting out pole replacement work in Sault Ste Marie is expected to cost significantly higher.

Our cost estimates are based on $4,000 per pole, which is quite tight and would require significant efficiency gains through improved planning.

9.3 *Substation Circuit Breakers*

Circuit breaker rehabilitation work will need to be carried out by the trained staff of switchgear vendors. While PUC has obtained budgetary cost estimates for circuit rehabilitation from two separate vendors, the actual costs for circuit breaker repair and rehabilitation will not be known until the circuit breaker assembly is disassembled for a closer inspection by the vendor's technical staff.

As a crude estimate, we have employed the following per unit costs for rehabilitation of circuit breakers:

4 kV and 12 kV circuit breaker rehabilitation:	$ 10,000
35 kV circuit breaker rehabilitation:	$ 15,000
12 kV switchgear replacements:	$150,000

9.4 *Other Assets*

The cost estimates for renewal and replacement of pad and pole mounted disconnects, fused cutouts, substation switches are based on typical equipment costs and typical work effort required in replacing these. Similarly the cost of manhole/vault enlargements are based on typical civil works costs in PUC's service territory.

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10 Preventative Maintenance Practices

Basic preventative maintenance needs for line and stations equipment have not been carried out in the past. PUC plans to carry out preventative maintenance in the future on some key line and stations assets, as indicated in Figure 10.1.

Asset	Planned Maintenance
Overhead line switches, cutout and pad-mounted switchgear	Grease and operate on a 5 year cycle
Pad-mounted and submersible transformers	Check for tightness of connections and oil leaks on a 9 year cycle
Vault cleaning	Clean out with vacuum truck on a 9 year cycle
Substation circuit breakers	Lubricate, operate, inspect and test on a 3-year cycle
Substation switches	Lubricate, operate, inspect and test on a 5-year cycle
Air disconnects at Transformer Stations	Lubricate, operate and inspect and test annually
Power Transformers	Inspect and maintain on a 2-year cycle
Control Batteries	Maintenance twice a year
Relays	Test and confirm operation on a 2-year cycle
Remote terminal units (RTUs)	Check RTU UPS's annually

Figure 10.1: PUC Planned Maintenance Activities

Many power companies are adopting preventative maintenance practices for power assets based on reliability centered maintenance (RCM) or risk based maintenance (RBM) strategies. These strategies involve a two stage maintenance process; the first stage involves assessing the condition of an asset through inspections and evaluations, and the second stage involves just-in-time maintenance.

However, as a bare minimum the utilities also adopt time based preventative maintenance for simple straight forward maintenance activities. In our opinion, the maintenance activities indicated in Figure 10.1 above are the bare minimum maintenance requirements for these assets. Additional preventative maintenance may be needed in response to actual asset health and conditions, identified through inspections.

Toronto Hydro, one of the largest LDCs in North America, employs a combination of RCM and time based maintenance strategy. Based on the evidence filed by Toronto Hydro in support of its recent rate application, they perform the following maintenance activities on major line and stations assets:

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- "Compact Radial Vaults are inspected twice a year and an inspection checklist is completed to identify any deficiencies. A thermograph is taken of all elbows to identify hot spots and is reported on the checklist. A determination is made as to whether these vaults require power washing and, if so, arrangements are made to schedule this activity.

- Three-Phase Gang-Operated Switches are maintained every three years to ensure safe and reliable operation during routine and emergency switching. A Certified Power Lineperson completes a checklist identifying the physical and mechanical condition and verifies the correct blade alignment, blade penetration, travel stops and arc interrupter operation. The switches are then lubricated for efficient operation.

- THESL Substations use several different types of Circuit Breakers such as Magnetic Air, Air Blast, Vacuum, Sulfur-hexaflouride ("SF6"), and Oil. Maintenance cycles vary from three to eight years depending on the type of breaker that each substation contains. These units are inspected for leaks, and tests are performed to ensure that they are functioning properly in order to maintain a reliable flow of power to downstream customers.

- Power transformer and Primary Load Break Switches ("LBSs") are used to supply the primary load of a power transformer at Municipal Stations with capacity less than 10MVA or at customers' locations. On the 27.6 kV system some LBSs are installed in outdoor enclosures while others are installed in exposed structures. At a customer location, LBSs can be 27.6 kV, 13.8 kV or 4 kV Load Interrupter Switches ("LISs"). The work to maintain these devices includes cleaning insulators, contacts and gears; checking alignment; and performing operational tests.

- Until now the tree-trimming (forestry) program followed a three-year pruning cycle to trim trees in close proximity to overhead lines. This program is aimed at improving reliability by reducing forced outages caused by tree contact. Analysing feeder reliability data for tree contacts in previous years determines the pruning cycle. The feeders having the poorest reliability due to vegetation contacts were given the highest priority for trimming.

- The washing of porcelain insulators on 27.6 kV overhead line poles takes place in areas where insulators experience extraordinary contamination. Regular pressure washing every six months is performed using clean water to remove contaminants that accumulate over time. Dirt, salt and hydrocarbon deposits, when combined with moisture, reduce insulation levels across line insulators and lead to current leakage (tracking) which can increase over time. This contamination can overcome the minimum insulation requirement of the insulator and lead to a "flash-over". This insulation failure will trip the upstream protective device and cause a forced outage, which ultimately affects reliability.

- CO_2 cleaning of pad-mounted switchgear reduces the risk of tracking and, ultimately, switch failure. Switches that are found to be dirty can be cleaned while still energized using CO_2 pellets. Carbon Dioxide is blasted against the switches, releasing the dirt, cleaning the switch, and then evaporating into the atmosphere.
- Pressure washing and vacuuming out submersible (underground) transformer vaults keep drains from plugging and prevent exposure of transformers to water, salt, contaminants and other debris. This allows transformers to cool properly and prevents premature rusting."

11 Work Crew Compositions

Table 11.1 provides a summary of the different types of Line and Stations work crews proposed by PUC to carry out routine O&M and construction activities. We find the proposed crew compositions to be correct for the assigned tasks.

Lines

Type of Work	Typical # of persons	Typical Crew Composition	Comments
Live line work for capital construction	4	1-Lead Hand + 2-Journeypersons + 1-Apprentice	In 5 years time all current apprentices will be at Journeyperson level
Underground residential secondary services	3	Lead Hand + 1-Journeyperson + 1-Apprentice	Crew pulls triplex into duct installed by others.
Commercial primary services	2 x 3 persons	2 x (Lead Hand + 2-Journeypersons + 1-Apprentice)	Generally require two crews, one at each end of the cable pull.
Work in underground vaults (manholes)	4	Lead Hand + 2-Journeypersons + 1-Apprentice	i.e. work on high voltage cables.
Overhead secondary services up to 200A	2	1- Senior + 1- Junior Journeyperson	
Maintain O/H single phase switches	2	1- Senior + 1- Junior Journeyperson	Currently not done
Maintain 3-phase group operated switches	3 or 4	Lead Hand + 1-Journeyperson + 1-Apprentice	Currently not done. Crew size depends on type of installation.
Maintain padmounted gear	3	Lead Hand + 1-Journeyperson + 1-Apprentice	Currently not done
Maintain (clean out) underground vaults	3	Lead Hand + 1-Journeyperson + 1-Apprentice	Currently not done

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Stations

Type of Work	Typical # of persons	Typical Crew Composition	Comments
Capital upgrades	1 + LH oversight	1 – Substation Electricians + some Lead Hand oversight	Lead hand coordinates the work and provides direction.
Maintain station breakers and switches	2	2 – Substation Electricians	Currently not done
Maintain batteries (i.e. major mtce.) and transformers	2	2 – Substation Electricians	Currently not done

Table 11.1 PUC Crew Composition

The live line construction crew for overhead lines is composed of four persons, a lead hand, two journey persons and one apprentice and in our opinion this crew composition is correct for the tasks carried out by live line overhead crews. Live line work is a team effort and requires each member to carry out his/her designated role to complete the tasks safely and efficiently. Virtually all of the tasks require a two person work team in insulated buckets or work platform. The apprentice, who also doubles as the driver, is needed to act as the "lineman helper" in getting materials from the truck, making up the material and sending it up to the work team. The fourth person acts as the designated safety observer and is required to alert the work team to any potentially unsafe actions or lack of compliance with approved work practices and procedures. The safety observer is required to be positioned at a suitable location to observe the work being performed, is required to be in position before work starts; is required to be fully aware of how the task will progress and any changes made during the task and is required to maintain effective and immediate communication with the work team at all times. The safety observer, cannot, therefore, perform any other task while the live line work is in progress.

In accordance with Occupational Health and Safety Act, work in manholes/vaults is considered work in confined spaces and requires strict safety procedures to be followed. With the two person work team working in the confined space and a third person taking on the role of the "lineman helper" getting materials from the truck and sending it to the work team, the fourth person is needed as the safety observer to immediately initiate rescue operations in case the conditions within the confined workspace become hazardous due to a fire, explosion, gas, fumes or the lack of oxygen.

As indicated in Table 11.1, the remaining work crews employ either 2 or 3 person teams, depending on the work tasks and are in line with best utility practices.

PUC Distribution Inc (PUC)

12 Criteria for Prioritization of Voltage Conversion Projects

While an in depth review of the voltage conversion projects planned by PUC is beyond the scope of this assignment, commonly employed criteria for prioritizing voltage conversion projects is discussed below:

Voltage conversion projects result in the following benefits:

- reduction in system losses both in line conductors as well as distribution transformers when older vintage high loss transformers are replaced with modern designs
- Improvements in safety, reliability and power quality due to renewal of old substation and line assets near the end of their useful life
- Reduction in operating costs due to elimination of distribution stations and renewal of old, failure prone assets.

To achieve the above benefits requires major capital investments in reconstruction and upgrade of lines and line mounted equipment. In some cases, where the medium voltage feeder lengths become excessive upon voltage conversion, additional switching stations or line mounted reclosers may also become necessary.

The optimal and most practical way to prioritize voltage conversion projects involves quantification and valuation of all benefits and costs associated with each project and ranking of the projects based on benefit/cost ratios, return on investments and/or payback times.

13 Other Recommendations

While the impacts of the following recommendations have not been analyzed in detail, based on our prior experience, the benefits arising from their implementation are expected to outweigh the costs.

13.1 *Position of a Forestry Technician*

Trees planted within the overhead line right-of-way, if not trimmed with adequate frequency, can become the root cause of a high number of momentary interruptions and power outages. On the other hand, aggressive tree trimming by power companies' line staff often results in excessive complaints from home owners.

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The addition of a Forestry Technician's position can be a valuable resource in mitigating these problems. A forestry technician can be a valuable educational resource for public, providing information on the types of trees and shrubs that can be safely planted in the vicinity of power lines and their appropriate distances from the lines. Where trees currently exist within overhead line right-of-ways, he/she can develop guidelines and procedures for frequency and extent of the tree trimming for different tree species. He/she can also take on the role of periodic inspections of the line right-of-ways and prioritize the streets to be trimmed each year. This should not only result in power supply reliability improvements, but will also reduce customer complaints about excessive tree trimming.

13.2 *Positions of Construction Planners*

Many power companies find it cost effective to employ construction planners for managing large capital projects. Since the scope of PUC's capital projects is expected to increase significantly in the coming years, we recommend the addition of an adequate number of Construction Planner positions to the organization.

By relieving the construction crews of detailed project management activities, it will free up the construction crew time for a longer productive day, thus improving overall productivity. Detailed job planning in advance allows fulfillment of "Conditions Precedent" in the project cycle and eliminates costly waiting time for the construction crews.

Although the specific duties of a construction planner may vary from one organization to another, a Construction Planner is generally responsible for the following tasks:

- Planning a job, considering available alternatives and selecting the least cost alternative for implementation
- Surveying, staking, measuring, counting, preparing designs and required drawings
- Preparing cost estimates, bill of materials and work schedules
- Ensuring availability of required materials in the stores
- Coordinating subcontractor activities, where a subcontractor is required to carry out some of the preparatory work
- Liaison with customers and notifying customers if and when a planned outage is necessary
- Liaison with other stakeholders (i.e. transportation department for required lane closures etc. or notifying phone or cable providers when a joint use pole line is being replaced)
- Contract administration for subcontractors and overall cost control
- Signing off on project completion, ensuring all tasks have been completed
- Updating operating maps and construction drawings to "as built" status upon project completion
- other miscellaneous project management activities.

13.3 *Replacement of Small Sized Conductors (Restricted Wire) on Overhead Lines*

Branch circuits on medium voltage overhead lines sometimes employ small cross-section conductors such as #4 AWG or #6 AWG. After being in service for a period of 30 to 40 years, these small sized conductors have been experiencing sudden in-service failures, with the conductor unexpectedly snapping and falling on ground. A number of power companies have experienced similar problems with small sized conductors.

Although we have not investigated the root cause of the wire failures on PUC's distribution system, some of the following potential causes may be responsible for the failures:

- Corrosion (rusting) of the steel core in case of ACSR conductors;
- Annealing of aluminum conductors, in case of AAC, due to repeated overload conditions over the years;
- Over tensioning of the wires, leaving inadequate factor of safety for tensile strength;
- Fusing (melting) of aluminum conductors during downstream faults, due to excessively high short circuit current;
- Fusing (melting) of aluminum conductors during lighting surges;
- Phase wires on slack spans coming in contact during wind storms.

Investigations to determine the actual root cause of conductor failures can be costly and time consuming. On the other hand, since a downed overhead line poses extremely serious safety risks, the hazard needs to be mitigated promptly. If a downed live wire is not promptly detected by over-current relays and the feeder circuit breaker fails to trip, a live conductor lying on ground can lead to serious injury or death. Accidents involving serious injuries to public from downed overhead line conductors have occurred in the past in other jurisdictions.

PUC has budgeted approximately $100,000 annually to gradually replace all small sized conductors on its distribution system. In view of the foregoing, we recommend the program of small sized conductor replacement be continued.

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WORKING CAPITAL ALLOWANCE CALCULATION BY ACCOUNT

Exhibit: 2

PUC Distribution Inc (PUC)

		2006 Board Approved	15%	2006 Actual	15%	2007 Bridge	15%	2008 Test	15%
3350-Power Supply Expenses	4705-Power Purchased	38,098,272		38,144,239		40,314,676		49,044,109	
	4708-Charges-WMS	3,971,144		2,885,116		3,677,745			
	4714-Charges-NW	3,671,421		3,595,175		3,612,951			
	4716-Charges-CN	-				-			
	4730-Rural Rate Assistance Expense	757,686		728,093		-			
	4710-Cost of Power Adjustments	(1,508,267)		2,231,104		-			
	4712-Charges-One-Time	-		-		-			
	4720-Other Expenses			-		-			
	4750-Charges-LV	-		-		-			
3350-Power Supply Expenses Total		44,990,256	6,748,538	47,583,727	7,137,559	47,605,372	7,140,806	49,044,109	7,356,616
3500-Distribution Expenses - Operation	5005-Operation Supervision and Engineering			187,147		181,178		336,834	
	5010-Load Dispatching	128,801		158,476		165,787		172,820	
	5012-Station Buildings and Fixtures Expense	248,916		386,955		386,689		445,940	
	5014-Transformer Station Equipment - Opera	22,243		29,440		28,404		34,824	
	5015-Transformer Station Equipment - Opera	621		20				23	
	5016-Distribution Station Equipment - Operat	32,296		97,395		114,260		82,062	
	5017-Distribution Station Equipment - Operat	15,236		13,796		9,494		15,442	
	5020-Overhead Distribution Lines and Feede	472,188		270,813		372,477		591,724	
	5025-Overhead Distribution Lines & Feeders	178,815		197,728		122,815		183,617	
	5035-Overhead Distribution Transformers- O	52,632		(51,536)		35,108		176,335	
	5040-Underground Distribution Lines and Fee	17,808		16,057		15,392		22,460	
	5045-Underground Distribution Lines & Feed	20,872		3,197		10,247		3,596	
	5055-Underground Distribution Transformers	3,206		3,379		5,077		8,318	
	5065-Meter Expense	280,678		353,155		360,422		401,124	
	5070-Customer Premises - Operation Labour	16,762		21,601		15,066		18,080	
	5075-Customer Premises - Materials and Exp	2,186		2,787		2,140		3,153	
	5085-Miscellaneous Distribution Expense	2,004		260,738		256,075		324,225	
	5090-Underground Distribution Lines and Fee	60		247		25,875		143,743	
	5096-Other Rent			98,440		50,000		53,080	
	5095-Overhead Distribution Lines and Feede	1,204		1,341				1,400	
3500-Distribution Expenses - Operation Total		1,496,528	224,479	2,051,176	307,676	2,156,506	323,476	3,018,800	452,820

PUC Distribution Inc (PUC)

3550-Distribution Expenses - Maintenai	5105-Maintenance Supervision and Engineering								
	5110-Maintenance of Buildings and Fixtures -	32,528		38,429		32,652		55,479	
	5112-Maintenace of Transformer Station Equ	105,808		21,608		32,637		19,154	
	5114-Maintenance of Distribution Station Equ	384,640		141,867		191,837		308,218	
	5120-Maintenance of Poles, Towers and Fixtu	90,675		51,211		41,642		62,957	
	5125-Maintenance of Overhead Conductors a	219,221		346,081		247,543		385,662	
	5130-Maintenance of Overhead Services	266,258		188,992		179,433		253,128	
	5135-Overhead Distribution Lines and Feede	289,474		307,717		354,527		606,002	
	5145-Maintenance of Underground Conduit	61,739		71,087		75,079		140,744	
	5150-Maintenance of Underground Conducto	181,965		164,152		139,009		270,198	
	5155-Maintenance of Underground Services	53,667		51,949		76,669		60,829	
	5160-Maintenance of Line Transformers	36,964		(7,097)		20,478		50,464	
	5175-Maintenance of Meters	70,319		54,925		57,038		64,814	
	5170-Sentinel Lights - Labour					-		-	
	5172-Sentinel Lights - Materials and Expenses			-		-		-	
3550-Distribution Expenses - Maintenance Total		1,793,258	268,989	1,430,921	214,638	1,448,544	217,282	2,277,649	341,647
3650-Billing and Collecting	5310-Meter Reading Expense	211,561		192,047		206,551		214,368	
	5315-Customer Billing	363,490		512,311		423,250		836,641	
	5320-Collecting	205,386		171,738		215,190		212,459	
	5335-Bad Debt Expense	177,596		64,744		90,000		75,405	
	5325-Collecting- Cash Over and Short	1,138		264					
3650-Billing and Collecting Total		959,171	143,876	941,104	141,166	934,991	140,249	1,338,873	200,831
3700-Community Relations	5410-Community Relations - Sundry	389,713		341,877		395,899		390,211	
	5420 -Community Safety Program			27,472		12,820		36,065	
	5405-Supervision			21,993				47,022	
	5414-Energy Conservation			37,289					
	5515-Advertising Expense	10,556		-		-		555	
3700-Community Relations Total		400,269	60,040	428,631	64,295	408,719	61,308	473,853	71,078

PUC Distribution Inc (PUC)

3800-Administrative and General Exper	5605-Executive Salaries and Expenses	67,893		172,689		96,673		114,038	
	5615-General Administrative Salaries and Ex	30,245		387,488		29,914		247,009	
	5630-Outside Services Employed	24,029		141,118		204,027		69,473	
	5635-Property Insurance	68,986		74,050		57,472		70,794	
	5655-Regulatory Expenses	200,353		88,765		165,800		142,273	
	5675-Maintenance of General Plant	565,154		177,482		460,837		289,054	
	5665-Miscellaneous General Expenses	167,854		461,201		190,596		154,364	
	5680-Electrical Safety Authority Fees								
	5610-Management Salaries and Expenses	622,659		125,735		552,048		111,588	
	5620-Office Supplies and Expenses	249,693		554,216		603,743		198,705	
	5640-Injuries and Damages					-			
	5645-Employee Pensions and Benefits			(349,831)					
	5660-General Advertising Expenses			-				-	
	5670-Rent	454,387		-		-		-	
3800-Administrative and General Expenses Total		2,451,253	367,688	1,832,913	274,937	2,361,110	354,167	1,397,298	209,595
6105 -Taxes Other than Income		199,669	29,950	167,942	25,191	157,151	23,573	170,151	25,523
Total Working Capital			7,843,561		8,165,462		8,260,859		8,658,110

PUC Distribution Inc. (PUC)

Exhibit 3 Contents of Schedule

3 - Operating Revenue

PUC Distribution Inc. (PUC)

OVERVIEW OF OPERATING REVENUE

This exhibit provides the details on PUC's operating revenue for Historical, Historical Board Approved, Bridge and Test years. This exhibit also provides a detailed variance analysis by rate class of the operating revenue components.

Distribution revenues have been calculated using the most recently approved rates. In particular, delivery rates are based on the EB-2007-0568 Tariff of Rates and Charges, dated April 12, 2007.

Throughput Revenue
Information related to PUC's throughput revenue include details such as weather normalized forecasting methodology, normalized volume and customer counts forecast tables. Detailed variance analysis on the forecast information is also provided.

Other Revenue
Other revenues include revenues such as Late Payment Charges, Miscellaneous Service Revenues and Retail Services Revenues. A summary of these revenues is presented in this Exhibit.

Revenue Sharing
PUC does not engage in revenue sharing.

Exhibit: 3

PUC Distribution Inc. (PUC)

SUMMARY OF OPERATING REVENUE TABLE

	2006 Board Approved	2006 Actual	Variance from 2006 Board Approved	2007 Bridge	2008 Test	Variance from 2007 Bridge to 2008 Test
	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)
Distribution Revenues						
Residential	5,519,894	6,001,411	481,517	6,465,547	8,952,606	2,487,059
General Service <50kW	1,909,541	2,134,833	225,292	2,234,630	2,677,673	443,043
General Service >50kW	2,770,436	2,927,276	156,840	3,254,386	4,257,354	1,002,968
Un-metered Scattered Loads	19,611	23,962	4,351	17,537	32,437	14,900
Sentinel Lighting	11,643	13,269	1,626	13,581	19,462	5,881
Street Lighting	82,469	108,767	26,298	105,457	278,958	173,501
	10,313,594	11,209,518	895,824	12,091,138	16,218,490	4,127,352
Other Distribution Revenue						
	771,403	864,350	92,947	992,659	972,722	(19,937)
Total Operating Revenue	11,084,997	12,073,868	988,871	13,083,797	17,191,212	4,107,415

PUC Distribution Inc. (PUC)

VARIANCE ANALYSIS ON OPERATING REVENUE TABLE

PUC's distribution revenue has been calculated using the most recently approved rates. In particular, delivery rates are based on the EB-2007-0568 Tariff of Rates and Charges, dated April 12, 2007. Distribution revenue does not include commodity related revenue.

2008 Test Year

PUC's operating revenue is forecast to be $17,191,212 in Fiscal 2008. Distribution revenue totals $16,218,490 or 94% of total revenues. PUC's other operating revenue (net) accounts for the remaining revenue of $972,722 or 6% of total revenues.

Comparison to 2007 Bridge Year

As shown in the above Exhibit, the total operating revenue is expected to be $4,107,415 above the bridge year level in fiscal 2007.

2007 Bridge Year

PUC's operating revenue is forecasted to be $13,083,797 in fiscal 2007 as shown in the above Exhibit. Distribution revenue totals $12,091,138 or 93% of total revenues. The remaining revenue of $992,659 or 7% is from other operating revenue.

Comparison to Fiscal 2006 Actual

As shown in the above Exhibit the total operating revenue is expected to be $988,871 above the Actual 2006 revenue of $12,073,868.

2006 Actual

PUC's operating revenue was $12,073,868 in fiscal 2006 as shown in the above Exhibit. Distribution revenue totals $11,209,518 or 93% of total revenues. The remaining revenue of $864,350 or 7% is from other operating revenue.

2006 Board Approved

PUC's operating revenue was $11,084,997 in Board Approved 2006 as shown in the above Exhibit. Distribution revenue totals $10,313,594 or 93% of total revenues. The remaining revenue of $771,403 or 7% is from other operating revenue.

PUC Distribution Inc. (PUC)

WEATHER NORMALIZED FORECASTING METHODOLOGY

This exhibit discusses the methodology used to determine PUC's customer and load forecast. A projection for the number of customers in each customer class is provided for both the Bridge Year (2007) and the Test Year (2008). Historical data for the annual number of customers in each rate class is available for 2002 through to 2006. The limited amount of data available, time series techniques that are often used to help estimate forecast values cannot be used. Rather, PUC has used a simple trend growth in customer connections, by class, to forecast Bridge and Test Year customer numbers. Given the slow growth and consistent trend in customer numbers in PUC's service territory over the past five years, the resulting customer forecast is likely not materially different than what would result from using more sophisticated time series techniques. In recent history, there has been very little year-to-year variation in customer growth by class. Historical and forecast customer numbers, by class, are displayed in the next section.

As required by the OEB Filing Requirements for Transmission and Distribution Applications, we are providing normalized historical and forecast (Bridge Year and Test Year) throughput data. Weather normalization (where required) is based on normalized average use per customer ("NAC") calculated from the weather-normalized throughput of the utility from 2004. This weather-normalized throughput was generated by Hydro One using their weather normalization model for the Cost Allocation process previously undertaken by the Board. The process to obtain these weather normal data was an intensive effort for all parties involved, and we are leveraging the value of this work by using it for this process.

PUC Distribution Inc. (PUC)

Customer Forecast

Table 1 below presents historical and forecast customer numbers, by class, for PUC.

Table 1 – Customers by Class							
	2002	2003	2004	2005	2006	*2007*	*2008*
Residential	28,495	28,544	28,576	28,577	28,615	*28,645*	*28,675*
Per cent chg		*1.0017*	*1.0011*	*1.0000*	*1.0013*	*1.0011*	*1.0011*
GS < 50kW	3,243	3,230	3,265	3,283	3,319	*3,284*	*3,294*
Per cent chg		*0.9960*	*1.0108*	*1.0055*	*1.110*	*-1.0600*	*0.0031*
GS (>50 to 5000)	416	419	430	431	432	*426*	*426*
Per cent chg		*1.0072*	*1.0263*	*1.0023*	*1.0023*	*1.0013*	*0.0000*
USL	12	12	27	28	28	*26*	*26*
Per cent chg		*0.0000*	*125.00*	*3.700*	*0.0000*	*-1.8400*	*0.0000*
Street Lights	8,568	8,619	8,650	8,635	8,691	*8,722*	*8,753*
Per cent chg		*0.6000*	*0.3600*	*-0.1700*	*0.6500*	*0.3600*	*0.3600*
Sentinel Lighting	466	466	466	453	446	*441*	*436*
Per cent chg		*0.0000*	*0.0000*	*-2.7900*	*-1.5500*	*-1.0900*	*-1.1400*

Annual percentage change is presented for all customer classes listed in the table above. For Residential and GS<50 customer classes, the percentage change for 2007 represents the annual average geometric mean growth rate for 2002 to 2006. The annual trend growth rate is used to project customer growth into 2007 and 2008.

Customer numbers for Sentinel Lighting, Street Lighting, and USL classes in 2007 also represent current (early 2007) number of connections in each of these classes. Customer growth for the Street Lighting Class is calculated based on the annual average geometric mean of growth.

Exhibit: 3

PUC Distribution Inc. (PUC)

The figure below illustrates the historical and forecast customer trend in the Residential and General Service <50 rate classes.

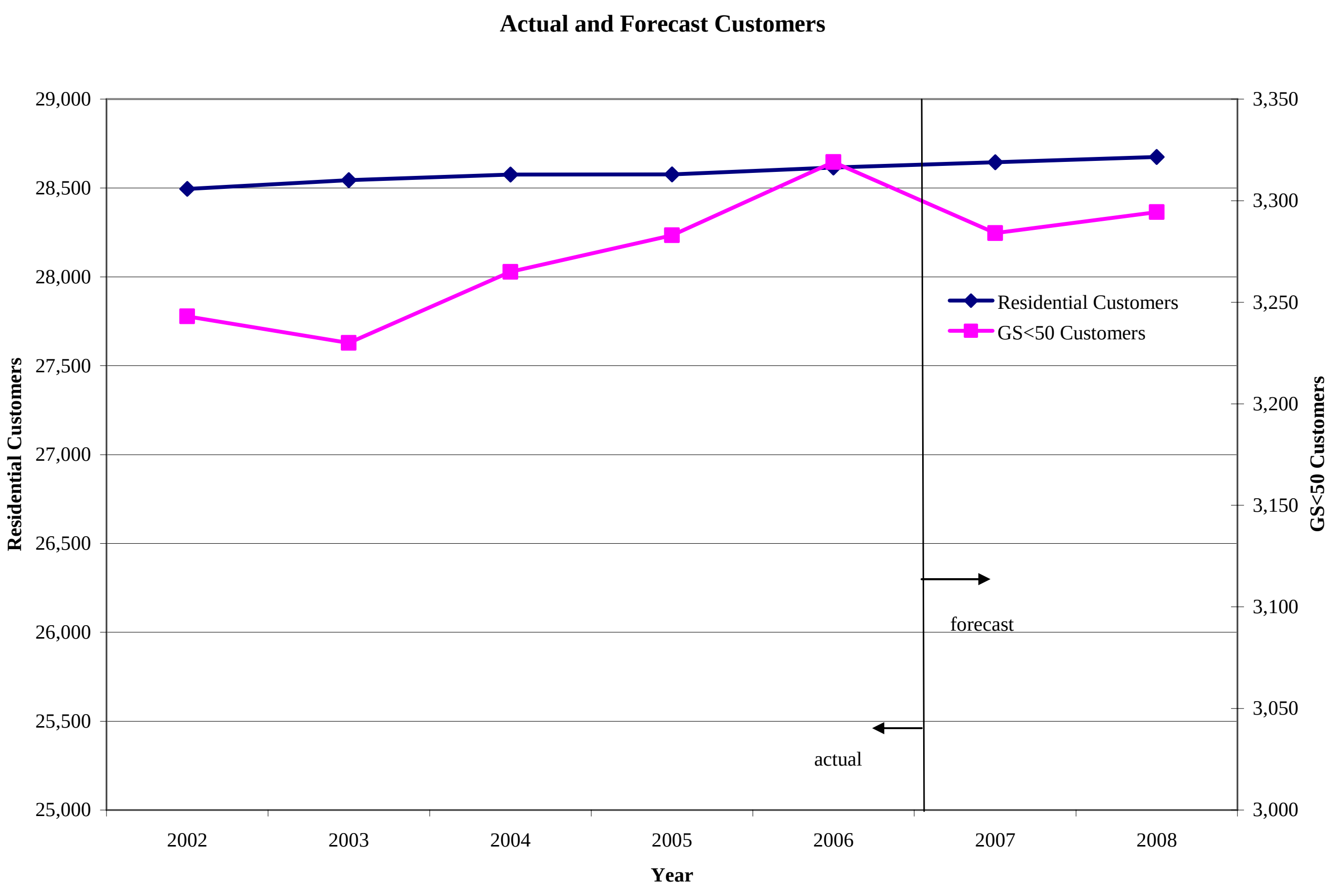
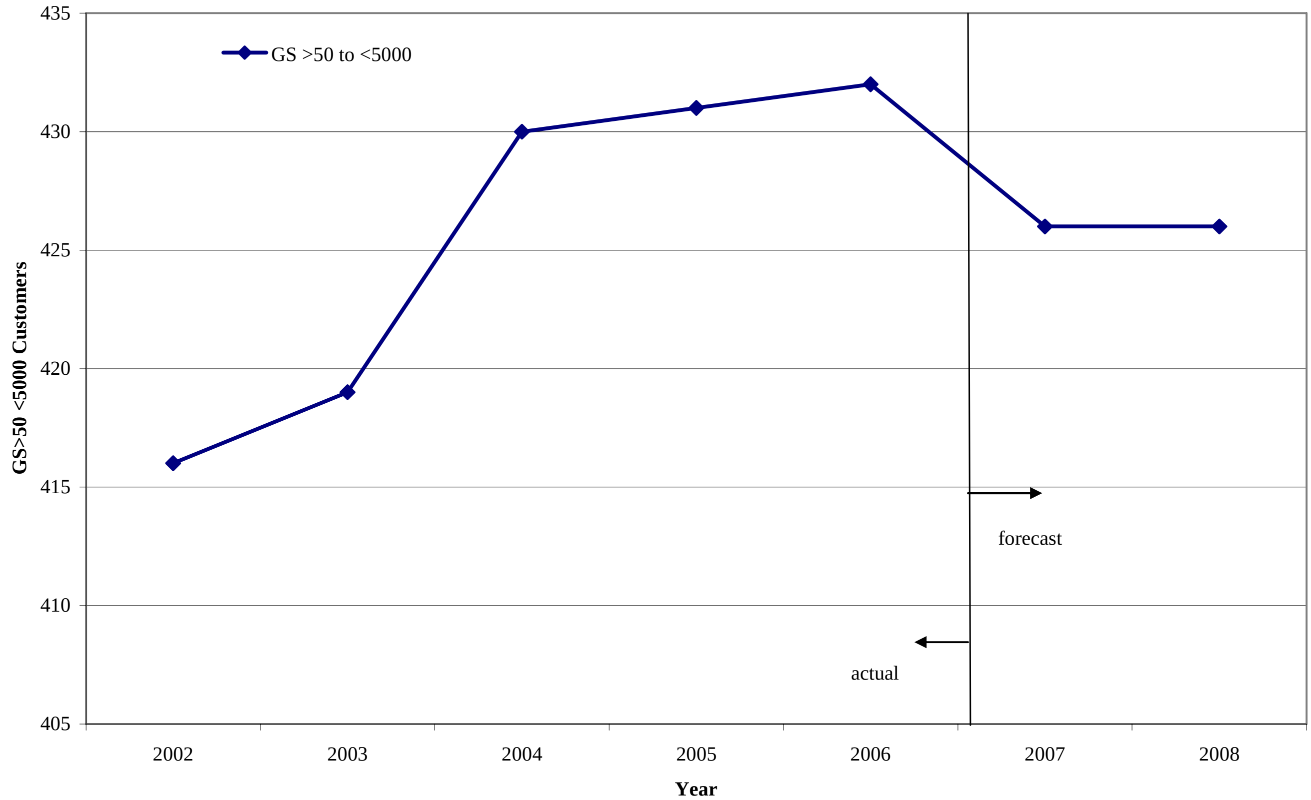


Exhibit: 3

PUC Distribution Inc. (PUC)

The figure below illustrates the historical and forecast customer trend in the General Service >50 rate classes.

Actual and Forecast Customers



Load Forecast

Weather sensitive load (Residential, GS<50, and GS>50 classes) is calculated by using a retail normalized average use per customer ("retail NAC"). This is calculated by dividing the class weather normal retail kWh for 2004 by the number of customers in class in 2004. Class weather normal retail kWh for 2004 is determined by dividing the class weather normal wholesale kWh for 2004 reported in the Hydro One weather normalization analysis by the class loss factor. The class loss factor is calculated for 2004 by dividing the class weather actual wholesale consumption for 2004 (Hydro One file) by the class weather actual retail consumption (utility data). Weather sensitive class weather actual wholesale and retail kWh and associated loss factors are reported in the following table below.

2004 Weather Actual kWh and Loss Factors for Weather Sensitive Load			
Class	Weather Actual Wholesale kWh	Weather Actual Retail kWh	Loss Factor
Residential	369,782,651	352,509,677	1.049
GS < 50	98,493,499	95,254,835	1.034
GS >50 to 5,000	282,068,923	267,363,908	1.055

Weather sensitive class wholesale weather normal kWh, number of customers, and retail NAC for 2004 is reported in the table below.

Class	Weather Normal Wholesale kWh (2004)	Customer Connections (2004)	Retail NAC
Residential	368,421,403	28,576	12,289
GS < 50	98,576,664	3,265	29,209
GS >50 to 5,000	283,086,799	430	623,816

Annual class kWh for weather sensitive load (Residential, GS<50, GS>50) for Bridge Year and Test Year are calculated by multiplying retail NAC by forecast number of customers in class. Class kWh for Unmetered Scattered Load ("USL"), and Sentinel Lighting is not weather sensitive and is not expected to differ in 2008 from current 2007 levels. Utility budgeted throughput for these classes based on year-to-date consumption is used to estimate Bridge Year and Test Year values for these classes. Consumption for Street Lighting is not weather sensitive. Street Lighting kWh is estimated using forecast number of connections for the Bridge Year and Test Year multiplied the average use per connection.

Several classes are billed based on demand charges (GS>50, LU, Sentinel, Street Lighting) and require an estimate of billed kW. Billed kW is estimated based on a load factor calculated using a ratio of historical billed kW to historical retail kWh, by class. The following table summarizes the results of PUC's customer and load forecast.

		Historical Actual	Historical Board Approved	Historical Actual Normalized	Bridge Year - Est.	Bridge Year Forecast Normalized	Test Year Normalized Forecast
Year		2006	2004	2006	2007	2007	2008
Customer Class	#	28,615	28,576	28,615	28,645	28,645	28,675
Residential	kWh	335,488,361	354,615,620	351,639,901	335,840,087	352,008,561	352,377,221
GS < 50 kW	#	3,319	3,265	3,319	3,284	3,284	3,294
	kWh	92,285,761	100,117,704	96,918,329	93,291,485	95,896,292	96,197,960
GS > 50 kW	#	432	430	432	426	426	426
	kWh	259,141,405	260,711,019	269,488,728	255,542,219	265,745,829	265,745,829
	kW	653,427	664,816	679,518	649,914	675,865	675,865
USL	#	28	27	28	26	26	26
	kWh	813,406	833,198	813,406	813,406	755,305	755,305
Sentinel Lights	#	446	466	446	441	441	436
	kWh	275,397	291,509	275,397	276,343	276,343	273,329
	kW	762	801	762	767	767	759
Street Lighting	#	8,691	8,650	8,691	8,722	8,722	8,753
	kWh	7,019,943	7,031,314	7,019,943	7,026,565	7,026,565	7,051,649
	kW	21,224	22,000	21,224	21,629	21,629	21,706

Exhibit: 3

PUC Distribution Inc. (PUC)

NORMALIZED VOLUME FORECAST TABLE

	2006 Board Approved	2006 Board Approved	2006 Actual	2006 Actual	Variance form 2006 Board Approved	2006 Actual	2006 Actual	2007 Est.	2007 Est.	Variance form 2006 Actual	2007 Bridge	2007 Bridge	2008 Test	2008 Test	Variance form 2007
	(kWh)	(kW)	(kWh)	(kW)		(kWh)	(kW)	(kWh)	(kW)		(kWh)	(kW)	(kWh)	(kW)	
Rate Classes															
Residential	354,615,620		335,488,361		-19,127,259	335,488,361		335,840,087		351,726	352,008,561		352,377,221		368,660
GS < 50 kW	100,117,704		94,285,761		-5,831,943	94,285,761		93,291,485		-994,276	95,896,292		96,197,960		301,668
GS > 50 kW		664,816		653,427	-11,389		653,427		649,914	-3,513		675,865		675,865	0
Sentinel Lights		801		762	-39		762		767	5		767		759	-8
Street Lights		22,000		21,224	-776		21,224		21,629	405		21,629		21,706	77
USL	833,198		813,406		-19,792	813,406		755,305		-58,101	755,305		755,305		0

PUC Distribution Inc. (PUC)

VARIANCE ANALYSIS ON NORMALIZED VOLUME FORECAST

The purpose of the evidence contained in the above Exhibits, is to provide the Board with a review of PUC's actual and forecasted customers, consumption and revenues for the historical, bridge and test years.

The exhibits provide a summary of the normalized throughput and customer numbers from the schedules noted above.

Residential
We have projected a growth in kWh of 5.03% from 2006 Actual to 2008 Test.

GS< 50 kW
We have projected a growth in kWh of 2.03 % from 2006 Actual to 2008 Test.

GS>50 kW
We have projected a growth in kW of 1.66 % from 2006 Actual to 2008 Test.

Sentinel Lights
We have projected a decrease in kW of 5.24% from 2006 Actual to 2008 Test.

Street Lights
We have projected a decrease in kW of 1.34 % from 2006 Actual to 2008 Test.

USL
We have projected a decrease in kW of 7.14% from 2006 Actual to 2008 Test.

Exhibit: 3

PUC Distribution Inc. (PUC)

CUSTOMER COUNT FORECAST TABLE

	2006 Board Approved	2006 Actual	Variance form 2006 Board Approved	2006 Actual	2007 Est.	Variance form 2006 Actual	2007 Bridge	2008 Test	Variance from 2007
Customers Count									
Residential	28,576	28,615	39	28,615	28,645	30	28,645	28,675	30
GS < 50 kW	3265	3319	54	3319	3284	-35	3284	3294	10
GS > 50 kW	430	432	2	432	426	-6	426	426	0
Sentinel Lights	466	446	-20	446	441	-5	441	436	-5
Street Lights	8,650	8,691	41	8,691	8,722	31	8,722	8,753	31
USL	27	28	1	28	28	0	26	26	0

PUC Distribution Inc. (PUC)

VARIANCE ANALYSIS ON CUSTOMER COUNT FORECAST

The purpose of the evidence contained in the Exhibits, is to provide the Board with a review of PUC's actual and forecasted customers.

Residential
We have projected an increase in customer numbers of 0.21% from 2006 Actual to 2008 Test.

GS< 50 kW
We have projected a decrease in customer numbers of 0.75 % from 2006 Actual to 2008 Test.

GS>50 kW
We have projected a decrease in customer numbers of 1.39 % from 2006 Actual to 2008 Test.

Sentinel Lights
We have projected a decrease in customer numbers of 2.24% from 2006 Actual to 2008 Test.

Street Lights
We have projected an increase in customer numbers of 0.71% from 2006 Actual to 2008 Test.

USL
We have projected a decrease in customer numbers of 7.14% from 2006 Actual to 2008 Test.

Exhibit: 3

PUC Distribution Inc. (PUC)

OTHER DISTRIBUTION REVENUE

	2006 Board Approved	2006 Actual	Variance form 2006 Board Approved	2006 Actual	2007 Bridge	Variance form 2006 Actual	2007 Bridge	2008 Test	Variance form 2007 Actual
	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)	($'s)
Other Distribution Revenue									
Distribution Services Revenue	112,488	111,483	(1,005)	111,483	104,000	(7,483)	104,000	104,000	-
Retail Services Revenues	32,487	53,782	21,295	53,782	58,500	4,718	58,500	58,520	20
Service Transaction Requests (STR) Revenues	127	1,668	1,541	1,668	1,200	(468)	1,200	250	(950)
Electric Services Incidental to Energy Sales									
Transmission Charges Revenue									
Revenue from Merchandise, Jobbing, Etc.	77,541	29,047	(48,494)	29,047	30,000	953	30,000	30,000	-
Miscellaneous Non-Operating Income	12,070	12,154	84	12,154	10,000	(2,154)	10,000	10,000	-
Rent from Electric Property	90,578	19,456	(71,122)	19,456	303,459	284,003	303,459	304,080	621
Other Utility Operating Income									
Other Electric Revenues									
Late Payment Charges	158,171	190,058	31,887	190,058	195,000	4,942	195,000	195,000	-
Sales of Water and Water Power									
Miscellaneous Service Revenues	219,407	229,364	9,957	229,364	140,300	(89,064)	140,300	172,900	32,600
Interest and Dividend Income	68,534	217,338	148,804	217,338	150,200	(67,138)	150,200	97,972	(52,228)
TOTAL	771,403	864,350	92,947	864,350	992,659	128,309	992,659	972,722	(19,937)

Exhibit: 3

PUC Distribution Inc. (PUC)

MATERIALITY ANALYSIS ON OTHER DISTRIBUTION REVENUE

The materiality threshold of 1% based on 2006 Board Approved rate base equals (1% x $43,107,019) or $431,070. Based on the table above PUC Distribution does not have any variances in Other Distribution Revenue that exceeds the materiality threshold requiring further analysis.

PUC Distribution Inc. (PUC)

RATE OF RETURN ON OTHER DISTRIBUTION ACTIVITIES

In this application, PUC has applied for the same Specific Service Charges previously approved in the OEB approved 2007 Tariffs of Rates and Charges (EB-2007-0568). The specific Service Charges schedule follows the OEB recommended charges and as such PUC has no further information related to the rate of return on non-core delivery activities.

PUC Distribution Inc. (PUC)

DESCRIPTION OF REVENUE SHARING

PUC does not engage in revenue sharing.

PUC Distribution Inc. (PUC)

Exhibit

4 - Operating Costs

PUC Distribution Inc. (PUC)

OVERVIEW OF OPERATING COSTS

Operating Costs
The operating costs presented in this exhibit represent the annual expenditures required to sustain PUC Distribution's Operations.

OM&A Costs
The OM&A costs in this exhibit represents PUC's integrated set of asset maintenance and customer activity needs to meet public and employee safety objectives; to comply with the Distribution System Code, environmental requirements and Government direction; and to maintain distribution business service quality and reliability at targeted performance levels. These costs also include providing services to customers connected to PUC's Distribution system, and to meet the service levels stipulated in the Standard Supply Service Code and the Retailer Settlement Codes.

The proposed OM&A cost expenditures for the 2008 test year result from a rigorous business planning and work prioritization process that reflects risk-based decision making to ensure that the most appropriate, cost effective solutions are put in place. PUC's 2008 budget process was completed earlier than the norm in order to assemble test year data for this application. PUC uses a zero-based budget process on an annual basis.

OM&A expenditures totaled $12,705,114 in 2006 Board Approved, $12,463,004 in 2006 Actual and are forecast to be $13,343,280 in 2007 and $13,972,219 in 2008.

To assist in the budgeting process and provide evidence for this rate application, PUC engaged consultants to provide two reports.

Full Absorption Cost Allocation Report - RDI Consulting Inc. located in this Exhibit.
Review of Capex and O&M Plan - BDR North America and Metsco Inc. located in Exhibit 2.

Both of these reports are attached in addition to a Long Term Capital and O&M Needs report completed by PUC's V.P. of Operations and Engineering.

The result of implementing the recommendations of the Full Absorption Cost Allocation Report affects the level of expenses under review in this section of the rate application. However the report is included in the Shared Services section of this Exhibit.

The following comments are drawn from the internally produced Long Term Capital and O&M Needs Report and the Review of Capex and O&M Plan prepared by BDR:

Over the past five years we have witnessed a dramatic decrease in system reliability. Power outages have increased both in overall duration and in frequency. Several factors have contributed to this, including failures of aging infrastructure, fault protection coordination with Brookfield Power (Great Lakes Power), and changes to work protection requirements. In conjunction with end-of-life replacement of infrastructure, increased maintenance or refurbishment of components is essential to ensure safe and secure supply to customers. The aging infrastructure will require greater attention to maintenance activities in order to extend usable equipment life to its maximum.

In addition, vegetation management has historically been undervalued and therefore has received inadequate commitment of resources. Moving forward, greater attention must be given to this area.

Furthermore, with growing regulatory and customer demands, there is continued impetus to improve operational efficiencies and effectiveness. This will require on-going efforts to continue to develop and maintain various operating systems such as the SCADA, GIS and Work Management System. All these initiatives will require increased resources in staffing and equipment.

Long term improvement in reliability, beyond the measures identified above, will be contingent upon PUC Distribution achieving the higher levels of plant renewal (capital expenditures) identified in the Long Term Capital and O&M Needs report in conjunction with the higher levels of equipment maintenance and operational activities identified. In order to achieve these higher levels, PUC Distribution needs to build the resources capacity outlined in the Long Term Capital and O&M Needs report.

In addition to reliability concerns, regulatory requirements over the last several years have increased pressures on existing resources.

The Distribution System Code (DSC) requires an LDC to maintain its distribution system in good working condition, as follows:

"4.4.1 A distributor shall maintain its distribution system in accordance with good utility practice and performance standards to ensure reliability and quality of electricity service, on both a short-term and long-term basis."

Furthermore, introduction of O. Reg. 22/04, Electrical Distribution Safety, in late 2004 introduced additional legislated focus on maintaining municipal distribution systems. Specifically the Regulation requires an LDC to

" Section 4. Safety standards…

(2) All distribution systems and the electrical installations and electrical equipment forming part of such systems shall be designed, constructed, installed, protected, used, maintained, repaired, extended, connected and disconnected so as to reduce the probability of exposure to electrical safety hazards. O. Reg. 22/04, s. 4 (2)."

Section 4 goes on to identify all components of the distribution system and specifies for each component as follows:

" 1. Operating electrical equipment shall be maintained in proper operating condition."

PUC Distribution Inc. has established a documented program to address the legislated requirements. A copy of this program is provided in Appendix 3 of the Long Term Capital and O&M Needs report for reference.

As described in more detail in the attached report, existing staff and equipment resources are inadequate to achieve the program objectives. Additional resources are required to achieve these objectives. These resources are identified in the report and the costs related to the next progressive step to reach the desired resource level are included in the 2008 test year projections.

PUC Distribution Inc. (PUC)

PUC Distribution has established a long term work program to address the needs identified above. The Five Year Works Plan (the Plan) takes into account the logistics associated with ramping up the Capital and O&M works to target levels within reasonable time lines.

Five year planning has been in existence now for more than fifteen years. The Plan is reviewed and updated annually to keep current with needs and costs. Also the Plan is reviewed to ensure continued focus on the long term needs of the utility in order to ensure safe and reliable delivery of energy to consumers.

The Plan consists of a detailed summary of Capital Projects and O&M activities for year one (i.e. 2008). For years 2 through 5 of the Plan (i.e. 2009 – 2012), in order to simplify the presentation, the recurring annual items are aggregated into summary allocations identified as “Recurring Capital” and “Recurring O&M”.

Appendix 4 of the Long Term Capital and O&M Needs report includes a copy of the Five Year Works Plan proposed for 2008, pending successful approval of PUC Distribution’s rate application.

The Review of Capex and O&M Plan is included in Exhibit 2. This, report prepared by BDR NorthAmerica Inc. in association with METSCO Inc., critically reviewed the capital and preventative maintenance expenditures proposed in PUC’s 5-year budget for renewal and replacement of aging assets and provides an independent opinion on the adequacy of proposed expenditures.

BDR’s report included the following observations:

- Approximately 80% of the medium voltage cables employed on URD system will be approaching the end of their useful life during the next 10 years.
- Results of pole testing completed over the recent years reveals approximately 5% of poles were at the end of their useful life when tested and an additional 5% to 10% were fast approaching the end of the their useful life.
- A large number of circuit breakers and disconnect switches at PUCs substations are also approaching the end of their useful lives, requiring replacement or refurbishment.
- The frequency and scope of preventative maintenance activities impacts both reliability and life expectancy of assets. The past level of preventative maintenance on the assets reviewed, including substation circuit breakers and switches, line disconnects and fused cutouts, pad-mounted switchgear and submersible vaults has been inadequate. Replacing or refurbishing aging assets in a timely fashion so they do not have significant adverse impacts on reliability, safety and operating efficiency will require a significant increase in capital and operating budgets from previous years. Budgetary estimates of additional capital costs for each of the assets reviewed are provided in the report.

Due to the need to build a resource base in order to meet the targeted capital and O & M activities PUC’s 2008 test year projections are based on the phased approach detailed in the Long Term Capital and O&M Needs Report and BDR’s review.

In addition to the two consultants reports noted above, PUC was also the subject of the following reviews in 2007:

- Review of Regulatory Accounting Practices – PUC engaged RDI Consulting Inc. to perform an independent review of its regulatory accounting practices

PUC Distribution Inc. (PUC)

- Audit of Claims from the Regulated Price Plan Fund – conducted by the Ontario Internal Audit Division – Treasury Board Office – Ministry of Finance
- Audit of 2001 to 2004 PILs returns – conducted by the Ministry of Revenue
- Audit Review of Regulatory Accounts and Affiliate Transactions – conducted by the Ontario Energy Board
- Internal review of accounting practices over the last 24 months which involved:
    - the training of operations staff regarding the difference and importance of properly recording operations and maintenance expenses versus capital expenditures on time sheets and material requisitions
    - review of administrative account descriptions in the US of A in order to enhance the accuracy of recording expenses

PUC Distribution Inc. (PUC)

SUMMARY OF OPERATING COSTS

		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test
		$	$	$	$
Operation		1,496,528	2,051,174	2,156,507	3,018,799
Maintenance		1,793,258	1,430,922	1,448,545	2,277,648
Billing and Collections		959,171	941,104	934,991	1,338,873
Community Relations		400,269	428,632	408,719	473,852
Administrative and General Expenses		2,451,253	1,832,913	2,361,110	1,397,298
Amortization Expenses		2,574,456	2,764,612	3,046,595	3,310,978
Other Operating Costs		2,830,510	2,845,705	2,829,662	1,984,620
Taxes other than income		199,669	167,942	157,151	170,151
Total Operating Costs		12,705,114	12,463,004	13,343,280	13,972,219

Exhibit: 4

PUC Distribution Inc. (PUC)

OM&A COSTS TABLE

	2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from Board Approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge	Ref.
Operation								
5005-Operation Supervision and Engineering		187,147	181,178	336,834	187,147	(5,969)	155,656	1
5010-Load Dispatching	128,801	158,476	165,787	172,820	29,675	7,311	7,033	
5012-Station Buildings and Fixtures Expense	248,916	386,955	386,689	445,940	138,039	(266)	59,251	2
5016-Distribution Station Equipment - Operation Labour	32,296	97,395	114,260	82,062	65,099	16,865	(32,198)	
5017-Distribution Station Equipment - Operation Supplies and Expenses	15,236	13,796	9,494	15,442	(1,440)	(4,302)	5,948	
5020-Overhead Distribution Lines and Feeders - Operation Labour	380,122	270,813	372,477	503,557	(109,309)	101,664	131,080	3
5025-Overhead Distribution Lines & Feeders - Operation Supplies and Expens	270,881	197,728	122,815	271,784	(73,153)	(74,913)	148,969	4
5035-Overhead Distribution Transformers- Operation	52,632	(51,536)	35,108	176,335	(104,168)	86,644	141,227	5
5040-Underground Distribution Lines and Feeders - Operation Labour	17,808	16,057	15,392	22,460	(1,751)	(665)	7,068	
5045-Underground Distribution Lines & Feeders - Operation Supplies & Expen	20,872	3,197	10,247	3,596	(17,675)	7,050	(6,651)	
5055-Underground Distribution Transformers - Operation	3,206	3,379	5,077	8,318	173	1,698	3,241	
5065-Meter Expense	280,678	353,155	360,422	401,124	72,477	7,267	40,702	
5070-Customer Premises - Operation Labour	16,762	21,601	15,066	18,080	4,839	(6,535)	3,014	
5075-Customer Premises - Materials and Expenses	2,186	2,787	2,140	3,153	601	(647)	1,013	
5085-Miscellaneous Distribution Expense	2,004	260,738	256,075	324,225	258,734	(4,663)	68,150	6
5014 - Transformer Station Equipment - Operation Labour	22,243	29,440	28,404	34,824	7,197	(1,036)	6,420	
5015-Transformer Station Equipment - Operation Supplies & Exp	621	20		23	(601)	(20)	23	
5090-Underground Distribution Lines and Feeders - Rental Paid	60	247	25,875	143,743	187	25,628	117,868	7
5095-Overhead Distribution Lines and Feeders - Rental Paid	1,204	1,341		1,400	137	(1,341)	1,400	
5096-Other Rent		98,440	50,000	53,080	98,440	(48,440)	3,080	8
Sub-Total	1,496,528	2,051,176	2,156,506	3,018,800	554,648	105,330	862,294	
Maintenance								
5105-Maintenance Supervision and Engineering					-	-	-	
5110-Maintenance of Buildings and Fixtures - Distribution Stations	32,528	38,429	32,652	55,479	5,901	(5,777)	22,827	
5114-Maintenance of Distribution Station Equipment	384,640	141,867	191,837	308,218	(242,773)	49,970	116,381	9
5120-Maintenance of Poles, Towers and Fixtures	90,675	51,211	41,642	62,957	(39,464)	(9,569)	21,315	
5125-Maintenance of Overhead Conductors and Devices	219,221	346,081	247,543	385,662	126,860	(98,538)	138,119	10
5130-Maintenance of Overhead Services	266,258	188,992	179,433	253,128	(77,266)	(9,559)	73,695	
5135-Overhead Distribution Lines and Feeders - Right of Way	289,474	307,717	354,527	606,002	18,243	46,810	251,475	11
5145-Maintenance of Underground Conduit	61,739	71,087	75,079	140,744	9,348	3,992	65,665	
5150-Maintenance of Underground Conductors and Devices	181,965	164,152	139,009	270,197	(17,813)	(25,143)	131,188	12
5155-Maintenance of Underground Services	53,667	51,949	76,669	60,829	(1,718)	24,720	(15,840)	
5160-Maintenance of Line Transformers	36,964	(7,097)	20,478	50,464	(44,061)	27,575	29,986	
5170-Sentinel Lights - Labour		-			-	-	-	
5175-Maintenance of Meters	70,319	54,925	57,038	64,814	(15,394)	2,113	7,776	
5112-Maintenance of Transformer Station Equipment	105,808	21,608	32,637	19,154	(84,200)	11,029	(13,483)	
Sub-Total	1,793,258	1,430,921	1,448,544	2,277,648	(362,337)	17,623	829,104	

Exhibit: 4

PUC Distribution Inc. (PUC)

Billing and Collections								
5305-Supervision								
5310-Meter Reading Expense	211,561	192,047	206,551	214,368	(19,514)	14,504	7,817	
5315-Customer Billing	363,490	512,311	423,250	836,640	148,821	(89,061)	413,390	13
5320-Collecting	205,386	171,738	215,190	212,459	(33,648)	43,452	(2,731)	
5325-Collecting cash Over and Short	1,138	264			(874)	(264)	-	
5335-Bad Debt Expense	177,596	64,744	90,000	75,405	(112,852)	25,256	(14,595)	14
Sub-Total	959,171	941,104	934,991	1,338,872	(18,067)	(6,113)	403,881	
Community Relations								
5405-Supervision		21,993		47,022	21,993	(21,993)	47,022	
5410-Community Relations - Sundry	389,713	341,877	395,899	390,211	(47,836)	54,022	(5,688)	
5515-Advertising Expense				555	-	-	555	
5415-Energy Conservation		37,289			37,289	(37,289)	-	
5420-Community Safety Program	10,556	27,472	12,820	36,065	16,916	(14,652)	23,245	
Sub-Total	400,269	428,631	408,719	473,853	28,362	(19,912)	65,134	
Administrative and General Expenses								
5605-Executive Salaries and Expenses	67,893	172,689	96,673	114,038	104,796	(76,016)	17,365	15
5610-Management Salaries and Expenses	622,659	125,735	552,048	111,588	(496,924)	426,313	(440,460)	16
5615-General Administrative Salaries and Expenses	30,245	387,488	29,914	247,009	357,243	(357,574)	217,095	17
5620-Office Supplies and Expenses	704,080	554,216	603,743	198,705	(149,864)	49,527	(405,038)	18
5630-Outside Services Employed	24,029	141,118	204,027	69,473	117,089	62,909	(134,554)	19
5635-Property Insurance	68,986	74,050	57,472	70,794	5,064	(16,578)	13,322	
5640-Injuries and Damages			-	-	-	-	-	
5645-Employee Pensions and Benefits		(349,831)	-	-	(349,831)	349,831	-	20
5655-Regulatory Expenses	200,353	88,765	165,800	142,273	(111,588)	77,035	(23,527)	21
5660-General Advertising Expenses					-	-	-	
5665-Miscellaneous General Expenses	(286,533)	177,483	190,596	154,364	464,016	13,113	(36,232)	
5670-Rent	454,387				(454,387)	-	-	22
5675-Maintenance of General Plant	565,154	461,201	460,837	289,054	(103,953)	(364)	(171,783)	23
5680-Electrical Safety Authority Fees	-	-	-	-	-	-	-	
Sub-Total	2,451,253	1,832,914	2,361,110	1,397,298	(618,339)	528,196	(963,812)	
Amortization Expenses								
5705-Amortization Expense - Property, Plant, and Equipment	2,574,456	2,764,612	3,046,595	3,310,977	190,156	281,983	264,382	24
Sub-Total	2,574,456	2,764,612	3,046,595	3,310,977	190,156	281,983	264,382	
Other Operating Costs								
6030-Interest on Debt to Associated Companies	2,807,650	2,807,661	2,807,664	1,538,620	11	3	(1,269,044)	25
6035-Other Interest Expense	22,860	38,043	22,000	446,000	15,183	(16,043)	424,000	26
Sub-Total	2,830,510	2,845,704	2,829,664	1,984,620	15,194	(16,040)	(845,044)	
Taxes other than Income								
6105-Taxes other than Income Taxes	199,669	167,942	157,151	170,151	(31,727)	(10,791)	13,000	
Sub-Total	199,669	167,942	157,151	170,151	(31,727)	(10,791)	13,000	
Total Operating Costs	12,705,114	12,463,004	13,343,280	13,972,219	(242,110)	880,276	628,939	

PUC Distribution Inc. (PUC)

VARIANCE ANALYSIS ON OM&A COSTS TABLE

PUC Distribution Inc. (PUC)

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
1	5005-Operation Supervision and Engineering	$ -	$ 187,147	$ 181,178	$ 336,834	$ 187,147	$ (5,969)	$ 155,656
	2006 Actual from board approved	Increase of	$ 187,147					
	Prior to 2006, Engineering department work which was not related to a specific capital project was allocated to capital. A review was initiated in 2006 and staff training undertaken in 2006 and 2007 to better align the nature of work performed to recording in the accounting system.							
	2008 Test from 2007 Bridge	Increase of	$ 155,656					
	Addition of engineering staff as detailed in Long Term Capital and O&M Needs Report - salaried and hourly labour cost and training.							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
2	5012-Station Buildings and Fixtures Expense	248,916	386,955	386,689	445,940	138,039	(266)	59,251
	2006 Actual from board approved	Increase of	$ 138,039					
	Increase in utility costs as a result of installation of meters in substations in 2005 and also additional labour costs for building operations.							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
3	5020-Overhead Distribution Lines and Feeders - Operation Labour	380,122	270,813	372,477	503,557	(109,309)	101,664	131,080
	2006 Actual from board approved	decrease of	$ (109,309)					
	Reduced line department overtime as cash conservation measure							
	2007 Bridge from 2006 Actual	increase of	$ 101,664					
	Increased staff and training costs - stepped approach to attain desired level of operating and maintenance programs and capital projects							
	2008 Test from 2007 Bridge	increase of	$ 131,080					
	Increased staff costs - stepped approach to attain desired level of operating and maintenance and capital programs as per Long Term Capital and O&M Needs Report, allocation of asset and cost of capital charge as per Full Absorption Cost Allocation Study							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
4	5025-Overhead Distribution Lines & Feeders - Operation Supplies and Expenses	270,881	197,728	122,815	271,784	(73,153)	(74,913)	148,969
	2008 Test from 2007 Bridge	increase of	$ 148,969					
	Increased staff costs - stepped approach to attain desired level of operating and maintenance and capital programs as per Long Term Capital and O&M Needs Report, allocation of asset and cost of capital charge as per Full Absorption Cost Allocation Study							
	Introduction of comprehensive pole testing program as per the Long Term Capital and O&M Needs Report							

PUC Distribution Inc. (PUC)

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
5	5035-Overhead Distribution Transformers- Operation	52,632	(51,536)	35,108	176,335	(104,168)	86,644	141,227
	2006 Actual from board approved	decrease of	(104,168)					
	2006 included an adjustment to correct the previous recording of capital assets in expense							
	2008 Test from 2007 Bridge	increase of	$ 141,227					
	Increased PCB removal program to meet legislated requirements - testing of padmount transformers and removal if necessary							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
6	5085-Miscellaneous Distribution Expense	2,004	260,738	256,075	324,225	258,734	(4,663)	68,150
	2006 Actual from board approved	increase of	258,734					
	ESA fees related to Reg. 22, contact and labour costs to operate the GIS system, Utility Standards Forum (USF) annual fees (Reg. 22)							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
7	5090-Underground Distribution Lines and Feeders - Rental Paid	60	247	25,875	143,743	187	25,628	117,868
	2008 Test from 2007 Bridge	increase of	117,868					
	Increased fees to third party for railway crossings							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
8	5096-Other Rent	-	98,440	50,000	53,080	98,440	(48,440)	3,080
	2006 Actual from board approved	increase of	98,440					
	Prior to 2006 charge for use of Bell Canada poles was netted with revenue from Bell for use of PUC poles							

PUC Distribution Inc. (PUC)

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
9	5114-Maintenance of Distribution Station Equipment	384,640	141,867	191,837	308,218	(242,773)	49,970	116,381
	2006 Actual from board approved	decrease of	(242,773)					
	Focus on work on substations 14, 18, 21 by electrical maintenance staff in 2004							
	2008 Test from 2007 Bridge	increase of	116,381					
	Introduction of programs for the maintenance of transformer gauges, refurbishment of breakers and relays, increased staff in 2008 as per Long Term Capital and O&M Needs Report							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
10	5125-Maintenance of Overhead Conductors and Devices	219,221	346,081	247,543	385,662	126,860	(98,538)	138,119
	2006 Actual from board approved	increase of	126,860					
	Increased labour - staff increase in 2006							
	2007 Bridge from 2006 Actual	decrease of	(98,538)					
	Reduced labour							
	2008 Test from 2007 Bridge	increase of	138,119					
	Increased labour - additional maintenance crew as per Long Term Capital and O&M Needs Report							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
11	5135-Overhead Distribution Lines and Feeders - Right of Way	289,474	307,717	354,527	606,002	18,243	46,810	251,475
	2008 Test from 2007 Bridge	increase of	251,475					
	Increased labour - addition of forestry technician and increased line clearing contractor costs as per Long Term Capital and O&M Needs Report							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
12	5150-Maintenance of Underground Conductors and Devices	181,965	164,152	139,009	270,197	(17,813)	(25,143)	131,188
	2008 Test from 2007 Bridge	increase of	131,188					
	Increased labour - additional maintenance crew as per Long Term Capital and O&M Needs Report							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
13	5315-Customer Billing	363,490	512,311	423,250	836,640	148,821	(89,061)	413,390
	2006 Actual from board approved	increase of	148,821					
	Adjustment to account following review of regulatory variance accounting by third party							
	2008 Test from 2007 Bridge	increase of	413,390					
	Increase to operating costs as a result of intoduction of smart meters - see attached smart meter plan							

PUC Distribution Inc. (PUC)

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
14	5335-Bad Debt Expense	177,596	64,744	90,000	75,405	(112,852)	25,256	(14,595)
	2006 Actual from board approved	decrease of	(112,852)					
	Decrease as a result of improvement in the economic environment, provincial rebates applied to customer accounts and improved timeliness of collection procedures							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
15	5605-Executive Salaries and Expenses	67,893	172,689	96,673	114,038	104,796	(76,016)	17,365
	2006 Actual from board approved	increase of	104,796					
	see below - total of 5605, 5610, 5615, 5620, 5670							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
16	5610-Management Salaries and Expenses	622,659	125,735	552,048	111,588	(496,924)	426,313	(440,460)
	2006 Actual from board approved	decrease of	(496,924)					
	see below - total of 5605, 5610, 5615, 5620, 5670							
	2007 Bridge from 2006 Actual	increase of	426,313					
	see below - total of 5605, 5610, 5615, 5620, 5670							
	2008 Test from 2007 Bridge	decrease of	(440,460)					
	see below - total of 5605, 5610, 5615, 5620, 5670							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
17	5615-General Administrative Salaries and Expenses	30,245	387,488	29,914	247,009	357,243	(357,574)	217,095
	2006 Actual from board approved	increase of	357,243					
	see below - total of 5605, 5610, 5615, 5620, 5670							
	2007 Bridge from 2006 Actual	decrease of	(357,574)					
	see below - total of 5605, 5610, 5615, 5620, 5670							
	2008 Test from 2007 Bridge	increase of	217,095					
	see below - total of 5605, 5610, 5615, 5620, 5670							

PUC Distribution Inc. (PUC)

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
22	5670-Rent	454,387				(454,387)	-	-
	2006 Actual from board approved	decrease of	(454,387)					
	see below - total of 5605, 5610, 5615, 5620, 5670							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
18	5620-Office Supplies and Expenses	249,693	554,216	603,743	198,705	304,523	49,527	(405,038)
	2006 Actual from board approved	increase of	304,523					
	see below - total of 5605, 5610, 5615, 5620, 5670							
	2008 Test from 2007 Bridge	decrease of	(405,038)					
	see below - total of 5605, 5610, 5615, 5620, 5670							
	Total of 5605, 5610, 5615, 5620, 5670	1,424,877	1,240,128	1,282,378	671,340	(184,749)	42,250	(611,038)
	PUC has reviewed the administrative account decriptions in the US of A and has enhanced the accuracy of recording expenses which has resulted in year over year variance in some accounts. Overall the administrative expenses have been consistent except as noted.							
	2006 Actual from board approved	decrease of	(184,749)					
	Allocation for depreciation expense of joint use assets adjusted to include allocation to capital accounts in 2006							
	2008 Test from 2007 Bridge	decrease of	(611,038)					
	Decrease is the result of implementing the recommendations of the Full Absorption Cost Allocation Report which is included with this application and allocation for depreciation expense of joint use assets to specific expense and capital accounts rather than through administrative expenses							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
19	5630-Outside Services Employed	24,029	141,118	204,027	69,473	117,089	62,909	(134,554)
	2006 Actual from board approved	increase of	117,089					
	Increase in legal expenses energy contract dispute, completion of Northern Ontario energy report (offset by grant included in income)							
	2008 Test from 2007 Bridge	decrease of	(134,554)					
	Reduction in legal fees, reduction in allocation of joint costs (see Full Absorption cost Allocation Report)							

PUC Distribution Inc. (PUC)

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
20	5645-Employee Pensions and Benefits		(349,831)	-	-	(349,831)	349,831	-
	2006 Actual from board approved	decrease of	(349,831)					
	Adjustment to account in 2006 following review of regulatory variance accounting by consultant							
	2007 Bridge from 2006 Actual	increase of	349,831					
	Adjustment to account in 2006 following review of regulatory variance accounting by consultant							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
21	5655-Regulatory Expenses	200,353	88,765	165,800	142,273	(111,588)	77,035	(23,527)
	2006 Actual from board approved	decrease of	(111,588)					
	Legal expenses for supply of energy dispute included in account 5655 in 2004, recorded in account 5630 subsequent to 2004							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
23	5675-Maintenance of General Plant	565,154	461,201	460,837	289,054	(103,953)	(364)	(171,783)
	2006 Actual from board approved	decrease of	(103,953)					
	Architect fees for new service centre options included in 2006 Board approved expenses							
	2008 Test from 2007 Bridge	decrease of	(171,783)					
	Reduction as a result of Full Absorption Cost Allocation Report recommendations - allocation to capital accounts and also reduction of shared costs allocated to the LDC							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
24	5705-Amortization Expense - Property, Plant, and Equipment	2,574,456	2,764,612	3,058,622	3,393,003	190,156	294,010	334,381
	2006 Actual from board approved	increase of	190,156					
	Increase the result of capital additions							
	2007 Bridge from 2006 Actual	increase of	294,010					
	Increase the result of capital additions							
	2008 Test from 2007 Bridge	increase of	334,381					
	Increase the result of capital additions							

PUC Distribution Inc. (PUC)

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
25	6030-Interest on Debt to Associated Companies	2,807,650	2,807,661	2,807,664	1,544,028	11	3	(1,263,636)
	2008 Test from 2007 Bridge	decrease of	(1,263,636)					
	Decrease the result of movement from current debt to equity structure to deemed debt to equity structure							

Ref.		2006 Board Approved	2006 Actual	2007 Bridge	2008 Test	2006 Actual from board approved	2007 Bridge from 2006 Actual	2008 Test from 2007 Bridge
26	6035-Other Interest Expense	22,860	38,043	22,000	446,000	15,183	(16,043)	424,000
	2008 Test from 2007 Bridge	increase of	424,000					
	Increase due to additional borrowing to finance smart meter implementation - see attached smart meter plan							

PUC Distribution Inc. (PUC)

MATERIALITY ANALYSIS ON OM&A COSTS

A written explanation is required for operating costs related information where there is a variance greater or equal to 1% of the total distribution expenses before

Determination of Materiality Threshold for OM&A Costs

Distribution Expense	2006 Actual	2007 Bridge	2008 Test
OM&A	6,852,687	7,467,023	8,676,620
Amortization	2,764,612	3,046,595	3,310,978
Distribution Expenses Before PILS	9,617,299	10,513,618	11,987,598
1% of Distribution Expenses before PILS	**96,173**	**105,136**	**119,876**

PUC has selected $96,173, the lowest level of materiality for the most effective review of costs.

PUC Distribution Inc. (PUC)

SHARED SERVICES

Affiliate Transactions

PUC Distribution is wholly owned by PUC Inc. which is also the sole shareholder of PUC Services Inc., PUC Energies Inc. and PUC Telecom Inc. The Public Utilities Commission of the City of Sault Ste. Marie is also treated on the same basis as the affilates for the purposes of cost allocations.

PUC Distribution owns the electric distribution infrastructure which also includes transmission class assets. The distribution system is operated under a service agreement between PUC Services Inc. and PUC Distribution Inc. As part of the licence renewal process, the service agreement between the companies was reviewed by the OEB. PUC's licence includes conditions regarding notification to the OEB in the event there are changes to the service agreement.

Basis of Pricing

PUC Services provides services to the affiliated companies and the Public Utilities Commission on a cost basis and to other organizations based on negotiated contracts on a for profit basis. Costs of providing services to the outside organizations are directly expensed to these contracts.

Costs to the affiliated companies are generally charged in two methods – specific services provided to an affiliate and services provided to more than one affiliate (shared services).

Specific Services

Specific services provided to PUC Distribution such as line maintenance, capital projects, etc. are charged at cost for each component:

Labour – labour costs charged to PUC Distribution are actual labour costs (actual hours x collective agreement rate) plus overhead to account for statutory payments and benefit expenses. An overhead percentage to allocate for employee benefit cost is estimated and applied throughout the year and trued-up or down to actual at year end.

Material – inventory issues to PUC Distribution projects are charged at the purchase price plus an overhead charge for the operation of the purchasing/stores function. The amount of the overhead is also trued-up or down at year end. Non-stores material required for PUC Distribution projects are purchased by PUC Services and are charged to PUC Distribution at cost. A tendering/multi-source quote process is used by PUC Services to obtain competitive prices.

Outside Services – outside services such as line clearing are arranged through PUC Services. Depending on the significance of the purchase, PUC Services uses a tender or multi-source quote process. PUC Distribution is charged the pass-through cost of the outside service.

For clarity, specific services charged by PUC Services to PUC Distribution are charged at cost – there is no profit component in the charges.

Shared Services

PUC Services provides billing, collection, customer service and administrative services to the affiliated group and the Public Utility Commission. Administrative services include payroll, human resources, accounting, IT services, etc. These services are allocated at cost to the various companies based on cost drivers as described below. It should be noted that any cost that can be directly associated with a specific company or contract is charged to that company or contract. Items such as bad debts, legal costs, advertising, insurance, etc., that are directly related to a specific company, are charged as a pass-through to that company at cost.

KPMG reviewed PUC Services' method for allocating shared services in the fall of 2001. The review included consideration that the method determining cost allocation must be appropriate for many different users such as the Ontario Energy Board, Canada Custom and Revenue Agency, the City of Sault Ste. Marie and the affiliated companies. The areas identified for allocation were billing, collecting, customer service, and administration. A number of possible cost drivers were identified including: number of customers, number of bills generated, total relative expenditures before allocated costs, square footage, number of employees, service revenues, asset values, etc. The following allocators/cost drivers were recommended at the time:

Area	Allocator
Billing	Number of customers
Collecting	Number of customers
Customer Service	Number of customers
Administration	Service revenue

The allocation factors were internally reviewed on an annual basis up to the year ended December 31, 2006 for reasonableness and changing circumstances.

In preparation for this rate filing, and in response to the concerns expressed by the Board in its Decision and Order regarding PUC's 2006 rates, a consultant was engaged to review processes related to charging of shared services costs to the affiliated companies from PUC Services. A copy of RDI Consulting Inc.'s Full Absorption Cost Allocation Report is attached. The recommended allocation factors listed below were implemented in the 2008 test year projections. Aside from adjusting the allocation factors to the affiliates as a result of the review and changed circumstances from 2006, the other major recommended changes adopted were:

- allocation of a portion of the administrative costs to both expense accounts and capital accounts (previously only allocated to expense accounts), and
- allocation of a cost of capital charge to the affiliates for assets employed by PUC Services to the provide services to the affiliates (previously not charged)

Justification for the changes is provided in the Full Absorption Cost Allocation Report which is attached.

The following table details the allocation percentages to the affiliates for each of the shared services categories and the percentage of the allocated administrative expense which in turn is allocated to capital and expense within each company.

	Allocator	PUC Distribution	PUC Services	PUC Telecom	PUC Energies	Public Utilities Commission	Total
Allocation to Affiliates							
Meter Reading	# of Meter reads	57.48%	42.52%				100%
Billing	# of Customers	56%	44%				100%
Collections	# of Customers	56%	44%				100%
Collections Arrears	Bad Debt W/Os	74%	26%				100%
Customer Service	# of Customers	56%	44%				100%
Administrative	Labour related effort	43.83%	15.37%	.67%	.16%	39.97%	100%
Allocation of Administrative Expense within an Affiliate							
Administrative Capital		31%	4%	37%	17%	30%	
Administrative Expense		69%	96%	63%	83%	70%	

PUC Distribution Inc. (PUC)

Shared Costs Allocated to PUC Distribution

	2004	2005	2006	2007	2008
Fixed Assets					$960,431
Load Dispatching					$12,388
Transmission					$6,320
Stations					$68,894
Overhead Lines					$158,299
Underground Lines					$35,684
Transformers					$16,853
Meters					$34,920
Misc. Distribution Expenses					$23,240
Engineering Operations					$24,144
Billing & Collecting	$513,978	$544,134.00	$516,651	$581,030	$644,051
Customer Service	$310,923	$316,510.00	$300,046	$265,998	$351,995
Administrative Expenses	$1,280,342	$1,319,496.00	$1,075,522	$1,117,891	$541,657
Facilities	$565,154	$501,571.00	$321,812	$460,837	$289,054
Miscellaneous	$30,760	$49,085.00	$64,947	$55,002	$80,969
	$2,701,157	$2,730,796	$2,278,978	$2,480,758	$3,248,899

Increase in shared services over 2007 as a result of the introduction of the cost of capital charge to all affiliates of PUC Services and an increase in the use of PUC Services assets to perform work on behalf of PUC Distribution.

In a report completed in 2007 by BDR NorthAmerica Inc. it was estimated that the shared services model used by the PUC group results in savings of approximately $660,000 per year in staff costs alone. These savings are primarily in the billing and administrative areas. Of the $660,000 savings for Sault Ste. Marie residents, using a conservative blended billing (56%) and administrative (44%) allocation percentage from above of 45%, estimated staff savings are in the area of $300,000 to the LDC. The analysis was performed on a high level, and although noted in the report, did not quantify savings in other areas such as facilities costs, computer systems, meter reading, etc.

PUC Distribution Inc. (PUC)

Full Absorption Cost Allocation Report

PUC Services Inc.

Full Absorption Cost Allocation Report

Prepared By:

Jim Hopeson

RDI Consulting Inc.
London, Ontario

Draft 3 – 2007 09 20

rdi consulting inc.

PUC Distribution Inc. (PUC)

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PUC Distribution Inc. (PUC)

Executive Summary

RDI Consulting Inc. was engaged by PUC Services Inc. to review and make recommendations regarding current processes related to the:

- Allocation of Customer Service costs to Water and Electric
- Allocation of Administrative and General (A&G) costs to all affiliates
- Split of allocated A&G costs between operating costs and capital expenditures of each company
- Split of directly charged A&G costs between operating costs and capital expenditures of each company
- Types of costs included in the current asset use charge
- Allocation of the asset charge to affiliates
- Split of asset charge between operating costs and capital expenditures of each company

The recommendations primarily involve changes in the way the existing pie of costs is sliced between companies and operating and capital activities within the companies.

The recommendations reflect:

- Refinements in the determination of allocation bases used to allocate individual costs, and
- Direction contained in the Accounting Procedures Handbook for regulated Distribution Companies which advocates a fully allocated cost allocation approach (means all businesses and activities should bear a fair share of the indirect costs not able to be specifically charged to a business or an activity)

RDI is recommending that the current asset charge which recovers depreciation only be increased to include the cost of capital related to the investment in the assets used to provide services to all affiliates.

The net effect of all the recommendations results in:

- Operating costs are lower for all businesses except PUC Energies

- Lower operating costs are driven by the following factors
  - Minor change in determination of customer services costs for electric and water
  - Change in allocation of PUC Services A&G costs for all businesses
  - Movement to capital of allocated A&G costs

PUC Distribution Inc. (PUC)

  - Movement to capital of directly charged A&G costs
  - Change in allocation of existing asset charge recovering depreciation only
  - Increased cost to all businesses resulting from new cost of capital charges as part of the asset use charge

- Lower operating costs for Services primarily driven by new cost of capital revenue source offset by increase in allocated (retained) A&G costs

- Increase in capital costs for all businesses representing the offset to the reduction in Operating expenses

RDI recommends implementing the recommendations in this report effective with the January 1, 2008 fiscal year.

Financial plans and budgets for 2008 as well as the PUC Distribution Inc. 2008 rate rebasing application should be prepared reflecting these recommendations as well.

PUC Distribution Inc. (PUC)

Introduction

RDI Consulting Inc. was engaged by PUC Services Inc. to review and make recommendations regarding the current processes related to the charging of Customer Service and Administrative and General (A&G) costs to its affiliates. The review also looks at the issue of splitting A&G costs between operating costs and capital expenditures.

In addition the review looks at the current method of charging for the use of vehicles, equipment, and other miscellaneous assets (computers, office furniture, buildings, etc.) required to conduct business.

The treatment of other overhead type expenditures (labour burdens, materials management overheads, vehicle operating costs, engineering, operations supervision) was not part of the scope of the review as Management and RDI agreed that the current processes appropriately allocate costs to individual businesses and operating and capital activities within these businesses.

Fiscal year 2006 financial results were used to assess the directional impact of implementing the recommended changes for all the PUC businesses.

A contributing factor to undertaking the review is the current PUC Distribution Inc. 2008 rate rebasing process. The intent is to apply the recommendations contained in this report to the determination of LDC costs on a forward test year (2008) basis.

Overview of Current Costing Processes

PUC Services Inc. provides financial and accounting services to all affiliates and serves as the gatekeeper in ensuring costs are properly charged to and amongst affiliates.

All transactions occur on a cost pass through basis with no mark-ups.

The Ontario Energy Board prescribed chart of accounts (USOA accounts) is utilized to track costs.

There are 3 different types of costs that are part of the scope of this review and the current treatment is summarized as follows:

PUC Distribution Inc. (PUC)

Direct Costs

Costs that can be directly identified with a specific business are directly charged. These could be either Customer Service costs or Administrative and General Costs.

Administrative and General Costs are retained as operating costs with no current allocation to capital.

Direct costs using 2006 actuals are set out in Appendix A.

Allocated Costs

Costs that cannot be directly identified with a specific business are allocated to all businesses on a USOA account by account basis using an allocation base that reflects cost drivers or contribution to expenditure. These could be either Customer Service costs or Administrative and General Costs.

Again, Administrative and General Costs are retained as operating costs with no current allocation to capital.

Appendix J provides the current basis for these allocations and the allocation percentages by business stream.

Asset Charge

PUC Services currently allocates depreciation related to Services owned assets (vehicles, equipment, computers, office furniture, buildings, etc.) to all businesses based on their usage of the assets as determined by administration percentages.

Costs are split between operations and capital. The portion related to capital projects is distributed to the projects based on trucking dollars.

No rate of return on invested capital is currently charged.

No depreciation or rate of return is charged on the Queen Street facility as it is a Water owned asset with no book value.

Guidance from Ontario Energy Board Accounting Procedures Handbook

Article 340 of the Accounting Procedures Handbook titled Allocation of Costs and Transfer Pricing provides direction to LDC's regarding cost allocation and charges between affiliated companies.

Some key references from this document are:

The general method for charging indirect costs should be on a fully allocated cost basis.

All costs shall be classified to lines of business, services or products that are regulated, non-regulated, or common to both.

When costs are fully allocated to services and products, the fully allocated cost of the services and products include their direct cost plus a proportional share of indirect costs. Note that fully allocated cost and the term "absorption cost" have the same meaning.

Indirect costs are costs that cannot be identified with a specific unit of product or service or with a specific operation or cost centre. Indirect costs include but are not limited to overhead costs, administrative and general expenses and taxes. Indirect costs are fixed costs that can remain unchanged in total for a given time despite wide fluctuations in activity.

Where an electric utility incurs costs (e.g. general administration, office staff salaries, and rent) jointly with another utility or with its local municipality, the method of splitting the joint costs should be calculated in accordance with some reasonable method of determining a fair and equitable split.

The primary cost driver of common costs, or a relevant proxy in the absence of a primary cost driver, shall be identified and used to allocate the cost between regulated and non-regulated lines of business, products or services.

The methods used in the allocation of costs should be documented and reviewed on a regular basis. If necessary, the cost methods should be revised in order to reflect changes in cost relationships and the related cost allocators. Any changes in the allocation method or the cost allocators used, including the supporting rationale, should be documented and the documentation should be available for Board review.

Where a fair market value is not available for any product, resource or service, a utility shall charge no less than a cost-based price, and shall pay no more than a cost-based price. A cost-based price shall reflect the costs of producing the service or product, including a return on invested capital. The return component shall be the higher of the utility's approved rate of return or the bank prime rate.

Utilities typically charge vehicles/equipment, payroll burdens, and materials management expenses to the key distribution activities that use these resources.

Utilities incur general administration costs that are in support of all business activities:

- Operations
- Maintenance
- Customer billing and collecting
- Construction of capital assets
- Provision of third party services

Under the accounting guidelines these costs should be charged to distribution activities so they absorb their fair share of costs. Proper categorization of operating and capital costs occurs.

Review and Recommendations Re: Costing Processes

Appendix J provides the current basis for and percentages by business stream and Appendix K provides the recommended processes. They are discussed in more detail below.

Direct Charges

Customer Service

Meter Reading USOA account 5310 costs are currently direct charged between Electric and Water on the basis of the relative number of meters (63% electric / 37% Water).

It is recommended that these costs be split on the basis of relative number of meter reads. An analysis of the meter reading contractor bills for 2006 yielded a 57% Electric and 43% Water split.

Administrative and General Costs

It is recommended that all Administrative and General costs directly charged to a specific business be allocated between operations and capital following a review to assess any costs that are not applicable to capital. Net applicable overhead costs should be allocated between operating and capital activities on the relative basis of labour effort incurred. An analysis has been completed for electricity only in determining the impact of this recommendation. Excluded directly incurred A&G costs for PUC Distribution Inc. are set out in Appendix L.

It has been assumed for impact purposes in this document that 100% of directly incurred A&G costs for the other businesses are to be allocated between operations and capital.

Allocated Costs

Customer Service

All the remaining Customer Service USOA accounts (5315 to 5410) are currently split between Electric and Water on the basis of the relative number of customers (56% electric / 44% Water).

This is still a reasonable basis of allocation for all accounts with the exception of the 5321 Account which collects the costs related to the collections group. The existing relative customer count remains at the 56/44 % split.

It is recommended that the cost of the collections group accumulated in USOA 5321 Collections Arrears be allocated between Electric and Water on the basis of the relative bad debt write-offs (76% Electric and 24% Water).

Administrative and General Costs

All Administration and General accounts with the exception of USOA 5675 are currently allocated between the businesses on the basis of an historical FTE work effort review.

The allocation of the 5675 Maintenance of General Plant account is very similar with the exception that no charges are allocated to Telecom as they do not utilize any of the 3 facilities creating slight allocation changes in allocation percentages for the other companies.

All A&G costs allocated to each business remain as operating costs with no allocations to capital.

RDI recommends a similar labour effort based approach utilizing recent work effort data be used to allocate costs to the respective businesses. Appendix I summarizes total work effort data for a recent 12 month period. It is principally comprised of:

- Direct labour hours of bargaining unit employees
- Budgeted labour hours for Management staff
- Estimates of externally contracted labour hours

Collectively it forms a prorate base of total relative effort spent by business unit on both operating and capital activities regardless of the source of the labour effort.

It is also recommended that all Administrative and General costs charged to a specific business be allocated between operations and capital of that business unit using the applicable operating / capital split shown in Appendix I.

Asset Charge

Existing

PUC Services currently allocates depreciation related to Services owned assets (vehicles, equipment, computers, office furniture, buildings, etc.) to all businesses based on their usage of the assets as determined by administration percentages.

Costs are split between operations and capital. The portion related to capital projects is distributed to the projects based on trucking dollars.

Two alternative options were developed for consideration which varied only in the way vehicle and equipment depreciation was allocated:

- Option 1- depreciation on vehicles allocated on the basis of trucking hours and depreciation on other assets allocated on the basis of direct labour hours
- Option 2- depreciation on vehicles allocated on the basis of direct labour hours and depreciation on other assets allocated on the basis of direct labour hours

Appendix G details the results of these options. The results show there is little difference between these 2 options.

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It is recommended that Option 1 be used on a go forward basis as it very accurately tracks vehicle and equipment depreciation to the specific activities these assets were used for. In addition, the depreciation on the other assets used to support all business unit operating and capital activities would be allocated on the basis of relative labour effort similar to the recommended approach for Administration and General Costs.

Rate of Return

Currently only depreciation related to PUC Services owned assets is recovered from the users of these assets.

The cost of capital (COC) used to finance the purchase of these assets is not reflected in the recovery by Services. The cost of capital is generally determined based on the financing practices of the business entity (debt / equity split) and the rates of return for both debt and equity.

The Ontario Energy Board which regulates PUC Distribution Inc. allows a rate of return on invested capital to be included in rates and recovered from customers. It is a legitimate part of the full cost of doing business.

Similarly as seen in the APH Section 340 references:

> Where a fair market value is not available for any product, resource or service, a utility shall charge no less than a cost-based price, and shall pay no more than a cost-based price. A cost-based price shall reflect the costs of producing the service or product, including a return on invested capital. The return component shall be the higher of the utility's approved rate of return or the bank prime rate.

RDI recommends that Services recover a cost of capital charge from all the users of the assets that it owns using the LDC deemed weighted average pre-tax cost of capital. As a proxy to assess the impact, a weighted average cost of capital of 7.67% was applied to the December 31, 2006 net book value of Services owned assets. The resulting amounts were allocated using the 2 options discussed above and outlined in Appendix H. This generated an increased recovery amount of $449,833 to be recovered from all businesses. PUC Services use of the assets under Option 1 results in Services retaining $44,817 of costs for a net beneficial impact of $405,016.

The cost of capital for 2006 impact illustration purposes uses the deemed 2008 capital split of 53.3% debt and 46.6 % equity and uses 2006 approved rates of return (debt – 6.35% and equity of 9%)

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- 53.3% X 6.35% + 46.7% X 9% = 7.67%
- *Note – after tax return on equity was not grossed up by the tax rate to obtain the pre-tax cost as the income tax rate in the approved 2006 rate application was zero.*

The preparation of 2008 budgets and the forward test year rate application for all PUC corporations should utilize the following calculation of pre-tax cost of capital based on inputs for the 2008 PUC Distribution Inc. rate application:

COC Component	% of Capital Structure	Rate of Return	
Short term debt	4%	4.77%	Pre tax
Long term debt	49.33%	5.82%	Pre tax
Equity	46.67%	8.69%	After tax
Income Tax Rate	36%		

Pre – Tax COC = (4% x 4.77%) + (49.33% x 5.82%) + ((46.67% X (8.69% / 1-.36)

= 9.40%

It is recommended that Option 1 be used to allocate these cost of capital recoveries to be consistent with the recommendation above regarding the allocation of depreciation costs.

Third Party Work Charge-out Rates

RDI recommends that existing charge-out rates for third party work performed by PUC resources be reviewed to ensure alignment with the cost allocation recommendations. Outside parties should also pay their fair share of A&G costs used to support the direct work.

Summary of Impacts

The impacts of all the recommendations for all the PUC businesses using 2006 data are summarized in Appendix M.

The net effect of all the recommendations results in:

- Operating costs are lower for all businesses except PUC Energies

- Lower operating costs are driven by the following factors

- Minor change in determination of customer services costs for electric and water
- Change in allocation of Services A&G costs for all businesses
- Movement to capital of allocated A&G costs
- Movement to capital of directly charged A&G costs
- Change in allocation of existing asset charge recovering depreciation only
- Increased cost to all businesses resulting from new cost of capital charges

- Lower operating costs for Services primarily driven by new cost of capital revenue source offset by increase in allocated (retained) A&G costs

- Increase in capital costs for all businesses representing the offset to the reduction in Operating expenses

Proposed Implementation

RDI recommends implementing the recommendations in this report effective with the January 1, 2008 fiscal year.

Financial plans and budgets for 2008 as well as the PUC Distribution Inc. 2008 rate rebasing application should be prepared reflecting these recommendations as well.

Future Refinement Opportunities

During the course of this review the following allocation process improvement opportunities were identified:

1. No depreciation recoveries or rate of return recoveries on Water owned assets have been identified as asset values are currently not recorded for municipal expenditures.

   The Public Sector Accounting Board of the Canadian Institute of Chartered Accountants has approved revisions to standard PS3150 which requires municipalities to identify, value, and record all their assets on the municipal balance sheet effective 2009.

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The recovery of municipally owned assets should be reassessed at this point in time.

2. USOA account 5410 records the costs associated with the PUC Customer Services Department. PUC will assess the potential to change the Department call tracking process to get better data to more accurately allocate these costs.

3. The determination of total labour effort utilized budgeted time allocations for all Management staff. PUC will assess the implementation of an actual Management staff time tracking process to better allocate costs.

4. The determination of total labour effort also utilized Management estimates of time associated with external contracted services. PUC will assess options to improve resource identification to better allocate costs.

PUC Distribution Inc. (PUC)

Appendix A
Direct Charges to Businesses ($ 2006)

USOA Account	Account Description	PUC Distribution Inc.	Water	Telecom	Energies
Customer Service Accounts					
5310	Meter Reading	192,047	111,997	0	0
5315	Billing	162,087	0	0	0
5320	Collections	0	0	0	0
5321	Collections Arrears (Bad Debts)	5,263	0	0	0
5325	Collecting - Cash Over/Short	313			
5335	Bad Debt Expense	64,744	22,799	395	
5405	Community Relations Supervision (Call Centre)	0	0	0	0
5410	Community Relations (Call Centre)	63,825	4,089	81,464	0
		488,278	138,885	81,860	0
LDC Only					
5415	Energy Conservation	37,289	0	0	0
5420	Community Safety Program	27,472	0	0	0
		64,762	0	0	0
Business Development					
5510	Business Development	0	0	56,683	11,554
Administration and General Accounts					
5605	Executive Salaries and Expenses	77,411	58,189	6,731	
5610	Management Salaries and Expenses	3,206	8,697	6,467	0
5615	General Administrative Salaries and Expenses	47,841	0	0	
5620	Office Supplies and Expenses	36,148	0	2,680	0
5630	Outside Services Employed	102,382	7,765	6,830	5,813
5635	Property Insurance	51,711	55,224	1,645	870
5645	Pensions and Benefits	(349,831)			
5655	Regulatory Expenses	88,765	0	0	0
5665	Miscellaneous General Expenses	173,610	0	0	0
5675	Maintenance of General Plant	0		36,010	0
		231,244	129,875	60,364	6,683
	Totals	784,284	268,759	198,907	18,236

Exhibit: 4

PUC Distribution Inc. (PUC)

Appendix B
PUC Services Allocation to PUC Distribution Inc. ($ 2006)

USOA Account	Account Description	PUC Services Costs to be Allocated	Current Percent	Current Dollars	Proposed Percent	Proposed Dollars
Customer Service Accounts						
5310	Meter Reading	304,043	63.00%	191,547	57.48%	174,764
5315	Billing	623,842	56.14%	350,225	56.00%	349,351
5320	Collections	187,339	56.14%	105,172	56.00%	104,910
5321	Collections Arrears (Bad Debts)	163,212	56.14%	91,627	74.00%	120,777
5325	Collecting - Cash Over/Short	(87)	56.14%	(49)	56.00%	(49)
5405	Community Relations Supervision (Call Centre)	39,176	56.14%	21,993	56.00%	21,939
5410	Community Relations (Call Centre)	495,284	56.14%	278,052	56.00%	277,359
		1,812,808		1,038,568		1,049,051
Administration and General Accounts						
5605	Executive Salaries and Expenses	185,402	51.39%	95,278	43.83%	81,262
5610	Management Salaries and Expenses	238,430	51.39%	122,529	43.83%	104,504
5615	General Administrative Salaries and Expenses	660,921	51.39%	339,647	43.83%	289,681
5620	Office Supplies and Expenses	416,726	51.39%	214,156	43.83%	182,651
5630	Outside Services Employed	71,376	51.39%	36,680	43.83%	31,284
5635	Property Insurance	43,469	51.39%	22,339	43.83%	19,053
5665	Miscellaneous General Expenses	7,533	51.39%	3,871	43.83%	3,302
5675	Maintenance of General Plant - Queen St. Facility (water owned)	269,611	51.70%	139,389	43.83%	118,171
5675	Maintenance of General Plant - Services Centre/Trbovich Centre	622,459	51.70%	321,812	43.83%	272,824
		2,515,928		1,295,701		1,102,731
	Totals	4,328,736		2,334,269		2,151,782

Total Dollar Impact (182,487)

Breakdown of Impact

	OM&A	Capital	Total
Increase in Customer Services Costs	10,483		10,483
Reversal of A&G Costs previously charged 100% to Operations	(1,295,701)		(1,295,701)
Allocation of Revised A&G Costs to O&M and Capital (69% O&M and 31% Capital)	760,885	341,847	1,102,731
	(524,333)	341,847	(182,487)
	Decrease	**Increase**	**Decrease**

PUC Distribution Inc. (PUC)

Appendix C
PUC Services Allocation to Water ($ 2006)

USOA Account	Account Description	PUC Services Costs to be Allocated	Current Percent	Current Dollars	Proposed Percent	Proposed Dollars
Customer Service Accounts						
5310	Meter Reading	304,043	37.00%	112,496	42.52%	129,279
5315	Billing	623,842	43.86%	273,617	44.00%	274,490
5320	Collections	187,339	43.86%	82,167	44.00%	82,429
5321	Collections Arrears (Bad Debts)	163,212	43.86%	71,585	26.00%	42,435
5325	Collecting - Cash Over/Short	(87)	43.86%	(38)	44.00%	(38)
5405	Community Relations Supervision (Call Centre)	39,176	43.86%	17,183	44.00%	17,237
5410	Community Relations (Call Centre)	495,284	43.86%	217,231	44.00%	217,925
		1,812,808		774,240		763,758
Administration and General Accounts						
5605	Executive Salaries and Expenses	185,402	39.20%	72,678	39.97%	74,105
5610	Management Salaries and Expenses	238,430	39.20%	93,464	39.97%	95,300
5615	General Administrative Salaries and Expenses	660,921	39.20%	259,081	39.97%	264,170
5620	Office Supplies and Expenses	416,726	39.20%	163,357	39.97%	166,566
5630	Outside Services Employed	71,376	39.20%	27,979	39.97%	28,529
5635	Property Insurance	43,469	39.20%	17,040	39.97%	17,375
5665	Miscellaneous General Expenses	7,533	39.20%	2,953	39.97%	3,011
5675	Maintenance of General Plant - Queen St. Facility (water owned)	269,611	39.43%	106,308	39.97%	107,764
5675	Maintenance of General Plant - Services Centre/Trbovich Centre	622,459	39.43%	245,436	39.97%	248,797
		2,515,928		988,296		1,005,616
	Totals	4,328,736		1,762,536		1,769,374
			Total Dollar Impact		6,838	

Breakdown of Impact

	OM&A	Capital	Total
Decrease in Customer Services Costs	(10,483)		(10,483)
Reversal of A&G Costs previously charged 100% to Operations	(988,296)		(988,296)
Allocation of Revised A&G Costs to O&M and Capital (70% O&M and 30% Capital)	703,931	301,685	1,005,616
	(294,847)	301,685	6,838
	Decrease	**Increase**	**Increase**

PUC Distribution Inc. (PUC)

Appendix D
PUC Services Allocation to Telecom ($ 2006)

USOA Account	Account Description	PUC Services Costs to be Allocated	Current Percent	Current Dollars	Proposed Percent	Proposed Dollars
Administration and General Accounts						
5605	Executive Salaries and Expenses	185,402	0.59%	1,094	0.67%	1,242
5610	Management Salaries and Expenses	238,430	0.59%	1,407	0.67%	1,597
5615	General Administrative Salaries and Expenses	660,921	0.59%	3,899	0.67%	4,428
5620	Office Supplies and Expenses	416,726	0.59%	2,459	0.67%	2,792
5630	Outside Services Employed	71,376	0.59%	421	0.67%	478
5635	Property Insurance	43,469	0.59%	256	0.67%	291
5665	Miscellaneous General Expenses	7,533	0.59%	44	0.67%	50
5675	Maintenance of General Plant - Queen St. Facility (water owned)	269,611	0.00%	-	0.67%	1,806
5675	Maintenance of General Plant - Services Centre/Trbovich Centre	622,459	0.00%	-	0.67%	4,170
		2,515,928		9,581		16,857

Total Dollar Impact 7,276

Breakdown of Impact

	OM&A	Capital	Total
Reversal of A&G Costs previously charged 100% to Operations	(9,581)		(9,581)
Allocation of Revised A&G Costs to O&M and Capital (63% O&M and 37% Capital)	10,620	6,237	16,857
	1,039	6,237	7,276
	Increase	**Increase**	**Increase**

Exhibit: 4

PUC Distribution Inc. (PUC)

Appendix E
PUC Services Allocation to Energies ($ 2006)

USOA Account	Account Description	PUC Services Costs to be Allocated	Current Percent	Current Dollars	Proposed Percent	Proposed Dollars
Administration and General Accounts						
5605	Executive Salaries and Expenses	185,402	0.00%	-	0.17%	315
5610	Management Salaries and Expenses	238,430	0.00%	-	0.17%	405
5615	General Administrative Salaries and Expenses	660,921	0.00%	-	0.17%	1,124
5620	Office Supplies and Expenses	416,726	0.00%	-	0.17%	708
5630	Outside Services Employed	71,376	0.00%	-	0.17%	121
5635	Property Insurance	43,469	0.00%	-	0.17%	74
5665	Miscellaneous General Expenses	7,533	0.00%	-	0.17%	13
5675	Maintenance of General Plant - Queen St. Facility (water owned)	269,611	0.00%	-	0.17%	458
5675	Maintenance of General Plant - Services Centre/Trbovich Centre	622,459	0.00%	-	0.17%	1,058
		2,515,928		-		4,277

Total Dollar Impact 4,277

Breakdown of Impact

	OM&A	Capital	Total
Reversal of A&G Costs previously charged 100% to Operations	0		0
Allocation of Revised A&G Costs to O&M and Capital (83% O&M and 17% Capital)	3,550	727	4,277
	3,550	727	4,277
	Increase	**Increase**	**Increase**

PUC Distribution Inc. (PUC)

Appendix F
PUC Services Administration and General Costs Retained ($ 2006)

USOA Account	Account Description	PUC Services Costs to be Allocated	Current Percent	Current Dollars	Proposed Percent	Proposed Dollars
Administration and General Accounts						
5605	Executive Salaries and Expenses	185,402	8.82%	16,352	15.37%	28,496
5610	Management Salaries and Expenses	238,430	8.82%	21,029	15.37%	36,647
5615	General Administrative Salaries and Expenses	660,921	8.82%	58,293	15.37%	101,583
5620	Office Supplies and Expenses	416,726	8.82%	36,755	15.37%	64,051
5630	Outside Services Employed	71,376	8.82%	6,295	15.37%	10,970
5635	Property Insurance	43,469	8.82%	3,834	15.37%	6,681
5665	Miscellaneous General Expenses	7,533	8.82%	664	15.37%	1,158
5675	Maintenance of General Plant - Queen St. Facility (water owned)	269,611	8.82%	23,780	15.37%	41,439
5675	Maintenance of General Plant - Services Centre/Trbovich Centre	622,459	8.82%	54,901	15.37%	95,672
		2,515,928		221,905		386,698

Total Dollar Impact 164,793

Breakdown of Impact

	OM&A	Capital	Total
Reversal of A&G Costs previously charged 100% to Operations	(221,905)		(221,905)
Allocation of Revised A&G Costs to O&M and Capital (96% O&M and 4% Capital)	371,230	15,468	386,698
	149,325	15,468	164,793
	Increase	**Increase**	**Increase**

Exhibit: 4

PUC Distribution Inc. (PUC)

Appendix G
Analysis of Asset Ccharge

			Electric Capital	Electric Expense	Water Capital	Water Expense	Services Capital	Services Admn	Services Expense	Services Third Party	Telecom Capital	Telecom Expense	Energies Capital	Energies Expense		TOTAL
In 2006 allocated			**$ 120,123.57**	**$ 286,015.24**	**$ 21,995.63**	**$ 291,585.52**	**$ 6,386.79**		**$ 70,793.36**		**$ 322.46**					**$ 797,222.57**
If using Vehicle hours & General Allocations		veh hr	$ 241,541.77	$ 198,279.47	$ 47,482.07	$ 200,917.08	$ 11,388.10	$ 17,201.18	$ 5,992.35	$ 71,570.25	$ 810.00	$ 41.65	$ 292.23	$ 1,706.42		$ 797,222.57
		Gen														
Effect of change	Increase to Capital		$ 121,418.20		$ 25,486.44		$ 5,001.31			$ 71,570.25	$ 487.54		$ 292.23			
	Decrease to Expense			$ (87,735.77)		$ (90,668.44)			$ (64,801.02)							
	Increase to Expense							$ 17,201.18				$ 41.65		$ 1,706.42		
If using DL hours & General Allocations		DL hr	$ 244,873.72	$ 201,486.47	$ 49,689.49	$ 209,663.45	$ 12,179.44	$ -	$ 161.44	$ 75,651.88	$ 643.40	$ -	$ 458.83	$ 2,414.46		$ 797,222.57
		Gen														
Effect of change	Increase to Capital		$ 124,750.15		$ 27,693.86		$ 5,792.65				$ 320.94		$ 458.83			
	Decrease to Expense			$ (84,528.77)		$ (81,922.07)			$ (70,631.93)							
	Increase to Expense									$ 75,651.88				$ 2,414.46		

Exhibit: 4

PUC Distribution Inc. (PUC)

Analysis of Vehicles--Asset charge

	Electric Capital	Electric Expense	Water Capital	Water Expense	Services Capital	Services Admn	Services Expense	Services Third Party	Telecom Capital	Telecom Expense	Energies Capital	Energies Expense	
Method 1													
By Trucking hours	27.28%	23.38%	6.44%	27.07%	1.28%	4.13%	1.42%	8.76%	0.12%	0.01%	0.01%	0.10%	100.00%
Method 2													
By direct labour	28.08%	24.15%	6.97%	29.17%	1.47%	0%	0.02%	9.74%	0.08%	0%	0.05%	0.27%	100.00%
Total Vehicle depreciation for 2006	$ 416,493.55												
Method 1													
$ by trucking hours	$ 113,619.44	$ 97,376.19	$ 26,822.18	$ 112,744.80	$ 5,331.12	$ 17,201.18	$ 5,914.21	$ 36,484.83	$ 499.79	$ 41.65	$ 41.65	$ 416.49	$ 416,493.55
Allocate Servcies admn $17,201.18	$ 3,182.22	$ 4,695.92	$ 774.05	$ 5,143.15	$ 172.01	$ (17,201.18)	$ -	$ 3,147.82	$ 51.60	$ -	$ -	$ 34.40	$ (0.00)
	$ 116,801.66	$ 102,072.12	$ 27,596.24	$ 117,887.96	$ 5,503.13	$ -	$ 5,914.21	$ 39,632.65	$ 551.40	$ 41.65	$ 41.65	$ 450.90	$ 416,493.55
Method 2													
$ by direct lab hours	$ 116,951.39	$ 100,583.19	$ 29,029.60	$ 121,491.17	$ 6,122.46	$ -	$ 83.30	$ 40,566.47	$ 333.19	$ -	$ 208.25	$ 1,124.53	$ 416,493.55

Other Services assets	**2006 depreciation**	**Allocator**	**Electric Capital**	**Electric Expense**	**Water Capital**	**Water Expense**	**Services Capital**	**Services Admn**	**Services Expense**	**Services Third Party**	**Telecom Capital**	**Telecom Expense**	**Energies Capital**	**Energies Expense**	
Major tools & Equipment (Electric)	$ 79,909.20	Line dept DL	$ 41,933.69	$ 28,561.56	$ 7.70	$ 151.20	$ 1,672.84		$ 19.26	$ 6,941.76	$ 75.12	$ -	$ 93.42	$ 452.64	$ 79,909.20
Major tools & Equipment (Water)	$ 5,370.69	Water Dept DL	$ 23.37	$ 42.06	$ 861.15	$ 4,440.03				$ 4.09					$ 5,370.69
Communications Equipment	$ 26,433.34	Pooled %	$ 7,422.48	$ 6,383.65	$ 1,842.40	$ 7,710.61	$ 388.57	$ -	$ 5.29	$ 2,574.61	$ 21.15	$ -	$ 13.22	$ 71.37	$ 26,433.34
Radio /Pager equipment (Water)	$ 948.43	Water Dept DL	$ 4.13	$ 7.43	$ 152.07	$ 784.08				$ 0.72					$ 948.43
System Supervisory	$ 1,031.92	Pooled %	$ 289.76	$ 249.21	$ 71.92	$ 301.01	$ 15.17	$ -	$ 0.21	$ 100.51	$ 0.83	$ -	$ 0.52	$ 2.79	$ 1,031.92
General Office Equipment (Electric)	$ 17,607.19	Line dept DL	$ 9,239.67	$ 6,293.25	$ 1.70	$ 33.32	$ 368.59		$ 4.24	$ 1,529.55	$ 16.55	$ -	$ 20.58	$ 99.73	$ 17,607.19
General Office Equipment (Water)	$ 3,726.66	Water Dept DL	$ 16.22	$ 29.18	$ 597.54	$ 3,080.88				$ 2.84					$ 3,726.66
Computer Hardware	$ 104,002.38	Pooled %	$ 29,203.87	$ 25,116.57	$ 7,248.97	$ 30,337.49	$ 1,528.83	$ -	$ 20.80	$ 10,129.83	$ 83.20	$ -	$ 52.00	$ 280.81	$ 104,002.38
Computer Software	$ 71,468.76	Pooled %	$ 20,068.43	$ 17,259.71	$ 4,981.37	$ 20,847.44	$ 1,050.59	$ -	$ 14.29	$ 6,961.06	$ 57.18	$ -	$ 35.73	$ 192.97	$ 71,468.76
Stores equipment	$ 20,907.41	Pooled %	$ 5,870.80	$ 5,049.14	$ 1,457.25	$ 6,098.69	$ 307.34	$ -	$ 4.18	$ 2,036.38	$ 16.73	$ -	$ 10.45	$ 56.45	$ 20,907.41
Service Centre	$ 49,323.04	Pooled %	$ 13,849.91	$ 11,911.51	$ 3,437.82	$ 14,387.53	$ 725.05	$ -	$ 9.86	$ 4,804.06	$ 39.46	$ -	$ 24.66	$ 133.17	$ 49,323.04
	$ 380,729.02	**TOTAL**	**$ 127,922.33**	**$ 100,903.28**	**$ 20,659.89**	**$ 88,172.28**	**$ 6,056.99**	**$ -**	**$ 78.14**	**$ 35,085.41**	**$ 310.20**	**$ -**	**$ 250.58**	**$ 1,289.92**	**$ 380,729.02**

Total depreciation in Services to be allocated in 2006			
Vehicles		$ 416,493.55	
Other assets (above)		$ 380,729.02	
		$ 797,222.57	
In 2006 the asset charge was allocated as follows:			
First			
Distribution (expense)	51.69%	$ 412,084.35	
Water (expense)	39.43%	$ 314,344.86	
Servcies (expense)	8.88%	$ 70,793.36	
		$ 797,222.57	
Then re-distributed to capital and the final result was:			
Electric capital		$ 120,123.57	15.07%
Electric expense		$ 286,015.24	35.88%
Water capital		$ 21,995.63	2.76%
Water expense		$ 291,585.52	36.58%
Services capital		$ 6,386.79	0.80%
Services expense		$ 70,793.36	8.88%
Telecom capital		$ 322.46	0.04%
Telecom expense		$ -	
Energies capital		$ -	
Energies expense		$ -	
		$ 797,222.57	100.00%

PUC Distribution Inc. (PUC)

Appendix H
Analysis of Rate of Return Calculation

			Electric Capital	Electric Expense	Water Capital	Water Expense	Services Capital	Services Admn	Services Expense	Services Third Party	Telecom Capital	Telecom Expense	Energies Capital	Energies Expense		TOTAL
In 2006 allocated			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**0**	**$ -**	**0**	**$ -**	**0**	**0**	**0**		**$ -**
If using Vehicle hours & General Allocations			$ 141,508.31	$ 119,119.81	$ 27,268.65	$ 108,616.47	$ 6,817.55	$ 4,024.45	$ 2,170.39	$ 38,622.48	$ 277.81	$ 3.05	$ 200.08	$ 1,204.01		$ 449,833.05
Effect of change	Increase to Capital		$ 141,508.31		$ 27,268.65		$ 6,817.55			$ 38,622.48	$ 277.81		$ 200.08			
	Increase to Expense			$ 119,119.81		$ 108,616.47			$ 2,170.39							
	Increase to Expense							$ 4,024.45				$ 3.05		$ 1,204.01		
If using DL hours & General Allocations			$ 138,803.07	$ 113,854.31	$ 27,872.27	$ 117,823.89	$ 6,878.33	$ -	$ 90.99	$ 42,515.73	$ 362.55	$ -	$ 260.97	$ 1,370.92		$ 449,833.05
Effect of change	Increase to Capital		$ 138,803.07		$ 27,872.27		$ 6,878.33				$ 362.55		$ 260.97			
	Increase to Expense			$ 113,854.31		$ 117,823.89			$ 90.99							
	Increase to Expense									$ 42,515.73				$ 1,370.92		

Additional revenue to Services

If using Vehicle hours & General Allocations

Total rate of return	$ 449,833.05
Less: Services keeps	$ 44,817.32
	$ 405,015.73

If using DL hours & General Allocations

Total rate of return	$ 449,833.05
Less: Services keeps	$ 42,606.72
	$ 407,226.33

Exhibit: 4

PUC Distribution Inc. (PUC)

Analysis of Vehicles--Rate of return on assets

	Electric Capital	Electric Expense	Water Capital	Water Expense	Services Capital	Services Admn	Services Expense	Services Third Party	Telecom Capital	Telecom Expense	Energies Capital	Energies Expense	
Method 1													
By Trucking hours	29.81%	27.52%	6.58%	23.28%	1.43%	2.57%	1.35%	7.25%	0.03%	0.00200%	0.01%	0.16%	100.00%
Method 2													
By direct labour	28.08%	24.15%	6.97%	29.17%	1.47%	0%	0.02%	9.74%	0.08%	0%	0.05%	0.27%	100.00%
NBV of vehicles Jan 1 2006	$ 2,039,573.25												
Apply rate of return @ 7.67%	$ 156,435.27												
Method 1													
$ by trucking hours	$ 46,632.26	$ 43,044.62	$ 10,299.92	$ 36,424.75	$ 2,238.81	$ 4,024.45	$ 2,110.68	$ 11,343.55	$ 40.40	$ 3.05	$ 17.32	$ 255.46	$ 156,435.27
Allocate Servcies admn $17,201.18	$ 744.52	$ 1,098.67	$ 181.10	$ 1,203.31	$ 40.24	$ (4,024.45)	$ -	$ 736.47	$ 12.07	$ -	$ -	$ 8.05	$ (0.00)
	$ 47,376.78	$ 44,143.29	$ 10,481.02	$ 37,628.06	$ 2,279.05	$ -	$ 2,110.68	$ 12,080.02	$ 52.47	$ 3.05	$ 17.32	$ 263.51	$ 156,435.27
Method 2													
$ by direct lab hours	$ 43,927.02	$ 37,779.12	$ 10,903.54	$ 45,632.17	$ 2,299.60	$ -	$ 31.29	$ 15,236.80	$ 125.15	$ -	$ 78.22	$ 422.38	$ 156,435.27

Other Services assets	Opening NBV Jan 1 2006	7.67% Rate of return	Allocator	Electric Capital	Electric Expense	Water Capital	Water Expense	Services Capital	Services Admn	Services Expense	Services Third Party	Telecom Capital	Telecom Expense	Energies Capital	Energies Expense	
Major tools & Equipment (Electric)	$ 506,185.69	$ 38,824.44	Line dept DL	$ 20,373.78	$ 13,876.83	$ 3.74	$ 73.46	$ 812.76		$ 9.36	$ 3,372.70	$ 36.50	$ -	$ 45.39	$ 219.92	$ 38,824.44
Major tools & Equipment (Water)	$ 32,659.05	$ 2,504.95	Water Dept DL	$ 10.90	$ 19.62	$ 401.65	$ 2,070.88				$ 1.91					$ 2,504.95
Communications Equipment	$ 212,454.01	$ 16,295.22	Pooled %	$ 4,575.70	$ 3,935.30	$ 1,135.78	$ 4,753.32	$ 239.54	$ -	$ 3.26	$ 1,587.15	$ 13.04	$ -	$ 8.15	$ 44.00	$ 16,295.22
Radio /Pager equipment (Water)	$ 2,425.08	$ 186.00	Water Dept DL	$ 0.81	$ 1.46	$ 29.82	$ 153.77				$ 0.14					$ 186.00
System Supervisory	$ 9,279.51	$ 711.74	Pooled %	$ 199.86	$ 171.88	$ 49.61	$ 207.61	$ 10.46	$ -	$ 0.14	$ 69.32	$ 0.57	$ -	$ 0.36	$ 1.92	$ 711.74
General Office Equipment (Electric)	$ 264,564.70	$ 20,292.11	Line dept DL	$ 10,648.63	$ 7,252.91	$ 1.96	$ 38.40	$ 424.80		$ 4.89	$ 1,762.79	$ 19.08	$ -	$ 23.72	$ 114.94	$ 20,292.11
General Office Equipment (Water)	$ 56,057.06	$ 4,299.58	Water Dept DL	$ 18.71	$ 33.67	$ 689.40	$ 3,554.52				$ 3.28					$ 4,299.58
Computer Hardware	$ 530,434.13	$ 40,684.30	Pooled %	$ 11,424.15	$ 9,825.26	$ 2,835.70	$ 11,867.61	$ 598.06	$ -	$ 8.14	$ 3,962.65	$ 32.55	$ -	$ 20.34	$ 109.85	$ 40,684.30
Computer Software	$ 163,222.26	$ 12,519.15	Pooled %	$ 3,515.38	$ 3,023.37	$ 872.58	$ 3,651.84	$ 184.03	$ -	$ 2.50	$ 1,219.36	$ 10.02	$ -	$ 6.26	$ 33.80	$ 12,519.15
Stores equipment	$ 225,790.74	$ 17,318.15	Pooled %	$ 4,862.94	$ 4,182.33	$ 1,207.08	$ 5,051.70	$ 254.58	$ -	$ 3.46	$ 1,686.79	$ 13.85	$ -	$ 8.66	$ 46.76	$ 17,318.15
Service Centre	$ 1,822,192.17	$ 139,762.14	Pooled %	$ 39,245.21	$ 33,752.56	$ 9,741.42	$ 40,768.62	$ 2,054.50	$ -	$ 27.95	$ 13,612.83	$ 111.81	$ -	$ 69.88	$ 377.36	$ 139,762.14
	$ 3,825,264.40	**$ 293,397.78**	**TOTAL**	**$ 94,876.05**	**$ 76,075.19**	**$ 16,968.73**	**$ 72,191.72**	**$ 4,578.74**	**$ -**	**$ 59.71**	**$ 27,278.93**	**$ 237.41**	**$ -**	**$ 182.76**	**$ 948.55**	**$ 293,397.78**

PUC Distribution Inc. (PUC)

Appendix I
PUC Labour Hours Summary

	Direct Labour	Mgt Labour (Indirect)	Customer Service Direct	Customer Service Allocated	Externally Contracted Services	Total	Work Activity %	O&M/ Capital Split	Total Business %	
Water Capital	6,802.50	2,646.00			21,166.00	30,614.50	12.01%	30%	39.97%	*Water*
Water Operating & Mtce	44,876.75	10,049.80	257.00	9,082.20	6,991.00	71,256.75	27.96%	70%		
PUC Distribution- Capital & CDM	27,613.00	5,024.97			2,350.00	34,987.97	13.73%	31%	43.83%	*LDC*
PUC Distribution Operating & Mtce	41,035.75	6,026.80	1,869.50	11,625.05	16,160.00	76,717.10	30.10%	69%		
PUC Services - Capital	1,489.00				109.00	1,598.00	0.63%	4%		
PUC Servcies Operating & Mtce	74.50					74.50	0.03%		15.37%	*Services*
PUC Services - Contract Work	27,476.00	6,643.44			3,374.00	37,493.44	14.71%	96%		
Telecom Operating & Mtce	73.00	293.80			711.00	1,077.80	0.42%	63%	0.67%	*Telecom*
PUC Telecom capital	377.00				246.00	623.00	0.24%	37%		
PUC Energies Capital	71.50				-	71.50	0.03%	17%	0.17%	*Energies*
PUC Energies Operating & Mtce	300.50	61.10			-	361.60	0.14%	83%		
	150,189.50	**30,745.91**	**2,126.50**	**20,707.25**	**51,107.00**	**254,876.16**	**100%**		**100%**	

PUC Distribution Inc. (PUC)

Appendix J
Current Allocation Factors (Services Costs Not Able To Be Directly Charged)

USOA Account	Account Description	PUC Distribution Inc.	Water	Telecom	Energies	Services	Total	Allocation Basis
Customer Service Accounts								
5310	Meter Reading	63.00%	37.00%				100%	Relative number of meters
5315	Billing	56.14%	43.86%				100%	Relative number of customers
5320	Collections	56.14%	43.86%				100%	Relative number of customers
5321	Collections Arrears (Bad Debts)	56.14%	43.86%				100%	Relative number of customers
5325	Collecting - Cash Over/Short	56.14%	43.86%				100%	Relative number of customers
5405	Community Relations Supervision (Call Centre)	56.14%	43.86%				100%	Relative number of customers
5410	Community Relations (Call Centre)	56.14%	43.86%				100%	Relative number of customers
Administration and General Accounts								
5605	Executive Salaries and Expenses	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5610	Management Salaries and Expenses	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5615	General Administrative Salaries and Expenses	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5620	Office Supplies and Expenses	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5630	Outside Services Employed	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5635	Property Insurance	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5645	Pensions and Benefits	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5655	Regulatory Expenses	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5665	Miscellaneous General Expenses	51.39%	39.20%	0.59%	0.00%	8.82%	100%	Relative FTEs identified by business
5675	Maintenance of General Plant	51.70%	39.43%	0.00%	0.00%	8.82%	100%	Relative FTEs identified by business modified by removing Telecom as they do not use any of the facilites

PUC Distribution Inc. (PUC)

Appendix K
Proposed Allocation Factors (Services Costs Not Able To Be Directly Charged)

USOA Account	Account Description	PUC Distn. Inc.	Water	Telecom	Energies	Services	Total	Allocation Basis
Customer Service Accounts								
5310	Meter Reading	57.48%	42.52%				100%	Option 1 - Relative number of meter reads per 2006 contractor billings
		56.00%	44.00%					Option 2 - Relative number of customers at December 31, 2006
5315	Billing	56.00%	44.00%				100%	Relative number of customers at December 31, 2006
5320	Collections	56.00%	44.00%				100%	Relative number of customers at December 31, 2006
5321	Collections Arrears (Bad Debts)	74.00%	26.00%				100%	Option 1 - Relative bad debt expense (3 yr average)
		56.00%	44.00%					Option 2 - Relative number of customers at December 31, 2006
5325	Collecting - Cash Over/Short	56.00%	44.00%				100%	Relative number of customers at December 31, 2006
5405	Community Relations Supervision (Ca	56.00%	44.00%				100%	Relative number of customers at December 31, 2006
5410	Community Relations (Call Centre)	56.00%	44.00%				100%	Relative number of customers at December 31, 2006
Administration and General Accounts								
5605	Executive Salaries and Expenses	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5610	Management Salaries and Expenses	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5615	General Administrative Salaries and E	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5620	Office Supplies and Expenses	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5630	Outside Services Employed	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5635	Property Insurance	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5645	Pensions and Benefits	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5655	Regulatory Expenses	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5665	Miscellaneous General Expenses	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours
5675	Maintenance of General Plant	43.83%	39.97%	0.67%	0.17%	15.37%	100%	Relative Work Effort Identified By Labour Hours

Exhibit: 4

PUC Distribution Inc. (PUC)

Appendix L
PUC Distribution Inc.
Administrative and General Costs Excluded From Allocation to Capital

Account #	Description	2006 Actual	2006 exclusions
01.5605.1000.01.0003	Adm & Gen Exec Indir Lab	$ 53,859.80	$ -
01.5605.1000.01.0004	Admin & Gen Exec Lab OH	$ 11,925.80	$ -
01.5605.1000.04.0110	Admin & Gen Exec Registrt	$ 2,065.00	$ 2,065.00
01.5605.1000.04.0111	Admin & Gen Exec Transpor	$ 4,641.11	$ 4,641.11
01.5605.1000.04.0112	Admin & Gen Exec Meals	$ 407.26	$ 407.26
01.5605.1000.04.0113	Admin & Gen Exec Accomodt	$ 920.88	$ 920.88
01.5605.1000.04.0999	Admin & Gen Exec Misc	$ (69.00)	$ (69.00)
01.5605.1049.04.0111	Admin & Gen Exec Travel	$ 1,844.00	$ 1,844.00
01.5605.1100.01.0005	Board Salaries	$ 1,158.33	$ -
01.5605.2000.04.0110	Admn & Gen Exec Regist	$ 625.00	$ 625.00
01.5605.2000.04.0111	Admin & Gen Exec Travel	$ 32.71	$ 32.71
01.5610.2200.04.0112	Adm Mgmt Sal/Exp Meals	$ 38.76	$ 38.76
01.5610.3000.01.0003	Adm Mgmt Salary Indir Lab	$ 56.50	$ 56.50
01.5610.3000.01.0004	Admin Mgmt Salary Lab OH	$ 12.51	$ 12.51
01.5610.3000.04.0999	Adm Mgmt Sal/Exp Misc	$ 10.00	$ 10.00
01.5610.4000.04.0111	Admn Mgmt Sal Travel	$ 617.06	$ 617.06
01.5610.4044.04.0110	Adm Mgmt Sal/Exp Registrt	$ 313.00	$ 313.00
01.5610.5000.04.0111	Adm Mgmt Sal/Exp Travel	$ 1,330.08	$ 1,330.08
01.5610.5000.04.0112	Adm Mgmt Sal/Exp Meals	$ 74.51	$ 74.51
01.5610.5044.04.0110	Adm Mgmt Sal/Exp Registrt	$ 250.00	$ 250.00
01.5610.5144.04.0112	Adm Mgmt Sal/Exp Meals	$ 39.62	$ 39.62
01.5610.5144.04.0113	Adm Mgmt Accommodations	$ 463.58	$ 463.58
01.5615.1000.01.0003	Adm Gen Sal/Exp Indir Lab	$ 23,734.28	$ -
01.5615.1000.01.0004	Admin Gen Sal/Exp Lab OH	$ 5,255.36	$ -
01.5615.4100.01.0002	Admin Gen Salary Lab OH	$ 18,851.54	$ 18,851.54
01.5620.4100.04.0175	Adm Office Bank Charges	$ 37,500.00	$ 37,500.00
01.5620.4100.04.0999	Admin Office Misc	$ (1,351.78)	
01.5630.1000.04.0111	Admin Outside Serv Travel	$ 26.49	$ 26.49
01.5630.1000.04.0112	Admin Outside Serv Meals	$ 17.23	$ 17.23
01.5630.1000.04.0113	Admin O/S Serv Accomodatn	$ 368.68	$ 368.68
01.5630.1000.04.0405	Admin O/S Serv Legal Fees	$ 875.00	$ 875.00
01.5630.1000.04.0410	Admin O/S Serv Consulting	$ 24,050.00	$ 24,050.00
01.5630.1000.04.0999	Admin Outside Serv Misc	$ 453.07	
01.5630.4000.04.0410	Admin O/S Tax Consult	$ 5,920.00	
01.5630.4000.04.0405	Admin O/S Serv Legal Fees	$ 68,485.58	$ 68,485.58
01.5630.4100.04.0999	Adm Outside Serv Misc	$ 1,150.00	
01.5630.5000.04.0410	Admin O/S Serv Consulting	$ 800.00	
01.5630.5100.04.0405	Adm O/S Serv Legal Fees	$ 235.00	
01.5635.3400.04.0600	Admin Property Insurance	$ 51,711.49	$ 51,711.49
01.5655.1000.04.0111	Adm Regulatory Exp Travel	$ 618.00	
01.5655.1000.04.0999	Admin Regulatory Expenses	$ 60,364.25	
01.5655.2100.01.0001	Adm Regulatory Ex Dir Lab	$ 1,085.84	
01.5655.2100.01.0002	Adm Regulatory Exp Lab OH	$ 433.41	
01.5655.2100.03.0001	Adm Regulatory Exp Truck	$ 70.81	
01.5655.3098.04.0410	Admin Reg Exp Consulting	$ 7,861.88	$ 7,861.88
01.5655.3400.04.0105	Adm Regulatory Stationary	$ 1,507.68	
01.5655.3400.04.0260	Adm Regulatory Sault Star	$ 2,493.30	
01.5655.3400.04.0263	Adm Regulatory Alrick	$ 722.10	
01.5655.4000.04.0111	Admn regulatory Travel	$ 707.73	
01.5655.4000.04.0405	Adm Regulatory Legal	$ 1,320.01	
01.5655.4000.04.0410	Adm Regulatory Consulting	$ 5,500.00	
01.5655.4000.04.0999	Adm Regulatory Misc	$ 5,646.78	$ 1,000.00
01.5655.5100.01.0001	Adm Regulatory Ex Dir Lab	$ 431.65	
01.5655.5100.01.0002	Adm Regulatory Exp Lab OH	$ 1.78	
01.5665.1000.04.0330	Adm Misc Indust Assn Dues	$ 44,100.00	
01.5665.3100.01.0003	Adm Mis Gen Exp Indir Lab	$ 9,164.03	$ 9,164.03
01.5665.3100.01.0004	Admin Misc Gen Exp Lab OH	$ 2,029.15	$ 2,029.15
01.5665.4000.01.0003	Adm Mis Gen Exp Indir Lab	$ 92,774.68	
01.5665.4000.01.0004	Admin Misc Gen Exp Lab OH	$ 20,542.51	
01.5665.5100.04.0321	Admin Misc Exp Co Mmbrshp	$ 5,000.00	
		$ 581,074.04	*$ 235,613.65*

Exhibit: 4

PUC Distribution Inc. (PUC)

Appendix M
Summary of Costing Changes

	LDC	Water	Telecom	Energies	Services
Operating , Maintenance and Administration Expenses					
Change in Allocation of Customer Service Costs and A&G Costs (Appendices B to F)	(524,333)	(294,847)	1,039	3,550	149,325
Change in Allocation of Existing Asset Charge (no rate of return) - Appendix G					
Option 1 - Vehicle hrs for vehicles and general allocations (direct labour hours) for other assets	(87,736)	(90,668)	42	1,706	(47,600)
Option 2 - Direct Labour hrs for vehicles and general allocations (direct labour hours) for other assets	(84,529)	(81,922)		2,414	5,020
Introduction of Rate of Return in Allocation of Asset Charge - Appendix H					
Option 1 - Vehicle hrs for vehicles and general allocations (direct labour hours) for other assets	119,120	108,616	3	1,204	44,816
Option 2 - Direct Labour hrs for vehicles and general allocations (direct labour hours) for other assets	113,854	117,824		1,371	42,607
Revenue Increase to Services - Rate of Return Charge					(449,833)
Eligible Directly Charged Administrative and General Expenses Allocated to Capital					
(LDC - gross expenditures of $581,074 less excluded expenses of $235,614 (per Appendix L) X 31%	(107,093)	(38,963)	(22,335)	(1,136)	0
(other businesses - direct A&G expenses X capital proportion per Appendix I)					
Total - Option 1	(600,042)	(315,862)	(21,251)	5,324	(303,292)
Total - Option 2	(602,101)	(297,908)	(21,296)	6,199	(252,881)

	LDC	Water	Telecom	Energies	Services
Capital Expenses					
Change in Allocation of A&G Costs (Appendices B to F)	341,847	301,685	6,237	727	15,468
Change in Allocation of Existing Asset Charge (no rate of return) - Appendix G					
Option 1 - Vehicle hrs for vehicles and general allocations (direct labour hours) for other assets	121,418	25,486	488	292	76,571
Option 2 - Direct Labour hrs for vehicles and general allocations (direct labour hours) for other assets	124,750	27,694	321	459	5,793
Introduction of Rate of Return in Allocation of Asset Charge - Appendix H					
Option 1 - Vehicle hrs for vehicles and general allocations (direct labour hours) for other assets	141,508	27,269	278	200	6,818
Option 2 - Direct Labour hrs for vehicles and general allocations (direct labour hours) for other assets	138,803	27,872	363	261	6,878
LDC - Eligible Directly Charged Administrative and General Expenses Allocated to Capital	107,093	38,963	22,335	1,136	0
(gross expenditures of $581,074 less excluded expenses of $235,614 (per Appendix L) X 31%					
(other businesses - direct A&G expenses X capital proportion per Appendix I)					
Total - Option 1	711,866	393,403	29,338	2,355	98,857
Total - Option 2	712,493	396,214	29,256	2,583	28,139

PUC Distribution Inc. (PUC)

CORPORATE COST ALLOCATION

PUC Distribution does not allocate any corporate costs to affiliates.

PUC Distribution Inc. (PUC)

PURCHASE OF SERVICES

The following is a list of vendors that provided services in excess of $5,000 directly charged to PUC Distribution in 2006. Additional costs were charged through shared services with the affiliates.

Vendor	Amount	Description	Purchasing Method
BORDEN LADNER GERVAIS LLP	$ 66,405.59	Legal and Regulatory services	Expertise in field
ELECTRICAL & UTILITIES SAFETY A	$ 6,615.13	Training	Expertise in field
ERIE THAMES POWER CORP	$ 19,836.75	Meter Resealing services	Tendered
KPMG ACCT SERVICE CENTRE	$ 5,920.00	Accounting and tax services	Tendered
LAIDLAW, PACIOCCO, MELLVILLE	$ 6,049.53	Legal services	Expertise in field
LINEMAN'S TESTING LAB	$ 13,536.45	Rubber glove testing	Expertise in field & price comparisons
MEARIE MANAGEMENT GROUP	$ 24,718.18	Training	Expertise in field
N-SCI TECHNOLOGIES	$ 24,050.00	Engineering services	Tendered
ONT LN CLEAR & TREE SERV	$ 251,835.00	Line clearing services	Tendered
PETERBOROUGH UTILITIES	$ 11,311.65	MSP services	Tendered
S S MARIE INNOVATION CENTRE	$ 164,173.55	GIS system maintenance	Expertise in field
THE SPI GROUP	$ 16,623.00	Retail Billing HUB services	Tendered
URB DIVISION OF OLAMETER	$ 149,699.26	Meter Reading services	Tendered
UTILITIES STANDARDS FORUM	$ 6,950.00	Reg. 22 compliance services	Expertise in field
657575 Ontario Inc. (SS Construction)	$ 30,055.65	Line work	Tendered
Cam Tram Co. Ltd.	$ 34,687.08	Transformer Installations	Tendered
M R Wright and Associates	$ 13,605.80	Engineering services	Tendered
Phase 4 Electrical Contractors	$ 16,676.05	Substation and Electrical Work	Expertise in field & price comparisons
Superior Property Maintenance	$ 13,657.08	Substation Building Maintenance	Price comparisons

PUC Distribution Inc. (PUC)

EMPLOYEE DESCRIPTION

PUC Distribution has a long term service agreement with PUC Services for the operation of the distribution system. The following chart indicates the employees in PUC Services whose primary function is to provide distribution services. These include employees that are in the line, stations, engineering, meter and regulatory areas.

Number of employees primarily assigned to PUC Distribution Inc. (Full-time equivalents (FTE's):

		2006 Board Approved		2006 Actual		2007 Bridge		2008 Test
Executive								
Management		5		5		6		7
Non-Unionized								
Unionized		35		40		40		47

In a report completed in 2007 by BDR NorthAmerica Inc. it was determined that PUC Distribution had 66 full time equivalent (FTE) employees. Due to staff additions as outlined in the attached planning reports, this number is proposed to increase to 75 FTEs. The increases are 5 line department employees, 3 engineering department employees and 1 FTE in support departments which included 2 ½ employees for succession planning.

Number of employees primarily assigned to PUC Distribution Inc. (Part-time equivalents (PTE's):

		2006 Board Approved		2006 Actual		2007 Bridge		2008 Test
Executive		0		0		0		0
Management		0		0		0		0
Non-Unionized		0		0		0		0
Unionized		0		0		0		0

Compensation (Total Salary and Wages ($)):

The following tables include wages and benefits charged directly to PUC Distribution from PUC Services by the employees noted above whose primary function is to provide distribution services plus wages and benefits charged directly to PUC Distribution by other employees. It does not include wages included in shared services.

		2006 Board Approved		2006 Actual		2007 Bridge		2008 Test
Total Compensation		2,250,578		2,929,244		3,170,742		3,761,527

Increase in 2008 is primarily a result of additional staff as detailed in the Long Term Capital and O&M Needs Report.

PUC Distribution Inc. (PUC)

Compensation (Total Benefits ($)):

		2006 Board Approved		2006 Actual		2007 Bridge		2008 Test
Total Benefits		845,239		1,104,535		1,173,175		1,329,770

Compensation (Total Incentives ($)):

PUC Services established an incentive plan for management staff excluding the President in 2004. The incentive amount paid annually is based on completion of targets as set by the President and approved by the Board of Directors of PUC Distribution in the financial, technical, safety, service and regulatory areas. Incentive amounts included above in the salaries and wages charged directly to PUC Distribution are approximately $30,000 per year for the years 2006 to 2008.

Total of Costs charged to O&M ($)):

The following table includes wages and benefits charged directly to PUC Distribution from PUC Services for O & M.

		2006 Board Approved		2006 Actual		2007 Bridge		2008 Test
TOTAL		1,790,502		2,033,037		2,036,606		2,686,379

Status of pension funding

PUC Services and its employees contribute to Ontario Municipal Employee's Retirement System (OMERS), a defined benefit pension plan for employees. As PUC Services is only liable for the contributions, a defined contribution plan accounting is used. PUC Distribution's portion of the contribution for employee's current service for the year ended December 31, 2006 was $203,972.

PUC Distribution Inc. (PUC)

DEPRECIATION, AMORTIZATION AND DEPLETION

PUC has included continuity schedules for all fixed assets for the 2006 Actual, 2007 Bridge and 2008 Test year in Exhibit 2.

PUC Distribution Inc. (PUC)

LOSS ADJUSTMENT FACTOR CALCULATION

Total Utility Loss Adjustment Factor

		2004	2005	2006	Total
A	“Wholesale" kWh (IESO)	757,685,752	749,219,032	728,093,333	2,234,998,117
B	Wholesale kWh for Large Use customer(s) (IESO)	0	0	0	
C	Net "Wholesale" kWh (A)-(B)	757,685,752	749,219,032	728,093,333	2,234,998,117
D	Retail kWh (Distributor)	723,088,007	717,869,405	697,024,273	2,137,981,685
E	Retail kWh for Large Use Customer(s) (1% loss)	0	0	0	
F	Net "Retail" kWh (D)-(E)	723,088,007	717,869,405	697,024,273	2,137,981,685
G	Loss Factor [(C)/(F)]				
H	Distribution Loss Adjustment Factor	1.0479	1.0437	1.0446	**1.0454**

Total Utility Loss Adjustment Factor

	LAF
Total Loss Factor	
Distribution Loss Factors	
Secondary Metered Customer	
Total Loss Factor - Secondary Metered Customer < 5,000kW	1.0454
Total Loss Factor - Secondary Metered Customer > 5,000kW	n/a
Primary Metered Customer	
Total Loss Factor - Primary Metered Customer < 5,000kW	1.0350
Total Loss Factor - Primary Metered Customer > 5,000kW	n/a

PUC Distribution Inc. (PUC)

MATERIALITY ANALYSIS ON DISTRIBUTION LOSSES

PUC distribution loss factor increased from 1.0430 in the May 2007 approved OEB rates to 1.0454 as calculated in the schedule above. The increase in the loss factor applied for in this application is 0.23%.

PUC Distribution Inc. (PUC)

2007 Bridge Year Taxable Income Projections

Line Item	T2S1 line #	Total for Legal Entity	Non-Distribution Eliminations	Utility Amount
Income before PILs/Taxes	**A**	-482,739	0	-482,739
Additions:				
Interest and penalties on taxes	103	0	0	0
Amortization of tangible assets	104	3,046,595	0	3,046,595
Amortization of intangible assets	106	0	0	0
Recapture of capital cost allowance from Schedule 8	107	0	0	0
Gain on sale of eligible capital property from Schedule 10	108	0	0	0
Income or loss for tax purposes- joint ventures or partnerships	109	0	0	0
Loss in equity of subsidiaries and affiliates	110	0	0	0
Loss on disposal of assets	111	0	0	0
Charitable donations	112	0	0	0
Taxable Capital Gains	113	0	0	0
Political Donations	114	0	0	0
Deferred and prepaid expenses	116	0	0	0
Scientific research expenditures deducted on financial statements	118	0	0	0
Capitalized interest	119	0	0	0
Non-deductible club dues and fees	120	0	0	0
Non-deductible meals and entertainment expense	121	0	0	0
Non-deductible automobile expenses	122	0	0	0
Non-deductible life insurance premiums	123	0	0	0
Non-deductible company pension plans	124	0	0	0
Tax reserves beginning of year	125	0	0	0
Reserves from financial statements- balance at end of year	126	0	0	0
Soft costs on construction and renovation of buildings	127	0	0	0
Book loss on joint ventures or partnerships	205	0	0	0
Capital items expensed	206	0	0	0
Debt issue expense	208	0	0	0
Development expenses claimed in current year	212	0	0	0
Financing fees deducted in books	216	0	0	0
Gain on settlement of debt	220	0	0	0
Non-deductible advertising	226	0	0	0
Non-deductible interest	227	0	0	0
Non-deductible legal and accounting fees	228	0	0	0

Exhibit: 4

PUC Distribution Inc. (PUC)

Recapture of SR&ED expenditures	231	0	0	0
Share issue expense	235	0	0	0
Write down of capital property	236	0	0	0
Amounts received in respect of qualifying environment trust per paragraphs 12(1)(z.1) and 12(1)(z.2)	237	0	0	0
Interest Expensed on Capital Leases	290	0	0	0
Realized Income from Deferred Credit Accounts	291	0	0	0
Pensions	292	0	0	0
Non-deductible penalties	293	0	0	0
Debt Financing Expenses for Book Purposes	294	0	0	0
Other Additions (see OtherAdditions sheet)	295	4,279,662	0	4,279,662
Total Additions		**7,326,257**	**0**	**7,326,257**
Deductions:				
Gain on disposal of assets per financial statements	401	0	0	0
Dividends not taxable under section 83	402	0	0	0
Capital cost allowance from Schedule 8	403	2,178,193	0	2,178,193
Terminal loss from Schedule 8	404	0	0	0
Cumulative eligible capital deduction from Schedule 10	405	525	0	525
Allowable business investment loss	406	0	0	0
Deferred and prepaid expenses	409	0	0	0
Scientific research expenses claimed in year	411	0	0	0
Tax reserves end of year	413	0	0	0
Reserves from financial statements - balance at beginning of year	414	0	0	0
Contributions to deferred income plans	416	0	0	0
Book income of joint venture or partnership	305	0	0	0
Equity in income from subsidiary or affiliates	306	0	0	0
Interest capitalized for accounting deducted for tax	390	0	0	0
Capital Lease Payments	391	0	0	0
Non-taxable imputed interest income on deferral and variance accounts	392	0	0	0
Financing Fees for Tax Under S.20(1)(e)	393	0	0	0
Other Deductions (see OtherDeductions sheet)	394	1,512,734	0	1,512,734
Total Deductions		**3,691,451**	**0**	**3,691,451**
Net Income for Tax Purposes		**3,152,066**	**0**	**3,152,066**

PUC Distribution Inc. (PUC)

Charitable donations from Schedule 2	311	0	0	0
Taxable dividends deductible under section 112 or 113, from Schedule 3 (item 82)	320	0	0	0
Non-capital losses of preceding taxation years from Schedule 7-1	331	255,942	0	255,942
Net-capital losses of preceding taxation years from Schedule 7-1	332	0	0	0
Limited partnership losses of preceding taxation years from Schedule 4	335	0	0	0
TAXABLE INCOME		**2,896,124**	**0**	**2,896,124**

Capital Taxes

	OCT	LCT
Total Rate Base	49,406,580	49,406,580
Exemption	(15,000,000)	(50,000,000)
Deemed Taxable Capital	34,406,580	0
Rate	0.285%	0.000%
Gross Tax Payable	98,059	0
Surtax		0
Net Tax Payable	**98,059**	**0**

Total Expense

	Source or Input	Tax Payable	Inclusion in Revenue Req.	
Regulatory Taxable Income	TxblIncome	2,896,124		
Combined Income Tax Rate	TaxRates	36.120%		
Total Income Taxes		1,046,080		
Investment Tax Credits	-			
Miscellaneous Tax Credits	-			
Total Tax Credits		-		
Income Tax Provision		1,046,080	1,637,570	*grossed-up for income taxes*
Ontario Capital Tax	CapitalTaxes	98,059	98,059	*not grossed-up*
Large Corporations Tax	CapitalTaxes	-	-	*grossed-up for income taxes*
Total PILs		**1,144,139**	**1,735,629**	*amount for Output*

PUC Distribution Inc. (PUC)

Other Additions

Actual Interest Expense	2,829,662
Regulatory Asset Recovery	1,450,000
	-
Total	4,279,662

Other Deductions

Line Item	Amount
Deemed Interest Expense	1,512,734

PUC Distribution Inc. (PUC)

2008 Test Year Taxable Income Projections

Line Item	T2S1 line #	Total for Legal Entity	Non-Distribution Eliminations	Utility Amount
Income before PILs/Taxes	**A**	2,003,745	0	2,003,745
Additions:				
Interest and penalties on taxes	103	0	0	0
Amortization of tangible assets	104	3,310,977	0	3,310,977
Amortization of intangible assets	106	0	0	0
Recapture of capital cost allowance from Schedule 8	107	0	0	0
Gain on sale of eligible capital property from Schedule 10	108	0	0	0
Income or loss for tax purposes- joint ventures or partnerships	109	0	0	0
Loss in equity of subsidiaries and affiliates	110	0	0	0
Loss on disposal of assets	111	0	0	0
Charitable donations	112	0	0	0
Taxable Capital Gains	113	0	0	0
Political Donations	114	0	0	0
Deferred and prepaid expenses	116	0	0	0
Scientific research expenditures deducted on financial statements	118	0	0	0
Capitalized interest	119	0	0	0
Non-deductible club dues and fees	120	0	0	0
Non-deductible meals and entertainment expense	121	0	0	0
Non-deductible automobile expenses	122	0	0	0
Non-deductible life insurance premiums	123	0	0	0
Non-deductible company pension plans	124	0	0	0
Tax reserves beginning of year	125	0	0	0
Reserves from financial statements- balance at end of year	126	0	0	0
Soft costs on construction and renovation of buildings	127	0	0	0
Book loss on joint ventures or partnerships	205	0	0	0
Capital items expensed	206	0	0	0
Debt issue expense	208	0	0	0
Development expenses claimed in current year	212	0	0	0
Financing fees deducted in books	216	0	0	0
Gain on settlement of debt	220	0	0	0
Non-deductible advertising	226	0	0	0
Non-deductible interest	227	0	0	0
Non-deductible legal and accounting fees	228	0	0	0

PUC Distribution Inc. (PUC)

Recapture of SR&ED expenditures	231	0	0	0
Share issue expense	235	0	0	0
Write down of capital property	236	0	0	0
Amounts received in respect of qualifying environment trust per paragraphs 12(1)(z.1) and 12(1)(z.2)	237	0	0	0
Interest Expensed on Capital Leases	290	0	0	0
Realized Income from Deferred Credit Accounts	291	0	0	0
Pensions	292	0	0	0
Non-deductible penalties	293	0	0	0
Debt Financing Expenses for Book Purposes	294	0	0	0
Other Additions (see OtherAdditions sheet)	295	1,984,620	0	1,984,620
Total Additions		**5,295,597**	**0**	**5,295,597**
Deductions:				
Gain on disposal of assets per financial statements	401	0	0	0
Dividends not taxable under section 83	402	0	0	0
Capital cost allowance from Schedule 8	403	2,768,651	0	2,768,651
Terminal loss from Schedule 8	404	0	0	0
Cumulative eligible capital deduction from Schedule 10	405	1,013	0	1,013
Allowable business investment loss	406	0	0	0
Deferred and prepaid expenses	409	0	0	0
Scientific research expenses claimed in year	411	0	0	0
Tax reserves end of year	413	0	0	0
Reserves from financial statements - balance at beginning of year	414	0	0	0
Contributions to deferred income plans	416	0	0	0
Book income of joint venture or partnership	305	0	0	0
Equity in income from subsidiary or affiliates	306	0	0	0
Interest capitalized for accounting deducted for tax	390	0	0	0
Capital Lease Payments	391	0	0	0
Non-taxable imputed interest income on deferral and variance accounts	392	0	0	0
Financing Fees for Tax Under S 20(1)(e)	393	0	0	0
Other Deductions (see OtherDeductions sheet)	394	1,512,734	0	1,512,734
Total Deductions		**4,282,398**	**0**	**4,282,398**
Net Income for Tax Purposes		**3,016,943**	**0**	**3,016,943**

PUC Distribution Inc. (PUC)

Charitable donations from Schedule 2	311	0	0	0
Taxable dividends deductible under section 112 or 113, from Schedule 3 (item 82)	320	0	0	0
Non-capital losses of preceding taxation years from Schedule 7-1	331	0	0	0
Net-capital losses of preceding taxation years from Schedule 7-1	332	0	0	0
Limited partnership losses of preceding taxation years from Schedule 4	335	0	0	0
TAXABLE INCOME		**3,016,943**	**0**	**3,016,943**

Capital Taxes

	OCT	LCT
Total Rate Base	49,406,580	49,406,580
Exemption	(15,000,000)	(50,000,000)
Deemed Taxable Capital	34,406,580	0
Rate	0.285%	0.000%
Gross Tax Payable	98,059	0
Surtax		0
Net Tax Payable	**98,059**	**0**

Total Expense

	Source or Input	Tax Payable	Inclusion in Revenue Req.	
Regulatory Taxable Income	TxblIncome	3,016,943		
Combined Income Tax Rate	TaxRates	34.500%		
Total Income Taxes		1,040,845		
Investment Tax Credits	-			
Miscellaneous Tax Credits	-			
Total Tax Credits		-		
Income Tax Provision		1,040,845	1,589,077	*grossed-up for income taxes*
Ontario Capital Tax	CapitalTaxes	98,059	98,059	*not grossed-up*
Large Corporations Tax	CapitalTaxes	-	-	*grossed-up for income taxes*
Total PILs		**1,138,904**	**1,687,136**	*amount for Output*

PUC Distribution Inc. (PUC)

Other Additions

Line Item	Amount
Actual Interest Expense	1,984,620

Other Deductions

Line Item	Amount
Deemed Interest Expense	1,512,734

<u>PUC Distribution Inc. (PUC)</u>

INTEREST EXPENSE

The following table represents the Interest expense for PUC.

	2006 Board Approved	2006 Actual	2007 Bridge	2008 Test
Interest on Debt to Associated Companies	2,807,650	2,807,650	2,807,650	1,544,017
Other Interest	22,860	38,043	22,000	446,000
Capitalized Interest	0	0	0	0
Total Interest	2,830,510	2,846,621	2,829,650	1,984,620
Deemed Interest			1,512,734	1,512,734
Excess Interest			1,316,916	471,886

Exhibit: 4

PUC Distribution Inc. (PUC)

CAPITAL COST ALLOWANCE

2008 CCA Schedule

Class	Class Description	UCC Opening Balance	Additions	Dispositions	UCC Before 1/2 Yr Adjustment	1/2 Year Rule {1/2 Additions Less Disposals}	Reduced UCC	Rate %	CCA	UCC Ending Balance
1	Distribution System - 1988 to 22-Feb-2005	48,298,603	10,867	0	48,309,470	5,434	48,304,037	4%	1,932,161	46,377,309
2	Distribution System - pre 1988	0	0	0	0	0	0	6%	0	0
8	General Office/Stores Equip	0	0	0	0	0	0	20%	0	0
10	Computer Hardware/ Vehicles	0	0	0	0	0	0	30%	0	0
10.1	Certain Automobiles	0	0	0	0	0	0	30%	0	0
12	Computer Software	15,863	0	0	15,863	0	15,863	100%	15,863	0
13 1	Lease # 1	0	0	0	0	0	0		43,240	0
13 2	Lease #2	0	0	0	0	0	0		0	0
13 3	Lease # 3	0	0	0	0	0	0		0	0
13 4	Lease # 4	0	0	0	0	0	0		0	0
14	Franchise	0	0	0	0	0	0		0	0
17	New Electrical Generating Equipment Acq'd after Feb 27/00 Other Than Bldgs	0	0	0	0	0	0	8%	0	0
43.1	Certain Energy-Efficient Electrical Generating Equipment	0	0	0	0	0	0	30%	0	0
45	Computers & Systems Software acq'd post Mar 22/04	0	21,734	0	21,734	10,867	10,867	45%	4,890	16,844
46	Data Network Infrastructure Equipment (acq'd post Mar 22/04)	0	0	0	0	0	0	30%	0	0
47	Distribution System - post 22-Feb-2005	3,597,324	12,117,781	0	15,715,105	6,058,891	9,656,215	8%	772,497	14,942,608
98	No CCA	0	0	0	0	0	0		0	0
			12,160,382	0		6,080,191	0		0	0
				0			0		0	0
	TOTAL	**51,911,790**	**36,471,146**	**0**	**64,062,172**	**12,155,382**	**57,986,981**		**2,768,651**	**61,336,761**

PUC Distribution Inc. (PUC)

5 – Deferral and Variance Accounts

PUC Distribution Inc. (PUC)

EXISTING DEFERRAL AND VARIANCE ACCOUNTS

COMMODITY ACCOUNTS ARE CLASSIFIED AS FOLLOWS:

1588 Retail Settlement Variance Account – Power

1589 RSVA Power, Sub-account Global Adjustments

NON-COMMODITY ACCOUNTS ARE CLASSIFIED IN TWO CATEGORIES AS FOLLOWS:

Wholesale and Retail Market Variance Accounts

1518 Retail Cost Variance Account – Retail

1548 Retail Cost Variance Account – STR

1580 Retail Settlement Variance Account - Wholesale Market Service Charges

1582 Retail Settlement Variance Account - One-time Wholesale Market Service

1584 Retail Settlement Variance Account - Retail Transmission Network Charges

Utility Deferral Accounts

1508 Other Regulatory Assets

1508 Other Regulatory Assets - Sub-account OEB Cost Assessments

1508 Other Regulatory Assets - Sub-account Pension Contributions

1525 Miscellaneous Deferred Debits

1555 Smart Meter Capital and Recovery Offset Variance

1555 Smart Meter Capital and Recovery Offset variance – Sub-Account Stranded Meter Costs

1556 Smart Meter OM&A Variance

1562 Deferred Payments in Lieu of Taxes

1563 PILs contra account

1565 Conservation and Demand Management Expenditures and Recoveries

1566 CDM Contra

1572 Extraordinary Event Losses

1574 Deferred Rate Impact Amounts

PUC Distribution Inc. (PUC)

1592 PLS & Tax Variance

1590 Recovery of Regulatory Asset Balances

2425 Other Deferred Credits

PUC Distribution Inc. (PUC)

CALCULATION OF BALANCES BY ACCOUNT

	Opening Balance	Carrying Costs	Ending Balance
	Dec. 31, 2006		April 30, 2008
Commodity accounts are classified as follows:			
1588 Retail Settlement Variance Account – Power	(560,753)	(31,644)	(592,397)
Non-commodity accounts are classified in two categories as follows:			
Wholesale and Retail Market Variance Accounts			
1518 Retail Cost Variance Account – Retail	(144,433)	(8,080)	(152,513)
1548 Retail Cost Variance Account – STR	52,907	3,161	56,068
1580 Retail Settlement Variance Account - Wholesale Market Service Charges	(480,032)	(30,793)	(510,825)
1584 Retail Settlement Variance Account - Retail Transmission Network Charges	(442,485)	(25,715)	(468,200)
Utility Deferral Accounts			
1508 Other Regulatory Assets	480,764	28,832	509,596
TOTAL	(1,094,032)	(64,239)	(1,158,271)

PUC proposes to dispose of the December 31, 2006 balance of $(1,094,032) over a two year period May 1, 2008 to April 30, 2010.
PUC proposes to clear the residual balance in account 1590 of $534,945 as of April 30, 2008.

Exhibit: 5

PUC Distribution Inc. (PUC)

	Ending Balance Dec.31, 2006	Allocation Basis	Residential	GS<50KW	GS>50KW	USL	Sentinel Lighting	Street Lighting	Total
1588 Retail Settlement Variance Account – Power	(560,753)	KWh	(269,557)	(75,003)	(209,968)	(622)	(209)	(5,394)	(560,753)
1518 Retail Cost Variance Account - Retail	(144,433)	# Customers	(127,408)	(14,920)	(1,955)	(124)	(4)	(22)	(144,433)
1548 Retail Cost Variance Account - STR	52,907	KWh	46,670	5,465	716	46	2	8	52,907
1580 Retail Settlement Variance Account – Wholesale Market service Charges	(480,032)	KWh	(230,754)	(64,206)	(179,742)	(533)	(179)	(4,618)	(480,032)
1584 Retail Settlement Variance Account – Retail transmission Network Charges	(442,485)	#Customers	(212,704)	(59,184)	(165,684)	(491)	(165)	(4,257)	(442,485)
1508 Other Regulatory Assets	480,764	# Customers	424,090	49,664	6,507	414	15	74	480,764
Total	(1,094,032)		(369,663)	(158,184)	(550,126)	(1,311)	(541)	(14,209)	(1,094,032)
Clear Residual 1590 Balances			301,911	71,044	156,992	609	177	4,212	
Total			(67,752)	(87,141)	(393,133)	(701)	(364)	(9,997)	
Per year			(33,876)	(43,571)	(196,566)	(351)	(182)	(4,998)	
Total Year Consumption			352,377,221 KWh	98,047,397 KWh	698,076 kW	813,406 KWh	759 kW	21,706 kW	
2008 Rate Rider			**$(0.0001)**	**$(0.0004)**	**$(0.2816)**	**$(0.0004)**	**$(0.2399)**	**$(0.2303)**	

PUC Distribution Inc. (PUC)

METHOD OF RECOVERY

1. An appropriate allocator (e.g. number of customer, kW's, kWh's) is assigned to each variance/deferral account ("Account"). The actual Account balance as at December 31, 2006 is then apportioned to each customer class based on Test Year volume projections for the allocator. Example: if kWh's are assigned as the allocator for an account, and the Load Forecast for the Test Year indicates that 30% of kWh's will be consumed by the Residential customer class, then 30% of the Account balance is allocated to the Residential class.
2. The projected residual balance in account 1590 as at April 30, 2008 is allocated to each customer class based on the recoveries projected in the Bridge Year for that class, from the date the current rate rider came into effect. Example: if current rate riders came into effect on May 1, 2007 and based on these rates, the Residential customer class is expected to account for 20% of all recoveries from May 1 to December 31, 2007, then 20% of the projected residual balance in account 1590 is allocated to the Residential class.
3. For each customer class, the sum of allocated balances over all Accounts selected for disposition is calculated. Example: if two Accounts are selected for disposition and the amounts allocated to the Residential customer class were $50,000 for Account #1 and $30,000 for Account #2, then the sum of allocated balances for the Residential class would be $80,000.
4. For each customer class, the sum of allocated balances is divided by two to derive the annual recovery amount needed to clear the balances over two years. Example: if the sum of allocated balances for the Residential class is $80,000, the annual recovery amount to clear the balances over two years would be $40,000.
5. For each customer class, the rate rider is calculated as the annual recovery amount divided by the Test Year forecast for the distribution rate volume metric, with the result rounded to the nearest one-hundredth of a cent,. Example: if the distribution rate volume metric for the Residential customer class is kWh's, and 100,000,000 kWh's are forecast for the Residential class in the Test Year, then the rate rider for the Residential class would be $0.0004 (=$40,000 divided by 100,000,000).

PUC Distribution Inc. (PUC)

Exhibit | Contents of Schedule

6 – Cost of Capital and Rate of Return

PUC Distribution Inc. (PUC)

OVERVIEW

The purpose of this evidence is to summarize the method and cost of financing PUC's capital requirements for the 2008 test year.

Capital Structure

PUC has a deemed capital structure of 50% debt, 50%, equity as approved by the Ontario Energy Board in RP-2005-0020, and a return on equity of 9.00%, consistent with the return specified in the Board's Decision in EB-2005-0362, dated October 18, 2006. PUC's current debt to equity structure is outside of the deemed capital structure and was implemented to minimize rates to customers. PUC has received consultant's recommendations regarding capital structure and has had discussions with its shareholder regarding revising the current capital structure. PUC is requesting Board approval for a capital structure of 47% shareholder debt, 15% third party debt to finance capital projects including smart meter implementation and 38% equity. PUC will move toward the deemed debt to equity structure of 60/40 as its rate base grows. The rates applied for in this application are based on the 2008 deemed debt to equity of 53/47.

The change in the capital structure is a move toward the Ontario Energy Board's Report on Cost of Capital and 2nd Generation Incentive Regulation for Ontario's electricity Distributors dated December 20, 2006. The OEB report indicates that Distributors will be required to phase-in a 60% debt and 40% capital structure that must be completed by 2010.

Cost of Debt

Exhibit 6 provides the detailed calculation of PUC's forecasted long-term debt costs.

Return on Equity

PUC is requesting an 8.69% return on deemed equity for the 2008 rates.

PUC Distribution Inc. (PUC)

CAPITAL STRUCTURE

2006 Board Approved

Elements			Capital Structure			
		($)	Actual (%)	Deemed (%)	Cost Rate (%)	Return (%)
Long-term debt		41,940,000	90.00	50.00	5.97	2.99
Common equity		4,656,146	10.00	50.00	9.00	4.50
Total		46,596,146	100.00	100.00		7.49

2006 Actual

Elements			Capital Structure			
		($)	Actual (%)	Deemed (%)	Cost Rate (%)	Return (%)
Long-term debt		41,940,000	90.00	50.00	5.97	2.99
Common equity		4,656,146	10.00	50.00	9.00	4.50
Total		46,596,146	100.00	100.00		7.49

2007 Bridge

Elements			Capital Structure			
		($)	Actual (%)	Deemed (%)	Cost Rate (%)	Return (%)
Long-term debt		25,900,000	55.59	50.00	5.82	2.97
Common equity		20,696,146	44.41	50.00	9.00	4.50
Total		46,596,146	100.00	100.00		7.47

PUC Distribution Inc. (PUC)

2008 Test

Elements			Capital Structure			
		($)	Actual (%)	Deemed (%)	Cost Rate (%)	Return (%)
Long-term debt		34,100,000	62.23	49.33	5.82	2.87
Common equity		20,696,146	37.77	46.67	8.69	4.06
Short-term debt				4.00	4.77	0.19
Total		54,796,146	100.00	100.00		7.12

Exhibit: 6

PUC Distribution Inc. (PUC)

COST OF DEBT

	2006 Board Approved		2006 Actual		2007 Bridge		2008 Test	
	Principle	**Calculated Cost Rate**	**Principle**	**Calculated Cost Rate**	**Principle**	**Calculated Cost Rate**	**Principle**	**Calculated Cost Rate**
Long-Term Debt								
Note Payable PUC Inc.	11,650,000	8.5%	11,650,000	8.5%	11,650,000	5.82%	11,650,000	5.82%
Note Payable PUC Inc.	30,290,000	5.0%	30,290,000	5.0%	14,250,000	5.82%	14,250,000	5.82%
Third Party Loan							8,200.000	5.82%
Total	41,940,000		41,940,000		25,900,000		34,100,000	
Short-Term Debt								
Customer Deposits	929,858	Prime-2%	818,014	Prime-2%	900,000	Prime-2%	900,000	Prime-2%
Retailer Deposits	76,727	Prime-2%	98,361	Prime-2%	100,000	Prime-2%	100,000	Prime-2%
Total	1,006,585		916,375		1,000,000		1,000,000	

PUC Distribution Inc. (PUC)

RETURN ON EQUITY

The calculations used to determine the return on equity and the debt are taken from the "Report to the Board on Cost of Capital and 2nd Generation Incentive Regulation for Ontario's Electricity Distributors" issued December 20, 2006.

Method to Update the Deemed Long-term Debt Rate

The Board will use the Long Canada Bond Forecast plus an average spread with "A/BBB" rated corporate bond yields to determine the updated deemed debt rate.

The following approach is consistent with the ROE method. As per the approach adopted in the 2006 EDRH, the ROE and the long-term debt rates are based on the same risk-free rate forecast. Therefore, they differ only through the risk premiums that reflect their distinct natures and for which lenders/investors seek commensurate returns. This approach simplifies the calculations and aims to make it easier to understand the numbers. Specifically, the Long Canada Bond Forecast (*LCBFt*) used will be the same as that used for updating the ROE. The average spread between "A/BBB" rated corporate bond yields and 30-year (long) Government of Canada Bond yields will be calculated as the average spread over the weeks of the month corresponding to the Consensus Forecasts.

The deemed Long-Term Debt Rate (*LTDRt*) will be calculated as follows:

$$LTDR_t = LCBF_t + \frac{\sum_w (CorpBonds_{w,t} - {}_{30}CB_{w,t})}{n}$$

Where:

- ***CorpBonds*** $_{w,t}$ is the average long-term corporate bond yield from Scotia Capital Inc. for week *w* of period *t* [Series V121761];

- $_{30}CB_{w,t}$ is the 30-year (long) Government of Canada bond yield for week *w* of period *t* [Series V121791]; and

- ***n*** is the number of weeks in the month for which data are reported.

PUC Distribution Inc. (PUC)

Method to Update ROE - ROE Update for any Period

Using March 1999 as the starting calculation and substituting for the initial ROE and Long Canada Bond Forecast approved by the Board in the Decision RP-1998-0001 the following is the adjustment formula for calculating the ROE at time *t*:

$$ROE_t = 9.35\% \ + 0.75 \times (LCBF_t - 5.50\%)$$

The ROE must be set in advance of the approved rates. The final ROE will be factored into rates using the Long Canada Bond Forecast based on *Consensus Forecasts* (as detailed below) and Bank of Canada data three months in advance of the effective date for the rate change. Therefore, for May 1 rate changes, the ROE will be based on January data – effectively *Consensus Forecasts* published during that month and Bank of Canada data for all business days during the month of January. The necessary data is available within the first or second business days after the end of the month and thus poses no delay for determining rates.

Long Canada Bond Forecast for any Period

For any period *t* the Long Canada Bond Forecast *LCBFt* can be expressed as:

$$LCBF_t = \left[\frac{{}_{10}CBF_{3,t} + {}_{10}CBF_{12,t}}{2} \right] + \frac{\sum_i ({}_{30}CB_{i,t} - {}_{10}CB_{i,t})}{I_t}$$

Where:

$_{10}CB_{3,T}$ is the 3-month forecast of the 10-year Government of Canada bond yield as published in *Consensus Forecasts* at time *t*;

$_{10}CB_{12,t}$ is the 12-month forecast of the 10-year Government of Canada bond yield as published in *Consensus Forecasts* at time *t*;

$_{30}CB_{i,t}$ is the actual rate for the 30-year Government of Canada bond yield at the close of day *i* (as published by the Bank of Canada) [Series V39056] during the month (this is the previous month data, the same as used for updating the ROE for natural gas distribution) corresponding to time *t*;

$_{10}CB_{i,t}$ is the actual rate for the 10-year Government of Canada bond yield at the close of day *i* (as published by the Bank of Canada) [Series V39055] during the month corresponding to time *t*; and

It is the number of business days for which published 10- and 30- Government of Canada bond yields are published during the month corresponding to time *t*.

PUC Distribution Inc. (PUC)

Return on Equity

Government of Canada Bond Yields	Rate
3-month forecast of the 10-year bond yield	4.60%
12-month forecast of the 10-year bond yield	4.80%
Average actual prior month 30-year bond yield	4.04%
Average actual prior month 10-year bond yield	4.12%
Long Canada Bond Forecast	4.62%
Return on Equity	8.69%

Return on Capital

	Deemed Portion	Effective Rate
Long-Term Debt	49.33%	5.82%
Short-term Debt	4.00%	4.77%
Return on Equity	46.67%	8.69%
Regulated Rate of Return	100.00%	7.12%

PUC Distribution Inc. (PUC)

Exhibit

7 - Calculation of Revenue Deficiency or Surplus

Exhibit: 7

PUC Distribution Inc. (PUC)

DETERMINATION OF NET UTILITY INCOME AND CALCULATION OF REVENUE DEFICIENCY

	2008 Test at 2007 Existing Rates
Revenue	
Distribution Revenue	12,091,138
Other Operating Revenue (Net)	992,659
Total Revenue	13,083,797
Costs and Expenses	
Distribution Costs	
Operation & Maintenance & Administration	8,506,469
Depreciation & Amortization	3,310,977
Taxes	170,151
PILS	1,687,136
Total Costs and Expenses before Interest	13,674,733
Utility loss	-590,936
Utility proposed rate base	49,406,580
Required Return @7.12%	3,516,478
Required Return	3,516,478
Utility loss	590,936
Revenue Deficiency	**4,107,414**

PUC Distribution Inc. (PUC)

Exhibit		Contents of Schedule
8 – Cost Allocation		
	2-8	Cost Allocation Overview – Manager's Summary from the Cost Allocation Study previously filed with the OEB
	9-11	Summary of Results and Proposed Changes

PUC Distribution Inc. (PUC)

COST ALLOCATION OVERVIEW

PUC DISTRIBUTION INC. (“PUC”)

MANAGER’S SUMMARY

JANAUARY 15, 2007

COST ALLOCATION FILE NO: EB-2007-0001
EDR 2006 FILE NO: EB-2005-0412

1. Introduction

On September 29, 2006 the Ontario Energy Board (the "OEB") issued the Board Directions on Cost Allocation Methodology for Electricity Distributors (“the Directions”). On November 15, 2006 the OEB also issued the Cost Allocation Information Filing Guidelines for Electricity Distributors (“the Guidelines”), the Cost Allocation Model (“the Model”) and User Instruction (the Instructions”) for the Model. PUC has prepared this information filing consistent with PUC’s understanding of the Directions, the Guidelines, the Model and the Instructions.

The main purpose of this cost allocation filing is to provide evidence to show the PUC rate classifications that are being subsidized by other classes and those rate classifications that are over contributing based on the assumptions of the Model.

In the mid 1980’s, Ontario Hydro, the regulator at the time, completed the last cost allocation study that reflected the distribution function but this was an integrated cost study. An integrated study reviewed the full costs of providing electricity to customers which included energy, transmission and distribution. Distribution represented only around 15% of the total costs reviewed. The results of this study assisted Ontario Hydro in developing the Rate Setting Guidelines that were used by Municipal Electric Utilities to develop the bundled rates they charged customers up until around 2000.

Under the Energy Competition Act, 1998, the electricity industry in Ontario was separated into Generation, Transmission and Distribution companies. Along with this separation the rates also needed to be unbundled to reflect the structure of the new companies. The unbundling of distribution from generation and transmission was completed in the 2000 to 2001 timeframe using the Electricity Distribution Rate Handbook Rate and the Rate Unbundling and Design Model (i.e. the RUD model). The Rate Handbook and RUD model provided a method to unbundle distribution rates from the other rates by rate classification but it did not determine whether the unbundled rates collected the cost of providing service to the rate classification. The current cost allocation process is the first time a cost allocation study has been conducted in Ontario that focuses completely on distribution to determine whether or not the distribution rates are collecting the cost of providing service to the rate classifications.

In accordance with the Directions, PUC expects the OEB will give significant weight to the results of these filings when deciding upon specific cost allocation matters in future rate hearings. PUC understands that after reviewing the results of the cost allocation filings from all distributors, and considering the overall regulatory context including results from the forthcoming distribution rate design consultations, the OEB will decide upon the priorities for, and timing of, any adjustments to future cost allocations, rate classifications or rate design. PUC also understands the information in this filing will be made public.

PUC is in the 2nd tranche of filers, due by January 15, 2007. For PUC, Run 1 reflects the rate classifications as they were in effect May 1, 2006. PUC already has the Unmetered Scattered Load ("USL") customers as a separate rate classification. A Run 2 of the model was not necessary to pull out the USL from the General Service Customers. An option Run 3 was not conducted at this time.

In order to prepare this cost allocation filing, PUC joined the provincial load data research group which was organized in 2003. PUC installed 21 residential interval meters in order to provide data to Hydro One for use in the load study and in addition conducted a residential appliance saturation survey during the summer of 2006. The services of Hydro One were used to prepare specific load data profiles by rate classification. PUC also used the services of consultant Bruce Bacon to review the Model after completion. Mr. Bacon reviewed the model for completeness and reasonableness and assisted in interpreting the results and completing the Manager's Summary.

The cost/financial data used in the Model is consistent with the cost data that supports the current approved distribution rates for PUC including the classification of PUC's 115 kV assets as distribution type assets. In addition, a reclass was done on the trial balance to properly reflect the poles (account 1830) vs overhead conductors (account 1835) and the underground conduit (account 1840) vs the underground conductors (account 1845) to be in accordance with the Uniform System of Accounts. Based on the Guidelines, PUC assets were then broken out into primary and secondary distribution functions. The breakout of assets, capital contributions, depreciation, accumulated depreciation, customer data and load data by primary, line transformer and secondary categories were developed from the best data available from PUC's customer and financial information systems. The breakout of assets is based on historical information available to PUC. From 1979 to 1999, PUC differentiated between primary and secondary assets when recording fixed asset additions in its general ledger. The capital additions for this period were analyzed and the same percentages used to allocate 2004 balances.

PUC Distribution Inc. (PUC)

2. Summary of Results

2.1 Revenue to Cost Ratios

The results of a cost allocation are typically presented in the form of revenue to cost ratios. The ratio is shown by rate classification and is the percentage of distribution revenue collected by rate classification compared to the costs allocated to the classification. The percentage shows the rate classifications that are being subsidized and those that are over contributing. A percentage of less than 100% means the rate classification is under collecting and is being subsidized by other classes. A percentage of greater than 100% indicates the rate classification is over collecting the cost assigned to the classification and is subsidizing other classes.

The following outlines the revenue to cost ratios.

Rate Classification	Revenue to Cost Ratio	($Being Subsidized)/ $Over Contributing
Residential	89.66%	(816,842)
General Service <50 kW	136.89%	657,952
General Service >50 kW	132.44%	821,574
Street Lights	17.42%	(632,312)
Sentinel Lights	38.08%	(25,445)
USL	81.93%	(4,926)

Since the unbundled distribution rates have never been based on costs it is expected the Residential class would be the rate class being subsidized based on the method used to previously design the bundled rates for customers of a Municipal Electric Utility ("MEU"). Prior to the passing of Bill 35 by the Ontario Government on October 30, 1998, a MEU was regulated by Ontario Hydro. In order to assist a MEU with setting the retail rates for their customers, Ontario Hydro provided the MEU Rate Setting Guidelines. These guidelines provided guidance to a MEU on how to develop the bundled retail rates for their customers. However, the guidelines allowed the utility to charge a kWh rate for General Service customers that was up to 10% higher than the Residential customers. The rationale for this differential is unknown to PUC. A review of rates prior to unbundling indicated General Service customers pay a kWh rate 11% higher than Residential customers. It is unclear why this was higher than 10%.

In the unbundling process, the unbundled distribution rates were determined by subtracting an estimate of the cost of power (i.e. generation and transmission) from the bundled rates. Assuming the cost of power is the same for all customers the unbundled distribution rates for General Service customers would be higher than Residential rates because the bundled General Service rates were 11% higher. However, there is no cost justification for this differential especially in regards to distribution costs. This means the above results for Residential and General Service rate classifications appear to be reasonable.

With regards to Street Lights and Sentinel Lights, it is assumed in the cost allocation study that a street light or sentinel light connection is equivalent to a customer. This appeared to be reasonable because in the case of other rate classifications each connection is essentially a customer. This means the customer costs allocated to street lights and sentinel lights are based on 8,650 and 466 connections, respectively which is the biggest driver that is causing the results for these two classes.

The question is: should streetlights, in particular, be allocated costs based on the number of connections or customers? There are arguments for both sides. On one hand, it could be argued that it should be connections because it would be consistent with the other rate classifications. On the other hand, it could be justified that a streetlight is like any other appliance or outside light on a home. It just happens to be outside on the street. In this case, a streetlight would be incremental load much like a stove or refrigerator and it would attract very little customer costs if any at all. The only customer costs it might attract would be the cost of sending a bill to the customer. A quick review of PUC's system resulted in an estimate of 2,600 streetlights that are on dedicated circuits. If PUC's streetlight connections were therefore reduced from 8,650 to 6,100 in the model, costs allocated to streetlights would be reduced resulting in a Revenue to Expenses % of 21.94% and an under-recovery of revenue of $450,497 compared to 17.42% and $632,312 on Sheet O1.

PUC understands that a very low revenue to cost ratio for street lights has occurred with other distributors. In PUC's view, this is a provincial issue that needs to be discussed with the OEB and other market participants. As a result, changes should not be made to streetlight or sentinel light pricing until this issue has been resolved.

2.2 Monthly Fixed Charge Comparison

The Model produces customer unit costs per month for each rate classification. To assist with reviewing the range of current fixed monthly service charges, the Model generates three scenarios of reasonable cost-based customer unit costs for each rate classification. These unit costs are determined by the Model and compared to the current approved monthly service charge.

Scenario 1: Avoided Costs

With a strict "avoided cost" approach, only meter related costs, billing and collection costs are included. This approach has the advantage of focusing on the immediate costs of an additional customer. But no administration and general overhead are applied.

Scenario 2: Directly Related Customer Costs

The directly related customer costs are those cost included in the avoided cost version but an allocation of administration and general overhead is included.

PUC Distribution Inc. (PUC)

Scenario 3: Minimum System Approach

The minimum system approach assumes that a minimum-size distribution system can be built to serve the minimum load requirements of the customer. For the purposes of this filing the minimum load requirement is assumed to be 400 watts per customer. The minimum system method involves determining the minimum size pole, conductor, cable, transformer, and service that is currently installed by the distributor. Once determined for each plant account, the minimum size distribution system is classified as customer-related costs and then used to define the monthly unit customer cost.

There are various approaches to define the minimum system. Moreover, judgment is required to address various implementation details with this methodology. The OEB cost allocation project did not seek to develop a common minimum system methodology for use by the Ontario electricity distribution sector. Instead, the results of numerous past Ontario minimum system studies were examined and approved for use in the Model.

The minimum system results are applied to the following accounts:

- Line Transformers (Account 1850)
- “Distribution” which includes poles and conductors, and is defined as Accounts 1830 -1845
- Related O&M accounts.

The density of the distributor (i.e. customers/route kilometer of line) is the major factor that determines the percentage of the above costs which are included in the customer costs. The density of PUC is 56 customers/km. This means PUC is classified as an medium density urban distributor. As a result, 40% of PUC’s distribution costs (i.e. lines and poles) and 40% of PUC’s line transformers are defined to be customer related cost.

The monthly customer unit cost under the minimum system approach includes the directly related customer costs plus 40% of distribution costs and 40% of line transformers along with any administration and general overhead associated with distribution and line transformers. In PUC’s view, of the three scenarios, the minimum system approach appears to be the most reasonable approach to determine the customer unit costs per month as it better reflects the fixed costs of providing service to a customer.

PUC Distribution Inc. (PUC)

The following outlines the monthly fixed cost comparison.

Rate Classification	Approved Fixed Charge	Minimum System Fixed Charge	Directly Related Fixed Charge	Avoided Cost Fixed Charge
Residential	7.28	9.82	3.87	2.45
General Service <50 kW	11.11	15.40	9.38	6.05
General Service >50 kW	149.11	69.25	62.33	42.22
Street Lights	0.47	7.28	0.06	0.04
Sentinel Lights	1.31	7.28	0.06	0.04
USL	10.85	7.69	0.91	0.51

Although the above results suggest the monthly fixed charge should be reduced for the General Service > 50 kW rate classification this is a reasonable outcome. Under the three scenarios provided by the Model, the main cost drivers that produce a difference in the monthly unit customer cost is the difference in cost between rate classifications for meters, meter reading, billing and collecting. In other words, it would be hard to justify a monthly fixed charge that is ten times higher for General Service > 50 kW customer compared to a General Service < 50 kW customer, when the only significant difference between the two rate classifications is the cost to install and maintain meters, read the meter, send out a bill and collect the bill.

2.3 Transformer Ownership Allowance

Currently, PUC provides a transformer ownership allowance to those customers that own their transformation facilities. PUC's present transformer ownership allowance is $0.60 per kW and this same charge is applied consistently across the province. The amount of the allowance has not been reviewed on a generic basis in recent years. The filings will be used by the OEB to review this allowance from a cost based perspective.

The present allowance is intended to reflect the costs to a distributor of providing step down transformation facilities to the customer's utilization voltage level. Since it is assumed that the distributor provides electricity at utilization voltage, the cost of this transformation is captured in and recovered through the distribution rates. Therefore, when a customer provides the step down transformation from primary to secondary, it should receive a credit of these costs already included in the distribution rates.

In PUC's case, the customer that currently receive a transformer ownership allowance are all in the General Service > 50 kW rate classification. The Model is suggesting the allowance for these customers should be $0.5167 per kW. In PUC's view, this amount appears to be reasonable but suggest the OEB review this issue on a provincial basis before the current transformer ownership allowance is adjusted.

PUC Distribution Inc. (PUC)

3.0 Conclusions

In accordance with the Directions, PUC expects the OEB will give significant weight to the results of these filings when deciding upon specific cost allocation matters in future rate hearings. PUC understands that after reviewing the results of the cost allocation filings from all distributors, and considering the overall regulatory context including results from the forthcoming distribution rate design consultations, the OEB will decide upon the priorities for, and timing of, any adjustments to future cost allocations, rate classifications or rate design. PUC also understands the information in this filing will be made public.

Signed on this 15th day of January, 2007 at Sault Ste. Marie, on behalf of the Board of Directors of PUC Distribution Inc. by:

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Terry Greco, CA
Treasurer
PUC Distribution Inc.

PUC Distribution Inc. (PUC)

PROPOSED CHANGES

In reviewing the results produced by the Cost Allocation Model, PUC proposes the following revenue to cost ratios, base revenue requirement % allocation and monthly fixed charges. The proposed changes are the first step in bringing the cost ratios within the bands as proposed by the Board.

The current revenue to cost ratio for the GS < 50 kW, GS > 50 kW, streetlight and sentinel light classes fall outside of the recommended Board bands. PUC proposes the changes indicated in the following chart in order to bring the classes within the recommended band. PUC acknowledges that the streetlight and sentinel rate classes still fall outside the proposed revenue to expense ratio band and will monitor future developments regarding cost allocation and move toward attaining the proposed ratios.

Rate Classification	Existing Revenue to Cost Ratio	Proposed Revenue to Cost Ratio
Residential	90%	93%
GS<50	137%	120%
GS>50	132%	128%
Street Light	17%	40%
Sentinel Light	38%	40%
Unmetered Scattered Load	82%	82%

Migrating to the proposed revenue to cost ratios in the previous table results in revenue requirement % allocations to the rate classes as presented in the following table.

Rate Classification	Cost Allocation	Existing Allocation	Proposed Allocation
Residential	60.13%	53.48%	55.75%
GS<50	13.57%	18.52%	16.30%
GS>50	19.71%	26.88%	25.25%
Street Light	6.07%	0.87%	2.40%
Sentinel Light	0.32%	0.11%	0.13%
Unmetered Scattered Load	0.20%	0.14%	0.17%
Total	100%	100%	100%

PUC Distribution Inc. (PUC)

Rate Classification	Approved Fixed Charge	Minimum System Fixed Charge per Cost Allocation Study	Proposed Fixed Charge
Residential	$7.34	$9.82	$8.65
GS<50	$11.20	$15.40	$15.40
GS>50	$150.33	$69.25	$150.07
Street Light	$0.47	$7.28	$1.56
Sentinel	$1.32	$7.28	$1.93
Unmetered Scattered Load	$10.94	$7.69	$10.94

Residential
PUC proposes an increase in the monthly fixed service charge of $1.31 to maintain the current portion of class revenue to be recovered by the fixed monthly charge in the 30% to 40% range but not burden low consumption users with a monthly increase in excess of 10%. The proposed rate is within the cost allocation study minimum system fixed charge plus 20%. The proposed allocation to the residential class is an increase of 2.27% resulting in a revenue to expense ratio of 93%.

GS<50
PUC proposes an increase in the monthly fixed service charge of $4.20 to move to the minimum system fixed charge approach in the cost allocation study. The proposed cost allocation decrease to the GS>50 class is 2.22% resulting in a revenue to expense ratio of 120%.

GS>50
PUC proposes to maintain the fixed monthly service charge at $150.07 in order to maintain the monthly fixed revenue for the class close to the current fixed/variable ratio. The proposed cost allocation decrease to the GS>50 class is 1.63% resulting in a revenue to expense ratio of 128%.

Street Lights
PUC proposes an increase in the monthly fixed service charge of $1.09 to move toward the minimum system fixed charge approach in the cost allocation study. A percentage allocation increase of 1.53% is also proposed to move towards the direction of the cost allocation study but not over burden the rate class. The increase results in a revenue to expense ratio of 40%.

Sentinel Lights
PUC proposes an increase in the monthly fixed service charge of $.61 to move toward the minimum system fixed charge approach in the cost allocation study. PUC proposes an increase of .02% in the cost allocation to the sentinel lights rate class resulting in a revenue to expense ratio of 40%.

PUC Distribution Inc. (PUC)

Unmetered Scattered Load

PUC does not propose a change to the fixed charge for the unmetered scattered load class. PUC proposes a 0.03% increase in the costs allocated the unmetered scattered load rate class resulting in a revenue to expense ratio of 82%.

PUC acknowledges that the streetlight and sentinel light rate classes fall outside the proposed revenue to expense ratio bands and will monitor future developments regarding cost allocation and move toward attaining the proposed ratios.

Transformer Ownership Allowance

PUC provides a transformer ownership allowance to those customers that own their transformation facilities. PUC's present transformer ownership allowance is $0.60 per kW and this same charge is applied consistently across the province. The customers that currently receive a transformer ownership allowance are all in the General Service > 50 kW rate classification. The cost allocation study suggested the allowance for these customers should be $0.5167 per kW. PUC notes the comments in the Board's cost allocation filings discussion paper and does not propose to change the current transformer ownership allowance at this time.

PUC Distribution Inc. (PUC)

Exhibit

9 – Rate Design

PUC Distribution Inc. (PUC)

RATE DESIGN

This exhibit documents the calculation of PUC's proposed distribution rates by rate class for the 2008 test year, based on the allocation of revenue proposed in Exhibit 8 – Cost Allocation.

The total base revenue requirement of $16,218,490 is used to determine the proposed distribution rates. That base revenue requirement is derived as follows:

Calculation of Base Revenue Requirement

Description	Amount
OM&A Expenses	$8,676,620
Amortization Expenses	$3,310,977
Regulated Return on Rate Base	$3,516,478
PILs (with gross-up)	$1,687,136
Total Service Revenue Requirement	$17,191,211
Less: Revenue Offsets	($972,721)
Base Revenue Requirement	**$16,218,490**

The base revenue requirement is allocated to the various rate classes using the following proposed proportion of revenue as outlined in the Exhibit 8 – Cost Allocation.

Proposed Apportionment of Revenue to Rate Classes

Rate Classification	Proposed Proportion of Revenue
Residential	55.75%
GS <50 kW	16.30%
GS>50 kW	25.25%
Street Light	2.40%
Sentinel	0.13%
Unmetered Scattered Load	0.17%
Total	**100.0%**

PUC Distribution Inc. (PUC)

The following table outlines the results of this allocation.

Base Revenue Requirement applied to Rate Classes

Rate Class	**Proposed Revenue**
Residential	$9,042,619
GS <50 kW	$2,643,614
GS>50 kW	$4,094,358
Street Light	$389,244
Sentinel	$21,084
Unmetered Scattered Load	$27,571
Total	**$16,218,490**

PUC Distribution Inc. (PUC)

Proposed Monthly Fixed Charges:

The current approved monthly fixed charges for the PUC's rate classes are as follows:

Current Monthly Fixed Charges

Rate Class	Current Monthly Fixed Charge
Residential	$7.34
GS <50 kW	$11.20
GS>50 kW	$150.33
Street Light	$0.47
Sentinel	$1.32
Unmetered Scattered Load	$10.94

Using the existing approved distribution rates, the following table outlines the portion of the current distribution revenue obtained from the current monthly fixed charge.

Percentages of Current Class Revenue from Current Monthly Fixed Charges

Rate Class	% of Current Class Revenue from Current Monthly Fixed Charge
Residential	39.02%
GS <50 kW	19.75%
GS>50 kW	23.61%
Street Light	46.55%
Sentinel	51.44%
Unmetered Scattered Load	19.46%

When these proportions are applied to the proposed revenue by rate class and then divided by the forecast number of customers by rate class the following monthly fixed charges are produced.

PUC Distribution Inc. (PUC)

Monthly Fixed Charges Using % of Current Fixed Charge Revenue Applied to Proposed Class Revenue

Rate Class	Monthly Fixed Charges Using Existing % of Fixed Charge Revenue
Residential	$10.26
GS <50 kW	$13.21
GS>50 kW	$189.13
Street Light	$1.73
Sentinel	$2.07
Unmetered Scattered Load	$16.69

In the cost allocation study the "minimum system" approach was used to classify those costs that were customer related. The minimum system approach assumes that a minimum-size distribution system can be built to serve the minimum load requirements of the customer. For the purposes of the cost allocation filing the minimum load requirement was assumed to be 400 watts per customer. The minimum system method involves determining the minimum size pole, conductor, cable, transformer, and service that is currently installed by the distributor. Once determined for each plant account, the minimum size distribution system is classified as customer-related costs and then used to define the monthly unit customer cost.

The density of the distributor (i.e. customers/route kilometer of line) is the major factor that determines the percentage of the above costs which are included in the customer costs. The density of PUC is 56 customers/km. This means PUC is classified as a medium density distributor. As a result, 40% of PUC's distribution costs (i.e. lines, poles) and 40% of line transformers are defined to be customer related cost.

The following table outlines the monthly fixed charge determined in the cost allocation study based on the minimum system approach.

PUC Distribution Inc. (PUC)

Monthly Fixed Charges Using Minimum System Approach

Rate Class	Monthly Fixed Charges Using Minimum System Approach
Residential	$9.82
GS <50 kW	$15.40
GS>50 kW	$69.25
Street Light	$7.28
Sentinel	$7.28
Unmetered Scattered Load	$7.69

Board staff recently released a Report of the Board on the application of Cost Allocation for Electric Distributors arising from a review of the electricity distributors' cost allocation filings. In the report Board staff suggested the monthly fixed charge for a rate class that is currently above the upper bound as stated in the report are not required to make changes to their current monthly service charge to bring it to or below the upper bound at this time.

PUC has reviewed the various levels of monthly fixed charges by rate class and is proposing the following monthly fixed charges for the 2008 test year.

Proposed Monthly Fixed Charges

Rate Class	Proposed Monthly Fixed Charge
Residential	$8.65
GS <50 kW	$15.40
GS>50 kW	$150.07
Street Light	$1.56
Sentinel	$1.93
Unmetered Scattered Load	$10.94

<u>Residential</u>
PUC proposes an increase in the monthly fixed service charge of $1.31 to maintain the current portion of class revenue to be recovered by the fixed monthly charge in the 30% to 40% range but not burden low consumption users with a monthly increase in excess of 10%. The proposed rate is within the cost allocation study minimum system fixed

PUC Distribution Inc. (PUC)

charge plus 20%. The proposed allocation to the residential class is an increase of 2.27% resulting in a revenue to expense ratio of 93%.

GS<50
PUC proposes an increase in the monthly fixed service charge of $4.20 to move to the minimum system fixed charge approach in the cost allocation study. The proposed cost allocation decrease to the GS>50 class is 2.22% resulting in a revenue to expense ratio of 120%.

GS>50
PUC proposes to maintain the fixed monthly service charge at $150.07 in order to maintain the monthly fixed revenue for the class close to the current fixed/variable ratio. The proposed cost allocation decrease to the GS>50 class is 1.63% resulting in a revenue to expense ratio of 128%.

Street Lights
PUC proposes an increase in the monthly fixed service charge of $1.09 to move toward the minimum system fixed charge approach in the cost allocation study. A percentage allocation increase of 1.53% is also proposed to move towards the direction of the cost allocation study but not over burden the rate class. The increase results in a revenue to expense ratio of 40%.

Sentinel Lights
PUC proposes an increase in the monthly fixed service charge of $.61 to move toward the minimum system fixed charge approach in the cost allocation study. PUC proposes an increase of .01% in the cost allocation to the sentinel lights rate class resulting in a revenue to expense ratio of 40%.

Unmetered Scattered Load
PUC does not propose a change to the fixed charge for the unmetered scattered load class. PUC proposes a 0.03% increase in the costs allocated the unmetered scattered load rate class resulting in a revenue to expense ratio of 82%.

PUC acknowledges that the streetlight and sentinel rate classes fall outside the proposed revenue to expense ratio bands and will monitor future developments regarding cost allocation and move toward attaining the proposed ratios.

Transformer Ownership Allowance
PUC provides a transformer ownership allowance to those customers that own their transformation facilities. PUC's present transformer ownership allowance is $0.60 per kW and this same charge is applied consistently across the province. The customers that currently receive a transformer ownership allowance are all in the General Service > 50 kW rate classification. The cost allocation study suggested the allowance for these customers should be $0.5167 per kW. PUC notes the comments in the Board's cost allocation filings discussion paper and does not propose to change the current transformer ownership allowance at this time.

PUC Distribution Inc. (PUC)

Proposed Volumetric Charges:

The proposed monthly fixed charges are expected to generate the following revenues by rate class.

Revenues by Rate Class from Proposed Fixed Charges

Rate Class	Proposed Fixed Charge Revenue
Residential	$2,976,830
GS <50 kW	$608,824
GS>50 kW	$767,283
Street Light	$163,872
Sentinel	$10,101
Unmetered Scattered Load	$3,413
Total	**$4,530,323**

With the expected level of revenue from the monthly fixed charges determined, the proposed revenue from distribution volumetric charges represents the total proposed revenue by rate class minus the proposed fixed charge revenue. The resulting revenue that the Applicant proposes to recover from volumetric charges is shown below.

Proposed Volumetric Charge Revenue

Rate Class	Proposed Volumetric Charge Revenue
Residential	$6,065,789
GS <50 kW	$2,034,790
GS>50 kW	$3,327,075
Street Light	$225,372
Sentinel	$10,983
Unmetered Scattered Load	$24,158
Total	**$11,688,167**

These proposed volumetric charge revenues by rate class are then divided by the projected volume and the following proposed volumetric charges are produced.

PUC Distribution Inc. (PUC)

Proposed Volumetric Charges

Rate Class	Proposed Volumetric Charge
Residential ($/kWh)	$0.0172
GS <50 kW ($/kWh)	$0.0212
GS > 50 kW ($/kW)	$5.0514
Street Light ($/kW)	$10.3836
Sentinel ($/kW)	$14.4757
Unmetered Scattered Load ($/kWh)	$0.0320

PUC Distribution Inc. (PUC)

Transformer Ownership Allowance:

The amount of transformer ownership allowance expected to be provided to those GS > 50 kW customers that own their transformers has been included in the GS > 50 kW volumetric charge. This means the GS > 50 kW volumetric charge has been increased by the amount of transformer ownership allowance. Once the transformer allowance is applied to this charge the resulting revenue will recover the full base revenue requirement for the GS > 50 kW rate class.

Currently, PUC provides a transformer ownership allowance to those customers that own their transformation facilities. PUC's current approved transformer ownership allowance is $0.60 per kW. The present allowance is intended to reflect the costs to a distributor of providing step down transformation facilities to the customer's utilization voltage level. Since it is assumed that the distributor provides electricity at utilization voltage, the cost of this transformation is captured in and recovered through the distribution rates. Therefore, when a customer provides its own step down transformation from primary to secondary, it should receive a credit of these costs already included in the distribution rates.

In the GS > 50 kW class, some customers own their transformers but the majority use the transformation facilities of the PUC. For those customers that use the PUC's facilities, the cost allocation model suggests that the PUC's cost to provide this service is $0.5167 per kW. This in turn means that if a GS > 50 kW customer was to own its transformer it should receive $0.5167 per kW as a transformation ownership allowance. PUC notes the comments in the Board's cost allocation filings discussion paper and does not propose to change the current transformer ownership allowance at this time.

PUC Distribution Inc. (PUC)

Proposed Distribution Rates:

The following table sets out PUC’s proposed 2008 electricity distribution rates based on the foregoing calculations:

Proposed 2008 Electricity Distribution Rates

Customer Class	Customer/ Connection	$/kWh	$/kW
Residential	$8.65	$0.0172	
GS <50 kW	$15.40	$0.0212	
GS>50 kW	$150.07		$5.0514
Street Light	$1.56		$10.3836
Sentinel	$1.93		$14.4757
Unmetered Scattered Load	$10.94	$0.0320	

PUC Distribution Inc. (PUC)

Proposed Transmission Rates

On October 17, 2007, the Ontario Energy Board issued a rate order setting new Uniform Transmission Rates. PUC has reviewed its current transmission service revenues and expenses and proposes to reduce retail transmission rates as per the following analysis.

Transmission Network Service Rates	
Estimated New (based on May 2006 to September 2007 data)	
IESO estimated costs at new rate	$4,096,480
Estimated billing revenues at current rates	$4,576,555
Ratio	**0.895**

Current Retail Transmission Rates	
Residential	$0.0048
General Service Less Than 50 kW	$0.0044
General Service 50 to 4,999 kW	$1.7919
General Service 50 to 4,999 kW - interval metered	$2.2535
Street Lights	$1.3514
Sentinel Lights	$1.3583
Unmetered Scattered Load	$0.0044

Proposed Retail Transmission Rates	
Residential	$0.0043
General Service Less Than 50 kW	$0.0039
General Service 50 to 4,999 kW	$1.6039
General Service 50 to 4,999 kW - interval metered	$2.0171
Street Lights	$1.2096
Sentinel Lights	$1.2158
Unmetered Scattered Load	$0.0039

PUC Distribution Inc. (PUC)

EXISTING RATE CLASSES

Residential

This classification refers to an account taking electricity at 750 volts or less where the electricity used exclusively in a single family unit, non-commercial. This can be a separately metered living accommodation, town house, apartment, semi-detached, duplex, triplex or quadruplex with residential zoning.

General Service Less Than 50kW

This classification refers to a non residential account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50kW.

General Service 50 to 4,999kW

This classification refers to a non residential account whose average peak demand is greater than, or is forecast to be greater than, 50kW but less than 5,000kW.

Unmetered Scattered Load

This classification refers to an account taking electricity at 750 volts or less whose monthly average peak demand is less than, or is forecast to be less than, 50 kW and the consumption is unmetered. Such connections include cable TV power packs, bus shelters, telephone booths, traffic lights, railway crossings, etc. The customer will provide detailed manufacturer information/documentation with regard to electrical demand/consumption of the proposed unmetered load.

Sentinel Lights

This classification applies to safety/security lighting with a Residential or General Service customer. This is typically exterior lighting, and unmetered. Consumption is estimated based on the equipment rating and estimated hours of use.

Street Lighting

This classification refers to an account for roadway lighting with a Municipality, Regional Municipality, Ministry of Transportation and private roadway lighting operation, controlled by photo cells. The consumption for these customers will be based on the calculated connected load times the required lighting times established in the approved OEB street lighting load shape template.

PUC Distribution Inc. (PUC)

EXISTING RATE SCHEDULE:

Residential	**UOM**	**Rate**
Service Charge	$	7.34
Distribution Volumetric Rate	$/kWh	0.0112
Regulatory Asset Recovery	$/kWh	0.0024
Retail Transmission Rate – Network Service Rate	$/kWh	0.0048
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kWh	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25
General Service Less Than 50 kW		
Service Charge	$	11.20
Distribution Volumetric Rate	$/kWh	0.0187
Regulatory Asset Recovery	$/kWh	0.0020
Retail Transmission Rate – Network Service Rate	$/kWh	0.0044
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kWh	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25
General Service 50 to 4,999kW		
Service Charge	$	150.33
Distribution Volumetric Rate	$/kW	3.6781
Regulatory Asset Recovery	$/kW	0.6301
Retail Transmission Rate – Network Service Rate	$/kW	1.7919
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kW	0.0000
Retail Transmission Rate – Network Service Rate – Interval Metered	$/kW	2.2535
Retail Transmission Rate – Line and Transformation Connection Service Rate – Interval Metered	$/kW	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service– Administration Charge (if applicable)	$	0.25
Unmetered Scattered Load		
Service Charge (per connection)	$	10.94
Distribution Volumetric Rate	$/kWh	0.0187
Regulatory Asset Recovery	$/kWh	0.0020
Retail Transmission Rate – Network Service Rate	$/kWh	0.0044
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kWh	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25

Sentinel Lighting

PUC Distribution Inc. (PUC)

Service Charge (per connection)	$	1.32
Distribution Volumetric Rate	$/kW	8.5992
Regulatory Asset Recovery	$/kW	0.6160
Retail Transmission Rate – Network Service Rate	$/kW	1.3583
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kW	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25

Street Lighting

Service Charge (per connection)	$	0.47
Distribution Volumetric Rate	$/kW	2.6014
Regulatory Asset Recovery	$/kW	0.5199
Retail Transmission Rate – Network Service Rate	$/kW	1.3514
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kW	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25

Specific Service Charges

Customer Administration		
Account Set-up charge/change of occupancy charge (plus credit agency costs if applicable)	$	30.00
Returned Cheque (plus bank charge)	$	15.00
Legal Letter	$	15.00
Special Meter Reads	$	30.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	$	30.00
Non-Payment of Account		
Late payment - per month	%	1.50
Late payment – per annum	%	19.56
Collection of account charge – no disconnection	$	30.00
Collection of account charge – no disconnection – after regular hours	$	165.00
Disconnect/Reconnect Charge – At Meter During Regular Hours	$	65.00
Disconnect/Reconnect Charge – At Meter After Hours	$	185.00
Disconnect/Reconnect - At Pole – During Regular Hours	$	185.00
Disconnect/Reconnect - At Pole – After Hours	$	415.00
Install/remove load control device – during regular hours	$	65.00
Install/remove load control device – after regular hours	$	185.00
Service call – customer owned equipment		Time and materials
Service call – after regular hours		Time and materials
Temporary service install & remove – overhead – no transformer		Time and materials
Temporary service install & remove – underground – no transformer		Time and materials
Temporary service install & remove – overhead – with transformer		Time and materials
Removal of overhead lines – during regular hours		Time and materials
Removal of overhead lines – after hours		Time and materials
Roadway escort – after regular hours		Time and materials

PUC Distribution Inc. (PUC)

Specific Charge for Access to the Power Poles – per pole/year	$	22.35
Allowances		
Transformer Allowance for Ownership – per kW of billing demand/month	$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to measured demand and energy	%	(1.00)
Loss Factors		
Total loss Factor – Secondary Metered Customers <5,000 kW		1.043
Total loss Factor – Primary Metered Customers < 5,000 kW		1.0326

PUC Distribution Inc. (PUC)

PROPOSED RATE SCHEDULE:

Residential	UOM	Rate
Service Charge	$	8.65
Distribution Volumetric Rate	$/kWh	0.0172
Regulatory Asset Recovery	$/kWh	(0.0001)
Retail Transmission Rate – Network Service Rate	$/kWh	0.0043
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kWh	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25

General Service Less Than 50 kW		
Service Charge	$	15.40
Distribution Volumetric Rate	$/kWh	0.0212
Regulatory Asset Recovery	$/kWh	(0.0004)
Retail Transmission Rate – Network Service Rate	$/kWh	0.0039
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kWh	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25

General Service 50 to 4,999kW		
Service Charge	$	150.07
Distribution Volumetric Rate	$/kW	5.0514
Regulatory Asset Recovery	$/kW	(0.2816)
Retail Transmission Rate – Network Service Rate	$/kW	1.6039
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kW	0.0000
Retail Transmission Rate – Network Service Rate – Interval Metered	$/kW	2.2535
Retail Transmission Rate – Line and Transformation Connection Service Rate – Interval Metered	$/kW	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service– Administration Charge (if applicable)	$	0.25

Unmetered Scattered Load		
Service Charge (per connection)	$	10.94
Distribution Volumetric Rate	$/kWh	0.0320
Regulatory Asset Recovery	$/kWh	(0.0004)
Retail Transmission Rate – Network Service Rate	$/kWh	0.0039
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kWh	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25

Exhibit: 9

PUC Distribution Inc. (PUC)

Sentinel Lighting		
Service Charge (per connection)	$	1.93
Distribution Volumetric Rate	$/kW	14.4757
Regulatory Asset Recovery	$/kW	(0.2399)
Retail Transmission Rate – Network Service Rate	$/kW	1.2158
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kW	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25
Street Lighting		
Service Charge (per connection)	$	1.56
Distribution Volumetric Rate	$/kW	10.3836
Regulatory Asset Recovery	$/kW	(0.2303)
Retail Transmission Rate – Network Service Rate	$/kW	1.2096
Retail Transmission Rate – Line and Transformation Connection Service Rate	$/kW	0.0000
Wholesale Market Service Rate	$/kWh	0.0052
Rural Rate Protection Charge	$/kWh	0.0010
Standard Supply Service – Administration Charge (if applicable)	$	0.25
Specific Service Charges		
Customer Administration		
Account Set-up charge/change of occupancy charge (plus credit agency costs if applicable)	$	30.00
Returned Cheque (plus bank charge)	$	15.00
Legal Letter	$	15.00
Special Meter Reads	$	30.00
Meter dispute charge plus Measurement Canada fees (if meter found correct)	$	30.00
Non-Payment of Account		
Late payment - per month	%	1.50
Late payment – per annum	%	19.56
Collection of account charge – no disconnection	$	30.00
Collection of account charge – no disconnection – after regular hours	$	165.00
Disconnect/Reconnect Charge – At Meter During Regular Hours	$	65.00
Disconnect/Reconnect Charge – At Meter After Hours	$	185.00
Disconnect/Reconnect - At Pole – During Regular Hours	$	185.00
Disconnect/Reconnect - At Pole – After Hours	$	415.00
Install/remove load control device – during regular hours	$	65.00
Install/remove load control device – after regular hours	$	185.00
Service call – customer owned equipment		Time and materials
Service call – after regular hours		Time and materials
Temporary service install & remove – overhead – no transformer		Time and materials

PUC Distribution Inc. (PUC)

Temporary service install & remove – underground – no transformer		Time and materials
Temporary service install & remove – overhead – with transformer		Time and materials
Removal of overhead lines – during regular hours		Time and materials
Removal of overhead lines – after hours		Time and materials
Roadway escort – after regular hours		Time and materials
Specific Charge for Access to the Power Poles – per pole/year	$	22.35
Allowances		
Transformer Allowance for Ownership – per kW of billing demand/month	$/kW	(0.60)
Primary Metering Allowance for transformer losses – applied to measured demand and energy	%	(1.00)
Loss Factors		
Total loss Factor – Secondary Metered Customers <5,000 kW		1.0454
Total loss Factor – Primary Metered Customers < 5,000 kW		1.0350

PUC Distribution Inc. (PUC)

BILL IMPACTS:

This schedule presents the results of the assessment of customer total bill impacts by level of consumption by customer per rate class.

The bill impacts compare the distribution rates arising from the proposed 2008 revenue requirements to the current distribution rates applicable May 1, 2007. The rates are assessed on the basis of moving to the proposed distribution rates in this Exhibit including the Rate Rider for the recovery of regulatory asset variance accounts derived from Exhibit 5 and the proposed adjustments to the retail transmission rates.

There are no increases to the various rate classes in excess of 10% except for the streetlight and sentinel light classes. PUC is not proposing any rate mitigation measures as these classes have a revenue to expense percentage of only 40% at the proposed rates. The Board report regarding cost allocations recommends a range of 70% to 120% for the streetlight and sentinel light classes. PUC acknowledges that the streetlight and sentinel light rate classes remain outside the proposed revenue to expense ratio range, however since the proposed rates to increase the revenue to expense ratio to 40% is significant, does not propose a further increase at this time.

Exhibit: 9

PUC Distribution Inc. (PUC)

Residential
100 kWh Consumption

		2007 BILL			2008 BILL			IMPACT		
	Metric	Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				7.34			8.65	1.31	17.8%	7.2%
Distribution	kWh	100	0.01120	1.12	100	0.01720	1.72	0.60	53.6%	3.3%
Sub-Total				**8.46**			**10.37**	**1.91**	**22.6%**	**10.5%**
Regulatory Asset Recovery	kWh	100	0.00240	0.24	100	-0.00010	(0.01)	(0.25)	-104.2%	-1.4%
Retail Transmission - Network	kWh	104	0.00480	0.50	105	0.00430	0.45	(0.05)	-10.2%	-0.3%
Retail Transmission - Line and	kWh	104	0.00000	0.00	105	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	104	0.00520	0.54	105	0.00520	0.54	0.00	0.2%	0.0%
Rural Rate Protection Charge	kWh	104	0.00100	0.10	105	0.00100	0.10	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	100	0.00700	0.70	100	0.00700	0.70	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	104	0.05704	5.95	105	0.05704	5.96	0.01	0.2%	0.1%
Total Bill				**16.50**			**18.12**	**1.62**	**9.8%**	**9.0%**

Residential
250 kWh Consumption

		2007 BILL			2008 BILL			IMPACT		
	Metric	Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				7.34			8.65	1.31	17.8%	4.1%
Distribution	kWh	250	0.01120	2.80	250	0.01720	4.30	1.50	53.6%	4.6%
Sub-Total				**10.14**			**12.95**	**2.81**	**27.7%**	**8.7%**
Regulatory Asset Recovery	kWh	250	0.00240	0.60	250	-0.00010	(0.03)	(0.63)	-104.2%	-1.9%
Retail Transmission - Network	kWh	261	0.00480	1.25	261	0.00430	1.12	(0.13)	-10.2%	-0.4%
Retail Transmission - Line and	kWh	261	0.00000	0.00	261	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	261	0.00520	1.36	261	0.00520	1.36	0.00	0.2%	0.0%
Rural Rate Protection Charge	kWh	261	0.00100	0.26	261	0.00100	0.26	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	250	0.00700	1.75	250	0.00700	1.75	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	261	0.05704	14.87	261	0.05704	14.91	0.03	0.2%	0.1%
Total Bill				**30.23**			**32.33**	**2.10**	**6.9%**	**6.5%**

Exhibit: 9

PUC Distribution Inc. (PUC)

Residential
500 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				7.34			8.65	1.31	17.8%	2.3%
Distribution	kWh	500	0.01120	5.60	500	0.01720	8.60	3.00	53.6%	5.4%
Sub-Total				**12.94**			**17.25**	**4.31**	**33.3%**	**7.7%**
Regulatory Asset Recovery	kWh	500	0.00240	1.20	500	-0.00010	(0.05)	(1.25)	-104.2%	-2.2%
Retail Transmission - Network	kWh	522	0.00480	2.50	523	0.00430	2.25	(0.26)	-10.2%	-0.5%
Retail Transmission - Line and	kWh	522	0.00000	0.00	523	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	522	0.00520	2.71	523	0.00520	2.72	0.01	0.2%	0.0%
Rural Rate Protection Charge	kWh	522	0.00100	0.52	523	0.00100	0.52	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	500	0.00700	3.50	500	0.00700	3.50	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	522	0.05704	29.75	523	0.05704	29.81	0.07	0.2%	0.1%
Total Bill				**53.12**			**56.00**	**2.88**	**5.4%**	**5.1%**

Residential
750 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				7.34			8.65	1.31	17.8%	1.6%
Distribution	kWh	750	0.01120	8.40	750	0.01720	12.90	4.50	53.6%	5.6%
Sub-Total				**15.74**			**21.55**	**5.81**	**36.9%**	**7.3%**
Regulatory Asset Recovery	kWh	750	0.00240	1.80	750	-0.00010	(0.08)	(1.88)	-104.2%	-2.4%
Retail Transmission - Network	kWh	782	0.00480	3.75	784	0.00430	3.37	(0.38)	-10.2%	-0.5%
Retail Transmission - Line and	kWh	782	0.00000	0.00	784	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	782	0.00520	4.07	784	0.00520	4.08	0.01	0.2%	0.0%
Rural Rate Protection Charge	kWh	782	0.00100	0.78	784	0.00100	0.78	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	750	0.00700	5.25	750	0.00700	5.25	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	782	0.05704	44.62	784	0.05704	44.72	0.10	0.2%	0.1%
Total Bill				**76.01**			**79.68**	**3.67**	**4.8%**	**4.6%**

Exhibit: 9

PUC Distribution Inc. (PUC)

Residential
1,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				7.34			8.65	1.31	17.8%	1.3%
Distribution	kWh	1,000	0.01120	11.20	1,000	0.01720	17.20	6.00	53.6%	5.8%
Sub-Total				**18.54**			**25.85**	**7.31**	**39.4%**	**7.1%**
Regulatory Asset Recovery	kWh	1,000	0.00240	2.40	1,000	-0.00010	(0.10)	(2.50)	-104.2%	-2.4%
Retail Transmission - Network	kWh	1,043	0.00480	5.01	1,045	0.00430	4.50	(0.51)	-10.2%	-0.5%
Retail Transmission - Line and	kWh	1,043	0.00000	0.00	1,045	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	1,043	0.00520	5.42	1,045	0.00520	5.44	0.01	0.2%	0.0%
Rural Rate Protection Charge	kWh	1,043	0.00100	1.04	1,045	0.00100	1.05	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	1,000	0.00700	7.00	1,000	0.00700	7.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	1,043	0.05704	59.49	1,045	0.05704	59.63	0.14	0.2%	0.1%
Total Bill				**98.91**			**103.36**	**4.45**	**4.5%**	**4.3%**

Residential
1,500 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				7.34			8.65	1.31	17.8%	0.9%
Distribution	kWh	1,500	0.01120	16.80	1,500	0.01720	25.80	9.00	53.6%	6.0%
Sub-Total				**24.14**			**34.45**	**10.31**	**42.7%**	**6.8%**
Regulatory Asset Recovery	kWh	1,500	0.00240	3.60	1,500	-0.00010	(0.15)	(3.75)	-104.2%	-2.5%
Retail Transmission - Network	kWh	1,565	0.00480	7.51	1,568	0.00430	6.74	(0.77)	-10.2%	-0.5%
Retail Transmission - Line and	kWh	1,565	0.00000	0.00	1,568	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	1,565	0.00520	8.14	1,568	0.00520	8.15	0.02	0.2%	0.0%
Rural Rate Protection Charge	kWh	1,565	0.00100	1.56	1,568	0.00100	1.57	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	1,500	0.00700	10.50	1,500	0.00700	10.50	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	1,565	0.05704	89.24	1,568	0.05704	89.44	0.21	0.2%	0.1%
Total Bill				**144.69**			**150.71**	**6.02**	**4.2%**	**4.0%**

PUC Distribution Inc. (PUC)

Residential
2,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				7.34			8.65	1.31	17.8%	0.7%
Distribution	kWh	2,000	0.01120	22.40	2,000	0.01720	34.40	12.00	53.6%	6.1%
Sub-Total				**29.74**			**43.05**	**13.31**	**44.8%**	**6.7%**
Regulatory Asset Recovery	kWh	2,000	0.00240	4.80	2,000	-0.00010	(0.20)	(5.00)	-104.2%	-2.5%
Retail Transmission - Network	kWh	2,086	0.00480	10.01	2,091	0.00430	8.99	(1.02)	-10.2%	-0.5%
Retail Transmission - Line and	kWh	2,086	0.00000	0.00	2,091	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	2,086	0.00520	10.85	2,091	0.00520	10.87	0.02	0.2%	0.0%
Rural Rate Protection Charge	kWh	2,086	0.00100	2.09	2,091	0.00100	2.09	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	2,000	0.00700	14.00	2,000	0.00700	14.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	2,086	0.05704	118.99	2,091	0.05704	119.26	0.27	0.2%	0.1%
Total Bill				**190.47**			**198.06**	**7.59**	**4.0%**	**3.8%**

General Service Less Than 50 kW
1,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				11.20			15.40	4.20	37.5%	3.7%
Distribution	kWh	1,000	0.01870	18.70	1,000	0.02120	21.20	2.50	13.4%	2.2%
Sub-Total				**29.90**			**36.60**	**6.70**	**22.4%**	**5.9%**
Regulatory Asset Recovery	kWh	1,000	0.00200	2.00	1,000	-0.00040	(0.40)	(2.40)	-120.0%	-2.1%
Retail Transmission - Network	kWh	1,043	0.00440	4.59	1,045	0.00390	4.08	(0.51)	-11.2%	-0.5%
Retail Transmission - Line and	kWh	1,043	0.00000	0.00	1,045	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	1,043	0.00520	5.42	1,045	0.00520	5.44	0.01	0.2%	0.0%
Rural Rate Protection Charge	kWh	1,043	0.00100	1.04	1,045	0.00100	1.05	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	1,000	0.00700	7.00	1,000	0.00700	7.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	1,043	0.05704	59.49	1,045	0.05704	59.63	0.14	0.2%	0.1%
Total Bill				**109.45**			**113.39**	**3.94**	**3.6%**	**3.5%**

PUC Distribution Inc. (PUC)

General Service Less Than 50 kW
2,000 kWh Consumption

		2007 BILL			2008 BILL			IMPACT		
	Metric	Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				11.20			15.40	4.20	37.5%	2.0%
Distribution	kWh	2,000	0.01870	37.40	2,000	0.02120	42.40	5.00	13.4%	2.4%
Sub-Total				**48.60**			**57.80**	**9.20**	**18.9%**	**4.4%**
Regulatory Asset Recovery	kWh	2,000	0.00200	4.00	2,000	-0.00040	(0.80)	(4.80)	-120.0%	-2.3%
Retail Transmission - Network	kWh	2,086	0.00440	9.18	2,091	0.00390	8.15	(1.02)	-11.2%	-0.5%
Retail Transmission - Line and	kWh	2,086	0.00000	0.00	2,091	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	2,086	0.00520	10.85	2,091	0.00520	10.87	0.02	0.2%	0.0%
Rural Rate Protection Charge	kWh	2,086	0.00100	2.09	2,091	0.00100	2.09	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	2,000	0.00700	14.00	2,000	0.00700	14.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	2,086	0.05704	118.99	2,091	0.05704	119.26	0.27	0.2%	0.1%
Total Bill				**207.70**			**211.38**	**3.68**	**1.8%**	**1.7%**

General Service Less Than 50 kW
5,000 kWh Consumption

		2007 BILL			2008 BILL			IMPACT		
	Metric	Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				11.20			15.40	4.20	37.5%	0.8%
Distribution	kWh	5,000	0.01870	93.50	5,000	0.02120	106.00	12.50	13.4%	2.5%
Sub-Total				**104.70**			**121.40**	**16.70**	**16.0%**	**3.3%**
Regulatory Asset Recovery	kWh	5,000	0.00200	10.00	5,000	-0.00040	(2.00)	(12.00)	-120.0%	-2.4%
Retail Transmission - Network	kWh	5,215	0.00440	22.95	5,227	0.00390	20.39	(2.56)	-11.2%	-0.5%
Retail Transmission - Line and	kWh	5,215	0.00000	0.00	5,227	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	5,215	0.00520	27.12	5,227	0.00520	27.18	0.06	0.2%	0.0%
Rural Rate Protection Charge	kWh	5,215	0.00100	5.22	5,227	0.00100	5.23	0.01	0.2%	0.0%
Debt Retirement Charge	kWh	5,000	0.00700	35.00	5,000	0.00700	35.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	5,215	0.05704	297.46	5,227	0.05704	298.15	0.68	0.2%	0.1%
Total Bill				**502.44**			**505.34**	**2.90**	**0.6%**	**0.6%**

Exhibit: 9

PUC Distribution Inc. (PUC)

General Service Less Than 50 kW
10,000 kWh Consumption

	Metric	2007 BILL			2008 BILL			IMPACT		
		Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				11.20			15.40	4.20	37.5%	0.4%
Distribution	kWh	10,000	0.01870	187.00	10,000	0.02120	212.00	25.00	13.4%	2.5%
Sub-Total				**198.20**			**227.40**	**29.20**	**14.7%**	**2.9%**
Regulatory Asset Recovery	kWh	10,000	0.00200	20.00	10,000	-0.00040	(4.00)	(24.00)	-120.0%	-2.4%
Retail Transmission - Network	kWh	10,430	0.00440	45.89	10,454	0.00390	40.77	(5.12)	-11.2%	-0.5%
Retail Transmission - Line and	kWh	10,430	0.00000	0.00	10,454	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	10,430	0.00520	54.24	10,454	0.00520	54.36	0.12	0.2%	0.0%
Rural Rate Protection Charge	kWh	10,430	0.00100	10.43	10,454	0.00100	10.45	0.02	0.2%	0.0%
Debt Retirement Charge	kWh	10,000	0.00700	70.00	10,000	0.00700	70.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	10,430	0.05704	594.93	10,454	0.05704	596.30	1.37	0.2%	0.1%
Total Bill				**993.69**			**995.28**	**1.60**	**0.2%**	**0.2%**

General Service Less Than 50 kW
15,000 kWh Consumption

	Metric	2007 BILL			2008 BILL			IMPACT		
		Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				11.20			15.40	4.20	37.5%	0.3%
Distribution	kWh	15,000	0.01870	280.50	15,000	0.02120	318.00	37.50	13.4%	2.5%
Sub-Total				**291.70**			**333.40**	**41.70**	**14.3%**	**2.8%**
Regulatory Asset Recovery	kWh	15,000	0.00200	30.00	15,000	-0.00040	(6.00)	(36.00)	-120.0%	-2.4%
Retail Transmission - Network	kWh	15,645	0.00440	68.84	15,681	0.00390	61.16	(7.68)	-11.2%	-0.5%
Retail Transmission - Line and	kWh	15,645	0.00000	0.00	15,681	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	15,645	0.00520	81.35	15,681	0.00520	81.54	0.19	0.2%	0.0%
Rural Rate Protection Charge	kWh	15,645	0.00100	15.65	15,681	0.00100	15.68	0.04	0.2%	0.0%
Debt Retirement Charge	kWh	15,000	0.00700	105.00	15,000	0.00700	105.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	15,645	0.05704	892.39	15,681	0.05704	894.44	2.05	0.2%	0.1%
Total Bill				**1,484.93**			**1,485.22**	**0.29**	**0.0%**	**0.0%**

Exhibit: 9

PUC Distribution Inc. (PUC)

General Service 50 to 4,999 kW
60 kW Consumption
15,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				150.33			150.07	(0.26)	-0.2%	0.0%
Distribution	kW	60	3.67810	220.69	60	5.05140	303.08	82.40	37.3%	5.0%
Sub-Total				**371.02**			**453.15**	**82.14**	**22.1%**	**5.0%**
Regulatory Asset Recovery	kW	60	0.63010	37.81	60	-0.28160	(16.90)	(54.70)	-144.7%	-3.3%
Retail Transmission - Network	kW	63	1.79190	112.14	63	1.60390	100.60	(11.53)	-10.3%	-0.7%
Retail Transmission - Line and	kW	63	0.00000	0.00	63	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	15,645	0.00520	81.35	15,681	0.00520	81.54	0.19	0.2%	0.0%
Rural Rate Protection Charge	kWh	15,645	0.00100	15.65	15,681	0.00100	15.68	0.04	0.2%	0.0%
Debt Retirement Charge	kWh	15,000	0.00700	105.00	15,000	0.00700	105.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	15,645	0.05704	892.39	15,681	0.05704	894.44	2.05	0.2%	0.1%
Total Bill				**1,615.35**			**1,633.53**	**18.18**	**1.1%**	**1.1%**

General Service 50 to 4,999 kW
100 kW Consumption
40,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				150.33			150.07	(0.26)	-0.2%	0.0%
Distribution	kW	100	3.67810	367.81	100	5.05140	505.14	137.33	37.3%	3.7%
Sub-Total				**518.14**			**655.21**	**137.07**	**26.5%**	**3.7%**
Regulatory Asset Recovery	kW	100	0.63010	63.01	100	-0.28160	(28.16)	(91.17)	-144.7%	-2.5%
Retail Transmission - Network	kW	104	1.79190	186.90	105	1.60390	167.67	(19.22)	-10.3%	-0.5%
Retail Transmission - Line and	kW	104	0.00000	0.00	105	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	41,720	0.00520	216.94	41,816	0.00520	217.44	0.50	0.2%	0.0%
Rural Rate Protection Charge	kWh	41,720	0.00100	41.72	41,816	0.00100	41.82	0.10	0.2%	0.0%
Debt Retirement Charge	kWh	40,000	0.00700	280.00	40,000	0.00700	280.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	41,720	0.05704	2,379.71	41,816	0.05704	2,385.18	5.48	0.2%	0.1%
Total Bill				**3,686.42**			**3,719.17**	**32.75**	**0.9%**	**0.9%**

Exhibit: 9

PUC Distribution Inc. (PUC)

General Service 50 to 4,999 kW
500 kW Consumption
100,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				150.33			150.07	(0.26)	-0.2%	0.0%
Distribution	kW	500	3.67810	1,839.05	500	5.05140	2,525.70	686.65	37.3%	6.4%
Sub-Total				**1,989.38**			**2,675.77**	**686.39**	**34.5%**	**6.4%**
Regulatory Asset Recovery	kW	500	0.63010	315.05	500	-0.28160	(140.80)	(455.85)	-144.7%	-4.3%
Retail Transmission - Network	kW	522	1.79190	934.48	523	1.60390	838.36	(96.12)	-10.3%	-0.9%
Retail Transmission - Line and	kW	522	0.00000	0.00	523	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	104,300	0.00520	542.36	104,540	0.00520	543.61	1.25	0.2%	0.0%
Rural Rate Protection Charge	kWh	104,300	0.00100	104.30	104,540	0.00100	104.54	0.24	0.2%	0.0%
Debt Retirement Charge	kWh	100,000	0.00700	700.00	100,000	0.00700	700.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	104,300	0.05704	5,949.27	104,540	0.05704	5,962.96	13.69	0.2%	0.1%
Total Bill				**10,534.84**			**10,684.44**	**149.60**	**1.4%**	**1.4%**

General Service 50 to 4,999 kW
1,000 kW Consumption
400,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				150.33			150.07	(0.26)	-0.2%	0.0%
Distribution	kW	1,000	3.67810	3,678.10	1,000	5.05140	5,051.40	1,373.30	37.3%	3.8%
Sub-Total				**3,828.43**			**5,201.47**	**1,373.04**	**35.9%**	**3.8%**
Regulatory Asset Recovery	kW	1,000	0.63010	630.10	1,000	-0.28160	(281.60)	(911.70)	-144.7%	-2.5%
Retail Transmission - Network	kW	1,043	1.79190	1,868.95	1,045	1.60390	1,676.72	(192.23)	-10.3%	-0.5%
Retail Transmission - Line and	kW	1,043	0.00000	0.00	1,045	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	417,200	0.00520	2,169.44	418,160	0.00520	2,174.43	4.99	0.2%	0.0%
Rural Rate Protection Charge	kWh	417,200	0.00100	417.20	418,160	0.00100	418.16	0.96	0.2%	0.0%
Debt Retirement Charge	kWh	400,000	0.00700	2,800.00	400,000	0.00700	2,800.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	417,200	0.05704	23,797.09	418,160	0.05704	23,851.85	54.76	0.2%	0.2%
Total Bill				**35,511.21**			**35,841.03**	**329.82**	**0.9%**	**0.9%**

PUC Distribution Inc. (PUC)

General Service 50 to 4,999 kW
3,000 kW Consumption
1,000,000 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				150.33			150.07	(0.26)	-0.2%	0.0%
Distribution	kW	3,000	3.67810	11,034.30	3,000	5.05140	15,154.20	4,119.90	37.3%	4.4%
Sub-Total				**11,184.63**			**15,304.27**	**4,119.64**	**36.8%**	**4.4%**
Regulatory Asset Recovery	kW	3,000	0.63010	1,890.30	3,000	-0.28160	(844.80)	(2,735.10)	-144.7%	-3.0%
Retail Transmission - Network	kW	3,129	1.79190	5,606.86	3,136	1.60390	5,030.15	(576.70)	-10.3%	-0.6%
Retail Transmission - Line and	kW	3,129	0.00000	0.00	3,136	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	1,043,000	0.00520	5,423.60	1,045,400	0.00520	5,436.08	12.48	0.2%	0.0%
Rural Rate Protection Charge	kWh	1,043,000	0.00100	1,043.00	1,045,400	0.00100	1,045.40	2.40	0.2%	0.0%
Debt Retirement Charge	kWh	1,000,000	0.00700	7,000.00	1,000,000	0.00700	7,000.00	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	1,043,000	0.05704	59,492.72	1,045,400	0.05704	59,629.62	136.90	0.2%	0.1%
Total Bill				**91,641.11**			**92,600.72**	**959.61**	**1.0%**	**1.0%**

Unmetered Scattered Load
0 kW Consumption
60 kWh Consumption

	Metric	2007 BILL Volume	2007 BILL Rate $	2007 BILL Charge $	2008 BILL Volume	2008 BILL Rate $	2008 BILL Charge $	IMPACT Change $	IMPACT Change %	IMPACT % of Total Bill
Monthly Service Charge				10.94			10.94	0.00	0.0%	0.0%
Distribution	kW	60	0.01870	1.12	60	0.03200	1.92	0.80	71.1%	4.6%
Sub-Total				**12.06**			**12.86**	**0.80**	**6.6%**	**4.6%**
Regulatory Asset Recovery	kW	60	0.00200	0.12	60	-0.00040	(0.02)	(0.14)	-120.0%	-0.8%
Retail Transmission - Network	kW	63	0.00440	0.28	63	0.00390	0.24	(0.03)	-11.2%	-0.2%
Retail Transmission - Line and	kW	63	0.00000	0.00	63	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	63	0.00520	0.33	63	0.00520	0.33	0.00	0.2%	0.0%
Rural Rate Protection Charge	kWh	63	0.00100	0.06	63	0.00100	0.06	0.00	0.2%	0.0%
Debt Retirement Charge	kWh	60	0.00700	0.42	60	0.00700	0.42	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	63	0.05704	3.57	63	0.05704	3.58	0.01	0.2%	0.0%
Total Bill				**16.83**			**17.47**	**0.63**	**3.8%**	**3.6%**

PUC Distribution Inc. (PUC)

Unmetered Scattered Load

0 kW Consumption

2,436 kWh Consumption

	Metric	2007 BILL			2008 BILL			IMPACT		
		Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				10.94			10.94	0.00	0.0%	0.0%
Distribution	kW	2,436	0.01870	45.55	2,436	0.03200	77.95	32.40	71.1%	11.7%
Sub-Total				**56.49**			**88.89**	**32.40**	**57.3%**	**11.7%**
Regulatory Asset Recovery	kW	2,436	0.00200	4.87	2,436	-0.00040	(0.97)	(5.85)	-120.0%	-2.1%
Retail Transmission - Network	kW	2,541	0.00440	11.18	2,547	0.00390	9.93	(1.25)	-11.2%	-0.5%
Retail Transmission - Line and	kW	2,541	0.00000	0.00	2,547	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	2,541	0.00520	13.21	2,547	0.00520	13.24	0.03	0.2%	0.0%
Rural Rate Protection Charge	kWh	2,541	0.00100	2.54	2,547	0.00100	2.55	0.01	0.2%	0.0%
Debt Retirement Charge	kWh	2,436	0.00700	17.05	2,436	0.00700	17.05	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	2,541	0.05704	144.92	2,547	0.05704	145.26	0.33	0.2%	0.1%
Total Bill				**250.27**			**275.95**	**25.67**	**10.3%**	**9.3%**

PUC Distribution Inc. (PUC)

Sentinel Lighting
63 kW Consumption
22,777 kWh Consumption

		2007 BILL			2008 BILL			IMPACT		
	Metric	Volume	Rate $	Charge $	Volume	Rate $	Charge $	Change $	Change %	% of Total Bill
Monthly Service Charge				1.32			1.93	0.61	46.2%	0.0%
Distribution	kW	63	8.59920	541.75	63	14.47570	911.97	370.22	68.3%	14.0%
Sub-Total				**543.07**			**913.90**	**370.83**	**68.3%**	**14.0%**
Regulatory Asset Recovery	kW	63	0.61600	38.81	63	-0.23990	(15.11)	(53.92)	-138.9%	-2.0%
Retail Transmission - Network	kW	66	1.35830	89.25	66	1.21580	80.07	(9.18)	-10.3%	-0.3%
Retail Transmission - Line and	kW	66	0.00000	0.00	66	0.00000	0.00	0.00		0.0%
Wholesale Market Service	kWh	23,756	0.00520	123.53	23,811	0.00520	123.82	0.28	0.2%	0.0%
Rural Rate Protection Charge	kWh	23,756	0.00100	23.76	23,811	0.00100	23.81	0.05	0.2%	0.0%
Debt Retirement Charge	kWh	22,777	0.00700	159.44	22,777	0.00700	159.44	0.00	0.0%	0.0%
Cost of Power Commodity	kWh	23,756	0.05704	1,355.07	23,811	0.05704	1,358.18	3.12	0.2%	0.1%
Total Bill				**2,332.92**			**2,644.11**	**311.19**	**13.3%**	**11.8%**