Company Evidence October 2015

# **VOLUME 3: EXPERT EVIDENCE & STUDIES**

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- 2. Depreciation Study: Mr. John Wiedmayer, Gannett Fleming, Valuation and Rate Consultants, LLC

**REPORT:** 

**COST OF CAPITAL** 

PREPARED FOR:

NEWFOUNDLAND POWER INC.

BEFORE THE:

NEWFOUNDLAND AND LABRADOR BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

OCTOBER 16, 2015



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#### I. INTRODUCTION

# A. Qualifications

My name is James M. Coyne, and I am employed by Concentric Energy Advisors, Inc.

("Concentric") as a Senior Vice President. My business address is 293 Boston Post Road West,

Suite 500, Marlborough, MA 01752. I am testifying on behalf of Newfoundland Power Inc.

("Newfoundland Power" or the "Company"), a subsidiary of Fortis, Inc.

I am among Concentric's professionals who provide expert testimony before federal, state and Canadian provincial agencies on matters pertaining to economics, finance, and public policy in the energy industry. Concentric provides financial, economic and regulatory advisory services to clients across North America, including utility companies, regulatory and public agencies, and utility sector investors. I regularly advise utilities, generating companies, public agencies and private equity investors on business issues pertaining to the utilities industry. This work includes calculating the cost of capital for the purpose of ratemaking, and providing expert testimony and studies on matters pertaining to incentive regulation, rate policy, valuation, capital costs, demand side management, low-income programs, fuels and power markets. I have testified or provided expert evidence in state, provincial and federal jurisdictions in Canada and the U.S. This work has been provided on behalf of utilities, regulatory commissions, and staff.

I am also a frequent speaker and author of articles and white papers on the energy industry. Recently, on behalf of the Canadian Gas Association and the Canadian Electric Association, I prepared a discussion paper for utility executives and provincial regulators that examined the roles that Canada's utilities and regulators can play to promote innovation. In addition, I facilitated workshops between Canadian regulators and utility executives on regulatory and utility responses to a low carbon world, and drafted follow-up white papers to facilitate further discussion on emerging industry issues. In collaboration with the Canadian Gas and Canadian Electricity Associations, I also publish a newsletter summarizing allowed ROEs and capital structures for gas and electric utilities in Canada and the U.S. I have been an invited speaker for several CAMPUT events, including the recent Energy Regulation Course at Queen's University where I spoke on "Innovations in Utility Business Models and Regulation".



Prior to joining Concentric, I was Senior Managing Director in the Corporate Economics Practice for FTI/Lexecon, and Managing Director for Arthur Andersen's Energy & Utilities Corporate Finance Practice. In those positions, I provided expert testimony and advisory services on mergers, acquisitions, divestitures and capital markets for clients in the energy industry. In addition to the foregoing positions, I was also Managing Director for Navigant Consulting, with responsibility for the firm's Financial Services practice, Director in DRI's Electric and Natural Gas practices, and Senior Economist for the Massachusetts Energy Facilities Siting Council, where I analyzed the supply plans and facilities proposals from the state's electric and gas utilities. I also served as State Energy Economist for the Maine Office of Energy Resources. I hold a B.S. in Business Administration from Georgetown University and a M.S. in Resource Economics from the University of New Hampshire. My qualifications are detailed more fully in Attachment 1.

# B. Executive Summary

I have been asked to provide an estimate of the cost of capital for Newfoundland Power Inc. ("Newfoundland Power") for the purpose of establishing the return on equity ("ROE") and capital structure. In order to estimate the cost of capital, I have relied upon analytical tools and data sources normally used for such purposes before regulators in Canada and the U.S. I have also reviewed past decisions of the Newfoundland and Labrador Board of Commissioners of Public Utilities (the "Board") in consideration of such matters. The analysis provided in this report supports my overall recommendation on the cost of equity and capital structure for Newfoundland Power. That analysis includes the following:

- 1) examination of the legal and regulatory requirements for determination of a fair rate of return;
- selection of Canadian, U.S. and North American proxy groups with companies comparable to Newfoundland Power with respect to business and financial risks;
- estimation of the cost of common equity for the proxy group companies using the Discounted Cash Flow ("DCF") method and the Capital Asset Pricing Model ("CAPM");
- 4) examination of authorized returns on equity for other investor-owned electric utilities in Canada and the U.S.; and



5) development of a range of results for the Canadian, U.S. and North American proxy groups.

In Appendix A, I provide an assessment of the appropriateness of Newfoundland Power's proposed capital structure based on an examination of the Company's business and financial risks relative to the respective proxy groups.

As shown in Figure 1, the various ROE estimation models produce a range of results for the proxy group companies from 9.0 percent to 12.8 percent. The average of all methods is 10.1 percent. Because the utilities selected in the North American Electric Utilities proxy group are most representative of Newfoundland Power, I place greater weight on those results.

Figure 1: Summary of Results (including flotation costs)<sup>1</sup>

	Canadian Regulated Utilities	US Electric Utilities	North American Electric Utilities	Average
САРМ	9.0%	10.4%	10.1%	9.8%
Constant Growth DCF	12.8%	9.8%	9.6%	10.7%
Multi-Stage DCF	10.3%	9.5%	9.2%	9.6%
Average	10.7%	9.9%	9.7%	10.1%

The average of all three methods for the North American proxy group is 9.7 percent, within the range of 9.2 – 10.1 percent. Based on this analysis, I believe that a reasonable estimate of Newfoundland Power's required cost of equity is 9.5 percent. This is just below the average of 9.7 percent across all three methods, centered within the North American range, and supported by all other methods and proxy groups with the exception of the Canadian CAPM. In addition, as discussed in more detail in Appendix A on capital structure, a common equity ratio of 45 percent remains reasonable, given the business risks of Newfoundland Power.

DCF results are based on average 90-day stock prices for proxy group companies.



# C. Report Organization

The remainder of the report is organized as follows: Section II discusses the legal requirements and regulatory precedents for the determination of a fair rate of return; Section III provides an overview of economic and financial market conditions in Canada and how those conditions affect the cost of equity for Newfoundland Power. Section IV describes the selection of proxy group companies to estimate the cost of equity for Newfoundland Power and discusses the precedent in Canada for considering the use of U.S. data; Section V discusses the methods used to estimate the cost of equity and summarizes the results of the DCF and CAPM analyses. Section VI addresses the use of an automatic adjustment mechanism for future ROE determinations, and Section VII summarizes my overall conclusions and recommendations. The accompanying Appendix A provides an assessment of a reasonable capital structure for Newfoundland Power given the business and financial risks of the Company.

# II. LEGAL REQUIREMENTS AND KEY REGULATORY PRECEDENTS FOR

#### THE DETERMINATION OF A FAIR RETURN

#### A. The Fair Return Standard

The principles surrounding the concept of a "fair return" for a regulated company were first established by the Supreme Court of Canada in Northwestern Utilities v. City of Edmonton (1929) ("Northwestern"), where the Supreme Court found:

By a fair return is meant that the company will be allowed as large a return on the capital invested in its enterprise (which will be net to the company) as it would receive if it were investing the same amount in other securities possessing an attractiveness, stability and certainty equal to that of the company's enterprise.<sup>2</sup>

United States common law regarding fair return for utility cost of capital has evolved similarly. In Bluefield Water Works & Improvement Company v. Public Service Commission of West Virginia (262 U.S. 679, 693 (1923)), the Court stated:

The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and

Northwestern, at p. 186.



economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

The U.S. Supreme Court further elaborated on this requirement in its decision in *Federal Power Commission v. Hope Natural Gas Company* (320 U.S. 591, 603 (1944)), when it described the relevant criteria as follows:

From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock.... By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

With the passage of time, the Fair Return Standard has been interpreted many times in both Canada and the U.S. For example, the National Energy Board ("NEB") summarized its interpretation of the "fair return standard" in its RH-2-2004 Phase II Decision and more recently reiterated that interpretation in its *Trans Québec & Maritimes Pipelines Inc.* RH-1-2008 Decision.

The Board is of the view that the fair return standard can be articulated by having reference to three particular requirements. Specifically, a fair or reasonable return on capital should:

- be comparable to the return available from the application of the invested capital to other enterprises of like risk (the comparable investment standard);
- enable the financial integrity of the regulated enterprise to be maintained (the financial integrity standard); and
- permit incremental capital to be attracted to the enterprise on reasonable terms and conditions (the capital attraction standard).
- In the Board's view, the determination of a fair return in accordance with these enunciated standards will, when combined with other aspects for the Mainline's revenue requirement, result in tolls that are just and reasonable.<sup>3</sup>

National Energy Board RH-2-2004 Reasons for Decision, TransCanada PipeLines Ltd, Phase II, April 2005, at p. 17.



All three standards must be met, and none ranks in priority to the others. To that point, the Ontario Energy Board ("OEB") articulated the legal requirements for satisfying the Fair Return Standard in Canada in its 2009 Generic Cost of Capital Order as follows:

The Board affirms its view that the Fair Return Standard frames the discretion of a regulator, by setting out the three requirements that must be satisfied by the cost of capital determinations of the tribunal. Meeting the standard is not optional; it is a legal requirement. Notwithstanding this obligation, the Board notes that the Fair Return Standard is sufficiently broad that the regulator that applies it must still use informed judgment and apply its discretion in the determination of a rate regulated entity's cost of capital.<sup>4</sup>

... all three standards or requirements (comparable investment, financial integrity, and capital attraction) must be met and none ranks in priority to the others. The Board agrees with the comments made to the effect that the cost of capital must satisfy all three requirements which can be measured through specific tests and that focusing on meeting the financial integrity and capital attraction tests without giving adequate comparability to the comparable investment test is not sufficient to meet the [Fair Return Standard].<sup>5</sup>

The Board embraces the same legal standards for the application of the fair return standard as those put forth by the NEB, the OEB and those established through Canadian and U.S. common law. In that regard, the Board has stated:

In determining a fair return, the Board is required to observe the power policy of the Province as set out in the *Electrical Power Control Act, 1994, SNL 1994, c. E-5.1.* Paragraph 3(a)(iii) states that the rates for the supply of power within the Province should provide sufficient revenue to enable a utility to earn a just and reasonable return so that it is able to achieve and maintain a sound credit rating in the financial markets of the world.<sup>6</sup>

In 2009, the Board addressed the three elements of the fair return standard directly, writing: "To be considered fair the return must be commensurate with the return on investments of similar risk and sufficient to assure financial integrity and to attract necessary capital."

Ontario Energy Board, EB-2009-084, Report of the Board on the cost of Capital for Ontario's Regulated Utilities, December 11, 2009, at i.

<sup>&</sup>lt;sup>5</sup> *Ibid*, at p. 19.

Newfoundland and Labrador Board of Commissioners of Public Utilities, Order No. P.U. 13(2013), at 12.

Newfoundland and Labrador Board of Commissioners of Public Utilities, Order No. P.U. 43(2009), at 11.



The assessment of whether the Fair Return Standard has been met requires an examination of the required returns by investors in comparable risk enterprises. Investors must consider whether there are alternative investment opportunities that would provide a better return for the same risk. This weighing of alternatives and the highly competitive nature of capital markets causes stocks and bonds to settle on a price that provides investors with a return that is adequate for the risks involved. Thus, for any given level of risk, there is a corresponding return that investors expect in order to take on that risk and not invest their money elsewhere. That return is referred to as the "opportunity cost" of capital or "investor required" return.

In addition to setting the fair return at the "opportunity cost" of capital, a fair return must also be adequate to maintain the financial integrity of the utility, which requires a return sufficient to maintain credit metrics such that the utility can maintain a favorable credit rating in order to minimize debt costs and provide lenders assurance that the company's earnings are adequate to meet its fixed obligations. Finally, a fair return must be sufficient to attract incremental capital on reasonable terms and conditions, to the benefit of both investors and customers.

# B. The Stand-Alone Principle

The Stand-Alone Principle provides that the utility must be regulated as if it were a stand-alone entity, raising capital on the merits of its own business and financial characteristics. In this way, capital may be efficiently allocated, with each business segment earning a return based on its own unique set of risks and business characteristics regardless of affiliations within the holding company structure. In order to establish a fair return and satisfy the Stand-Alone Principle, the utility must be allowed a return sufficient to meet all three requirements of the Fair Return Standard on the basis of the utility's individual merits.

# C. The Relationship Between Capital Structure and ROE

The cost of common equity depends in part on the company's capital structure. The equity ratio and equity rate of return must therefore be considered together to determine whether the Fair Return Standard has been met. Other factors being equal, firms with lower common equity ratios require higher rates of return to compensate shareholders for the additional financial risks. Consequently, when a regulator approves a capital structure, that decision impacts the required



1 rate of return on common equity. Appendix A provides an assessment of the appropriate capital 2 structure for Newfoundland Power.

The risk to the earnings stream of the company is a function of both its business and financial risk. Business risk refers to the political and regulatory environment that the company operates within and the operational and competitive forces that could potentially exert pressure on earnings. Financial risk refers to the amount of debt in the utility's capital structure and the extent to which fixed debt obligations must be met before utility shareholders receive their returns. Both business and financial risks therefore need to be considered when setting the capital structure.

#### III. ECONOMIC AND CAPITAL MARKET CONDITIONS

# A. Changes in Economic and Capital Market Conditions Since 2012

Globally, economic and capital market conditions today are generally more favorable than in September 2012 when the Company last filed cost of capital evidence, although the outlook is somewhat mixed. In September 2012, the Canadian and U.S. economies were still recovering from the global financial crisis. As of September 2015, the financial system has stabilized, economic growth had resumed albeit at somewhat lower than normal levels prior to sliding into a technical recession for the first two quarters of 2015, and unemployment rates have declined in Canada.

The global economy has become increasingly interdependent. It is nearly impossible for a disruption in one major economy not to have a ripple effect throughout the global economy. This has been underscored by the recent weakness in the Chinese economy and its reverberations throughout global economies and capital markets. Beginning from that global perspective, the Bank of Canada rates the key risks to the Canadian financial system to range from "moderate" to "elevated," and projects a modest pickup in global economic growth for 2015 and 2016, as investor confidence increases and consumers and businesses realize the benefits of recent deleveraging, accommodative monetary policy, low oil prices and financial repair.

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<sup>&</sup>lt;sup>8</sup> Bank of Canada, Financial System Review June 2015, at 3.



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The U.S. was identified as leading the global recovery. The Bank of Canada predicts that monetary policy will begin to normalize in advanced economies, and interest rates are projected to rise. Financial market volatility will begin to reflect two-sided interest rate risk. The Bank of Canada sees challenges to the global economic outlook arising from the repercussions of rising interest rates on emerging market economies, the significant challenges faced by the Chinese economy due to its sharp slow-down in economic growth, a real estate market correction and slower growth in investment spending, and the impact of low oil prices on the Canadian economy. Prolonged low oil prices in Canada will increase the vulnerability of the Canadian financial system to adverse shocks to employment and income.9

The Bank of Canada predicts that the U.S. economic recovery will continue to strengthen despite a weaker than expected start to the year, attributed to a harsh winter. The stalled growth in China and the euro area may serve as a drag on the Canadian economy. The Canadian economy is currently in a technical recession, with two consecutive quarters of negative GDP growth. The Bank of Canada acknowledges that much of the world, including Canada and the U.S., continues to be highly dependent on stimulative monetary conditions which have resulted in interest rates near historic lows, equity indexes near all-time highs, and volatility in financial markets. These stimulative monetary policies cause certain vulnerabilities in the Canadian financial system.<sup>10</sup>

The Conference Board of Canada ("Conference Board") adopts a similar view. Economic conditions in Canada are expected to weaken in 2015 as plummeting oil prices have a significant negative impact on the Canadian economy. In addition to low oil prices, economic growth will also be affected by weaker growth in household spending, a result of high debt levels and ongoing fiscal restraint at both the national and provincial levels. 11 Though low oil prices provide a benefit to Canadian consumers, the negative impact on the Canadian oil industry more than offset these gains. Commodity prices have risen modestly from recent lows, but remain well below levels of a year ago. Weak oil prices and the weaker-than-expected U.S. recovery in the first quarter of 2015 led to a contraction in the Canadian economy in the beginning of 2015.

Ibid, at 1-3.

<sup>10</sup> Ibid.

The Conference Board of Canada, "Provincial Outlook 2015, Long-Term Economic Forecast," April 2015, at i.



The Bank of Canada projects the Canadian economy will continue to strengthen despite lower oil prices due to the anticipated strengthening of the U.S. economy and supportive financial conditions. The U.S. continues its economic recovery at a steady, but uneven pace. Based on recently revised data, U.S. GDP growth for Q1 2015 was 0.6 percent, and rebounded in Q2 2015 to an annual rate of 3.7 percent. With consumer confidence reaching the highest point in the last five years, the U.S. economy is on track to continue its strengthening trend with expectations of 3 percent real GDP growth for 2015 and 2016. U.S. consumer spending has benefited from a drop in fuel prices, with the price of West Texas Intermediate now in the mid \$40/barrel range, after dropping from over \$100/barrel. The U.S. economic recovery is also fueled by an improving job market, with unemployment rates dropping to 5.3 percent in August 2015, and projected to continue to decline in to 5.0 percent in 2016. The strong U.S. dollar and a European economic downturn may negatively affect U.S. exports, but the loss from declining exports has thus far been more than offset by the savings on oil imports due to lower oil prices.

As shown in Figure 2, the 30-day average yields on 10- and 30-year long-term Canadian government bonds were 1.49 percent and 2.24 percent, respectively, in August 2015 compared to levels of 1.74 percent and 2.33 percent in June 2012. Despite an uptick in the second half of 2012 and the first half of 2013, bond yields remain near all-time lows and reflect the prolonged period of accommodative monetary policy in Canada and the U.S. following the financial crisis. The Bank of Canada surprised investors in both January and July 2015 when it cut short-term interest rates by 0.25 percent each time, citing concerns about the Canadian economy due to the rapid drop in oil prices and weak exports. Although the Canadian economy is currently in a technical recession, the Bank of Canada projects a return to economic growth in the third quarter of 2015, led by improvement in the non-resources sectors of the economy. According to Blue Chip Financial Forecast, almost 96 percent of panelists surveyed expect the U.S. Federal Reserve to begin raising short-term interest rates before the end of 2015. These plans, however, may be

Bank of Canada, Financial System Review, June 2015, at 5.

<sup>13</sup> Ibid.

<sup>&</sup>lt;sup>14</sup> *Ibid*.

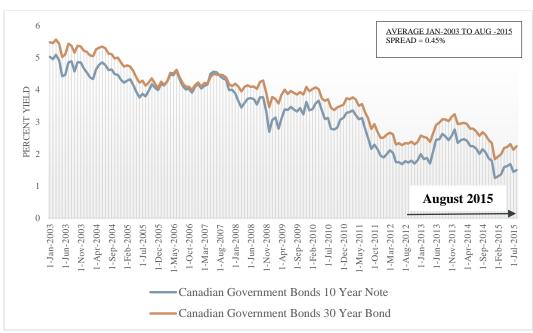
<sup>&</sup>lt;sup>15</sup> Blue Chip Financial Forecast, Volume 34, Issue No. 9, September 1, 2015, at 14.



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- tempered by the recent disruptions in global stock markets amid uncertainty regarding the impacts of a slowdown in the Chinese economy.
  - Figure 2: Canadian Government Bond Yields, 10-Year and 30-Year



Source: Bloomberg series C29530Y

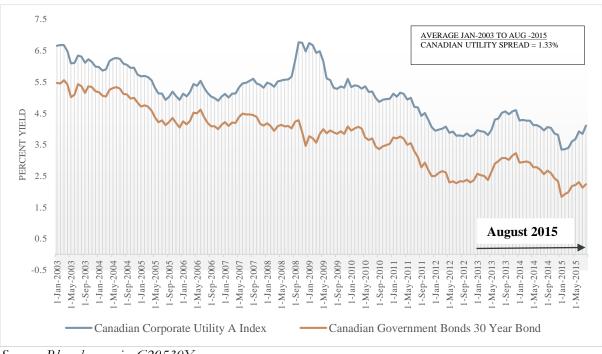
Despite lower government bond yields, yields on corporate bonds and credit spreads have actually moved up from June 2012. As Figure 3 shows, the Canadian Utility A-rated bond index yield increased from 3.92 percent in June 2012 to 4.10 percent in August 2015. Figure 4 shows that the Canadian Utility A-rated spread was 1.59 percent in June 2012 versus 1.87 percent in August 2015, or an increase of 28 basis points, suggesting that corporate and utility risk have not declined since 2012 in the eyes of debt investors, but have actually widened over the past several months.

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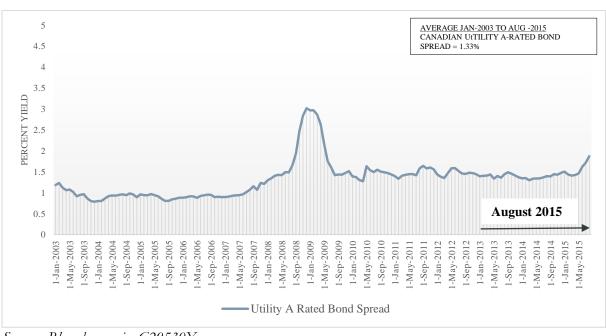


Figure 3: Canadian Utility A-Rated Bond vs. 30-Year Canada Long Bond



Source: Bloomberg series C29530Y

Figure 4: Canadian Utility A-Rated Bond Spread vs. 30-Year Canada Long Bond



Source: Bloomberg series C29530Y



Conditions in the Canadian equity market have also evolved since 2012, as the prolonged period of low interest rates has encouraged investors to move out of low yielding investments such as government bonds into higher return investments such as equities. This has caused valuation levels of Canadian stocks (as measured by the Price/Earnings ratio) to increase over the past five years, as share prices have risen faster than earnings. The same phenomenon has occurred among shares of regulated utility companies, with valuations for these companies at elevated levels compared to historical norms as investors seek out the dividend yields that utilities offer.

Overall, capital market conditions in Canada and the U.S. have generally improved since June 2012. Equity valuations have increased in this low interest rate environment. However, investor expectations call for tighter monetary policy in the upcoming year, leading to higher interest rates in both the U.S. and Canada. Corporate and utility debt costs have already moved modestly higher. Recent volatility in equity markets is a reminder that global forces are at play in the Canadian and U.S. economies that can cause unanticipated market disruptions.

# B. Integration of Canadian and U.S. Capital Markets

In a world of increasingly linked economies and capital markets, investors seek returns from a global basket of investment options, and they distinguish between risks on a country-to-country basis, factoring in the comparability of the economies and the business environments. Country-specific economic and business conditions that affect investment risk may be measured through a variety of qualitative and quantitative metrics.

As shown in Exhibit JMC-1, the correlation between real GDP growth rates in Canada and the U.S. has been strong, as has the correlation between the consumer price indices for each country, indicating that these metrics have tended to move together over time. Over the 25-year period, real GDP growth has been 2.29 percent in Canada and 2.41 percent in the U.S., while consumer inflation has been 2.08 percent in Canada and 2.63 percent in the U.S. Unemployment rates over the 25 year period have averaged higher in Canada (e.g., 7.40 percent in Canada vs. 6.12 percent in the U.S. since 1990), but that trend reversed in 2008 when U.S. unemployment exceeded that in Canada. The U.S. was harder hit and initially slower to recover from the recent recession than its Canadian neighbors, but the U.S. continues its economic recovery, the gap in unemployment



1 rates between the two countries has closed, and current U.S. unemployment of 5.3 percent is now lower than that in Canada.

The average yield on 10-year government bonds has also been very similar in Canada and the U.S. Over the past decade, the average yield on 10-year Canadian government bonds was 3.17 percent, compared to 3.33 percent in the U.S. The 5-year averages for the Canadian and U.S. 10-year government bond yields are very close at 2.46 percent for Canada and 2.54 percent for the U.S. The average yield on 10-year government bonds for 2014 was 2.23 percent in Canada and 2.53 percent in the U.S. The correlation between average yields on 10-year government bonds in Canada and the U.S. since 1990 has been very strong at 0.97, the highest of all macroeconomic indicators compared. Correlations of this degree are reflective of closely integrated financial markets.

The magnitude and significance of trade between the two countries reflects the high degree of integration between the two economies. In 2014, in terms of trade in goods, 76.8 percent of Canada's total exports went to the U.S., and imports from the U.S. accounted for 54.3 percent of Canada's total imports. According to a report by the Congressional Research Service ("CRS"), Canada is the largest single-nation trading partner of the U.S. The CRS observes:

That the United States and Canada trade substantial volumes of the same goods bespeaks the economic integration of the two economies. This integration has been assisted by trade liberalization over the past 40 years, beginning with the Automotive Agreement of 1965 (which eliminated tariffs on shipments of autos and auto parts between the two countries), through the Canada-U.S. Free Trade Agreement of 1989, and NAFTA [the North American Free Trade Agreement of 1994].<sup>17</sup>

The recently announced Trans-Pacific Partnership is expected to further expand Canadian-U.S. trade with the other members of the 12-nation group. Of this group, Canada is the largest trade partner of the U.S. at \$685 billion, with only Mexico at \$534 billion near this level of combined import/export trade.<sup>18</sup>

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<sup>&</sup>lt;sup>16</sup> Source: Trade Data Online – Canadian Trade Industry, Industry Canada.

Ian F. Fergusson, "United States – Canada Trade and Economic Relationship: Prospects and Challenges," Congressional Research Service, September 14, 2011, at 3.

<sup>&</sup>lt;sup>18</sup> The New York Times, October 6, 2015.



On balance, the economic and business environments of Canada and the U.S. are highly integrated and exhibit strong correlation across a variety of metrics, including GDP growth and government bond yields. Based on these macroeconomic indicators, there are no fundamental dissimilarities between Canada and the U.S. (*i.e.*, in terms of economic growth, inflation, unemployment, or government bond yields) that would cause a reasonable investor to have materially different return expectations for a group of comparably situated utilities in the two countries.

# IV. SELECTION OF PROXY COMPANIES

Since the ROE is a market-based concept, and given the fact that Newfoundland Power is not publicly-traded, it is necessary to establish a group of companies that are both publicly-traded and comparable to Newfoundland Power's business and financial characteristics to serve as its "proxy" for purposes of the ROE estimation process. Even if Newfoundland Power's regulated electric utility operations made up the entirety of a publicly traded entity, transitory events could bias that entity's market value in one way or another over a given period of time. A significant benefit of using a proxy group is that it provides the ability to mitigate the effects of anomalous events that may be associated with any one company. The proxy companies used in my ROE analyses possess a set of business and financial characteristics that are similar to Newfoundland Power's regulated electric utility operations, and thus provide a reasonable basis for the derivation and assessment of ROE and capital structure estimates.

I developed three proxy groups for the ROE analysis. The first proxy group is comprised of publicly traded, regulated Canadian electric and natural gas utility companies. Recognizing there are few publicly traded companies in the utility sector in Canada, the only screening criterion was an investment grade credit rating, which all companies in the sector have. Fortis, Inc. has been excluded from the Canadian Utility proxy group because it is the parent company of Newfoundland Power. Further, TransCanada has been excluded from the Canadian Utility proxy group due to the risk profile of the TransCanada Mainline, which arguably presents more risk than electric utility operations. The following four companies comprise the Canadian Utility Proxy Group:



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Figure 5: Canadian Utility Proxy Group

Company	Ticker
Canadian Utilities Limited	CU
Emera, Inc.	EMA
Enbridge, Inc.	ENB
Valener	VNR

The second proxy group is comprised of U.S. electric utility companies that would be considered by investors as generally comparable in risk to Newfoundland Power. To obtain companies of like-risk, I performed a number of screens to develop a group of companies that is primarily engaged in the provision of regulated electric utility service. Starting with the 46 companies Value Line classifies as Electric Utilities, I further screened for companies that meet the following criteria:

- 1) Credit ratings of at least BBB+ from S&P or Baa1 from Moody's;
- 2) Consistently pay quarterly cash dividends;
- 3) Positive earnings growth rate projections from at least two sources;
- 4) At least 70 percent of their operating income derived from regulated operations in the period from 2012-2014;
- 5) At least 90 percent of their regulated operating income derived from electric utility service in the period from 2012-2014; and
- 6) Not involved in a merger or other significant transformative transaction during the evaluation period.

I also considered whether each company that passed the screening criteria was, in fact, generally comparable to Newfoundland Power in terms of business and financial risk. On that basis, two additional companies were excluded: Edison International and ITC Holdings Corp.



1 The following seven U.S. electric utility companies met the screening criteria:

# Figure 6: U.S. Electric Proxy Group

Company	Ticker
ALLETE, Inc.	ALE
Duke Energy Corporation	DUK
Eversource Energy	EV
Great Plains Energy Inc.	GXP
OGE Energy Corporation	OGE
Pinnacle West Capital Corp.	PNW
Westar Energy, Inc.	WR

- 3 The third proxy group is comprised of all seven U.S. electric utilities in Figure 6 plus the two
- 4 Canadian investor-owned utilities that are primarily engaged in the provision of electricity (i.e.,
- 5 Canadian Utilities Limited and Emera). This group is referred to as the North American Electric
- 6 proxy group.

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Figure 7: North American Electric Proxy Group

Company	Ticker
ALLETE, Inc.	ALE
Canadian Utilities Limited	CU
Duke Energy Corporation	DUK
Emera, Inc.	EMA
Eversource Energy	EV
Great Plains Energy Inc.	GXP
OGE Energy Corporation	OGE
Pinnacle West Capital Corp.	PNW
Westar Energy, Inc.	WR

8 Profiles of each Canadian and U.S. proxy group company are provided in Exhibit JMC-2.



# A. Use of U.S. Data and Proxy Groups

Canadian regulators have accepted the use of U.S. data and proxy groups to estimate the allowed ROE for Canadian regulated utilities. The development of a proxy group comprised entirely of Canadian electric utilities is compromised by the small number of publicly traded utilities in Canada and the fact that many of those Canadian companies derive a significant percentage of revenues and net income from operations other than regulated electric utility service. This problem has been exacerbated by the continuing trend toward mergers and acquisitions in the utility industry, both within Canada and across the border with U.S. utility companies.

The British Columbia Utilities Commission ("BCUC"), for example, has accepted the use of U.S. proxy group data in Canadian ROE analysis, primarily due to the lack of sufficient Canadian data, but also in recognition of the need for Canadian utilities to compete for capital in a global marketplace.<sup>19</sup> In 2013, the BCUC reaffirmed its position on the use of U.S. data.<sup>20</sup> Similarly, the NEB, the OEB and the Régie de L'Energie (Quebec) have also accepted the use of U.S. data and proxy groups for purposes of establishing the allowed ROE and common equity ratio for Canadian electric and gas utilities.<sup>21</sup> In its most recent rate decision for Newfoundland Power, the Board weighed the results of both U.S. and Canadian data in its cost of capital determination.<sup>22</sup>

In summary, multiple regulatory authorities in Canada have recognized that Canadian utility companies are competing for capital in global financial markets and that Canadian data are limited by the small number of publicly traded utilities. Regulators have also recognized the integrated nature of Canadian and U.S. financial markets, and the similarity of the utility regulatory regimes.

British Columbia Utilities Commission, In the Matter of Terasen Gas Inc., Terasen Gas (Vancouver Island) Inc., Terasen Gas (Whistler) Inc., Return on Equity and Capital Structure, Decision G-158-09, December 16, 2009, at 15-16.

British Columbia Utilities Commission, Generic Cost of Capital Proceeding (Stage 1), Decision May 10, 2013, at 19.
 National Energy Board, Reasons for Decision, TQM RH-1-2008 (March 2009), at 66-72; Ontario Energy Board, EB-

<sup>2009-0084,</sup> Report of the Board on the Cost of Capital for Ontario's Regulated Utilities, December 11, 2009, at 23; and English translation of Régie de l'Energie, Decision 2009-156 (R-3690-2009), Gaz Metro, December 7, 2009, at paragraph [249].

<sup>&</sup>lt;sup>22</sup> Op. cit., Order No. P.U. 13(2013), at 33-34.



#### V. METHODS FOR ESTIMATING THE COST OF EQUITY

# A. Financial Models to Estimate the Cost of Equity

Analysts use multiple approaches to estimate the cost of common equity. The required ROE can be estimated using one or more analytical techniques that rely on market-based data to quantify investor expectations regarding required equity returns, adjusted for certain incremental costs and risks. Quantitative models produce a range of results from which the market-required ROE is determined. A consideration in determining the cost of equity is to ensure that the methodologies employed reasonably reflect investors' forward views of financial markets in general, and the subject company (in the context of the proxy group) in particular.

No financial model can exactly pinpoint the correct return on equity; rather, each test brings its own perspective and set of inputs that inform the estimate of the ROE. Consistent with the *Hope* standard, it is "the result reached, not the method employed, which is controlling." Although each model brings a different perspective and adds depth to the analysis, each model also has its own inherent weaknesses and should not be relied upon individually without corroboration from other approaches. Regardless of which analyses are used to estimate the investor's required ROE, the analyst must apply informed judgment to assess the reasonableness of results and to determine the appropriate weighting to apply to results under prevailing capital market conditions.

The Board has acknowledged the need to use multiple methodologies in determining a fair return on equity for Newfoundland Power, stating: "The Board accepts the evidence of the experts that there are challenges with each of the methodologies which can be exacerbated in certain financial and economic conditions." The Board has also recognized that "other regulators are moving away from sole reliance on the capital asset pricing model," and concluded that given the current financial and economic conditions a simple application of the capital asset pricing model cannot be relied upon to produce a fair return for Newfoundland Power" due to concerns about the "abnormally low long-term Canada bond yields." For these reasons, in the 2013 Order, 26 the

See Hope Natural Gas v. Federal Power Commission.

<sup>&</sup>lt;sup>24</sup> Op. cit., Order No. P.U. 13(2013), at 20.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.



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Board decided that it would "look to the other evidence in relation to a fair return for Newfoundland Power and in particular the results of other models."

# 1. <u>Discounted Cash Flow ("DCF") Model</u>

- The premise underlying the DCF model is that investors value a given investment according to the present value of its expected cash flows over time. The standard DCF model is shown in Formula [1]:
- $P = \frac{D_0(1+g)^1}{(1+r)^1} + \frac{D_1(1+g)^2}{(1+r)^2} + \dots + \frac{D_{n-1}(1+g)^n}{(1+r)^n}$ [1]
- 9 where:
- 10 P =the current stock price
- g =the dividend growth rate
- 12  $D_n$  = the dividend in year n
- r =the cost of common equity.
- Assuming a constant growth rate in dividends, the model may be rearranged to compute the ROE, as shown in Formula [2]:

$$16 r = \frac{D}{P} + g [2]$$

Stated otherwise, the cost of common equity is equal to the dividend yield plus the expected dividend growth rate.

# a. Constant Growth DCF Model Assumptions

The Constant Growth DCF model requires the following assumptions: (1) a constant average growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price-to-earnings multiple; and (4) a discount rate greater than the expected growth rate. As discussed later in the report, other forms of the DCF model do not rely on the assumption of constant growth in perpetuity.



# b. <u>Dividend Yield</u>

As shown in equation [3], the dividend yield component of the DCF model is calculated as follows:

[3] 
$$Y = \underline{D_0(1+0.5g)^1}$$

 $P_0$ 

One half year's growth rate is applied to the annual dividend rate to account for increases in quarterly dividends at different times throughout the year. It is reasonable to assume that dividend increases will be evenly distributed over calendar quarters. This adjustment ensures that the expected dividend yield is, on average, representative of the coming twelve-month period and does not overstate the aggregated dividends to be paid during that time.

The dividend yields were calculated for each company in the respective proxy groups by dividing the current annualized dividend by the average stock price for each company for the 90-trading days ended July 31, 2015. Those dividend yields are multiplied by one-half the growth rate to reflect expected future dividend increases.

#### c. Growth Rate Estimates

In considering the appropriate growth rate for the DCF model, the most relied upon indicator of investors' expectations is analysts' estimates of future earnings growth. I have relied on earnings growth estimates from SNL Financial, Value Line, Zacks and Thomson First Call for the companies in the respective proxy groups. Those growth rates are shown on Exhibit JMC-3.

Investors typically rely on projected earnings growth rates rather than dividend growth rates for several reasons. First, although the DCF model is based on dividend growth rates, a company's dividend growth is derived from and can only be sustained by earnings growth. Second, in order to reduce the long-term growth rate to a single measure, as required in the Constant Growth DCF model, it is necessary to assume a constant payout ratio, and that earnings per share, dividends per share and book value per share grow at a constant rate. Third, earnings growth rates are less influenced by dividend decisions that companies may make in response to near-term changes in



the business environment. Finally, analysts' forecasts of earnings growth are widely available, whereas dividend and book value growth rates are generally available only from Value Line.<sup>27</sup>

Some utility regulators have expressed concern that analyst's earnings growth rates may be overly optimistic. If optimism bias were present in analysts' earnings forecasts, it could create an upward bias in the estimated cost of capital that results from the DCF approach. However, several changes have been implemented by financial regulators that are designed to provide fair disclosure and to reduce or eliminate the possibility of analysts' bias. For example, on August 15, 2000, the U.S. Securities and Exchange Commission ("SEC") adopted Regulation FD to address the selective disclosure of information by publicly traded companies. Regulation FD provides that when an issuer discloses material nonpublic information, the issuer must publicly disclose that information to all investors at the same time. In this way, the rule aims to promote full and fair disclosure.

Also, in 2002 the SEC, the New York Stock Exchange, the New York Attorney General, and other state regulators introduced guidelines regarding the interaction between analysts and investment banks that became known as the "Global Settlement." The Global Settlement outlined several structural reforms that limit the interaction between analysts and investment banks, thus removing any incentive for analysts to produce upwardly biased growth forecasts.

In Canada, regulators took a parallel set of actions, with Policy 11 as the core framework. On April 12, 2001, the Securities Industry Committee on Analyst Standards released a draft report containing recommendations aimed at improving the independence of research and ensuring the professional practice of Canadian securities industry analysts. The Investment Dealers Association ("IDA") published the initial proposed Policy 11 on July 5, 2002, a revised version on April 25, 2003, and a summary of comments on August 8, 2003. Policy 11 requires more disclosures from analysts and independence of research departments. Also, in a letter dated August 15, 2002, the Ontario Securities Commission ("OSC") requested information from financial institutions about current practices to address conflicts of interest relating to equity

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Value Line is the only publication of which I am aware that projects dividend and book value growth rates. Those estimates represent the Value Line analyst's perspective on dividend and book value growth. In contrast, many of the earnings growth rates that are publicly available are consensus estimates with contributions provided by several analysts.



analysts. Accordingly, in September 2002, most financial institutions had adjusted their practice and replied to OSC.

A 2010 article in <u>Financial Analyst Journal</u> found that analyst forecast bias had declined significantly or disappeared entirely since the Global Settlement:

Introduced in 2002, the Global Settlement and related regulations had an even bigger impact than Reg FD on analyst behavior. After the Global Settlement, the mean forecast bias declined significantly, whereas the median forecast bias essentially disappeared. Although disentangling the impact of the Global Settlement from that or related rules and regulations aimed at mitigating analysts' conflicts of interest is impossible, forecast bias clearly declined around the time the Global Settlement was announced. These results suggest that the recent efforts of regulators have helped neutralize analysts' conflicts of interest.<sup>28</sup>

#### 2. Multi-Stage DCF Model

In order to address some of the limiting assumptions underlying the Constant Growth form of the DCF model, I also considered the results of a multi-period (three-stage) DCF Model. The Multi-stage DCF model tempers the assumption of constant growth in perpetuity with a three-stage approach based on near-term, transitional and long-term growth rates.

The Multi-stage DCF model transitions from near-term growth (i.e. the average of Value Line, Zacks, SNL Financial and First Call forecasts used in the Constant Growth model) for the first stage (years 1-5) to the long-term forecast of nominal GDP growth for the third stage (year 11 and beyond). The second, or transitional, stage connects near-term growth with long-term growth by changing the growth rate each year on a pro rata basis. In the terminal stage, the dividend cash flow then grows in perpetuity at the same rate as nominal GDP (or a total of 200 years). The return on equity is the internal rate of return based on the current price and this stream of dividend payments.

Armen Hovakimian and Ekkachai Saenyasiri, Conflicts of Interest and Analyst Behavior: Evidence from Recent Changes in Regulation, Financial Analysts Journal, Volume 66, Number 4, July/August 2010, at p. 105.



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# a. Long-Term Growth Rate

Nominal GDP growth rates for both proxy groups were developed using data for each country as reported by Consensus Economics, Inc. for the period from 2021-2025. These forecasts are based on real (constant dollar) growth rates and estimates for inflation. The inflation estimate was applied to the estimate of real GDP growth to develop the nominal (post-inflation) GDP growth rate. The estimates of nominal GDP growth are summarized below:

Figure 8: Estimates of Nominal GDP Growth 29

Source	Canada	U.S.
Real GDP Growth	1.9%	2.3%
Inflation	2.0%	2.2%
Nominal GDP Growth	3.94%	4.55%

# 3. DCF Results

The DCF results are shown in Figure 9 and in Exhibits JMC-3 and JMC-4. As shown in Figure 9, the DCF analyses produce an average cost of common equity of 11.55 percent for the Canadian Utility proxy group, 9.61 percent for the U.S. Electric proxy group, and 9.44 percent of the North American Electric Utility proxy group, including an adjustment for flotation costs and financial flexibility.

<sup>&</sup>lt;sup>29</sup> Consensus Forecasts, for 2021-2025, April 13, 2015, at 3 (U.S.) and 28 (Canada).



# 1 Figure 9: DCF Results (including flotation costs)

DCF Model					
Market Averaging Period	Constant Growth	Multi-Stage	Average		
Canadian Utility Proxy Group					
90-day	12.84%	10.26%	11.55%		
U.S. Electric Utility Proxy Group					
90-day	9.77%	9.45%	9.61%		
North American Electric Utility Proxy Group					
90-day	9.64%	9.24%	9.44%		

The Board has previously found that Canadian utility data is inadequate to complete a DCF analysis, and that it may be informative to look to data from the U.S. The Board, however, also determined that an adjustment of 50 to 100 basis points was appropriate at the time due to concerns with the comparability of U.S. utility companies to Newfoundland Power. I do not believe that any adjustment to the DCF results for the U.S. proxy group is necessary in this proceeding. As discussed in more detail in Appendix A on Capital Structure, the U.S. electric utility proxy group is more comparable to Newfoundland Power than the Canadian utility proxy group companies, many of which have significant non-electric operations and unregulated operations. Conversely, the U.S. electric utility proxy group is comprised of companies that derive almost 100 percent of net operating income and operating revenues from electric utility operations, and dedicate almost 100 percent of assets to regulated electric utility service. For that reason, I have not adjusted the DCF results for the U.S. electric utility proxy group, or the North American proxy group.

<sup>&</sup>lt;sup>30</sup> Op. cit., Order No. P.U. 13(2013), at 31.



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# 4. <u>Capital Asset Pricing Model ("CAPM")</u>

The CAPM method is based on the relationship between the required return of a security and the systematic risk of that security. As shown in Equation [4], the CAPM is defined by four components, each of which must be a forward-looking estimate:

5 [4] 
$$Ke = rf + \beta(rm - rf)$$

6 where:

7 Ke = the required ROE for a given security;

8  $\beta$  = Beta of an individual security;

9 rf = the risk-free rate of return; and

10 rm = the required return for the market as a whole.

The term (rm - rf) represents the Market Risk Premium ("MRP"). According to the theory underlying the CAPM, since unsystematic risk can be diversified away, investors should be concerned only with systematic or non-diversifiable risk. Non-diversifiable risk is measured by Beta, which is defined as:

$$\beta = \frac{Covariance(r_e, r_m)}{Variance(r_m)}$$

where:

17 re = the rate of return for the individual security or portfolio.

The variance of the market return, noted in Equation [5], is a measure of the variability in the general market, and the covariance between the return on a specific security and the market reflects the extent to which the return on that security will respond to a given change in the market return. Thus, Beta represents the risk of the security relative to the market.

#### a. Risk Free Rate

Current bond yields remain near historical lows; consequently, adjustments are necessary to better reflect forward-looking circumstances. Use of forecast bond yields, as opposed to the current risk



free rate, reflects the current market reality that while bond yields remain near all-time lows, investors are factoring higher interest rates into their longer-term expectations and required returns.

My CAPM analysis relies on the 2016 through 2018 average *Consensus Economics* forecast of the Canadian 10-year government bond (shown in Figure 10) plus the historical spread between 10-year and 30-year government debt.

Figure 10: Long-term Forecast for 10-Year Government Bond Yields 2016-2018<sup>31</sup>

	2016	2017	2018	Average
Canada	2.1	3.2	3.6	2.97
U.S.	2.8	3.9	4.1	3.60

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With an average spread between 10-year and 30-year Government bond yields of 71 basis points in Canada and 69 basis points in the U.S.,<sup>32</sup> the corresponding longer-term yield on 30-year government bonds over the period 2016 – 2018 is shown in Figure 11.

# Figure 11: Risk Free Rate

30-Year Risk Free Yield	Canada	U.S.
April 2015 Consensus Forecast Average 2016-2018 Forecasts	2.97%	3.60%
Average Daily Spread between 10-year and 30-year government bonds (August 2015)	0.71%	0.69%
Sum	3.68%	4.29%

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b. Beta

I have employed several methods of measuring the Beta coefficient for the Canadian and U.S. proxy groups using estimates from both Value Line and Bloomberg.<sup>33</sup> Value Line publishes the

<sup>31</sup> Consensus Forecasts by Consensus Economics Inc., Survey Date April 30, 2015, at 28 and 3.

<sup>32</sup> Historical spreads were calculated using daily bond yields from August 1, 2015 through August 31, 2015.

I have used Bloomberg betas for the Canadian proxy group and both Value Line and Bloomberg betas for the U.S.



historical Beta for each company based on five years of weekly stock returns and uses the New York Stock Exchange as the market index.<sup>34</sup> Bloomberg produces Beta estimates based on parameters entered by the user. I have computed Bloomberg betas based on five years of weekly stock returns and use the S&P 500 or the S&P/TSX Composite as the market index. Both Value Line and Bloomberg report adjusted betas to compensate for the tendency of beta to revert towards the market average of 1.0 over time. The betas used in my CAPM analyses are shown in Figure 12.

Figure 12: Value Line and Bloomberg Betas

	Value Line	Bloomberg
Canadian Group	N/A	0.64
U.S. Electric Utility Group	0.76	0.70
North American Electric Group	0.76	0.69

There are two primary reasons to adjust raw betas. First, numerous empirical studies have provided evidence that an individual company beta is more likely than not to move toward the market average of 1.0 over time. Second, adjusting beta serves a statistical purpose. Because betas are statistically estimated and have associated error terms, betas that are greater than 1.0 tend to have positive estimated errors and thus tend to overestimate future returns. Betas that are below the market average of 1.0 tend to have negative error terms and underestimate future returns. Consequently, it is necessary to adjust forecasted betas toward 1.0 in an effort to improve forecasts. Because current stock prices reflect expected risk, one must use an expected beta to appropriately reflect investors' expectations. A raw beta reflects only where the stock price has been relative to the market historically and is an inferior proxy for the expected returns when compared to the adjusted beta.

The betas I have used in my analysis are supported by the Brattle study conducted for the BCUC on cost of capital methodologies.

http://www.valueline.com/sup\_glossb.html.

proxy group.

<sup>&</sup>lt;sup>35</sup> Roger A. Morin, New Regulatory Finance, at p. 74.



Beta estimates are provided by many data services for Canadian, American and other traded companies. The most common methodology to estimate betas is to use the most recent five years of weekly or monthly return data. These betas may then be adjusted towards one as an adjustment for sampling reversion that was first identified by Professor Marshall Blume (1971, 1975).<sup>36</sup>

#### c. Market Risk Premium (MRP)

Estimates of the MRP generally fall into two categories, *ex-post* (historical arithmetic average) and *ex-ante* (forward looking). The historical MRP is based on the arithmetic mean of the equity market returns over the income only return on long-term government bonds, based on data from Morningstar and Duff & Phelps. The forward-looking MRP is calculated by subtracting the risk-free rate for each country from the estimated total return for the overall market, as calculated using the DCF methodology for the S&P/TSX Composite Index in Canada and the S&P 500 Index in the U.S.

Because the U.S. and Canadian economies are highly integrated and capital flows freely across the border, the risk premiums for each country are highly correlated. Accordingly, it is reasonable to derive a single forward-looking estimate. Figure 13 provides the historical and forward-looking MRP for Canada and the U.S. Exhibits JMC-5 and JMC-6 show the derivation of the forward-looking MRP for Canada and the U.S.

Figure 13: Market Risk Premia – Canada and U.S.

	Canadian MRP	U.S. MRP
Historical	5.6%	7.0%
Forward-Looking	9.8%	8.1%
Average	7.6%	

As shown in Figure 13, forward-looking MRPs currently are greater than historical MRPs, reflecting the fact that the historical MRP is based on much higher government bond yields than

The Brattle Group (May 31, 2012) – Survey of Cost of Capital Practices in Canada, at 15.



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are available in the current low interest rate environment. There is an inverse relationship between interest rates and the MRP, meaning that as interest rates increase (decrease), the MRP decreases (increases). Historic MRPs would therefore underestimate MRPs in the current low bond yield environment.

Another way to illustrate this point is by analyzing the historic relationship between the equity risk premium and bond yields. I have separately examined these MRP estimates by conducting a regression analysis on bond yields and annual market risk premiums calculated by Morningstar Ibbotson through 2011 and by Duff & Phelps thereafter. As shown in Exhibit JMC-7, I have isolated the effects of the global financial crisis in 2008 as an anomalous event that did not align with the normal relationship between government bond yields and market risk premiums. I have set this period aside by assigning a dummy variable to it. My analysis yielded a statistically significant value at the 95 percent confidence for the Y-intercept and also the dummy variable for the global financial crisis. However, the coefficient for the 30-year bond yield had a slightly weaker confidence at roughly 80 percent, but in my opinion is still informative for the relationship between bond yields and market risk premiums. Using the 30-year Canadian bond yield forecast from Figure 11 of 3.68 percent, the regression formula produced by my analysis yields a market risk premium of 10.09 percent. Accordingly, my estimate of the forward-looking market risk premium is reasonable and is more reflective of the current low interest rate environment than the long term historical average. I have nonetheless used the more conservative average of both historic and forward looking MRP's in my analysis.



# 5. **CAPM Results**

The results of the CAPM analysis, including flotation costs, are provided in Figure 14 and in Exhibit JMC-8.

Figure 14: CAPM Results (including flotation costs)

	Mean Result
Canadian Utilities	9.04%
U.S. Electric Utilities	10.37%
North American Utilities	10.12%

# 6. Flotation Costs and Financing Flexibility

It is common practice for Canadian regulators to allow an adjustment for flotation costs and financing flexibility. The Board has previously determined that it is appropriate to add an allowance for financing flexibility of 0.50 percent to the allowed equity return.<sup>37</sup> The adjustment for flotation costs and financial flexibility compensates the equity holder for the costs associated with the sale of new issues of common equity. These costs include out-of-pocket expenditures for the preparation, filing, underwriting and other costs of issuance of common equity including the costs of financial flexibility such that there is adequate cushion to raise equity in challenging capital market conditions. Because the purpose of the allowed rate of return in a regulatory proceeding is to estimate the cost of capital the regulated company would incur to raise money in the "primary" markets, an estimate of the returns required by investors in the "secondary" markets must be adjusted for flotation costs in order to provide an estimate of the cost of capital that the regulated company requires. I have adjusted the DCF and CAPM results upwards by 50 basis points for flotation costs and financing flexibility.

<sup>&</sup>lt;sup>37</sup> *Ibid*, at 21.



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## 7. Comparison to Other Authorized ROEs

Regulators also consider authorized ROEs and common equity ratios for other investor-owned electric utilities in Canada and the U.S when setting allowed returns. Given the "opportunity cost" concept underlying a fair return, this is appropriate, as an investor would shift capital to a higher return for the same level of risk, if available. As shown in Figure 15, the average allowed ROE for Canadian investor-owned electric utilities in 2015 is approximately 8.97 percent, while in the U.S., the average allowed ROE for electric utilities in 2014 and 2015 has been 9.71 percent.

Figure 15: Allowed ROEs

**Allowed ROE** 9.50% **Newfoundland Power (proposed) Canadian Electric Utilities** 9.00% Nova Scotia Power 9.75% Maritime Electric Company Ltd 9.30% FortisOntario Inc. 8.30% ATCO Electric Distribution 8.30% Fortis Alberta Inc. 9.15% FortisBC Inc. 8.97% **Average** U.S. Utilities<sup>38</sup> 9.71% **Electric Utilities** 

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## VI. AUTOMATIC ADJUSTMENT MECHANISM

An automatic adjustment formula was originally established for Newfoundland Power in 1999. At that time, the Board stated that there may be circumstances which would render the use of an automatic adjustment formula inappropriate for Newfoundland Power, including changes in financial market conditions which would suggest the formula is not accurately reflecting the

<sup>&</sup>lt;sup>38</sup> Source: SNL Financial. Figures are from January 1, 2014 through August 31, 2015.



appropriate return on equity.<sup>39</sup> In 2013, the Board determined that a return to the automatic adjustment formula was not supported by current financial conditions. In particular, the Board noted the low interest rate environment, as follows:

While the Board sees the value of an automatic adjustment formula, the evidence is clear that the formula as it is currently structured may not result in a fair return for Newfoundland Power in the current circumstances. Long-term Canada bond yields are abnormally low which is particularly problematic in the operation of the automatic adjustment formula. In the absence of a clear relationship between the long-term Canada bond yield and the cost of equity it is difficult to see that the established return can be appropriately adjusted for 2015 without the exercise of further judgment.<sup>40</sup>

As Newfoundland Power discusses in the Company's evidence, interest rates on the long-term Canada bond remain abnormally low. Nothing has changed since the Board's previous determination in 2013 that the automatic adjustment formula is not appropriate when financial market conditions are likely to impede the ability of the formula to produce a fair return for Newfoundland Power. As such, I agree with Newfoundland Power's position that the Board should not adopt an automatic adjustment formula for the Company at this time.

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Newfoundland and Labrador Board of Public Utility Commissioners, Order No. P.U. 13(2013), at 36.

*Ibid*, at 36.



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## VII. OVERALL CONCLUSIONS AND RECOMMENDATIONS

- Based on the analyses discussed throughout this report, I believe that an appropriate ROE for
- 3 Newfoundland Power is 9.5 percent. This recommendation is consistent with the allowed ROEs
- 4 for other investor-owned electric utilities in Canada, given the relative risk of Newfoundland
- 5 Power to those companies.
- 6 In addition, for the reasons discussed previously in this report, it is appropriate to consider both
- 7 the DCF and CAPM results when establishing the authorized ROE for Newfoundland Power.
- The results of my DCF and CAPM analyses are summarized in Figure 16.

Figure 16: Summary of Results (including flotation costs)

	Canadian Regulated Utilities	US Electric Utilities	North American Electric Utilities	Average
САРМ	9.0%	10.4%	10.1%	9.8%
Constant Growth DCF	12.8%	9.8%	9.6%	10.7%
Multi-Stage DCF	10.3%	9.5%	9.2%	9.6%
Average	10.7%	9.9%	9.7%	10.1%

The Constant Growth and Multi-Stage DCF methods produce a fairly tight range of 9.5 percent to 9.8 percent for the U.S. Electric Utilities proxy group and 9.2 percent to 9.6 percent for the North American Electric Utilities proxy group, and a wide range for the Canadian proxy group of 10.3 percent to 12.8 percent.

I have concerns with the ability of the CAPM to produce reasonable results without adjustments for the current market environment. Bond yields in Canada and the U.S. have been driven to all-time lows, and most would agree below sustainable levels in the longer term. The historical MRP is also impacted by the current low level of interest rates. There is a substantial gap between historic equity returns and the higher returns implied in current stock market data. These are problems with the CAPM, and in general, in the current market environment.



I have attempted to compensate for these concerns by using forward-looking inputs, including a forecasted Canadian risk-free rate, an MRP that combines both Canadian and U.S. market inputs, including both historic and forward-looking estimates, and the adjusted beta coefficient for the Canadian and U.S. proxy companies. Floatation costs are included, consistent with regulatory practice across Canada.

As shown in Figure 16, the various ROE estimation models produce a range of results for the proxy group companies from 9.0 percent to 12.8 percent. The average of all methods is 10.1 percent. Because the utilities selected in the North American Electric Utilities proxy group are most representative of Newfoundland Power, I place greater weight on those results. The average of all three methods for the North American proxy group is 9.7 percent, within the range of 9.2 – 10.1 percent. Based on this analysis, I believe that a reasonable estimate of Newfoundland Power's required cost of equity is 9.5 percent. This is just below the average of 9.7 percent across all three methods, centered within the North American range, and supported by all other methods and proxy groups with the exception of the Canadian CAPM. In addition, as discussed in Appendix A on capital structure, a common equity ratio of 45 percent remains reasonable for Newfoundland Power, given the higher relative business risks of Newfoundland Power as compared to the proxy group companies.



# James M. Coyne Senior Vice President

Mr. Coyne provides financial, regulatory, strategic, and litigation support services to clients in the natural gas, power, and utilities industries. Drawing upon his industry and regulatory expertise, he regularly advises utilities, public agencies and investors on business strategies, investment evaluations, and matters pertaining to rate and regulatory policy. Prior to Concentric, Mr. Coyne worked in senior consulting positions focused on North American utilities industries, in corporate planning for an integrated energy company, and in regulatory and policy positions in Maine and Massachusetts. He has authored numerous articles on the energy industry and provided testimony and expert reports before the Federal Energy Regulatory Commission and numerous jurisdictions in the U.S. and Canada. Mr. Coyne holds a B.S. in Business from Georgetown University with honors and an M.S. in Resource Economics from the University of New Hampshire.

#### REPRESENTATIVE PROJECT EXPERIENCE

## **Expert Testimony Experience**

- FortisBC Energy Inc.: Before the British Columbia Utilities Commission, provided expert testimony on the cost of capital and business risk for the Company's BC gas distribution operations. (Docket No.)
- Green Mountain Power Company: Before the Vermont Public Service Board, provided expert testimony on the cost of capital for the Company's Vermont Electric Utility Business. (Docket No. 8191)
- Northern States Power Company: Before the Public Service Commission of Wisconsin, provided expert testimony on the cost of capital for the company's Wisconsin electric and natural gas utility operations. (Docket No. 4220-UR-119)
- Hydro Quebec: Before the Régie de l'énergie, filed expert testimony on the cost of capital
  and business risk for the Company's Québec electric transmission and distribution
  businesses, with John Trogonoski. (R-3842-2013)
- Enbridge: Before the Ontario Energy Board, filed expert testimony with Jim Simpson and Melissa Bartos in support of the Company's proposed 2nd Generation Incentive Regulation plan. Our work focused on development of a proposed plan consistent with the OEB's objectives for such plans, while recognizing the Company's operating environment and business objectives, and capitalizing on the experience with other IR programs. Concentric conducted a series of analyses, including industry benchmarking, and productivity analyses for the industry and Enbridge using both total factor productivity "TFP" analysis and partial factor productivity ("PFP") analysis. These analyses produced productivity measures ("X factors") for both Enbridge and the industry peer group that were utilized to test parameters for the proposed IR plan. Concentric also evaluated alternative measures of inflation ("I factors") for utility inputs. Lastly, we examined Enbridge's anticipated 2014 to 2016 costs, and evaluated the ability of a traditional I-X framework to accommodate the Company's cost profile. (EB-2012-0459)



- Gaz Métro: Before the Régie de l'énergie, filed expert testimony on the cost of capital, business risk, and capital structure for the Company's Québec gas distribution operations. (R-3809-2012)
- Startrans IO, LLC: Before the Federal Energy Regulatory Commission, filed expert testimony on the appropriate cost of equity for the Startrans transmission facilities in Nevada and California, and the economic and business environment for transmission investments. (FERC Dockets Nos. ER13-272-000, and EL13-26-000)
- Nova Scotia Power: Before the Nova Scotia Utility and Review Board, provided direct and rebuttal evidence on the business risk of Nova Scotia Power in relation to its North American peers for purposes of determining the appropriate cost of capital. (Docket No. 2013 GRA)
- FortisBC Utilities: Before the British Columbia Utilities Commission, provided direct evidence and a supporting study on formulaic approaches to the determination of the cost of capital. (BCUC 2012 Generic Cost of Capital Proceeding)
- Northern States Power Company: Before the South Dakota Public Utilities Commission provided expert testimony on the appropriate cost of capital for the company's South Dakota electric utility operations. (Docket No. EL12 )
- Vermont Gas Systems, Inc: Before the Vermont Public Service Board, filed expert testimony on the appropriate cost of equity and capital structure. (Docket No. 7803A)
- Northern States Power Company: Before the South Dakota Public Utilities Commission, provided expert testimony on the appropriate cost of capital for the company's South Dakota electric utility operations. (Docket No. EL11-019)
- Public Service Commission of Wisconsin: Provided expert testimony on the cost of capital for the company's Wisconsin electric and natural gas utility operations. (Docket No. 4220-UR-117)
- Atlantic Path 15, LLC: Before the Federal Energy Regulatory Commission, filed expert testimony on the appropriate rate of return for the Path 15 transmission facilities in California, and the economic and business environment for transmission investments. (FERC Dockets Nos. ER11-2909 and EL11-29)
- Enbridge: Cost of capital witness for the company's 2013 rate filing, providing testimony on recommended ROE and capital structure for the company's Ontario gas distribution business, and a separate benchmarking analysis designed to illustrate the efficiency of the company's operations in relation to its' North American peers. (EB-2011-0354)
- Northern States Power Company: Before the Public Service Commission of Wisconsin, provided expert testimony on the cost of capital for the company's Wisconsin electric and natural gas utility operations. (Docket No. 4220-UR-117)
- FortisBC Energy, Inc: Provided a detailed study of alternative automatic adjustment mechanisms for setting the cost of equity, filed with the British Columbia Public Utilities Commission, December, 2010. (In response to BCUC Order No. G-158-09)
- Commonwealth of Massachusetts, Superior Court, Central Water District vs. Burncoat Pond Watershed District: Provided expert testimony on the appropriate method for computing interest in an eminent domain taking. (Civil Action No. WDCV2001-01051, May 2010)



- Retained by the Ontario Energy Board to evaluate the existing DSM regulatory framework and guidelines for gas distributors, and based on research on best practices in other jurisdictions, make recommendations and lead a stakeholder conference on proposed changes. (2009-2010)
- ATCO Utilities: Primary cost of capital witness on behalf of ATCO Utilities in the 2009
   Alberta Generic Cost of Capital proceeding, for the establishment of the return on equity
   and capital structure for each of Alberta's gas and electric utilities. (AUC Proceeding ID.
   85)
- Enbridge: Primary cost of capital witness before the Ontario Energy Board in its Consultative Process on the Board's policy for determination of the cost of capital. (EB-2009-0084)
- Provided written comments to the Ontario Energy Board on behalf of Enbridge Gas Distribution, and separately for Hydro One Networks and the Coalition of Large Distributors in response to the Board's invitation to interested stakeholders to provide comments to help the Board better understand whether current economic and financial market conditions have an impact on the reasonableness of the Cost of Capital parameter values calculated in accordance with the Board's established Cost of Capital methodology; and to help the Board determine if, when, and how to make any appropriate adjustments to those parameter values. (2009)
- Atlantic Path 15, LLC: Before the Federal Energy Regulatory Commission, provided expert testimony on the appropriate rate of return, capital structure, and rate incentives for the development and operation of the Path 15 transmission facilities in California. (FERC Docket ER08-374-000)
- Wisconsin Power and Light Company: Before the Public Service Commission of Wisconsin, on establishing ratemaking principles for the company's proposed wind and coal electric generation facility additions, providing expert testimony on the appropriate return on equity. (PSCW Docket Nos. 6680-CE-170 and 6680-CE-171, 2007)
- Aquarion Water Company: Before the Connecticut Department of Public Utility Control, providing expert testimony on establishing the appropriate return on equity for the Company's Connecticut operations. (DPUC Docket No. 07-05-19, 2007)
- Central Maine Power Company: Before the Maine Public Utilities Commission, provided expert testimony on the theoretical and analytical soundness of the Company's sales forecast for ratemaking purposes. (MPUC Docket No. 2007-215, 2007)
- Vermont Gas Systems, Inc.: Before the State of Vermont Public Board, on the company's petition for approval of an alternative regulation plan, provided expert testimony on models of incentive regulation and their relative benefits for VGS and its ratepayers. (VPSB Docket No. 7109, 2006)
- Texas New Mexico Power Company: Before the Public Utility Commission of Texas, on the approval of the company's stranded cost recovery associated with the auction of the company's generating assets. (PUC Docket No. 29206, 2004)
- TransCanada Corporation: Provided an independent expert valuation of a natural gas pipeline, filed with the American Arbitration Association. (AAA Case No. 50T 1810018804, 2004)



- Advised the Board of Directors of El Paso Corporation on settlement matters pertaining to western power and gas markets before FERC. (2003)
- Conectiv: Before the New Jersey Board of Public Utilities, on the approval of the proposed sale of Atlantic City Electric Company's fossil and nuclear generating assets. (NJBPU Docket No. EM00020106, 2000-2001)
- Bangor Hydro Electric Company: Before the Maine Public Utilities Commission, on the approval of the proposed sale of the company's hydroelectric and fossil generation assets. (MPUC Docket No. 98-820, 1998)
- Maine Office of Energy Resources: Before the Maine Public Utilities Commission on behalf of the Maine Office of Energy on the establishment of avoided costs rates for generators under PURPA. (1981-1982)

## **Regulatory Support Experience**

- Retained by Gaz Métro to provide an independent assessment of the comprehensive incentive rate mechanism designed to improve the performance of Gaz Métro, and evaluate the proposed mechanism resulting from the Company's collaboration with a stakeholder working group. (R-3693-2009, 2011)
- For the Canadian Gas Association, facilitated workshops between Canadian regulators and utility executives on regulatory and utility responses to a low carbon world, and drafted follow-up white paper to facilitate further discussion on emerging industry issues. (2010-2013)
- Retained by Ontario's Coalition of Large Distributors (Enersource Hydro, Horizon Utilities, Hydro Ottawa, PowerStream, Toronto Hydro, and Veridian Connections) to examine the cost of capital for Ontario's electric utilities in relation to those in other provinces and in the U.S. (2008)
- Retained by the Ontario Energy Board to analyze ROE awards for the past two years in Ontario, and compare against other jurisdictions in Canada, the U.S., the U.K., and select other European jurisdictions. Differences in awarded ROEs were examined for underlying factors, including ROE methodology, company size, business risks, tax issues, subsidiary vs. parent, and sources of capital. The analysis also addressed the question of whether Canadian utilities compete for capital on the same basis as U.S. utilities. (2007)
- Retained by the Nantucket Planning and Economic Development Commission to educate government officials and island residents on the wind industry, and provide analysis leading to constructive input to the Army Corps of Engineers and the Minerals Management Service on the siting of proposed wind projects. (2004-2007)
- Interim manager of Government and Regulatory affairs for Boston Generating, LLC. Coordinate activities and interventions before FERC, NE-ISO, state regulatory agencies, and local communities hosting Boston Generating power plants. (2004)
- Facilitated the development of an Alternative Regulation Plan with the Department of Public Service and Vermont Gas Systems providing research and advice leading to a rate proposal for the Vermont Public Service Board. Conducted several workshops including the major stakeholders and regulatory agencies to develop solutions satisfying both public policy and utility objectives. (2004-2005)



• For an independent power company, perform market analysis and annual audits of its utility power contract. Services provided include verification of the contract price as a function of its index components, surveys of regional competitive energy suppliers, and analysis of regional spot prices for an independent benchmark. Meet with PUC staff to discuss and represent the company in its annual adjustment process, and report results to the company and its creditors. (2003-2004)

## **Areas of Expertise**

# • Energy Regulation

- o Rate policy
- o Cost of capital
- o Incentive regulation
- o Fuels and power markets

## Management and Business Strategy

- Fuels and power market assessments
- o Investment feasibility
- o Corporate and business unit planning
- o Benchmarking and productivity analysis

## • Financial and Economic Advisory

- Valuation analysis
- o Due diligence
- o Buy and sell-side advisory

## PUBLICATIONS AND RESEARCH

- "Stimulating Innovation on Behalf of Canada's Electricity and Natural Gas Consumers" (with Robert Yardley), prepared for the Canadian Gas Association and Canadian Electricity Association, May, 2015.
- "Autopilot Error: Why Similar U.S. and Canadian Risk Profiles Yield Varied Rate-making Results" (with John Trogonoski), Public Utilities Fortnightly, May 2010
- "A Comparative Analysis of Return on Equity of Natural Gas Utilities" (with Dan Dane and Julie Lieberman), prepared for the Ontario Energy Board, June, 2007
- "Do Utilities Mergers Deliver?" (with Prescott Hartshorne), Public Utilities Fortnightly, June 2006
- "Winners and Losers: Utility Strategy and Shareholder Return" (with Prescott Hartshorne), Public Utilities Fortnightly, October 2004
- "Winners and Losers in Restructuring: Assessing Electric and Gas Company Financial Performance" (with Prescott Hartshorne), white paper distributed to clients and press, August 2003
- "The New Generation Business," commissioned by the Electric Power Research Institute (EPRI) and distributed to EPRI members to contribute to a series on the changes in the Power Industry, December 2001



- Potential for Natural Gas in the United States, Volume V, Regulatory and Policy Issues (co-author), National Petroleum Council, December 1992
- "Natural Gas Outlook," articles on U.S. natural gas markets, published quarterly in the Data Resources Energy Review and Natural Gas Review, 1984-1989

#### SELECTED SPEAKING ENGAGEMENTS

- "Innovations in Utility Business Models and Regulation", The Canadian Association of Members of Public Utility Tribunals (CAMPUT) 2015 Energy Regulation Course, Queens University, Kingston, Ontario, June 2015
- "M&A and Valuations," Panelist at Infocast Utility Scale Solar Summit, September 2010
- "The Use of Expert Evidence," The Canadian Association of Members of Public Utility Tribunals (CAMPUT) 2010 Energy Regulation Course, Queens University, Kingston, Ontario, June 2010
- "A Comparative Analysis of Return on Equity for Utilities in Canada and the U.S.", The Canadian Association of Members of Public Utility Tribunals (CAMPUT) Annual Conference, Banff, Alberta, April 22, 2008
- "Nuclear Power on the Verge of a New Era," moderator for a client event co-hosted by Sutherland Asbill & Brennan and Lexecon, Washington D.C., October 2005
- "The Investment Implications of the Repeal of PUCHA," Skadden Arps Client Conference, New York, NY, October 2005
- "Anatomy of the Deal," First Annual Energy Transactions Conference, Newport, RI, May 2005
- "The Outlook for Wind Power," Skadden Arps Annual Energy and Project Finance Seminar, Naples, FL, March 2005
- "Direction of U.S. M&A Activity for Utilities," Energy and Mineral Law Foundation Conference, Sanibel Island, FL, February 2002
- "Outlook for U.S. Merger & Acquisition Activity," Utility Mergers & Acquisitions Conference, San Antonio, TX, October 2001
- "Investor Perspectives on Emerging Energy Companies," Panel Moderator at Energy Venture Conference, Boston, MA, June 2001
- "Electric Generation Asset Transactions: A Practical Guide," workshop conducted at the 1999 Thai Electricity and Gas Investment Briefing, Bangkok, Thailand, July 1999
- "New Strategic Options for the Power Sector," Electric Utility Business Environment Conference, Denver, CO, May 1999
- "Electric and Gas Industries: Moving Forward Together," New England Gas Association Annual Meeting, November 1998
- "Opportunities and Challenges in the Electric Marketplace," Electric Power Research Institute, July 1998



#### PROFESSIONAL HISTORY

## **Concentric Energy Advisors, Inc. (2006 – Present)**

Senior Vice President Vice President

## FTI Consulting (Lexecon) (2002 – 2006)

Senior Managing Director – Energy Practice

## Arthur Andersen LLP (2000 - 2002)

Managing Director, Andersen Corporate Finance – Energy and Utilities

## Navigant Consulting, Inc. (1996 – 2000)

Managing Director, Financial Services Practice Senior Vice President, Strategy Practice

## **TotalFinaElf (1990 – 1996)**

Manager, Corporate Planning and Development Manager, Investor Relations Manager of Strategic Planning and Vice President, Natural Gas Division

## **Arthur D. Little, Inc. (1989 – 1990)**

Senior Consultant – International Energy Practice

## **DRI/McGraw-Hill** (1984 – 1989)

Director, North American Natural Gas Consulting Senior Economist, U.S. Electricity Service

## **Massachusetts Energy Facilities Siting Council (1982 – 1984)**

Senior Economist – Gas and Electric Utilities

## Maine Office of Energy Resources (1981 – 1982)

**State Energy Economist** 

#### **EDUCATION**

M.S., Resource Economics, University of New Hampshire, with Honors, 1981 B.S., Business Administration and Economics, Georgetown University, Cum Laude, 1975

#### **DESIGNATIONS AND AFFILIATIONS**

NASD General Securities Representative and Managing Principal (Series 7, 63 and 24 Certifications), 2001



NARUC, Advanced Regulatory Studies Program, Michigan State University, 1984 American Petroleum Institute, CEO's Liaison to Management and Policy Committees, 1994-1996

National Petroleum Council, Regulatory and Policy Task Forces, 1992 President, International Association for Energy Economics, Dallas Chapter, 1995 Gas Research Institute, Economics Advisory Committee, 1990-1993 Georgetown University, Alumni Admissions Interviewer, 1988 – current



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Alberta Utilities Commission	n			
ATCO Utilities Group	2008	ATCO Gas; ATCO Pipelines Ltd.; ATCO Electric Ltd.	Application No. 1578571 / Proceeding ID. 85	2009 Generic Cost of Capital Proceeding (Gas & Electric)
American Arbitration Associ	iation			
TransCanada Corporation	on 12004   TransCanada Corporation		AAA Case No. 50T 1810018804	Valuation of Natural Gas Pipeline
British Columbia Utilities C	ommissi	on		,
FortisBC	2012	FortisBC Utilities	G-20-12	Cost of Capital Adjustment Mechanisms
FortisBC	2015	FortisBC Utilities		Return on Equity (Gas)
Connecticut Department of	Public U	Itility Control		
Aquarion Water Company of CT/ Macquarie Securities	2007	Aquarion Water Company of CT	DPUC Docket No. 07-05-19	Return on Equity (Water)
Federal Energy Regulatory	Commiss	sion		
Atlantic Power Corporation	2007	Atlantic Path 15, LLC	ER08-374-000	Return on Equity (Electric)
Atlantic Power Corporation	2010	Atlantic Path 15, LLC	Docket No. ER11- 2909-000	Return on Equity (Electric)
Atlantic Power Corporation	2011	Atlantic Path 15, LLC	Docket Nos. ER11- 2909 and EL11-29	Rate of Return (Electric Transmission)
Startrans IO, LLC	2012	Startrans IO, LLC	ER-13-272-000	Cost of Capital (Electric Transmission)



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT	
Maine Public Utility Comm	nission				
Bangor Hydro Electric Company	1998	Bangor Hydro Electric Company	MPUC Docket No. 98-820	Transaction-Related Financial Advisory Services, valuation	
Central Maine Power Company	2007	Central Maine Power Company	MPUC Docket No. 2007-215	Sales Forecast	
			•		
Massachusetts Superior Co	urt				
Burncoat Pond Watershed 2010 Bu		Central Water District v. Burncoat Pond Watershed District	Burncoat Pond Watershed WDCV 2001-0105		
New Jersey Board of Public	Utilities				
Conectiv	2000- 2001	Atlantic City Electric Company NJBPU Docket No. EM0002010		Transaction-Related Financial Advisory Services	
N. O. J. H.H. ID	· D				
Nova Scotia Utility and Rev	view Boai	rd T			
Nova Scotia Power Inc. 2012 Nova		Nova Scotia Power Inc.	2013 GRA	Return on Equity/Business Risk (Electric)	
Ontario Energy Board					
Enbridge Gas Distribution and Hydro One Networks and the Coalition of Large Distributors	2009	Enbridge Gas Distribution and Hydro One Networks and the Coalition of Large Distributors	EB-2009-0084	Ontario Energy Board's 2009 Consultative Process on Cost of Capital Review (Gas & Electric)	
Enbridge Gas Distribution	2012	Enbridge Gas Distribution	EB-2011-0354	Industry Benchmarking Study and Cost of Capital (Gas Distribution)	



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT		
Enbridge Gas Distribution	2014	Enbridge Gas Distribution	EB-2012-0459	Incentive Regulation Plan and Industry Productivity Study		
Régie de l'énergie du Québ	ec					
Gaz Métro	2012	Gaz Métro	R-3809-2012	Return on Equity/Business Risk/ Capital Structure (Gas Distribution)		
Hydro-Québec Distribution and Hydro- Québec TransÉnergie	2013	Hydro-Québec Distribution and Hydro- Québec TransÉnergie	R-3842-2013	Return on Equity/Business Risk (Electric)		
Hydro-Québec Distribution	2014	Hydro-Québec Distribution	R-3905-2014	Remuneration of Deferral Accounts		
South Dakota Public Service	e Commi	ssion				
		Northern States Power Company-	EL 11-019	Return on Equity		
Texas Public Utility Comm	ission					
Texas New Mexico Power Company	2004	Texas New Mexico Power Company	PUC Docket No. 29206	Auction Process and Stranded Cost Recovery		
Vermont Public Service Box	ard					
Vermont Gas Systems, Inc.	2006	Vermont Gas Systems, Inc.  VPSB Docket No. 7109		Models of Incentive Regulation		
Vermont Gas Systems, Inc.	2012	Vermont Gas Systems	Docket No. 7803A	Cost of Capital (Gas Distribution)		



SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT		
Green Mountain Power Corporation	2013	Green Mountain Power Corporation	Docket No. 8191	Return on Equity (Electric)		
Wisconsin Public Service C	ommissio	on				
Wisconsin Power and Light Company	2007	Wisconsin Power and Light Company	PSCW Docket No. 6680-CE-170	Return on Equity (Electric)		
Wisconsin Power and Light Company	2007	Wisconsin Power and Light PSCW Docket No. Company 6680-CE-171		Return on Equity (Electric)		
Northern States Power Company	2011	Northern States Power Company	PSCW Docket No. 4220-UR-117	Return on Equity (Electric)		
Northern States Power Company	2013	Northern States Power Company  PSCW Docket No. 4220-UR-119		Return on Equity (Gas & Electric)		
Northern States Power Company	2015	Northern States Power Company		Return on Equity (Gas & Electric)		

Canadian & U.S. Macroeconomic Factors

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[11]	[12]	[13]	[14]
	Total Re	eturn on:	Total Re	turn on:	Real GD	P Growth	C	PΙ	10-year G	ov't Bond	Exp	orts	Unemp	loyment	Currency
	S&P/TSX	S&P 500	S&P/TSX Utilities	S&P 500 Utilities	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada to U.S./ Canadian GDP	U.S. to Canada / U.S. GDP	Canada	U.S.	Exchange Rate (CAD / USD)
1990	-14.8	-3.11			0.1	1.9	4.8	5.4	10.76	8.55	16.12	1.96	7.7	5.6	1.17
1991	12.02	30.47			-2.1	-0.2	5.6	4.2	9.42	7.86	15.55	1.86	9.8	6.8	1.15
1992	-1.43	7.62			0.9	3.4	1.4	3.0	8.05	7.01	17.28	2.10	10.7	7.5	1.21
1993	32.55	10.08			2.6	2.9	1.9	3.0	7.22	5.87	20.04	2.51	10.8	6.9	1.29
1994	-0.18	1.32			4.6	4.1	0.1	2.6	8.42	7.09	22.95	3.00	9.6	6.1	1.37
1995	14.53	37.58			2.7	2.5	2.2	2.8	8.08	6.57	24.82	3.19	8.6	5.6	1.37
1996	28.35	22.96			1.7	3.7	1.5	3.0	7.20	6.44	25.94	3.13	8.8	5.4	1.36
1997	14.98	33.36			4.3	4.5	1.7	2.3	6.11	6.35	26.82	3.51	8.4	4.9	1.38
1998	-1.58	28.58			4.2	4.4	1.0	1.6	5.30	5.26	28.67	3.94	7.7	4.5	1.48
1999	31.71	21.04			5.2	4.8	1.8	2.2	5.55	5.65	30.75	3.96	7.0	4.2	1.49
2000	7.41	-9.11			5.1	4.1	2.7	3.4	5.89	6.03	32.57	3.97	6.1	4.0	1.49
2001	-12.57	-11.89			1.7	1.1	2.5	2.8	5.47	5.02	30.90	3.82	6.5	4.7	1.55
2002	-12.44	-22.10			2.8	1.8	2.2	1.6	5.29	4.61	29.26	3.76	7.0	5.8	1.57
2003	26.72	28.68	24.96	26.27	2.0	2.5	2.8	2.3	4.79	4.01	26.34	3.02	6.9	6.0	1.40
2004	14.48	10.88	9.42	24.28	3.2	3.5	1.8	2.7	4.59	4.27	26.36	2.74	6.4	5.5	1.30
2005	24.13	4.91	38.30	16.83	3.1	3.1	2.2	3.4	4.05	4.29	26.01	2.49	6.0	5.1	1.21
2006	17.26	15.79	7.01	21.00	2.7	2.7	2.0	3.2	4.22	4.80	24.23	2.25	5.5	4.6	1.13
2007	9.83	5.49	11.80	19.38	2.1	1.9	2.2	2.8	4.28	4.63	22.64	2.07	5.2	4.6	1.07
2008	-33.00	-37.00	-20.46	-28.98	1.1	-0.3	2.3	3.8	3.58	3.66	22.41	2.10	5.3	5.8	1.07
2009	35.05	26.46	19.00	11.92	-2.8	-3.1	0.3	-0.4	3.29	3.26	17.25	1.93	7.3	9.3	1.14
2010	17.61	15.06	18.42	5.46	3.2	2.4	1.8	1.6	3.20	3.22	17.75	1.85	7.1	9.6	1.03
2011	-8.71	2.10	6.47	19.95	2.6	1.8	2.9	3.2	2.78	2.78	18.72	1.84	6.5	8.9	0.99
2012	7.19	16.00	4.00	0.47	1.8	2.2	1.5	2.1	1.85	1.80	18.59	1.89	6.3	8.1	1.00
2013	12.98	32.39	-3.71	14.79	2.0	2.2	0.9	1.5	2.26	2.35	19.63	1.79	7.1	7.4	1.03
2014	10.55	13.68	16.08	28.98	2.5	2.4	2.0	1.6	2.23	2.53	22.37	1.79	6.7	6.2	1.10
25-year Avg.	9.31	11.25			2.29	2.41	2.08	2.63	5.36	4.96	23.36	2.66	7.40	6.12	1.25
10-year Avg.	9.29	9.49	9.69	10.98	1.83	1.53	1.81	2.28	3.17	3.33	20.96	2.00	6.30	6.95	1.08
5-year Avg.	7.92	15.85	8.25	13.93	2.42	2.20	1.82	2.00	2.46	2.54	19.41	1.83	6.74	8.02	1.03
Correlation	0.	71	0.0	54	0.	86	0.	72	0.	97	0.9	90	0.	21	
						Conser	isus Forecas	sts [15]							
2015					2.00	2.90	1.00	0.10	1.60	2.20			6.80	5.40	1.28
2016					2.10	2.80	2.10	2.20	2.10	2.80			6.60	5.00	1.26
2017					2.30	2.60	2.10	2.30	3.20	3.90					1.20

#### Notes:

- [1] Source: Morningstar and Bloomberg Professional; includes price appreciation and dividend yield
- [2] Source: Morningstar and Bloomberg Professional; includes price appreciation and dividend yield
- [3] Source: Bloomberg Professional; includes price appreciation and dividend yield, however dividend data for S&P/TSX Utilities not available prior to 2003
- [4] Source: Bloomberg Professional; includes price appreciation and dividend yield
- [5] Source: Statistics Canada; expenditure-based GDP at market prices, chained 2007 prices, seasonally adjusted
- [6] Source: U.S. Bureau of Economic Analysis
- [7] Source: Statistics Canada; not seasonally adjusted
- [8] Source: U.S. Bureau of Labor Statistics; not seasonally adjusted, U.S. city average, all items
- [9] Source: Bank of Canada
- [10] Source: Bloomberg Professional
- [11] Source: Government of Canada (exports to United States, merchandise only), Office of the United States Trade Representative (exports to Canada, merchandise only),
  United States Census Bureau (Trade in Goods with Canada), The World Bank (Total GDP), U.S. Bureau of Economic Analysis (U.S. GDP)
- [12] Source: 1989-2012: U.S. Bureau of Labor Statistics, International Unemployment Rates and Employment Indexes, Seasonally Adjusted, 2013: Statistics Canada
- [13] Source: U.S. Bureau of Labor Statistics, International Unemployment Rates and Employment Indexes, Seasonally Adjusted
- [14] Source: Federal Reserve Economic Data
- [15] Source: Consensus Forecasts, Survey Date April 13, 2015



#### I. DETAILED RISK OVERVIEW FOR CANADIAN PROXY GROUP

#### **MEMBERS**

# Canadian Utilities (TSX: CU)

#### Company Overview<sup>1</sup>

With more than 6,800 employees and assets of approximately \$17 billion, Canadian Utilities Limited is an ATCO company, a diversified global corporation delivering service excellence and innovative business solutions through leading companies engaged Utilities (pipelines, natural gas and electricity transmission and distribution) and Energy (power generation and sales, industrial water infrastructure, natural gas gathering, processing, storage and liquids extraction).

#### S&P Ratings Summary (A/Stable/A-1)<sup>2</sup>

#### Business Risk - Excellent

We believe the Alberta-based regulated utilities that CU Ltd. holds will continue to generate stable cash flow, which we expect to increase to more than 60% of consolidated cash flow in the next few years, anchoring the business risk profile. CU is predominantly exposed to a single regulator, the Alberta Utilities Commission (AUC), so it does not benefit from meaningful regulatory diversity. However, we expect the AUC's regulatory framework to continue to support cost recovery, and a return on and of capital and stable cash flow. In our view, all of CU's regulated utilities benefit from a reasonably independent, transparent, and predictable approach to regulation. The AUC operates within its legislative framework and sets rates for utilities in Alberta without political interference. Rate decisions are generally based on lengthy, but public, cost-of-service hearings; decisions are published and the rationale explained. We don't expect incentive-based ratemaking for the distribution utilities to increase the risk of lower returns or capital disallowance. To date, material decisions from a credit perspective have been consistent and largely predictable (in particular with respect to deemed capital structure and returns allowed). Rate decisions often take time (up to a year), but we don't expect this to have a rating impact and timeliness could improve with the recent introduction of performance-based ratemaking for distribution utilities. We expect ATCO Power, which operates in an environment with "moderately high" industry risk will contribute approximately 15%-20% of cash flows with some variability. ATCO Power's level of fleet contractedness of about 60%, strong counterparties, and declining project-financed nonrecourse debt in its independent power projects offset the higher industry risk. The fleet is concentrated in Alberta but has what

#### Financial Risk - Significant

We have assessed ATCO's financial risk profile as "significant" using our medial volatility table. The majority of cash flow comes from regulated activities and a majority of operating cash flow from those regulated activities benefits from a better-than-adequate regulatory advantage. We expect weighted average AFFO-to-debt at about 17%, with large investments in the regulated rate base placing downward pressure on consolidated credit metrics but increasing the proportion of regulated assets. Absent any major acquisitions, Standard & Poor's expects ATCO's capital structure to remain stable in the medium term, because the company will partially fund growth in the regulated business with debt. We base this on ATCO's track record of managing the utility balance sheets in line with the regulatorestablished deemed capital structure to set rates, amortizing project finance debt at ATCO Power's contracted power assets approximately matches the duration of contract terms, no or low levels of debt in other riskier parts of the organizational structure, and no debt at the parent level.

Residential – 12% Commercial – 21% Industrial – 62% Rural, REAs, Other –

5%



we view as a good operational track record. ATCO Structures and Logistics' cash flow are typically project-focused, so the company has near-term cash flow visibility. It has more variable long-term cash flow that is influenced by commodity pricing and the macroeconomic environment, which drive the need for their products and services. Cash flow from this segment accounts for 15%-20% of consolidated cash flow. The "strong" management and governance score for the group has no direct impact on the ratings but reflects our assessment of management's consistently conservative approach to risk mitigation, with policies and a track record of keeping cash on hand; a stable, long-term strategic horizon compared with that of peers; demonstrated operational effectiveness; and no history of earnings or cash flow surprises.	racteristics
Operations/State/Customers (000's) <sup>3</sup>	ATCO Electric - 252     ATCO Electric, NUY, NWT     and AEY own and operate 27     diesel, natural gas turbine and     hydro-generating plants, with     an aggregate nameplate capacity     of 62 MW in Alberta, the     Yukon and Northwest     Territories. The maximum peak     load demand for these plants     during 2014 was 30 MW.      ATCO Gas – 1,100     ATCO Gas Australia – 700
Total Assets (2014 \$CAD billions) <sup>4</sup>	\$16.7 billion
% of Assets in Regulated Distribution Operations (2014) <sup>5</sup>	Utility group makes up 80% of total assets (which includes gas and electric transmission operations in addition to distribution operations), inclusion of ATCO Australia brings total to 87% (which includes power operations in addition to gas distribution operations)
Customer Mix (2014) <sup>6</sup>	<ul> <li>ATCO Electric, NUY, NWT and AEY (Customers)</li> <li>Customers</li> <li>Residential – 70%</li> <li>Commercial – 13%</li> <li>Industrial – 5%</li> <li>Rural, REAs, Other – 12%</li> <li>Delivered GWh</li> </ul>



Residential Retail Choice <sup>8</sup>	In 2004, ATCO Gas and ATCO Electric transferred their retail energy supply businesses to Direct Energy. The legal obligations of ATCO
CAPEX Spend <sup>7</sup>	<ul> <li>Gross Capex for 2014 was \$2.3 billion, and the utilities portion was 2.1 billion or 91%, driven primarily by electric transmission operations.</li> <li>In 2015 – 2017 CU plans Capex of \$5.8 billion, \$4.8 billion for Canadian utility operations         <ul> <li>\$3.1 billion for electric transmission operations.</li> <li>\$1.7 billion to be shared between gas distribution and pipeline operations.</li> </ul> </li> <li>Capex for Canadian Gas Distribution operations runs ~\$300 million annually</li> </ul>
	<ul> <li>ATCO Gas         <ul> <li>Customers</li> <li>Residential – 92%</li> <li>Commercial – 8%</li> <li>Industrial –%</li> <li>Other –%</li> <li>Delivered PJ</li> <li>Residential – 48%</li> <li>Commercial – 47%</li> <li>Industrial – 5%</li> <li>Rural, REAs, Other –%</li> </ul> </li> <li>ATCO Gas Australia         <ul> <li>Customers</li> <li>Residential – 98%</li> <li>Commercial – 2%</li> <li>Industrial –%</li> <li>Other –%</li> </ul> </li> <li>Delivered PJ</li> <li>Residential – 38%</li> <li>Commercial – 11%</li> <li>Industrial – 51%</li> </ul>



Regulatory Environment				
RRA Ranking (as available)/ DBRS Ranking <sup>9</sup>	Rankings are Above Average, Average and Below Average, 1 indicates stronger rating "+" and 3 indicates weaker rating "-" DBRS Ranking out of 50, higher is better.  ALB – DBRS 30.5			
Regulatory and Legislated Initiatives	• Coal fueled power generation assets in Alberta will be impacted by changing environmental regulations. The federal government of Canada has already released regulations for greenhouse gas emissions that will limit the life of the Company's coal-fired generating plants. ATCO Power estimates that the total capital costs relating to air quality control equipment over the period 2015 to 2017 will be ~ \$16 million in order to create emissions credits and achieve compliance with the existing Alberta regulations for NOx and SO2 emissions. <sup>10</sup>			
Regulatory Model	<ul> <li>Cost of Service regulatory model – ATCO Gas Transmission, ATCO Electric Transmission, Yukon and Northwest Territories operations, ATCO Gas Australia</li> <li>Performance Based Ratemaking – ATCO Gas Distribution, ATCO Electric Distribution</li> </ul>			
Test Year <sup>11</sup>	<ul> <li>Forecast – ATCO Gas, ATCO Electric, ATCO Pipelines</li> <li>Projected test year for five year period – ATCO Gas Australia</li> </ul>			
Interim Rates <sup>12</sup>	Routinely allowed – ATCO Gas, ATCO Electric Not allowed – ATCO Gas Australia			
Typical Rate Case Lag <sup>13</sup>	ALB − ~12 mos.			
Most Recent Authorized ROE <sup>14</sup>	ATCO Gas – 8.30% ATCO Electric – 8.30% ATCO Electric Transmission – 8.30% ATCO Pipelines – 8.30% ATCO Gas Australia – WACC or ROA = 7.75%			
Most Recent Authorized Equity Ratio <sup>15</sup>	ATCO Gas – 38% ATCO Electric – 38% ATCO Electric Transmission – 36% ATCO Pipelines – 37% ATCO Gas Australia – 40%			
Gas Supply Risk Mitigation and Incentives	Purchased Gas Adjustment Clauses:			



	N/A ATCO Gas and ATCO Electric have assigned all supply responsibilities to Direct Energy, though they both retain limited POLR obligations <sup>16</sup>
Volume / Demand Risk Mitigation	Revenue Stabilization     Weather Normalization Deferral     Account – ATCO Gas <sup>17</sup> ATCO Electric Transmission     Transmission costs     are equalized by     having each owner of     transmission facilities     charge its costs to the     Alberta Electric     System Operator     (AESO). The AESO     then aggregates these     costs and charges a     common transmission     rate to all transmission     system users. <sup>18</sup>
Capital Cost Recovery Risk Mitigation <sup>19</sup>	<ul> <li>PBR Mechanism provides K-factor to recover significant CAPEX between rebasing – ATCO Gas and ATCO Electric distribution operations.</li> <li>AFUDC – ATCO Electric</li> <li>Established pre-approved capital investment programs         <ul> <li>ATCO Electric Transmission - new transmission projects are direct assigned to TFOs based on the service areas of the distribution companies they have been historically affiliated with. Facilities ownership will change at service area boundaries, except where, in the AESO's opinion, only a small portion of the project is in another service area. This rule applies to all transmission projects except interprovincial intertie projects and those deemed "critical" by the Alberta government.</li> <li>ATCO Gas – Urban Pipeline Replacement Program</li> </ul> </li> <li>Capital Trackers – ATCO Gas, ATCO Electric - pending</li> </ul>
Other Significant Deferral and Variance Accounts <sup>20</sup>	PBR Mechanism provides Y-factor to recover or refund annual variances in



# NEWFOUNDLAND POWER INC. EXHIBIT JMC-2

and determined defended and verticans
predetermined deferral and variance
accounts – ATCO Gas and ATCO Electric
distribution operations.
<ul> <li>Site Restoration and Removal</li> </ul>
Deferral
<ul> <li>Load Balancing Deferral</li> </ul>
<ul> <li>Defined benefit pension plans</li> </ul>
and OPEB plans
o Deferred income taxes
o Transmission Access Payments
o Direct Assign Capital Variance
account



# Emera (TSX: EMA)

## Company Overview<sup>21</sup>

Emera Inc. is geographically diverse energy and services company headquartered in Halifax, Nova Scotia with \$9.84 billion in assets and 2014 revenues of \$2.97 billion. The company invests in electricity generation, transmission and distribution, as well as gas transmission and utility energy services. Emera's strategy is focused on the transformation of the electricity industry to cleaner generation and the delivery of that clean energy to market. Emera has investments throughout northeastern North America, and in four Caribbean countries. Emera continues to target having 75-85% of its adjusted earnings come from rate-regulated businesses.

## S&P Ratings Summary (BBB+/Stable/--)<sup>22</sup>

#### Business Risk - Excellent

Emera's "excellent" business risk profile reflects our view of its diversified portfolio of regulated operations in jurisdictions with generally supportive regulatory environment. Approximately 80% of the company's revenues come from rate-regulated subsidiaries, with approximately 60% of consolidated revenues from NSPI alone. NSPI is regulated under a cost-of-service model, with rates set to recover prudently incurred costs of providing electricity service to customers, and provide an appropriate return to investors. Emera's exposure to unregulated revenues is primarily through its 24.3% ownership in Algonquin Power & Utilities Corp., which it accounts for using the equity method, and the recently acquired New England assets that it consolidates. We believe that Emera's regulated revenues could form a greater portion of its total revenues as the Maritime Link project begins operations in 2017. Although we believe that the company will start benefiting from the project once it begins operations, in addition to inherent construction risks associated with a project of this scale, there will be no cash flow from the project during its construction.

#### Financial Risk - Significant

Emera's "significant" financial risk profile reflects the stability and predictability of the company's regulated cash flow. We project Emera's AFFO-to-debt ratio to range from 12%-13% in the next two years. We have added to the company's consolidated debt C\$250 million and C\$600 million of debt for 2014 and 2015, respectively, for the Maritime Link project, reflecting the project's importance to Emera and our view that the company would support the project if required.

#### **Operating Characteristics**

#### Operations/State/Customers (000's)<sup>23</sup>

- Nova Scotia Power fully integrated electric utility 504
- Emera Maine (formerly Bangor Hydro Electric Co. and Maine Public Service Company) provides electric transmission and distribution – 155
- 80.6% interest in Emera Caribbean (formerly Light and Power Holdings – parent of Barbados L&P – vertically integrated electric utility)- 126
- 41.8% interest in Dominica Electricity Services – 35
- 15.4% interest in St. Lucia Electricity Services



	• 50% direct interest and 30.4% indirect interest in Grand Bahama Power Co. – 19
Total Assets (2014 \$CAD billions) <sup>24</sup>	\$9.8 billion
% of Operating Revenues in Regulated Distribution Operations (2014) <sup>25</sup>	North American and Caribbean Distribution companies make up 70% of operating revenues; North American distribution operations make up 54% of distribution operations; and NSPI makes up 46% of operating revenues.
Customer Mix (2014) <sup>26</sup>	<ul> <li>NSPI         <ul> <li>Residential – 51%</li> <li>Commercial – 29%</li> <li>Industrial – 16%</li> <li>Other – 4%</li> </ul> </li> <li>Emera Maine         <ul> <li>Electric Revenues (2014)</li> <li>Residential – 48%</li> <li>Commercial – 38%</li> <li>Industrial – 8%</li> <li>Other – 6%</li> </ul> </li> <li>Emera Caribbean         <ul> <li>Electric Revenues (2014)</li> <li>Residential – 33%</li> <li>Commercial – 59%</li> <li>Industrial – 6%</li> <li>Other – 2%</li> </ul> </li> </ul>
%CAPEX Spend <sup>27</sup>	<ul> <li>Capex plan for 2015 is \$1.2 billion, and the utilities portion was \$0.456 billion or 37% (Canadian portion – NSPI is \$0.273 billion), 2016 is \$1.276, the utilities portion was \$527 million or 41%, and 2017 was \$966 for \$471 million or 43%.</li> <li>Capex for Canadian Distribution operations runs ~\$300 million annually</li> </ul>
Residential Retail Choice <sup>28</sup>	Electricity generation is deregulated in Maine, but electric sales pricing is regulated
Supply Availability and Deliverability <sup>29</sup>	A large portion of NSPI's fuel supply comes from international suppliers and is subject to commodity price and foreign exchange risk. The Company seeks to manage this risk through the use of financial hedging instruments and physical contracts and utilizes a portfolio strategy for fuel procurement with a combination of long, medium, and short-term supply agreements. It also provides for supply and supplier diversification. Foreign exchange risk is managed through forward and swap contracts. Fuel contracts may also be exposed to broader global conditions which



	<del>_</del>
	may include impacts on delivery reliability and price, despite contracted terms. The adoption and implementation of the FAM has helped NSPI further manage this risk.
Regulatory I	Environment
RRA Ranking (as available)/ DBRS Ranking <sup>30</sup>	Rankings are Above Average, Average and Below Average, 1 indicates stronger rating "+" and 3 indicates weaker rating "-" DBRS Ranking out of 50, higher is better.  Nova Scotia – DBRS 36 Maine – RRA Ranking Average/2
Regulatory and Legislated Initiatives	• The Government of Nova Scotia announced new energy efficiency legislation to remove a previous charge for conservation and efficiency programs from power bills of NSPI customers effective January 1, 2015. In addition, the legislation requires NSPI to purchase electricity efficiency and conservation activities ("Program Costs") from Efficiency Nova Scotia, when it is cheaper than generation, on a go-forward basis. The Program Costs are capped for 2015 at \$35.0 million. The UARB will provide regulatory oversight of the Program Costs thereafter. The Program Costs for 2015 will be deferred as a regulatory asset and recoverable from customers over an eight year period beginning in 2016. The UARB will determine how the Program Costs will be recovered from customers for 2016 and beyond. <sup>31</sup>
Regulatory Model <sup>32</sup>	Cost of Service regulatory model —         NSPI, electric rates are subject to UARB approval - not subject to annual review process — but based on periodic hearings as necessary         Emera Maine         Barbados Light & Power  Performance Based Ratemaking — Flexible Rate Adjustment Model - Grand Bahama Power Company  Earnings Sharing Mechanism - Grand Bahama Power Company
Test Year <sup>33</sup>	<ul> <li>Forecast – NSPI</li> <li>Historical with known and measurable differences – Emera Maine</li> </ul>
Interim Rates	Allowed in certain circumstances - Maine <sup>34</sup> Not allowed – Nova Scotia <sup>35</sup>



Typical Rate Case Lag	Nova Scotia – 6.5 mos. <sup>36</sup> Maine – 6 to 9 mos. <sup>37</sup>
Most Recent Authorized ROE <sup>38</sup>	<ul> <li>NSPI – 8.75% to 9.25%</li> <li>Emera Maine – was 10.2% (effective July 1, 2014 became 9.55%)         <ul> <li>Transmission operations ROEs are regulated by FERC and earn incentive returns</li> </ul> </li> <li>Barbados Light &amp; Power – WACC of 10%</li> <li>Grand Bahama Power Company WACC of 10%</li> </ul>
Most Recent Authorized Equity Ratio <sup>39</sup>	<ul> <li>NSPI – 40%</li> <li>Emera Maine – was 50% (effective July 1, 2014 became 49%)         <ul> <li>Transmission operations common equity components based on most recent 2 year average.</li> </ul> </li> <li>Barbados Light &amp; Power – N/A</li> <li>Grand Bahama Power Company – N/A</li> </ul>
Gas Supply Risk Mitigation and Incentives <sup>40</sup>	<ul> <li>Purchased Gas Adjustment Clauses:</li> <li>NSPI has an annual fuel adjustment mechanism, fuel costs subject to annual audit</li> <li>Barbados Light &amp; Power – monthly fuel adjustment mechanism</li> <li>Grand Bahama Power Company – monthly fuel adjustment mechanism</li> </ul>
Volume / Demand Risk Mitigation <sup>41</sup>	Revenue Stabilization     NSPI - Fixed Cost Recovery     Deferral – 2012 Large Industrial     Customers (recovers lost revenues associated with 2 large customers)
Capital Cost Recovery Risk Mitigation <sup>42</sup>	<ul> <li>AFUDC – NSPI, Emera Maine and GBPC all include an equity component in AFUDC.</li> <li>Established pre-approved capital investment programs         <ul> <li>None noted</li> </ul> </li> <li>Capital Trackers – none noted</li> </ul>
Other Significant Deferral and Variance Accounts <sup>43</sup>	<ul> <li>Fixed cost recovery deferral – NSPI defers a portion of fixed cost recovery to future periods (subject to reduction for excess earnings and subject to revenue cap)</li> <li>Emera Maine – 5 year deferral of \$5 million of costs associated with major ice storm</li> <li>Stranded Asset Recovery – Emera Maine (recovers all prudently incurred costs resulting from restructuring electric industry</li> </ul>



# NEWFOUNDLAND POWER INC. EXHIBIT JMC-2

in 2000)  Restructuring above market PPA – Emera Maine
Pension and post retirement medical plan



# Enbridge Inc. (TSX: ENB)

#### Company Overview<sup>44</sup>

Enbridge, a Canadian Company, is a North American leader in delivering energy and has been included on the Global 100 Most Sustainable Corporations in the World ranking for the past six years. As a transporter of energy, Enbridge operates, in Canada and the United States, the World's longest crude oil and liquids transportation system. The Company also has significant and growing involvement in natural gas gathering, transmission and midstream businesses, and an increasing involvement in power transmission. As a distributor of energy, Enbridge owns and operates Canada's largest natural gas distribution company and provides distribution services in Ontario, Quebec, New Brunswick and New York State. As a generator of energy, Enbridge has interests in more than 2,200 MW (1,600 MW net) of renewable and alternative energy generating capacity and is expanding its interests in wind, solar and geothermal facilities. Enbridge employs more than 11,000 people, primarily in Canada and the United States and is ranked as one of Canada's Top 100 Employers for 2014.

## S&P Ratings Summary (A-/Stable/A-2)<sup>45</sup>

#### Business Risk - Excellent

We view Enbridge's business risk as "excellent," with an "excellent" competitive position. The company generates a significant portion of its cash flow through tolls on the liquids pipelines and earnings from regulated gas distribution. Although the competitive tolling settlement expose Enbridge to a higher degree of volume risk, the fundamentals of increasing Alberta crude oil production and constrained export capacity bode well for seeing volumes remain strong. The company does not take direct commodity risk on the pipelines, and the contract profile is long-term with generally creditworthy counterparties. We expect new projects to feature long-term contracts that limit volume risk, with no commodity exposure that generate stable Gas distribution accounts for cash flows. approximately 15% of cash flow, and we believe consistent and predictable regulation, commodity cost pass-through, and a demonstrated ability to earn the allowed return on equity established by the regulator support the excellent competitive position.

### Financial Risk - Significant

We view Enbridge's financial risk profile as "significant". A very large capital program to expand existing and build new liquids pipelines will pressure financial metrics for the next several years. We expect that there will be very limited headroom above our 13% AFFO-to-debt downgrade threshold, and that financial policy, including the mix of external financing and dividend growth, will be crucial to maintaining the rating.

#### **Operating Characteristics** Operating segments are liquids pipelines (38% of Operations/State/Customers (000's)46 total assets); gas distribution (13% of total assets); gas pipelines, processing and energy services (10% of total assets); sponsored investments (32% of total assets); and corporate (7% of total assets). EGDI - 2,000 Enbridge Gas New Brunswick - 1147 Total Assets (2014 \$CAD billions)48 \$72.9 billion % of Assets in Regulated Distribution Operations Gas distribution operations assets are 9.3 billion or $(2014)^{49}$ 13%. Gas distribution makes up 9% of revenues and 13% of operating income.



Customer Mix (2014) <sup>50</sup>	<ul> <li>EGDI Revenues (2014)</li> <li>Residential – 33%</li> <li>Commercial – 27%</li> <li>Industrial – 23%</li> <li>Wholesale – 16%</li> </ul>
%CAPEX Spend <sup>51</sup>	<ul> <li>A key focus of Enbridge's corporate strategy is the successful execution of its growth capital program. In 2014, Enbridge successfully placed into service approximately \$10 billion of growth projects across several business units. Enbridge also expanded its portfolio of commercially secured growth projects to \$34 billion. All of these projects are expected to come into service by 2018; with more than \$9 billion during 2015.</li> <li>Capex for Canadian Distribution operations was \$663 million for 2014; and is forecast at \$1 billion for 2015. The average in recent years has been \$527 million.<sup>52</sup></li> </ul>
Residential Retail Choice <sup>53</sup>	Customers have a choice with respect to natural gas supply. One option is a sales service option, whereby the customer purchases natural gas from the Company's supply portfolio (system supply). The Company does not earn a margin on the natural gas commodity it provides to customers. Alternatively, a natural gas user may select a direct purchase option, which is a transportation service arrangement.  Under the transportation service arrangement, a customer supplies natural gas at a TransCanada Pipelines Limited (TransCanada) receipt point in western Canada or at a TransCanada delivery point in Ontario, and the Company redelivers an equivalent amount of natural gas to the customer's end-use location. As a third option, a customer may select an unbundled service arrangement. Similar to the transportation service arrangement, customers deliver their own natural gas into the Company's distribution system, but they are responsible for balancing consumption with deliveries on a daily basis. These arrangements are billed by the Company under the OEB approved rate schedules.
Supply Availability and Deliverability <sup>54</sup>	<ul> <li>EGDI owns rate regulated and non-regulated natural gas storage facilities in Ontario.<sup>55</sup></li> <li>EGDI maintains a diversified natural gas supply portfolio. During the year ended December 31, 2014, the Company acquired approximately 9.1 billion cubic metres of natural gas (2013 - 7.8 billion cubic metres), of which 58% (2013 - 47%) was acquired</li> </ul>



from western Canadian producers, 17% (2013 - 23%) was acquired from suppliers in Chicago and 25% (2013 - 30%) was acquired on a delivered basis in Ontario. The Company also transported 4.7 billion cubic metres (2013 - 4.7 billion cubic metres) of natural gas on behalf of direct purchase customers operating under a transportation service arrangement. The Company's system supply natural gas contracts have pricing structures responsive to supply and demand conditions in the North American natural gas market. The prices in these contracts may be indexed to Alberta, Chicago or New York based prices.  • TransCanda transports approximately 69% or 9.1 billion cubic metres (2013 - 60% or 7.4 billion cubic metres) of the annual natural gas supply requirements of the Company's customers.  Regulatory Environment  RRA Ranking (as available) / DBRS Ranking*  Regulatory Environment  RRA Ranking (as available) / DBRS Ranking*  Regulatory Environment  RRA Ranking (as available) / DBRS Ranking*  Regulatory Environment  RRA Ranking Average, Average and Below Average, 1 indicates weaker rating "-" DBRS Ranking out of 50, higher is better.  Ontario – DBRS 33  New Brunswick – DBRS 30  Quebec – DBRS 38  New York – RRA Ranking Average/2  • Ontario is a signatory to the Western Climate Initiative. Ontario is currently developing a carbon management strategy which will be released in 2015. The Company reports greenhouse gas (GHG) emissions from combustion sources only in Ontario, and all reported data is verified by a third party. There were no issues identified for the 2014 reporting year. **  • Government of New Brunswick enacted legislation that in 2011 permitted the government to change the franchise agreement between EGNB and the province. According to the franchise agreement between EGNB and the province According to the new legislation, EGNB no longer met criteria for rate regulated accounting and was forced to write off \$262 million of regulatory assets. The new regulation changed the regulatory model in New Brunswick to lower o		
RRA Ranking (as available) / DBRS Ranking 56  Rankings are Above Average, Average and Below Average, 1 indicates stronger rating "+" and 3 indicates weaker rating "-" DBRS Ranking out of 50, higher is better.  Ontario – DBRS 33  New Brunswick – DBRS 30 Quebec – DBRS 38  New York – RRA Ranking Average/2  Regulatory and Legislated Initiatives  • Ontario is a signatory to the Western Climate Initiative. Ontario is currently developing a carbon management strategy which will be released in 2015. The Company reports greenhouse gas (GHG) emissions from combustion sources only in Ontario, and all reported data is verified by a third party. There were no issues identified for the 2014 reporting year. <sup>57</sup> • Government of New Brunswick enacted legislation that in 2011 permitted the government between EGNB and the province. According to the new legislation, EGNB no longer met criteria for rate regulated accounting and was forced to write off \$262 million of regulatory assets. The new regulation changed the regulatory model in New Brunswick to lower of cost of service or market. Legal proceedings are ongoing. <sup>58</sup>		(2013 - 23%) was acquired from suppliers in Chicago and 25% (2013 - 30%) was acquired on a delivered basis in Ontario. The Company also transported 4.7 billion cubic metres (2013 - 4.7 billion cubic metres) of natural gas on behalf of direct purchase customers operating under a transportation service arrangement. The Company's system supply natural gas contracts have pricing structures responsive to supply and demand conditions in the North American natural gas market. The prices in these contracts may be indexed to Alberta, Chicago or New York based prices.  • TransCanada transports approximately 69% or 9.1 billion cubic metres (2013 - 60% or 7.4 billion cubic metres) of the annual natural gas supply requirements of the
RRA Ranking (as available) / DBRS Ranking 56  Rankings are Above Average, Average and Below Average, 1 indicates stronger rating "+" and 3 indicates weaker rating "-" DBRS Ranking out of 50, higher is better.  Ontario – DBRS 33  New Brunswick – DBRS 30 Quebec – DBRS 38  New York – RRA Ranking Average/2  Regulatory and Legislated Initiatives  • Ontario is a signatory to the Western Climate Initiative. Ontario is currently developing a carbon management strategy which will be released in 2015. The Company reports greenhouse gas (GHG) emissions from combustion sources only in Ontario, and all reported data is verified by a third party. There were no issues identified for the 2014 reporting year. <sup>57</sup> • Government of New Brunswick enacted legislation that in 2011 permitted the government between EGNB and the province. According to the new legislation, EGNB no longer met criteria for rate regulated accounting and was forced to write off \$262 million of regulatory assets. The new regulation changed the regulatory model in New Brunswick to lower of cost of service or market. Legal proceedings are ongoing. <sup>58</sup>	Regulatory E	nvironment
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Regulatory Model <sup>59</sup> • EGDL rates are updated annually (including	Regulatory and Legislated Initiatives	Climate Initiative. Ontario is currently developing a carbon management strategy which will be released in 2015. The Company reports greenhouse gas (GHG) emissions from combustion sources only in Ontario, and all reported data is verified by a third party. There were no issues identified for the 2014 reporting year. <sup>57</sup> • Government of New Brunswick enacted legislation that in 2011 permitted the government to change the franchise agreement between EGNB and the province. According to the new legislation, EGNB no longer met criteria for rate regulated accounting and was forced to write off \$262 million of regulatory assets. The new regulation changed the regulatory model in New Brunswick to lower of cost of service or market. Legal proceedings are
EGD1- faces are updated annually (including		oligoling."



	ROE)  O Performance Based Ratemaking O Earnings Sharing Mechanism O Incentive Mechanism that allows the company to earn above its allowed return.  • Enbridge Gas New Brunswick O Lower of cost of service or market-based rates
Test Year <sup>60</sup>	Forecast – EGDI (billing determinants and ROE are updated annually)     St. Lawrence rates set by cost of service
Interim Rates	Allowed through Revenue Adjustment deferral account for EGDI <sup>61</sup>
Typical Rate Case Lag	EGDI has formula rates for 5-year period, typically cases are decided within 8 months <sup>62</sup>
Most Recent Authorized ROE <sup>63</sup>	• EGDI – 9.36% o St. Lawrence – 10.5% <sup>64</sup>
Most Recent Authorized Equity Ratio <sup>65</sup>	• EGDI – 36% • St. Lawrence – 50.0%66
Gas Supply Risk Mitigation and Incentives <sup>67</sup>	Purchased Gas Adjustment Clauses:  • EGDI – has quarterly fuel adjustment through QRAM mechanism, difference between actual and forecast fuel prices are recovered over subsequent 12 month period, sometimes collections are deferred beyond one year <sup>68</sup>
Volume /Demand Risk Mitigation <sup>69</sup>	Revenue Stabilization     EGDI – Average use true up account mitigates volume differences for residential customer class – industrial and commercial customers are at risk for actual volumes that differ from forecast volume.
Capital Cost Recovery Risk Mitigation	<ul> <li>EGDI may capitalize IDC only (i.e. no equity component)<sup>70</sup></li> <li>Established pre-approved capital investment programs<sup>71</sup> <ul> <li>Greater Toronto Area (GTA) project – OEB approval received in January 2014 - \$756 million to be completed in 2015.</li> <li>St. Lawrence Gas expansion (received regulatory approval in July 2012) – expected to be completed in 2018. Total capital cost is \$52 million.</li> </ul> </li> </ul>





	Capital Trackers <sup>72</sup>
	O Rate plan includes core capital allocation to meet customer growth and integrity management programs (averaging approximately \$440 million/year through 2018) O GTA Project DVA account
Other Significant Deferral and Variance	• EGDI
Accounts <sup>73</sup>	Customer care mechanism
	o DSM mechanism
	o Greenhouse Gas Emissions
	Deferral account <sup>74</sup>
	<ul> <li>Pension and other OPEB</li> </ul>
	mechanism
	o Constant dollar net salvage
	adjustment
	O Unabsorbed demand cost
	Design day criteria
	transportation  O DSM management incentive
	o Deferred rate hearing costs
	o Future removal and site
	restoration
	o Storage and transportation
	Transactional services deferral
	Revenue adjustment mechanism
	(adjusts for interim rates)
	Z factor approved for material unforeseen
	events (i.e. > \$1.5 million)



# Valener Inc. (TSX: VNR)

## Company Overview<sup>75</sup>

Valener is a public company that is 100% owned by the public investor and serves as the investment vehicle in Gaz Métro. Through its investment in Gaz Métro, Valener offers its shareholders a solid investment in a diversified and largely regulated energy portfolio in Quebec and Vermont. As a strategic partner, Valener, on one hand, contributes to Gaz Métro's growth, and on the other hand invests in wind power production in Quebec together with Gaz Métro. Valener favors energy sources and uses that are innovative, clean, competitive and profitable.

## S&P Ratings Summary (BBB+/Stable/--)<sup>76</sup>

## Business Risk - Strong

The "strong" business risk profile reflects the inherent link to GMLP, as well as our opinion of the highly stable underlying nature of the cash flows at the GMLP level. We base our assessment of Valener's business risk on GMLP's underlying regulated natural gas distribution businesses in Quebec and Vermont, as well as its regulated electric transmission and distribution assets in Vermont. GMLP also has interests in the Seigneurie de Beaupre wind power projects. We expect residual cash flows from wind power to be more volatile than those from regulated gas distribution due to the nature of wind generation. In our view, the relationship between GMLP and Valener is key to the ratings. Valener has no direct operations or staff, and is managed by GMLP pursuant to a management and administration support agreement. Three of its five board members are also on the GMLP board, and its stated strategy is to maintain its 29% proportional interest in GMLP as it increases in overall size. GMLP has supported Valener, providing an additional C\$20 million in distributions to support

its dividends in the past. Our base-case operating scenario forecasts no change in the relationship between the two entities, and no change in Gaz Metro's or Valener's dividend policy.

## Financial Risk - Significant

Valener's significant financial risk profile reflects our view of the company's degree of leverage and financing needs. Valener receives distributions from GMLP, and accounts for its interest as equity. The distributions reflect residual cash flows from GMLP after it has satisfied its own financing needs. Pursuant to the partnership agreement, GMLP has to distribute at least 85% of its net income, excluding nonrecurring items. Any distributions less than 85% will require 90% approval from GMLP's board, which provides an effective veto to the three Valener directors nominated to the board. GMLP is distributing above this level, so we view this as a lower limit to cash flows at Valener, recognizing the fact that earnings are variable.

#### **Operating Characteristics**

#### Operations/State/Customers (000's)<sup>77</sup>

Valener owns a 29% interest in Gaz Metro Limited Partnership. In addition to distribution facilities listed below, Gaz Metro owns a 50% interest in TQM, that connects to TCPL, owns Champion (2 pipelines that cross the Ontario border and supply the northwest corner of Gaz Metro's distribution system); and owns at 38.3% interest in PNGTS (starts at the Quebec border and serves Boston); As well, Gaz Metro owns interests (51%) in wind farms (272MW sold to HQ), Valener owns the remaining 49%. Also has an energy services division that includes Gaz Metro LNG (ensures the liquefaction capacity of Gaz Metro's LSR plant and



	the new LNG plant to be constructed); and transport solution, providing CNG and LNG for fleet transportation fuels. Energy distribution accounted for 97% of Gaz Metro's net income, with Gaz Metro accounting for 66% of distribution net income.  • Gaz Metro – 2,000 • VGS – 45 • GMP –  • MOU upon acquisition of CVPS, that GMP must generate at least US\$144 of synergy savings for its customers over a 10 year period. Schedule of payments to customers is as follows:  • Fixed amounts 2013–2015 (2014 \$5 million, 2015 \$8 million) • Shared equally 2016–2020 • 100% to customers 2021-2022
Total Assets (2014 \$CAD billions) <sup>78</sup>	\$0.815 billion Valener \$6.144 billion Gaz Metro Limited Partnership
% of Assets in Regulated Distribution Operations (2014) <sup>79</sup>	Energy distribution assets are 84% of total Gaz Met partnership assets. Gaz Metro distribution makes up 46% of total energy distribution assets.
Customer Mix (2014) <sup>80</sup>	Gaz Metro Normalized Gas Volume (2014) (106m³)  Industrial  Firm – 2,983 (50%)  Interruptible –498 (8%)  Commercial – 1,846 (31%)  Residential – 673 (11%)  Gaz Metro electricity distribution (gigawatt hours)  Residential – 1,558 (36%)  Small commercial and industrial (37%)  Large commercial and industrial – 1170 (27%)  Gaz Metro's major customers (numbering over 200) comprise 52% of natural gas deliveries and 22% of total revenues.
%CAPEX Spend <sup>81</sup>	CAPEX for remainder of 2015 ~\$227 million  • CAPEX of ≈ \$180M for extensions and improvements to energy distribution systems  • Gaz Métro - QDA: ≈ \$80M  • VGS & GMP: ≈ \$100M



Residential Retail Choice <sup>83</sup>	<ul> <li>CAPEX of ≈ \$47M for LSR plant expansion (total cost of LSR Plant expansion is \$118 million)<sup>82</sup></li> <li>VGS system expansion total cost \$121.6 million</li> <li>Gas market restructuring and retail competition has not occurred in Gaz Metro's gas service territories in Quebec or Vermont.</li> </ul>
Supply Availability and Deliverability <sup>84</sup>	<ul> <li>Gaz Metro relies on a varied portfolio of transportation and storage with differing expirations to meet its delivery requirements.         <ul> <li>Firm capacity on TCPL that delivers from Western Canada or from Dawn.</li> <li>Contracts for storage capacity in Quebec and at Dawn in Ontario.</li> <li>Gaz Metro buys natural gas required to supply customers.</li> <li>Supply plan submitted to Régie once a year for approval. Régie recently approved request to move supply receipt point from Empress to Dawn (closer and takes better advantage of cheap and abundant U.S. supply)</li> </ul> </li> </ul> <li>TransCanada has recently filed (2014) a case to convert a portion of their gas mainline to a liquids pipeline transporting oil from western to eastern Canada which may pose a supply risk to the utilities in eastern Canada.</li> <li>GMP's supply portfolio consists of multiple generation sources, mainly hydro and to a lesser degree, nuclear and wind. Owns commercial scale wind farm ~70 MW – largest wind producer in the state.</li> <li>New England electric power market continues to have adequate supply to meet demand in the region, but pipeline capacity gets constrained in the winter months.</li>
Regulatory En	nvironment
RRA Ranking (as available) / DBRS Ranking <sup>85</sup>	Rankings are Above Average, Average and Below Average, 1 indicates stronger rating "+" and 3 indicates weaker rating "-" DBRS Ranking out of 50, higher is better.  Quebec – DBRS 38 VT – RRA Ranking Average/3
Regulatory and Legislated Initiatives <sup>86</sup>	Gaz Metro is subject to the CATS (carbon cap and trade market) Regulation as of January 1, 2015. Gaz Metro will be required



	,
	to reduce emissions and to purchase GHG emissions allowances. This regulation replaces annual duty under the Green Fund. Estimated compliance costs for 2015 are \$45 million and over \$70 million for 2016.  Climate Change Action Plan 2013-2020 to reduce reliance on fossil fuels. Government actions will focus on transportation, industry and buildings.  Government of Quebec biomethanation program – Gaz Metro plans on providing biomethane in 2015.  Vermont encourages development of renewable energy resources – 20% statewide electricity sales be generated with renewable electricity.  GMP participates in RGGI, multi state cap and trade program, GMP has one plant subject to compliance and costs to comply are low and expected to remain so.
Regulatory Model <sup>87</sup>	<ul> <li>Distribution rates are set by cost of service method – Gaz Metro, VGS, GMP</li> <li>GMP has alt reg plan which includes earnings, sharing, power supply adjustment mechanism, and a formula ROE. Alt reg plan commenced January 2014 and will be in effect for 3 years.</li> <li>Earnings sharing – Gaz Metro, GMP</li> <li>Performance Incentives for energy savings – Gaz Metro \$1 million (GEEP).</li> </ul>
Test Year <sup>88</sup>	<ul> <li>Forecast – Gaz Met</li> <li>Historical Average rate base with adjustment for known and measurable differences – VGS, GMP</li> </ul>
Interim Rates <sup>89</sup>	Régie approved an interim distribution rate based on a 1.8% inflation rate that will go into effect January 1, 2015 and will remain until decision is reached on Phase III of the 2015 rate case.
Typical Rate Case Lag	QC - ~ 7 mos. <sup>90</sup> VT - 8 mos. <sup>91</sup>
Most Recent Authorized ROE92	<ul> <li>Gaz Metro – 8.9% (9.25% earned)</li> <li>VGS – 10.20%</li> <li>GMP – 9.6%</li> </ul>
Most Recent Authorized Equity Ratio 93	<ul> <li>Gaz Metro – 38.5%</li> <li>VGS – 55% equity</li> <li>GMP – 50% equity</li> </ul>
Gas Supply Risk Mitigation and Incentives <sup>94</sup>	Purchased Gas (or Fuel) Adjustment Clauses:  • Quarterly adjustment mechanism – VGS, GMP



Volume /Demand Risk Mitigation <sup>95</sup>	Revenue Stabilization     Gaz Metro – weather     normalization (based on normal     temperature and wind velocity)     deferral adjustment; recovered     from/returned to customers     over 5-year period.     VGS – weather normalization     GMP – Alt Reg Plan mitigates     how certain volume/cost     variations due to weather impact     earnings.
Capital Cost Recovery Risk Mitigation%	<ul> <li>Gaz Met capitalizes AFUDC at its WACC.</li> <li>Established pre-approved capital investment programs<sup>97</sup> <ul> <li>LSR facility expansion – Gaz Metro</li> <li>System expansion -VGS</li> </ul> </li> <li>Capital Trackers         <ul> <li>None noted</li> </ul> </li> </ul>
Other Significant Deferral and Variance Accounts 98	<ul> <li>Gaz Metro         <ul> <li>Green fund surcharge – Gaz Metro</li> <li>Bad debt deferral account – Gaz Metro</li> <li>Energy efficiency-Gaz Metro, GMP</li> <li>Pensions and OPEB – Gaz Metro, GMP</li> <li>Grants paid – Gaz Metro, VGS</li> <li>Inventory stabilization- Gaz Metro</li> <li>Site decontamination and dismantling costs – VGS, GMP</li> <li>Deferred vacation – Gaz Metro</li> <li>Storm costs – GMP</li> <li>System expansion and reliability fund – VGS</li> <li>Future costs of retiring PP&amp;E – Gaz Metro</li> </ul> </li> </ul>
Other Significant Deferral and Variance Accounts 99	<ul> <li>Pension and Post Retirement Benefits</li> <li>Interest Rate Contracts</li> <li>Social Benefits Clause</li> <li>Remediation Adjustment Clause</li> <li>New Jersey Clean Energy Program</li> <li>Universal Service Fund</li> <li>Pipeline Integrity Management regulations</li> <li>Superstorm Sandy</li> </ul>



### **End Notes**

- SNL Financial.
- <sup>2</sup> S&P Ratings Direct, Summary: Canadian Utilities Ltd. (September 3, 2014).
- Canadian Utilities Annual Information Form (2014) at 5-7.
- <sup>4</sup> Canadian Utilities Consolidated Financial Statements (2014).
- <sup>5</sup> Canadian Utilities Consolidated Financial Statements (2014).
- <sup>6</sup> Canadian Utilities Annual Information Form (2014) at 6.
- <sup>7</sup> Canadian Utilities Annual Information Form (2014) and MD&A.
- 8 Canadian Utilities MD&A (2014).
- 9 SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States.
- <sup>10</sup> Canadian Utilities MD&A (2014).
- 11 Canadian Utilities Annual Information Form (2014) and AUC Decision 2012-237 at 9.
- <sup>12</sup> Canadian Utilities Annual Information Form (2014) and MD&A (2014).
- <sup>13</sup> Canadian Utilities Annual Information Form (2014).
- <sup>14</sup> AUC 2013 GCOC Decision 2191-D01-2015; Canadian Utilities Annual Information Form (2014).
- <sup>15</sup> AUC 2013 GCOC Decision 2191-D01-2015; Canadian Utilities Annual Information Form (2014).
- <sup>16</sup> Canadian Utilities MD&A (2014).
- <sup>17</sup> Canadian Utilities Consolidated Financial Statements (2014) at 22.
- <sup>18</sup> Canadian Utilities Annual Information Form (2014) at 6.
- <sup>19</sup> Canadian Utilities Annual Information Form (2014) and MD&A (2014).
- <sup>20</sup> Canadian Utilities Annual Information Form (2014) and Consolidated Financial Statements (2014).
- <sup>21</sup> SNL Financial.
- <sup>22</sup> S&P Ratings Direct, Summary: Emera Inc. (September 17, 2014).
- <sup>23</sup> Emera Inc. Consolidated Financial Statements (2014).
- <sup>24</sup> Emera Inc. Consolidated Financial Statements (2014).
- <sup>25</sup> Emera Inc. Consolidated Financial Statements (2014).
- <sup>26</sup> Emera Inc. MD&A (2014).
- <sup>27</sup> Emera Inc. Consolidated Financial Statements (2014).
- <sup>28</sup> Emera Inc. MD&A (2014).
- <sup>29</sup> Emera Inc. MD&A (2014).
- 30 SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States.
- <sup>31</sup> Emera Inc. MD&A (2014).
- Emera Inc. Consolidated Financial Statements (2014).
- <sup>33</sup> 2012 NSUARB 227and SNL Financial.
- 34 SNL Financial.
- <sup>35</sup> 2012 NSUARB 227.
- <sup>36</sup> 2012 NSUARB 227.
- 37 SNL Financial.
- <sup>38</sup> Emera Inc. Consolidated Financial Statements (2014).
- <sup>39</sup> Emera Inc. Consolidated Financial Statements (2014).
- <sup>40</sup> Emera Inc. Consolidated Financial Statements (2014).
- 44 SNL Financial.
- <sup>45</sup> S&P Ratings Direct, Summary: Enbridge Inc. (May 16, 2014).
- <sup>46</sup> Enbridge Inc. Consolidated Financial Statements (2014).
- Enbridge Inc. Annual Information Form (2014).
- Enbridge Inc. Consolidated Financial Statements (2014).
- <sup>49</sup> Enbridge Inc. Consolidated Financial Statements (2014).
- Enbridge Gas Distribution Inc. Annual Information Form (2014) at 7.
- <sup>51</sup> Enbridge Inc. Consolidated Financial Statements (2014).
- Enbridge Gas Distribution MD&A (2014) at 14.

### NEWFOUNDLAND POWER INC. EXHIBIT JMC-2

- <sup>53</sup> Enbridge Gas Distribution Inc. Annual Information Form (2014) at 5.
- <sup>54</sup> Enbridge Gas Distribution Inc. Annual Information Form (2014) at 5.
- 55 Enbridge Gas Distribution Inc. Annual Information Form (2014) at 3.
- 56 SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States.
- 57 Enbridge Gas Distribution Inc. Annual Information Form (2014) at 9.
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- Enbridge Gas Distribution Inc. Annual Information Form (2014) at 8 and Enbridge Inc. Consolidated. Financial Statements at 23 and MD&A at 48.
- 60 Enbridge Gas Distribution Co. MD&A (2014) at 11.
- <sup>61</sup> Enbridge Gas Distribution Co. Consolidated Financial Statements (2014) at 16.
- 62 OEB website.
- 63 Enbridge Inc. Consolidated Financial Statements (2014).
- <sup>64</sup> Enbridge Inc. Consolidated Financial Statements (2014).
- 65 Enbridge Inc. Consolidated Financial Statements (2014).
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- <sup>67</sup> Enbridge Gas Distribution MD&A (2014) at 13.
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- <sup>69</sup> Enbridge Gas Distribution MD&A at 22 (2014).
- EB-2011-0354, Application Exhibit E2, Tab 2, Schedule 1, Equity Thickness Evaluation and Recommendation, Prepared for: Enbridge Gas Distribution by Concentric Energy Advisors, Inc. January 27, 2012.
- <sup>71</sup> Enbridge Gas Distribution Inc. Annual Information Form (2014) at 8.
- <sup>72</sup> OEB Decision EB-2012-0459 at 70.
- <sup>73</sup> Enbridge Gas Distribution Co. MD&A (2014) at 6.
- <sup>74</sup> OEB Decision EB-2012-0459 at 70.
- <sup>75</sup> SNL Financial.
- <sup>76</sup> S&P Ratings Direct, Summary: Valener Inc. (June 26, 2014).
- <sup>77</sup> Valener Inc. Annual Report (2014).
- <sup>78</sup> Valener Inc. Consolidated Financial Statements (2014).
- Valener Inc. Consolidated Financial Statements (2014).
- <sup>80</sup> Valener Inc. Consolidated Financial Statements (2014).
- <sup>81</sup> Valener Inc. Investor Presentation (2014).
- <sup>82</sup> Valener Inc. Annual Report (2014).
- 83 Enbridge Gas Distribution Inc. Annual Information Form (2014) at 5.
- <sup>84</sup> Valener Annual Report (2014).
- 85 SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States.
- <sup>86</sup> Valener Inc. Annual Report (2014).
- <sup>87</sup> Valener Inc. Annual Report (2014).
- 88 SNL Financial and Valener Inc. Annual Report (2014).
- <sup>89</sup> Valener Inc. Annual Report (2014).
- 90 Valener Inc. Annual Report (2014) at 23.
- 91 SNL Financial.
- <sup>92</sup> Valener Inc. Annual Report (2014).
- <sup>93</sup> Valener Inc. Annual Report (2014).
- <sup>94</sup> Valener Inc. Annual Report (2014).
- 95 Valener Inc. Annual Report (2014) at 32.
- <sup>96</sup> Valener Inc. Annual Report (2014) at 32, 100.
- 97 Valener Inc. Annual Report (2014).
- <sup>98</sup> Valener Inc. Annual Report (2014) at 32.
- <sup>99</sup> SNL Financial and SJI 10-K (2014) at 72 75.



#### II. DETAILED RISK OVERVIEWS FOR U.S. PROXY GROUP MEMBERS

### ALLETE, Inc. (NYSE: ALE)

### Company Overview<sup>1</sup>

ALLETE is an energy company headquartered in Duluth, Minnesota. In addition to its electric utilities, Minnesota Power and Superior Water, Light and Power of Wisconsin ("SWL&P"), ALLETE owns BNI Coal in Center, N.D., ALLETE Clean Energy, based in Duluth, U.S. Water Services headquartered in St. Michael, Minnesota, and has an eight percent equity interest in the American Transmission Company (ATC).

### S&P Ratings Summary (BBB+/Stable/A-2)<sup>2</sup>

#### Business Risk - Strong

We view ALLETE's business risk profile as "strong" reflecting its lower-risk regulated utilities. ALLETE's utilities serve about 180,000 customers in Minnesota and Wisconsin. ALLETE's business risk profile reflects some of the lowest average retail rates in the U.S., in part due to low-cost, coal-fired generation. Regulatory support for various environmental upgrades should help bolster financial measures during ongoing construction. Access to emissionsreduction riders should help ensure timely recovery of environmental investments. The company's business risk profile also reflects its high concentration of industrial customers (accounting for half of all electric sales) in cyclical industries, such as taconite processing and paper and wood product manufacturing. Take-or-pay clauses in industrial customer contracts help temper related cash flow volatility that comes from the ongoing demand nomination process, when the customers state their forthcoming power needs for the next few months. The utility has entered into contracts or used access to the Midwest Independent System Operator market to sell any excess capacity and energy.

ALLETE's low-cost generation should give the company a competitive advantage and support off-system sales if industrial sales were to decrease. The company has stated that its demand nominations for the rest of 2014 indicate the customers are operating near full capacity for the period, which should continue to bolster cash flow protection measures.

### Financial Risk - Significant

We use the medial volatility table for ALLETE, reflecting the company's lower-risk regulated-utility business model that includes regulated generation and distribution. We view ALLETE's financial risk profile as "significant." As of Dec. 31, 2013, ALLETE generated \$251 million in adjusted FFO and had total adjusted debt of \$1.3 billion. For the same period, adjusted debt to EBITDA was 4.05x, and adjusted FFO to total debt was 19%. We expect financial measures to remain at least at these levels.

ALLETE projects capital spending for 2014-2018 of about \$1.6 billion, including environmental, renewable, and transmission projects. To support cash flow during ongoing construction, the company has indicated it will seek recovery of about one-half of the capital spending through rate riders.

### **Operating Characteristics**

### Operations/State/Customers<sup>3</sup>

- Minnesota Power MN 144,000 customers (Electric).
- SWL&P WI 15,000 customers (Electric), 12,000 customers (Gas), and 10,000 customers (Water)



	Small ownership interest in ATC (ATC is a Wisconsin based utility that owns and operates electric transmission assets in Wisconsin, Michigan, Minnesota and Illinois).
Total Assets (billions)	\$4.44
Customer Mix (2014 kWh Electric Sales) <sup>5</sup>	<ul> <li>Residential – 9%</li> <li>Commercial – 10%</li> <li>Industrial – 54% (customers primarily in the taconite mining, iron concentrate, paper, pulp and secondary wood products, and pipeline industries)</li> <li>Municipal - 6%</li> <li>Other Power Suppliers – 21%</li> </ul>
CAPEX Spend	<ul> <li>Gross CAPEX for 2014 was \$0.60 billion<sup>6</sup> <ul> <li>\$0.58 billion – Regulated CAPEX</li> <li>\$0.02 billion – Non-Regulated CAPEX</li> </ul> </li> <li>Breakdown of capital spending from 2015-2019 is as follows<sup>7</sup>:         <ul> <li>\$1.24 billion – Regulated CAPEX</li> <li>\$0.15 billion – Non-Regulated CAPEX</li> </ul> </li> <li>Rate base is projected to grow by approximately 15 percent from 2014 year-end through 2019.</li> </ul>
Residential Retail Choice Program	No electric residential retail choice programs in MN and WI.8
Supply Availability and Deliverability	<ul> <li>Supply composed of company-owned generation (66%) and purchased power (34%).<sup>9</sup></li> <li>Breakdown of Power Supply:         <ul> <li>Coal (Company-Owned) – 56%</li> <li>Biomass/NG (Company-Owned) – 1%</li> <li>Hydro (Company-Owned) – 2%</li> <li>Wind (Company-Owned) – 7%</li> <li>Long-Term Purchased Power – 15%</li> <li>Other Purchased Power – 19%.</li> </ul> </li> </ul>
Regulatory	Environment
RRA Ranking (as available); DBRS Ranking <sup>10</sup>	RRA maintains three principal rating category: Above Average, Average, and Below Average. Within these principal categories, 1 indicates



	stronger rating and 3 indicates weaker rating. DBRS Ranking is out of 50, higher is better.
	<ul> <li>MN - Average/2; DBRS 46</li> <li>WI - Above Average/2; DBRS 41</li> </ul>
Regulatory and Legislated Initiatives	<ul> <li>Minnesota Power is subject to government mandated renewable energy requirements (25% by 2025).<sup>11</sup></li> <li>In May 2013, legislation was enacted by the state of Minnesota requiring at least 1.5 percent of total retail electric sales, excluding sales to certain industrial customers, to be generated by solar energy by the end of 2020. <sup>12</sup></li> <li>Minnesota Power is subject to various EPA and state regulations which target coal emissions. <sup>13</sup></li> </ul>
Regulatory Model	Cost of Service regulatory model –     Minnesota Power <sup>14</sup>
Test Year	MN – Partial Forecast. <sup>15</sup>
Interim Rates	MN - 60 days after filing for a permanent rate increase. <sup>16</sup>
Typical Rate Case Lag	• MN – 12 months <sup>17</sup>
Most Recent Authorized ROE	Minnesota Power – 10.38% <sup>18</sup>
Most Recent Authorized Equity Ratio	Minnesota Power – 54.29% <sup>19</sup>
Supply Risk Mitigation and Incentives	<ul> <li>Fuel Adjustment Clauses – Monthly Adjustment. <sup>20</sup></li> <li>Non-administrative Midcontinent Independent System Operator costs can be recovered through the fuel adjustment clause. <sup>21</sup></li> </ul>
Capital Cost Recovery Risk Mitigation	<ul> <li>Transmission Cost Recovery Rider - Minnesota Power has an approved cost recovery rider in place for certain transmission investments and expenditures. <sup>22</sup></li> <li>Renewable Cost Recovery Rider<sup>23</sup></li> <li>Environmental Improvement Rider<sup>24</sup></li> </ul>



### Duke Energy Corporation (NYSE: DUK)

### Company Overview<sup>25</sup>

Duke Energy is the largest electric power holding company in the United States with approximately \$120 billion in total assets. Its regulated utility operations serve approximately 7.3 million electric customers located in six states in the Southeast and Midwest. It's Commercial Portfolio and International business segments own and operate diverse power generation assets in North America and Latin America, including a growing portfolio of renewable energy assets in the United States. Headquartered in Charlotte, N.C., Duke Energy is a Fortune 250 company traded on the New York Stock Exchange under the symbol DUK.

### S&P Ratings Summary (BBB+/Stable/A-2)<sup>26</sup>

### Business Risk - Strong

We assess Duke Energy's business risk profile as "excellent", incorporating the company's regulated utility operations that serve more than 7 million customers, span six states, and provide about 85% of operating income while benefiting from operating and regulatory diversity. Duke Energy's business risk profile also benefits from regulated utility operations under generally constructive regulatory frameworks. The majority of Duke Energy's customers are residential and commercial, providing incremental support to revenues and cash flow. On aggregate, Duke Energy's customer base grew by about 1%, reflecting the service territory's robust economic profile. Our assessment of business risk also accounts for Duke Energy's unregulated merchant generation operations in the U.S. and Latin America as well as for the company's renewable energy projects in the U.S., which combined can contribute as much as 15% of operating income. We view these ventures and the merchant generation business in particular, as having higher risk than Duke Energy's regulated operations.

Over the past few years, Duke Energy has reached a number of rate case decisions and settlements aimed at enabling the company to recover significant invested capital, thereby providing certainty and stability to the company's cash flow generation.

In early 2014, Duke Energy announced its plans to exit the U.S. merchant generation business with the sale of its Midwest generation fleet. We expect that once closed, the transaction will shift somewhat the company's focus to an incrementally more predictable cash flow business model. This is because Duke Energy still plans to maintain ownership of its Latin America merchant generation business, which usually operates on a highly contracted basis. Moreover, the company plans to grow its renewable business, with an emphasis toward solar projects. While we ascribe higher business risk to such investments compared with the regulated utility

#### Financial Risk - Significant

We view Duke Energy's financial risk profile as being in the "significant" category using the medial volatility financial ratio benchmarks, reflecting our base case scenario that the company will maintain credit protection measures that remain mostly toward the middle of the category, with FFO to debt of about 17% to 19% and debt to EBITDA that remains elevated at close to 4.5x. Our assessment of the financial risk profile accounts for Duke Energy's ongoing need for external financing given its large capital spending program, somewhat offset by material deferred tax benefits that Duke Energy expects to realize in the next few years.



operations, the company's efforts to contract all output somewhat mitigates the risks involved.

Finally, Duke Energy must contend and effectively address in a credit neutral manner the coal ash storage ponds it owns in North and South Carolina. Because the cost to convert all coal ash ponds to dry storage can be prohibitive, the company is planning to pursue alternatives that meet the standards of the state's environmental agency but that will also comply with any federal rules for coal ash storage developed by the Environmental Protection Agency.

Environmental Protection Agency.	
Operating C	haracteristics
Operations/State/Customers	Business segment composed of Regulated Utilities, International Energy and Commercial Power. <sup>27</sup> Regulated Utilities business segment serves 7.3 million retail electric customers in six states in the Southeast and Midwest regions of the United States. <sup>28</sup> • Duke Energy Carolinas – NC and SC – 2.5 million electric customers.  • Duke Energy Progress – NC and SC – 1.5 million electric customers.  • Duke Energy Indiana – IN – 810,000 electric customers.  • Duke Energy Ohio/Kentucky – OH and KY – 840,000 electric and 500,000 natural gas customers.  • Duke Energy Florida – FL – 1.7 million electric customers.
Total Assets (billions)	<ul> <li>\$118.58<sup>29</sup></li> <li>Duke Energy Carolinas: \$33.8<sup>30</sup></li> <li>Duke Energy Progress: \$22.4<sup>31</sup></li> <li>Duke Energy Ohio: \$0.5<sup>32</sup></li> <li>Duke Energy Indiana: \$11.0<sup>33</sup></li> <li>Duke Energy Florida: \$15.5<sup>34</sup></li> </ul>
Customer Mix (Billed Sales) 35	<ul> <li>Duke Energy Carolinas: <ul> <li>Residential – 32%</li> <li>General Service – 32%</li> <li>Industrial – 25%</li> <li>Wholesale and Other – 11%.</li> </ul> </li> <li>Duke Energy Progress: <ul> <li>Residential – 29%</li> <li>General Service – 24%</li> <li>Industrial – 16%</li> <li>Wholesale and Other – 31%.</li> </ul> </li> <li>Duke Energy Indiana: <ul> <li>Residential – 28%</li> <li>General Service – 25%</li> <li>Industrial – 32%</li> </ul> </li> </ul>



	<ul> <li>Wholesale and Other – 15%.</li> <li>Duke Energy Ohio: <ul> <li>Residential – 36%</li> <li>General Service – 39%</li> <li>Industrial – 24%</li> <li>Wholesale and Other – 1%.</li> </ul> </li> <li>Duke Energy Florida: <ul> <li>Residential – 49%</li> <li>General Service – 39%</li> <li>Industrial – 8%</li> <li>Wholesale and Other – 4%.</li> </ul> </li> </ul>
CAPEX Spend	<ul> <li>Gross CAPEX for 2014 was \$5.5 billion<sup>36</sup> <ul> <li>\$5.0 billion − Regulated CAPEX</li> <li>\$0.6 billion − Non-Regulated and Other CAPEX</li> </ul> </li> <li>Forecasted capital spending from 2015-2017 is as follows<sup>37</sup>:         <ul> <li>Company Total:</li> <li>\$7.4 billion (2015)</li> <li>\$9.4 billion (2016)</li> <li>\$7.8 billion (2017)</li> </ul> </li> <li>Regulated Utilities:         <ul> <li>\$6.0 billion (2015)</li> <li>\$7.8 billion (2016)</li> <li>\$6.3 billion (2017)</li> </ul> </li> <li>Non-Regulated and Other:         <ul> <li>\$1.5 billion (2015)</li> <li>\$1.6 billion (2017)</li> </ul> </li> </ul>
Residential Retail Choice Program	Residential electric retail choice programs only in Ohio. <sup>38</sup>
Supply Availability and Deliverability  Regulatory E	<ul> <li>Supply composed of company-owned generation (87%) and purchased power (13%).39</li> <li>Breakdown of Power Supply: <ul> <li>Coal – 37%</li> <li>Nuclear – 28%</li> <li>Gas and Oil – 21%</li> <li>Hydro and Solar – 1%</li> <li>Purchased Power and Net Interchange – 13%</li> </ul> </li> </ul>
Regulatory F	chvironment
RRA Ranking (as available); DBRS Ranking <sup>40</sup>	RRA maintains three principal rating category: Above Average, Average, and Below Average. Within these principal categories, 1 indicates stronger rating and 3 indicates weaker rating. DBRS Ranking is out of 50, higher is better.  • FL - Above Average/3; DBRS 42



Regulatory and Legislated Initiatives	<ul> <li>IN – Above Average/3; DBRS 45</li> <li>KY – Average/1; DBRS 44</li> <li>NC – Average/1; DBRS 38.5</li> <li>OH – Average/2; DBRS 40</li> <li>SC – Average/1; DBRS 45</li> <li>Subject to numerous environmental laws and regulations affecting many aspects of their present and future operations, including coal combustion residuals (CCRs), air emissions, water quality, wastewater discharges, solid waste and hazardous waste. 41</li> <li>Uncertainty regarding the extent and timing of future additional costs and liabilities related to the Dan River ash basin release, including the amount and extent of any pending or future civil or criminal penalties, and resulting litigation. 42</li> </ul>
Regulatory Model	Cost of Service regulatory model <sup>43</sup>
Test Year	<ul> <li>Duke Energy Florida - Forecast<sup>44</sup></li> <li>Duke Energy Indiana - Historical</li> <li>Duke Energy Kentucky –         Historical/Forecasted</li> <li>Duke Energy Carolinas – NC - Historical</li> <li>Duke Energy Carolinas – SC - Historical</li> <li>Duke Energy Ohio - Historical</li> </ul>
Interim Rates	<ul> <li>Duke Energy Florida - Yes<sup>45</sup></li> <li>Duke Energy Indiana - Yes</li> <li>Duke Energy Kentucky - Only if the PSC determines that the credit or operation of the utility would be materially impaired in the absence of such treatment.</li> <li>Duke Energy Carolinas - NC - Only if the NCUC determines that an emergency condition exists.</li> <li>Duke Energy Carolinas - SC - Yes</li> <li>Duke Energy Ohio - Only if the PUC determines that a financial emergency condition exists.</li> </ul>
Typical Rate Case Lag	<ul> <li>Duke Energy Florida – 11 months<sup>46</sup></li> <li>Duke Energy Indiana - 16 months</li> <li>Duke Energy Kentucky – 6 months</li> <li>Duke Energy Carolinas – NC - 7 months</li> <li>Duke Energy Carolinas – SC - 5 months</li> <li>Duke Energy Ohio – 9 months</li> </ul>
Most Recent Authorized ROE	Below is a breakdown of most recent authorized ROE <sup>47</sup> :



Most Recent Authorized Equity Ratio	<ul> <li>Duke Energy Carolinas – NC: 10.2%</li> <li>Duke Energy Carolinas – SC: 10.2%</li> <li>Duke Energy Progress – NC: 10.2%</li> <li>Duke Energy Ohio: 9.84% (both electric and gas)</li> <li>Duke Energy Florida: 10.5%.</li> </ul> Below is a breakdown of most recent authorized equity ratio <sup>48</sup> : <ul> <li>Duke Energy Carolinas – NC: 53%</li> <li>Duke Energy Carolinas – SC: 53%</li> <li>Duke Energy Progress – NC: 53%</li> <li>Duke Energy Ohio: 53% (both electric and gas)</li> <li>Duke Energy Florida: 49%.</li> </ul>
Supply Risk Mitigation and Incentives	Fuel Adjustment Clauses: 49         O Duke Energy Florida – Annually         O Duke Energy Indiana – Quarterly         (Duke Energy Indiana is             authorized to recover 100% of             purchased power             capacity/demand charges through             a summer reliability tracking             mechanism that is to remain in             place until the company's next             base rate proceeding. The fuel             component of purchased power             is recovered through the FAC.             O Duke Energy Kentucky –
Volume /Demand Risk Mitigation	<ul> <li>Duke Energy Indiana - Recovery of net lost revenues through energy efficiency rider.<sup>50</sup></li> <li>Duke Energy Kentucky – Recovery of costs associated with electric energy efficiency programs; these riders also include partial decoupling provisions that permit recovery of lost revenues related to these programs. <sup>51</sup></li> <li>Duke Energy Ohio – SFV rate design<sup>52</sup></li> </ul>



### Capital Cost Recovery Risk Mitigation

- Duke Energy Florida<sup>53</sup>:
  - Energy Conservation Cost Recovery Clause (ECCRC) for electric and gas conservationrelated expenditures.
  - Environmental Cost Recovery
     Clause that enables each utility to
     recover compliance costs
     associated with environmental
     laws or mandates that became
     effective after 1993.
- Duke Energy Indiana<sup>54</sup>:
  - Environmental
    Compliance/Infrastructure
    Upgrades--State law allows the
    URC to authorize the utilities to
    recover, through a rate
    adjustment mechanism, 80% of
    the costs associated with certain
    federally-mandated emissionscontrol and
    transmission/distribution
    reliability projects. The remaining
    20% of such costs are to be
    deferred for future recovery.
  - Environmental cost recovery riders to recover O&M costs and depreciation expense after the environmental facilities become operational, as well as a return on the related investment.
  - O Transmission, Distribution, and Storage System Improvement Charge (TDSIC)- In 2013, Senate Bill (S.B.) 560 was enacted, thereby permitting the URC to authorize the utilities to implement a TDSIC rider to facilitate recovery of the costs associated with certain electric and gas infrastructure expansion projects,
- Duke Energy Kentucky<sup>55</sup>:
  - Energy Efficiency riders to recover costs associated with electric energy efficiency programs
- Duke Energy Carolinas NC56:
  - State law authorizes the NCUC to approve an annual rider outside of a general rate case for electric utilities to recover reasonable and prudent costs incurred for the implementation of demand-side



management (DSM) and energy efficiency (EE) programs. Recoverable costs include, but are not limited to, all capital costs, including cost of capital and depreciation expenses,
administrative costs, implementation costs, incentive payments to program participants, and operating costs.



# Other Significant Deferral and Variance Accounts

- Duke Energy Florida<sup>57</sup>:
  - State law permits Florida's utilities, subject to PSC approval, to securitize storm damage restoration costs.
  - O Duke Energy Florida may recover prudently incurred costs to construct, acquire, or uprate existing generation of up to 1,150 MW prior to the end of 2017. In addition, Duke Energy Florida is authorized to increase base rates without a general rate case through a Generation Base Rate Adjustment (GBRA) to recover the costs of up to 1,800 MW of additional new generation in 2018.
- Duke Energy Indiana<sup>58</sup>:
  - Mechanisms in place that allow the companies to flow through regional-transmissionorganization-related costs on a timely basis.
- Duke Energy Kentucky<sup>59</sup>:
  - Mechanisms in place to recover variations in certain taxes and franchise fees.
- Duke Energy Carolinas NC60:
  - Costs to procure renewable energy are recoverable through the fuel clause and the renewable energy portfolio standard (REPS) rider.
- Duke Energy Ohio<sup>61</sup>:
  - Under Duke Energy Ohio's current electric security plans (ESPs), the company's generation requirements for non-switching customers are procured and priced through a competitive bid process (CBP). Rider RC (retail capacity) and Rider RE (retail energy) are in place, both of which are fully by-passable for switching customers.



## Eversource Energy (NYSE: ES)

### Company Overview<sup>62</sup>

Eversource (NYSE:ES) transmits and delivers electricity and natural gas for more than 3.6 million electric and natural gas customers in Connecticut, Massachusetts and New Hampshire. Eversource harnesses the commitment of its more than 8,000 employees across three states to build a single, united company around the mission of delivering reliable energy and superior customer service.

### S&P Ratings Summary (A-/Positive/A-2)63

#### Business Risk - Excellent

- A conservative business strategy with a focus on fully regulated transmission and distribution (T&D) operations.
- A distribution regulatory environment that we view as more challenging than the transmission regulatory climate.
- Regulatory, geographic, economic, and operating diversity.
- Large customer base that is mostly residential and commercial, providing for a reasonably predictable revenue stream and some insulation from cyclical volatility.
- Efficient operations.
- New Hampshire customers can select alternative electric suppliers. A credit and cost-conscious management team.

### Financial Risk - Significant

We apply the low volatility table to NU because most of its cash flow comes from relatively predictable low-risk regulated T&D operations and more effective management of regulatory risk compared with peers.

We currently view NU's consolidated financial risk profile at the upper end of the "significant" category. However, if the company continues to execute its strategies of effectively managing regulatory risk and achieves constructive rate outcomes, aggressively cuts costs while earning its allowed returns, manages to avoid cost overruns in its massive construction program, and is not noticeably harmed by a potentially lower FERC-allowed ROE, we believe that its financial measures could consistently be in the "intermediate" financial risk profile category.

Improvement in the company's 2013 consolidated financial measures reflects lower O&M expenses, recovery of the balance of NSTAR Electric's transition deferral, and incorporates a full year of NSTAR. The 2012 financial results reflected one-time items such as merger-related costs and incorporated only nine months of NSTAR, since the merger closed April 1, 2012. Our baseline forecast results in adjusted FFO to total debt consistently above 15% and debt to EBITDA of about 4x. We expect that discretionary cash flow will be negative because the company will continue to support a heavy capital spending program that will annually average more than \$1.8 billion over the next four years.

### **Operating Characteristics**

#### Operations/State/Customers

- Three reportable segments: Electric Distribution; Electric Transmission; and Natural Gas Distribution. <sup>64</sup>
- Electric Distribution segment consists of 65:
  - Connecticut Light and Power Company (CL&P), which provides service to approximately 1.2 million



customers in parts of Connecticut.  NSTAR Electric Company (NSTAF Electric), which serves approximate 1.2 million residential, commercial a industrial customers in parts of Massachusetts  Western Massachusetts Electric Company (WMECO), which serves 208,000 residential, commercial and industrial customers in parts of western Massachusetts.  Public Service Company of New Hampshire (PSNH), an electric utili that serves approximately 504,000 residential, commercial and industric customers in parts of New Hampshire of New Hampshire (PSNH), an electric utili that serves approximately 504,000 residential, commercial and industric customers in parts of New Hampsh and owns generation assets used to serve customers.  Electric Transmission segment consists of transmission facilities owned and maintained CL&P, NSTAR Electric, PSNH, and WMECO that are part of an interstate power transmissingrid over which electricity is transmitted throughout New England. 66  Natural Gas Distribution segment consists of NSTAR Gas Company, a regulated natural gas distribution utility that serves approximately 282,000 residential, commercial and industric customers in 51 communities in central and eastern of Massachusetts of Yankee Gas Services Company, a natural gas utility that serves		7
Electric Transmission segment consists of transmission facilities owned and maintained CL&P, NSTAR Electric, PSNH, and WMEC that are part of an interstate power transmissing grid over which electricity is transmitted throughout New England. 66  Natural Gas Distribution segment consists of NSTAR Gas Company, a regulated natural gas distribution utility that serves approximately 282,000 residential, commercial and industric customers in 51 communities in central and eastern of Massachusette Yankee Gas Services Company, a natural gas utility that serves residential, commercial and industric customers in parts of Connecticut.  Total Assets (2014 billions)  \$29.868  CL&P \$9.469  NSTAR Electric: \$7.370  WMECO: \$1.871  PSNH: \$3.472  Customer Mix (2014 Revenues)  CL&P 73  Residential – 58%  Commercial – 35%  Industrial – 6%  Other – 1%.  NSTAR Electric: 74  Residential – 46%		<ul> <li>NSTAR Electric Company (NSTAR Electric), which serves approximately 1.2 million residential, commercial and industrial customers in parts of Massachusetts</li> <li>Western Massachusetts Electric Company (WMECO), which serves 208,000 residential, commercial and industrial customers in parts of western Massachusetts.</li> <li>Public Service Company of New Hampshire (PSNH), an electric utility that serves approximately 504,000 residential, commercial and industrial customers in parts of New Hampshire and owns generation assets used to</li> </ul>
transmission facilities owned and maintained CL&P, NSTAR Electric, PSNH, and WMEC that are part of an interstate power transmissi grid over which electricity is transmitted throughout New England. 66  Natural Gas Distribution segment consists of NSTAR Gas Company, a regulated natural gas distribution utility that serves approximately 282,000 residential, commercial and industric customers in 51 communities in central and eastern of Massachusette or Yankee Gas Services Company, a natural gas utility that serves residential, commercial and industric customers in parts of Connecticut.  Total Assets (2014 billions)  \$29.868  CL&P: \$9.469  NSTAR Electric: \$7.370  WMECO: \$1.871  PSNH: \$3.472  Customer Mix (2014 Revenues)  CL&P: 73  Residential – 58%  Commercial – 35%  Industrial – 6%  Other – 1%.  NSTAR Electric: 74  Residential – 46%		
Natural Gas Distribution segment consists of     NSTAR Gas Company, a regulated natural gas distribution utility that serves approximately 282,000 residential, commercial and industric customers in 51 communities in central and eastern of Massachusette     Yankee Gas Services Company, a natural gas utility that serves residential, commercial and industric customers in parts of Connecticut.  Total Assets (2014 billions)  \$29.868      CL&P: \$9.469     NSTAR Electric: \$7.370     WMECO: \$1.871     PSNH: \$3.472  Customer Mix (2014 Revenues)      CL&P: 73		transmission facilities owned and maintained by CL&P, NSTAR Electric, PSNH, and WMECO that are part of an interstate power transmission grid over which electricity is transmitted
natural gas distribution utility that serves approximately 282,000 residential, commercial and industric customers in 51 communities in central and eastern of Massachusetts  • Yankee Gas Services Company, a natural gas utility that serves residential, commercial and industric customers in parts of Connecticut.  Total Assets (2014 billions)  \$29.868  • CL&P: \$9.469 • NSTAR Electric: \$7.370 • WMECO: \$1.871 • PSNH: \$3.472  Customer Mix (2014 Revenues)  • CL&P: 73  • Residential – 58% • Commercial – 35% • Industrial – 6% • Other – 1%.  • NSTAR Electric: 74 • Residential – 46%		<ul> <li>Natural Gas Distribution segment consists of<sup>67</sup>:</li> </ul>
<ul> <li>CL&amp;P: \$9.469</li> <li>NSTAR Electric: \$7.370</li> <li>WMECO: \$1.871</li> <li>PSNH: \$3.472</li> <li>CL&amp;P: 73</li> <li>Residential – 58%</li> <li>Commercial – 35%</li> <li>Industrial – 6%</li> <li>Other – 1%.</li> <li>NSTAR Electric: 74</li> <li>Residential – 46%</li> </ul>		<ul> <li>NSTAR Gas Company, a regulated natural gas distribution utility that serves approximately 282,000 residential, commercial and industrial customers in 51 communities in central and eastern of Massachusetts.</li> <li>Yankee Gas Services Company, a natural gas utility that serves residential, commercial and industrial</li> </ul>
<ul> <li>NSTAR Electric: \$7.3<sup>70</sup></li> <li>WMECO: \$1.8<sup>71</sup></li> <li>PSNH: \$3.4<sup>72</sup></li> <li>CL&amp;P: <sup>73</sup> <ul> <li>Residential – 58%</li> <li>Commercial – 35%</li> <li>Industrial – 6%</li> <li>Other – 1%.</li> </ul> </li> <li>NSTAR Electric: <sup>74</sup></li> <li>Residential – 46%</li> </ul>	Total Assets (2014 billions)	"
<ul> <li>WMECO: \$1.8<sup>71</sup></li> <li>PSNH: \$3.4<sup>72</sup></li> <li>Customer Mix (2014 Revenues)</li> <li>CL&amp;P: <sup>73</sup> <ul> <li>Residential – 58%</li> <li>Commercial – 35%</li> <li>Industrial – 6%</li> <li>Other – 1%.</li> </ul> </li> <li>NSTAR Electric: <sup>74</sup></li> <li>Residential – 46%</li> </ul>		
PSNH: \$3.4 <sup>72</sup> Customer Mix (2014 Revenues)      CL&P: <sup>73</sup> ○ Residential − 58%     ○ Commercial − 35%     ○ Industrial − 6%     ○ Other − 1%.      NSTAR Electric: <sup>74</sup> ○ Residential − 46%		" I
<ul> <li>Residential – 58%</li> <li>Commercial – 35%</li> <li>Industrial – 6%</li> <li>Other – 1%.</li> <li>NSTAR Electric: 74</li> <li>Residential – 46%</li> </ul>		
<ul> <li>Commercial – 35%</li> <li>Industrial – 6%</li> <li>Other – 1%.</li> <li>NSTAR Electric: 74</li> <li>Residential – 46%</li> </ul>	Customer Mix (2014 Revenues)	
<ul> <li>Industrial – 4%</li> <li>Other – 1%.</li> <li>WMECO: <sup>75</sup></li> </ul>		<ul> <li>Commercial – 35%</li> <li>Industrial – 6%</li> <li>Other – 1%.</li> <li>NSTAR Electric: <sup>74</sup></li> <li>Residential – 46%</li> <li>Commercial – 49%</li> <li>Industrial – 4%</li> <li>Other – 1%.</li> </ul>



	o Residential – 56%
	o Commercial – 31%
	o Industrial – 9%
	○ Other – 4%.
	• PSNH: <sup>76</sup>
	o Residential – 54%
	o Commercial – 34%
	o Industrial – 8%
	○ Other – 4%.
	<ul> <li>NSTAR Gas and Yankee Gas: <sup>77</sup></li> </ul>
	o Residential – 55%
	o Commercial – 35%
	o Industrial – 10%.
	2 22 20 20 20 20 20 20 20 20 20 20 20 20
CAPEX Spend	CAPEX for 2014 by segment was as follows:
	o Electric Distribution &
	Generation – \$747 million <sup>78</sup>
	o Natural Gas Distribution - \$194
	million <sup>79</sup>
	o Electric Transmission - \$701
	million. 80
	<ul> <li>Forecasted capital spending from 2015-</li> </ul>
	2018 is as follows <sup>81</sup> :
	o Total - \$8.4 billion.
	○ Electric Distribution – \$3.1
	billion.
	o Natural Gas Distribution - \$1.1
	billion.
	o Electric Transmission - \$3.9
	Other - \$0.3 billion.
Residential Retail Choice Program	Distribution systems of CL&D NSTAP
Residential Retail Choice I Togram	Distribution customers of CL&P, NSTAR  Electric WMECO and PSNH are entitled.
	Electric, WMECO, and PSNH are entitled
	to choose their energy suppliers. 82
Supply Availability and Deliverability	• PSNH- 59% of PSNH's load was met
	through its own generation, long-term
	power supply provided pursuant to orders
	of the NHPUC, and contracts with
	competitive energy suppliers. The
	remaining 41 % of PSNH's load was met by
	short-term (less than one year) purchases
	and spot purchases in the competitive New
	England wholesale power market. 83
Regulatory l	Environment
RRA Ranking (as available); DBRS Ranking <sup>84</sup>	RRA maintains three principal rating category: Above
	Average, Average, and Below Average. Within these
	principal categories, 1 indicates stronger rating and 3
	indicates weaker rating. DBRS Ranking is out of 50,
	higher is better.



	CT - Below Average/2; DBRS 34
	<ul> <li>MA – Average/3; DBRS 37</li> <li>NH – Average/3; DBRS 39</li> </ul>
Regulatory and Legislated Initiatives	<ul> <li>Subject to various federal, state and local requirements with respect to water quality, air quality, toxic substances, hazardous waste and other environmental matters. Additionally, major generation and transmission facilities may not be constructed or significantly modified without a review of the environmental impact of the proposed construction or modification by the applicable federal or state agencies. 85</li> <li>Subject to state RPS requirements: 86</li> <li>CT – 27% by 2020</li> <li>MA – 22% by 2020</li> <li>NH – 25% by 2025</li> </ul>
Regulatory Model	Cost of Service regulatory model <sup>87</sup>
Test Year	CL&P, NSTAR Electric, WMECO, and PSNH - Historical <sup>88</sup>
Interim Rates	<ul> <li>CT – Yes, only after demonstrating financial emergency.<sup>89</sup></li> <li>MA – Yes.</li> <li>NH – Yes.</li> </ul>
Typical Rate Case Lag	<ul> <li>CT (CL&amp;P) - 6 months<sup>90</sup></li> <li>MA (NSTAR Electric, WMECO) - 6 months<sup>91</sup></li> <li>NH (PSNH) - 12 months<sup>92</sup></li> </ul>
Most Recent Authorized ROE	Below is a list of most recent authorized ROE <sup>93</sup> :  CL&P – 9.17%  NSTAR Electric – 10.5%  WMECO – 9.60%  PSNH – 9.67%.
Most Recent Authorized Equity Ratio	Below is a list of most recent authorized equity ratio <sup>94</sup> :  • CL&P – 50.38%  • NSTAR Electric – N/A <sup>95</sup> • WMECO – 50.70%  • PSNH – 52.40%.
Supply Risk Mitigation and Incentives	CL&P     Electric generation services charge (GSC), which recovers energy-related costs incurred as a result of providing electric generation service supply to all



	customers that have not migrated to competitive energy suppliers.
	The GSC is adjusted periodically
	and reconciled semi-annually in accordance with the directives of
	PURA. %
	NSTAR Electric and WMECO
	A basic service charge that
	represents the collection of
	energy costs, including costs related to charge-offs of
	uncollected energy costs from
	customers. Electric distribution
	companies in Massachusetts are
	required to obtain and resell
	power to retail customers through basic service for those who
	choose not to buy energy from a
	competitive energy supplier. 97
	• PSNH
	A default energy service charge
	(ES) is charged to customers who
	have selected not to receive their
	energy supply from a competitive energy supplier. These charges
	recover the costs of PSNH's
	generation, as well as purchased
	power, and include the NHPUC
	allowed ROE on PSNH's generation investment. 98
77.4	
Volume / Demand Risk Mitigation	• CL&P
	A revenue decoupling adjustment     (effective December 1, 2014) that
	reconciles the amounts recovered
	from customers, on an annual
	basis, to the distribution revenue
	requirement approved by the
	PURA. 99 • WEMCO
	A revenue decoupling adjustment
	that reconciles distribution
	revenue, on an annual basis, to
	the amount of distribution
	revenue approved by the DPU. 100
Capital Cost Recovery Risk Mitigation	NSTAR Electric and WMECO
	o An energy efficiency charge that
	represents a legislatively- mandated charge to collect costs
	for energy efficiency programs. <sup>101</sup>
	0, ,1 0



Other Significant Deferral and	Variance
Accounts	

### CL&P

- A federally-mandated congestion charge (FMCC), which recovers any costs imposed by the FERC as part of the New England Standard Market Design, including locational marginal pricing, locational installed capacity payments, and any costs approved by PURA to reduce these charges. The FMCC also recovers costs associated with CL&P's system resiliency program. The FMCC is adjusted periodically and reconciled semiannually in accordance with the directives of PURA. 102
- A competitive transition assessment charge (CTA), assessed to recover stranded costs associated with electric industry restructuring such as various IPP contracts. The CTA is reconciled annually to actual costs incurred and reviewed by PURA, with any difference refunded to, or recovered from, customers. 103
- O A Clean Energy Fund charge, which is used to promote investment in renewable energy sources. Amounts collected by this charge are deposited into the Clean Energy Fund and administered by the Clean Energy Finance and Investment Authority. 104
- O A conservation charge, comprised of a statutory rate established to implement cost-effective energy conservation programs and market transformation initiatives, plus a conservation adjustment mechanism charge to recover the residual energy efficiency spending associated with the expanded energy efficiency costs directed by the Comprehensive Energy Strategy Plan for Connecticut. 105

#### • NSTAR Electric and WMECO:

 A transition charge that represents costs to be collected primarily from previously held investments in generating plants,



- costs related to existing abovemarket power contracts, and contract costs related to longterm power contract buy-outs. <sup>106</sup>
- o Reconciling adjustment charges that recover certain DPU-approved costs as follows: pension and PBOP benefits, low income customer discounts, lost revenue and credits associated with net-metering facilities installed by customers, storms, consultants retained by the attorney general, and energy efficiency programs and lost base revenue not recovered in the energy efficiency charge. <sup>107</sup>

#### NSTAR Electric

 NSTAR Electric has reconciling adjustment charges that collect costs associated with certain safety and reliability projects, a Smart Grid pilot program, and long-term renewable contracts. <sup>108</sup>

### WMECO

o WMECO has a reconciling adjustment charge that recovers costs associated with certain solar projects owned and operated by WMECO. <sup>109</sup>

### • PSNH

- Reliability enhancement and vegetation management program provide for recovery of both the capital investment and increases to operation and maintenance expenses necessary for ongoing system reliability and vegetation management efforts. 110
- A stranded cost recovery charge (SCRC), which allows PSNH to recover its stranded costs, including above-market expenses incurred under mandated power purchase obligations and other long-term investments and obligations. <sup>111</sup>



### Great Plains Energy Inc. (NYSE: GXP)

### Company Overview<sup>112</sup>

Headquartered in Kansas City, Mo., Great Plains Energy Incorporated (NYSE: GXP) is the holding company of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company, two of the leading regulated providers of electricity in the Midwest. Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company use KCP&L as a brand name.

### S&P Ratings Summary (BBB+/Stable/A-2)<sup>113</sup>

#### Business Risk - Excellent

We view GPE's business risk as "excellent", which incorporates our assessment of the regulated utility industry risk as "very low" and country risk as "very low" based on the company's focus on U.S. operations and markets. The business risk profile reflects a competitive position of "strong". This incorporates utility subsidiaries Kansas City Power & Light Co. (KCP&L), which serves electricity to about 500,000 customers in and around Kansas City and its suburbs, and KCP&L Greater Missouri Operations Co. (GMO), which serves electricity to about 300,000 customers in western Missouri.

The company operates with generally supportive regulation, a primarily residential customer base that supports cash flow stability, good operating efficiency, and absence of competition. GPE continues to focus on a regulated business strategy. The ongoing capital spending will require timely recovery of these costs through various rate mechanisms, including base rates and rate surcharges that should strengthen cash flow. Riders also exist for the recovery of fuel costs and transmission charges. The company has pending rate cases in Missouri and Kansas in part to begin recovery costs for the La Cygne emissions-control construction and spending at the Wolf Creek nuclear plant. Once recovery begins for these costs, which we estimate to be by 2016, operating cash flow should increase. This should help the company earn its authorized return and provide for stable profitability.

### Financial Risk – Significant

Based on the medial volatility financial ratio benchmarks, our assessment of GPE's financial risk profile is "significant", reflecting our expectations that financial measures will continue to reach current levels. For the 12 months ended Dec. 31, 2014, the core ratio of FFO to total debt was 16.5% and the supplemental ratio of operating cash flow (OCF) to debt was 15%. Both are in line with our "significant" determination. Under our base case forecast, we expect FFO to total debt to average 18% over the next three years and OCF to debt to average about 15%, within the significant category. We estimate debt to EBITDA to average 4.5x over the next three years. As construction tapers off following the completion of the La Cygne air emissions equipment and cash flow is boosted through higher operating cash flow, we forecast negative discretionary cash flow to lessen, assuming capital spending does not ramp up and dividends do not grow faster than our forecasted levels.

#### **Operating Characteristics**

### Operations/State/Customers

- KCP&L is an integrated, regulated electric utility that provides electricity to customers primarily in the states of Missouri and Kansas. 114
- GMO is an integrated, regulated electric utility that provides electricity to customers in the state of Missouri. 115
- The "Electric utility" segment consists of KCP&L, GMO's regulated utility



Total Assets (billions)  Customer Mix (Number of Customers) 119	operations and GMO Receivables Company. 116  Electric utility serves approximately 838,400 customers located in western Missouri and eastern Kansas. 117  \$10.5^{118}\$  Residential - 737,400
	<ul> <li>Commercial – 98,400</li> <li>Industrial, Municipalities, &amp; Other Electric Utilities – 2,600</li> </ul>
CAPEX Spend	<ul> <li>Gross CAPEX for 2014 was \$774 million and the entire amount was associated with the Electric utility segment. 120</li> <li>Forecasted Capital Expenditures for the Electric utility segment 121:         <ul> <li>2015 - \$791 million</li> <li>2016 - \$599 million</li> <li>2017 - \$651 million</li> <li>2018 - \$560 million</li> <li>2019 - \$579 million</li> </ul> </li> </ul>
Residential Retail Choice Program	No electric residential retail choice programs in Kansas and Missouri. 122
Supply Availability and Deliverability	<ul> <li>Estimated fuel mix for owned generation in 2015<sup>123</sup>:         <ul> <li>Coal – 82%</li> <li>Nuclear – 15%</li> <li>Natural Gas &amp; Oil – 1%</li> <li>Wind – 2%</li> </ul> </li> <li>Purchased power averaged 16% of the total MWh requirements over the last three years. <sup>124</sup></li> </ul>
Regulatory	Environment
RRA Ranking (as available); DBRS Ranking <sup>125</sup>	RRA maintains three principal rating category: Above Average, Average, and Below Average. Within these principal categories, 1 indicates stronger rating and 3 indicates weaker rating. DBRS Ranking is out of 50, higher is better.  • KS - Average/2; DBRS 44 • MO - Average/2; DBRS 40
Regulatory and Legislated Initiatives	Subject to extensive federal, state and local environmental laws, regulations and permit requirements relating to air and water quality, waste management and disposal, natural resources and health and safety.



Regulatory Model	List of regulations impacting Electric utility segment: 126
Test Year	<ul> <li>KS - Historical.<sup>129</sup></li> <li>MO – Historical (Rate requests are typically filed based on historical or partly forecasted test period data such that adopted test periods are historical at the time of PSC decisions). <sup>130</sup></li> </ul>
Interim Rates	<ul> <li>KS - Yes.<sup>131</sup></li> <li>MO – Yes, but only if the company can demonstrate emergency situation. <sup>132</sup></li> </ul>
Typical Rate Case Lag	<ul> <li>KS – 7 months<sup>133</sup></li> <li>MO – 10 months<sup>134</sup></li> </ul>
Most Recent Authorized ROE	<ul> <li>KCP&amp;L-KS = 9.3%<sup>135</sup></li> <li>KCP&amp;L-MO- 9.5%<sup>136</sup></li> </ul>
Most Recent Authorized Equity Ratio	<ul> <li>KCP&amp;L-KS - 50.48%<sup>137</sup></li> <li>KCP&amp;L-MO- 50.09%<sup>138</sup></li> </ul>
Supply Risk Mitigation and Incentives	<ul> <li>Fuel Adjustment Clauses:         <ul> <li>KS – Monthly Adjustment. 139</li> <li>MO – Bi-Annual Adjustment. 140</li> </ul> </li> <li>The fuel adjustment for KCP&amp;L's Kansas operations is part of their Energy Cost Adjustment (ECA). The ECA tariff reflects the projected annual amounts of fuel, purchased power, emission allowances, transmission costs and asset based offsystem sales margin. The difference between the projected and actual amounts are recovered or refunded to customers in the succeeding year. 141</li> </ul>
Volume /Demand Risk Mitigation	MO - Both KCP&L and GMO offer energy efficiency and demand side management programs to their Missouri retail customers under Missouri Energy



	Efficiency Investment Act (MEEIA) and recover both program costs and throughput disincentive in retail rates. 142  o KCP&L recovers these items through a rider mechanism.  o GMO recovers these items through base rates.
Capital Cost Recovery Risk Mitigation	KCP&L - KS recovers the costs associated with energy efficiency programs through an energy efficiency (EE) rider. <sup>143</sup>



### OGE Energy Corp. (NYSE: OGE)

### Company Overview<sup>144</sup>

OGE Energy Corp. is the parent company of OG&E, a regulated electric utility with over 819,000 customers in Oklahoma and western Arkansas. In addition, OGE holds a 26.3 percent limited partner interest and a 50 percent general partner interest of Enable Midstream, created by the merger of OGE's Enogex LLC midstream subsidiary and the pipeline and field services businesses of Houston-based CenterPoint Energy.

### S&P Ratings Summary (A-/Stable/A-2)<sup>145</sup>

### Business Risk - Strong

Our assessment of OGE Energy's business risk profile is "strong," based on what we view as the company's "satisfactory" competitive position, "very low" industry risk derived from the "very low" regulated utility industry and the "low" midstream energy industry, and the "very low" country risk of the U.S. OGE Energy's competitive position reflects the strength and stability of vertically integrated regulated utility OG&E, which provides electricity largely to Oklahoma customers and has an "excellent" business risk profile; and OGE Energy's investment in the midstream energy joint venture Enable Midstream Partners L.P., which has a "satisfactory" business risk profile.

OG&E has a large capital spending program concentrated on transmission projects distribution upgrades. The Oklahoma economy remains healthier than those in other regions of the country and electricity sales are modestly growing. Customer growth hovers at about historical levels of 1%, and the Oklahoma unemployment rate remains well below the national average. Prudent financing, constructive regulatory outcomes in Oklahoma and Arkansas, and credit-supportive actions management will be essential to support key financial measures at levels suitable for the current ratings. Notably, construction of large pollution-control equipment will require ongoing and timely recovery of capital spending to maintain credit-supportive operating cash flow measures.

We consider the Enable joint venture moderately strategic to OGE Energy because of the material distributions and the company's control over the joint venture. Although the formation of the joint venture reduces the influence of the midstream operations on OGE Energy's business risk profile, the joint venture's pipelines do transport natural gas to OG&E's gas-fired power plants.

### Financial Risk - Intermediate

We base our financial risk profile assessment of "intermediate" on the medial volatility financial ratio benchmarks. Bolstering the assessment are ownership distributions from the Enable joint venture that are, to a large extent, supported by longterm contracts. Under our base-case scenario, we expect OGE will generate FFO to total debt of 24% to 26% over the next few years. But we expect debt to EBITDA to remain around 3x, the middle of the category. The supplemental ratio of operating cash flow to debt is expected to range from 23% to 25%, further supporting the "intermediate" determination. Discretionary cash flow, or operating cash flow after capital spending and dividends, is expected to be both positive and negative over the next few years. Cost recovery during construction will be required to maintain cash flow measures and when discretionary cash flow is negative, external funding will likely be needed.



Operating Characteristics	
Operations/State/Customers	<ul> <li>90% of Electric revenue in OK and remainder in AR.<sup>146</sup></li> <li>814,982 customers.<sup>147</sup></li> </ul>
Total Assets (billions)	• \$9.6148
Customer Mix 149	<ul> <li>Millions of MWh</li> <li>Residential – 9.4</li> <li>Commercial – 7.2</li> <li>Industrial – 3.8</li> <li>Oilfield – 3.4</li> <li>Public authorities and street light-3.2</li> <li>Sales for resale – 1</li> <li>Number of Customers</li> <li>Residential – 697,048</li> <li>Commercial – 91,966</li> <li>Industrial – 2,901</li> <li>Oilfield – 6,460</li> <li>Public authorities and street light-16,581</li> <li>Sales for resale – 26</li> </ul>
CAPEX Spend	<ul> <li>Gross CAPEX for 2014 was \$569 million<sup>150</sup> <ul> <li>\$565 million – Electric Utility (i.e. OG&amp;E)</li> <li>\$11 million – Other Operations</li> <li>(\$6.9) million - Eliminations</li> </ul> </li> <li>Forecasted Capital Expenditures – Electric Utility (i.e. OG&amp;E)<sup>151</sup>:         <ul> <li>2015 - \$545 million</li> <li>2016 - \$550 million</li> <li>2017 - \$610 million</li> <li>2018 - \$755 million</li> <li>2019 - \$475 million</li> </ul> </li> </ul>
Residential Retail Choice Program	No electric residential retail choice programs in OK. <sup>152</sup>
Supply Availability and Deliverability	<ul> <li>Supply composed of company-owned generation (72%) and purchased power (28%).<sup>153</sup></li> <li>Breakdown of Company-Owned Generation in 2014<sup>154</sup>:         <ul> <li>61% - Coal-fired Units</li> <li>32% - Natural Gas-fired Units</li> <li>7% - Wind-powered Units</li> </ul> </li> </ul>



Regulatory Environment	
RRA Ranking (as available); DBRS Ranking <sup>155</sup>	RRA maintains three principal rating category: Above Average, Average, and Below Average. Within these principal categories, 1 indicates stronger rating and 3 indicates weaker rating. DBRS Ranking is out of 50, higher is better.  • OK - Average/2; DBRS 45
Regulatory and Legislated Initiatives	Subject to numerous, stringent and complex Federal, state and local laws and regulations governing environmental protection. It is estimated that OG&E's total expenditures to comply with environmental laws, regulations and requirements for 2015 will be approximately \$136.0 million, of which \$116.0 million is for capital expenditures.
Regulatory Model	Cost of Service regulatory model. 157
Test Year	OK – Historical (adjusted for certain known-and-measurable changes occurring within six months of the end of the test year. <sup>158</sup>
Interim Rates	OK - 180 days after filing of a rate case. 159
Typical Rate Case Lag	• OK – 11 months <sup>160</sup>
Most Recent Authorized ROE	• OG&E – 10.2% <sup>161</sup>
Most Recent Authorized Equity Ratio	• N/A <sup>162</sup>
Supply Risk Mitigation and Incentives	Fuel Adjustment Clauses – Semi-Annual Adjustment. 163
Volume / Demand Risk Mitigation	OG&E utilizes an energy efficiency rider that includes provisions to facilitate recovery of lost revenues associated with conservation programs. 164



Capital Cost Recovery Risk Mitigation	<ul> <li>Generation-Related Riders:-OG&amp;E utilizes a rider to recover the revenue requirement associated with the company's Crossroads Wind Farm, which was completed in early-2012; the rider is to remain in place until new base rates are implemented. 165</li> <li>OG&amp;E is permitted to recover costs (both capital- and expense-related) associated with the company's "system hardening" and "vegetation management". 166</li> <li>OG&amp;E recovers certain Southwest Power Pool (SPP)-related costs through a rider. OG&amp;E uses a rider to reflect in rates the Oklahoma-jurisdictional costs associated with certain transmission projects (e.g., the 345-KV Sunnyside-to-Hugo and Soonerto-Rosehill projects) that have been approved by the SPP and that have been</li> </ul>
Other Significant Deferral and Variance Accounts	<ul> <li>OG&amp;E has a mechanism in place to recover variations in certain taxes and franchise fees. <sup>168</sup></li> <li>Rider for recovery of security/safety-related costs. <sup>169</sup></li> <li>OG&amp;E uses a storm-cost recovery rider that is adjusted annually to reflect any differences between the level of storm costs reflected in base rates and the level of such costs actually incurred in that year. <sup>170</sup></li> <li>OG&amp;E utilizes a rider to recover roughly \$220 million of total costs associated with the company's system-wide "Smart Grid" program. <sup>171</sup></li> </ul>



### Pinnacle West Capital Corp. (NYSE: PNW)

### Company Overview<sup>172</sup>

Pinnacle West Capital Corp., an energy holding company based in Phoenix, has consolidated assets of about \$15 billion, more than 6,400 megawatts of generating capacity and about 6,400 employees in Arizona and New Mexico. Through its principal subsidiary, Arizona Public Service, the Company provides retail electricity service to nearly 1.2 million Arizona homes and businesses.

### S&P Ratings Summary (A-/Stable/A-2)<sup>173</sup>

#### Business Risk - Excellent

Pinnacle West's primary business, representing about 100% of the company, is regulated utility Arizona Public Service Co. Its other business, El Dorado (\$15 million in assets), owns minority interests in several energy-related investments.

Our "excellent" business risk profile assessment reflects our "very low" industry risk assessment of the regulated utility industry and a "very low" country risk based on the company's exclusive focus on U.S. operations and markets. Our assessment also reflects our opinion that the company will continue its strategy of focusing on electric generation and distribution to much of the state of Arizona. We have historically regarded this state as weak from a regulatory perspective, but conditions have improved substantially for the state's major utilities, culminating in a 2012 rate case that we view as credit-supportive.

#### Financial Risk - Intermediate

For Pinnacle West, we use the medial volatility table, reflecting the company's low-risk regulated utility business model that includes the high operating risk of regulated generation.

Our "intermediate" assessment of Pinnacle West's financial risk profile is based on our expectation that operating results will continue to reflect the improved regulatory environment and that the company will capably manage its capital structure. We expect the company's financial measures to weaken somewhat given the high capital spending program, but we generally expect FFO to debt to exceed 25%. We also expect gradual economic improvement in the company's service territory, which will help the company's financial measures.

The choice of the 'a' anchor, given two potential outcomes ('a+' or 'a'), reflects our view of the company's business risk profile at the low half of the "excellent" business risk profile category. This includes the high operating risk of regulated generation, including nuclear generation.

### Operating Characteristics

### Operations/State/Customers Derives essentially all of our revenues and earnings from our wholly-owned subsidiary, APS. APS is a vertically integrated electric utility that provides either retail or wholesale electric service to most of the State of Arizona. APS currently provides electric service to approximately 1.2 million customers.<sup>174</sup> Total Assets (2014 billions) \$14.3175 Customer Mix 176 Residential - 1,033,728 Commercial – 124,460 Industrial – 3,728 Other -1,163**CAPEX Spend** Forecasted Capital Expenditures for APS177:



	<ul> <li>2015 - \$1,091 million</li> <li>2016 - \$1,265 million</li> <li>2017 - \$1,293 million</li> </ul>
Residential Retail Choice Program	No electric residential retail choice programs in AZ. <sup>178</sup>
Supply Availability and Deliverability	Supply composed of company-owned generation (78%) and purchased power (22%). 179  Breakdown of Supply in 2014 <sup>180</sup> :  33.5% - Coal (Company-Owned)  27.2% - Nuclear (Company-Owned)  16.2% - Natural Gas / Oil (Company-Owned)  1.3% - Renewables (Company-Owned)  16.8 % - Purchased Power (Conventional)  5.0 % - Purchased Power (Renewables)
Regulatory I	Environment
RRA Ranking (as available); DBRS Ranking <sup>181</sup>	RRA maintains three principal rating category: Above Average, Average, and Below Average. Within these principal categories, 1 indicates stronger rating and 3 indicates weaker rating. DBRS Ranking is out of 50, higher is better.  • AZ - Average/3; DBRS 41
Regulatory and Legislated Initiatives	Subject to extensive federal, state and local environmental laws, regulations and permit requirements relating to air and water quality, waste management and disposal, natural resources and health and safety.  List of regulations impacting Electric utility segment: 182  GHG regulations by EPA  EPA BART Rule  MATS  Regulation of CCRs under RCRA  Effluent Limitation Guidelines  New Source Review  Subject to government mandated renewable energy requirements (15% by 2025). 183
Regulatory Model	Cost of Service regulatory model. 184



Test Year	AZ – Historical (adjusted for certain known-and-measurable changes; APS's rate case decided in May 2012 included plant additions in rate base that were placed in service up to 15 months after the conclusion of the test period).   185
Interim Rates	Yes, the ACC has approved interim/temporary rates under certain circumstances. 186
Typical Rate Case Lag	• AZ – 11 months <sup>187</sup>
Most Recent Authorized ROE	• 10.0%188
Most Recent Authorized Equity Ratio	• 53.9%189
Supply Risk Mitigation and Incentives	Utilizes a Power Supply Adjustor (PSA), a mechanism that permits the deferral and recovery of fuel and purchased power costs outside of a rate case annually, with a \$4 million cap. 190, 191
Volume / Demand Risk Mitigation	Lost Fixed Cost Recovery Mechanism (LCRF): The LFCR mechanism permits     APS to recover on an after-the-fact basis a portion of its fixed costs that would otherwise have been collected by APS in the kWh sales lost due to APS energy efficiency programs and to distributed generation such as rooftop solar arrays. 192
Capital Cost Recovery Risk Mitigation	<ul> <li>APS is allowed to include a RES surcharge as part of customer bills to recover the approved amounts for use on renewable energy projects. <sup>193</sup></li> <li>On Dec. 18, 2014, the ACC authorized APS to implement, effective Jan. 1, 2015, a rider to reflect in rates the costs associated with the company's acquisition of a 48% share (739 MW) of the coal-fired Four Corners Units 4 and 5 (along with certain related facilities), and the retirement of Four Corners Units 1, 2, and 3 (100% owned by APS; 560 MW). <sup>194</sup></li> </ul>



Other Significant Deferral and Variance Accounts	<ul> <li>System benefits charge for recovery of prudent costs associated with certain public purpose programs (conservation, wind power development, etc.) <sup>195</sup></li> <li>Transmission cost adjustor (TCA) to flow through changes in Federal Energy Regulatory Commission-approved</li> </ul>
	transmission rates. <sup>196</sup>



### Westar Energy, Inc. (NYSE: WR)

### Company Overview<sup>197</sup>

Westar Energy, Inc. (NYSE: WR) is Kansas' largest electric utility. For more than a century, we have provided Kansans the safe, reliable electricity needed to power their businesses and homes. Every day our team of professionals takes on projects to generate and deliver electricity, protect the environment and provide excellent service to our nearly 700,000 customers. Westar has 7,200 MW of electric generation capacity fueled by coal, uranium, natural gas, wind and landfill gas. We are also a leader in electric transmission in Kansas. Our innovative customer service programs include mobile-enabled customer care, digital meters and paving the way for electric vehicle adoption. Our employees live, volunteer and work in the communities we serve.

### S&P Ratings Summary (BBB+/Stable/A-2)198

#### Business Risk - Excellent

We view Westar's business risk as "excellent", incorporating our assessment of the regulated utility industry's risk as "very low" and country risk as "very low" based on the company's focus on U.S. operations and markets. The business risk profile reflects a competitive position of "strong". Westar and subsidiary Kansas Gas & Electric Co. are the largest electric operation in Kansas and provide electricity service to about 700,000 customers. The company operates with generally supportive regulation, a primarily residential customer base that supports cash flow stability, good operating efficiency, and absence of competition. Westar continues to focus on a regulated business strategy. The ongoing capital spending will require timely recovery of these costs through various rate mechanisms, including base rates and rate surcharges that should strengthen cash flow. Surcharge mechanisms exist for the recovery of fuel costs and transmission charges.

### Financial Risk - Significant

Based on the medial volatility financial ratio benchmarks, our assessment of Westar's financial risk profile is "significant" based on our expectations that financial measures will continue to reach current levels. For the 12 months ended Dec. 31, 2014, the core ratio of FFO to total debt was 19.4%, in line with the significant determination. The supplemental ratio of OCF to debt was about 20%, near the lower end of the intermediate benchmark range. Under our base case forecast, we expect FFO to total debt to average more than 19% over the next three years and OCF to debt to average more than 19%. As construction tapers off following the La Cygne air emissions equipment installation, we expect discretionary cash flow to be much less negative, reducing the need for external funding in the capital markets.

### **Operating Characteristics** Operations/State/Customers Electric generation, transmission and distribution services to approximately 698,000 customers in Kansas 199 Total Assets (billions) \$10.5200 Customer Mix (2014 Revenue) 201 Residential - 31% Commercial - 28% Industrial – 16% Wholesale - 15% Transmission - 9% Other – 1% **CAPEX Spend** Gross CAPEX for 2014 was \$852 million<sup>202</sup> Forecasted Capital Expenditures<sup>203</sup>: 2015 - \$692 million 2016 - \$661 million



	o 2017 - \$671 million
Residential Retail Choice Program	No electric residential retail choice programs in Kansas. <sup>204</sup>
Supply Availability and Deliverability	Breakdown of generating capability and net generation by fuel type <sup>205</sup> :
	<ul> <li>Fuel / % of Capability / % of Generation</li> <li>Coal / 48% /71%</li> <li>Nuclear / 8% / 15%</li> <li>Natural Gas &amp; Diesel / 35% / 5%</li> <li>Renewable / 9% / 9%</li> </ul>
Regulatory	Environment
RRA Ranking (as available); DBRS Ranking <sup>206</sup>	RRA maintains three principal rating category: Above Average, Average, and Below Average. Within these principal categories, 1 indicates stronger rating and 3 indicates weaker rating. DBRS Ranking is out of 50, higher is better.  • KS - Average/2; DBRS 44
Regulatory and Legislated Initiatives	<ul> <li>Subject to various federal, state and local environmental laws and regulations. List of regulations impacting Westar: <sup>207</sup> <ul> <li>GHG regulations by EPA</li> <li>MATS and CSAPR</li> <li>Section 316(b) of Clean Water Act</li> <li>Regulation of CCB</li> </ul> </li> <li>Subject to Kansas law mandated renewable energy requirements (20% by 2025). <sup>208</sup></li> </ul>
Regulatory Model	Cost of Service regulatory model. <sup>209</sup>
Test Year	Historical. <sup>210</sup>
Interim Rates	• Yes. <sup>211</sup>
Typical Rate Case Lag	• KS – 7 months <sup>212</sup>
Most Recent Authorized ROE	<ul> <li>Kansas Gas and Electric - 10.40%<sup>213</sup></li> <li>Westar Energy - 10.00%<sup>214</sup></li> </ul>
Most Recent Authorized Equity Ratio	<ul> <li>Kansas Gas and Electric – 50.13%<sup>215</sup></li> <li>Westar Energy – 52.63%<sup>216</sup></li> </ul>



Supply Risk Mitigation and Incentives	• Fuel Adjustment Clauses – Quarterly Adjustment. <sup>217</sup>
Volume / Demand Risk Mitigation	Westar and KG&E participate in certain energy efficiency programs and recover program-related costs and the related lost revenues through the energy efficiency cost recovery rider. <sup>218</sup>
Capital Cost Recovery Risk Mitigation	<ul> <li>Environmental Cost Recovery (ECR) rider to recover the costs incurred to comply with environmental regulations. <sup>219</sup></li> <li>Transmission Delivery Charge (TDC) rider provides for the unbundling of Federal Energy Regulatory Commission (FERC)-regulated transmission charges. <sup>220</sup></li> <li>Have a mechanism in place to recover variations in certain taxes and franchise fees. <sup>221</sup></li> </ul>

### **END NOTES**

- <sup>1</sup> SNL Financial.
- <sup>2</sup> S&P Ratings Direct, Summary: ALLETE Inc. (April 14, 2014)
- <sup>3</sup> ALLETE, Inc. 2014 Form 10-K at 7.
- <sup>4</sup> SNL Financial, balance as of 06/30/2015.
- <sup>5</sup> ALLETE, Inc. 2014 Form 10-K at 7.
- <sup>6</sup> ALLETE, Inc. 2014 Form 10-K at 35.
- <sup>7</sup> ALLETE, Inc. 2014 Form 10-K at 54.
- 8 http://www.eia.gov/todayinenergy/detail.cfm?id=6250#.
- <sup>9</sup> ALLETE, Inc. 2014 Form 10-K at 12.
- <sup>10</sup> SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States
- <sup>11</sup> ALLETE, Inc. 2014 Form 10-K at 18.
- <sup>12</sup> ALLETE, Inc. 2014 Form 10-K at 19.
- <sup>13</sup> ALLETE, Inc. 2014 Form 10-K at 21-27.
- <sup>14</sup> ALLETE, Inc. 2014 Form 10-K at 15.
- <sup>15</sup> SNL Financial.
- <sup>16</sup> SNL Financial.
- <sup>17</sup> SNL Financial.
- <sup>18</sup> ALLETE, Inc. 2014 Form 10-K at 16.
- <sup>19</sup> ALLETE, Inc. 2014 Form 10-K at 16.
- <sup>20</sup> SNL Financial.
- <sup>21</sup> SNL Financial.
- <sup>22</sup> ALLETE, Inc. 2014 Form 10-K at 81-82.
- <sup>23</sup> ALLETE, Inc. 2014 Form 10-K at 81-82.
- <sup>24</sup> ALLETE, Inc. 2014 Form 10-K at 81-82.
- <sup>25</sup> SNL Financial.
- <sup>26</sup> S&P Ratings Direct, Summary: Duke Energy Corp. (July 2, 2014)



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<sup>27</sup> Duke Energy Corp., 2014 Form 10-K at 9.
<sup>28</sup> Duke Energy Corp., Fact Sheet.
<sup>29</sup> SNL Financial, balance as of 06/30/2015..
<sup>30</sup> Duke Energy Corp., 2014 Form 10-K at 85.
<sup>31</sup> Duke Energy Corp., 2014 Form 10-K at 95.
<sup>32</sup> Duke Energy Corp., 2014 Form 10-K at 105.
<sup>33</sup> Duke Energy Corp., 2014 Form 10-K at 110.
<sup>34</sup> Duke Energy Corp., 2014 Form 10-K at 100.
35 Duke Energy Corp., 2014 Form 10-K at 9.
<sup>36</sup> Duke Energy Corp., 2014 Form 10-K at 128.
<sup>37</sup> Duke Energy Corp., 2014 Form 10-K at 60.
38 http://www.eia.gov/todayinenergy/detail.cfm?id=6250#.
<sup>39</sup> Duke Energy Corp., 2014 Form 10-K at 11.
<sup>40</sup> SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States
<sup>41</sup> Duke Energy Corp., 2014 Form 10-K at 20.
<sup>42</sup> Duke Energy Corp., 2014 Form 10-K at 20.
<sup>43</sup> Duke Energy Corp., 2014 Form 10-K at 20.
44 SNL Financial.
<sup>45</sup> SNL Financial.
46 SNL Financial.
<sup>47</sup> Duke Energy Corp., 2014 Form 10-K at 15.
<sup>48</sup> Duke Energy Corp., 2014 Form 10-K at 15.
<sup>49</sup> SNL Financial.
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62 SNL Financial.
63 S&P Ratings Direct, Summary: Northeast Utilities. (May 21, 2014)
<sup>64</sup> Eversource Energy, 2014 Form 10-K at 2.
<sup>65</sup> Eversource Energy, 2014 Form 10-K at 2.
<sup>66</sup> Eversource Energy, 2014 Form 10-K at 2.
<sup>67</sup> Eversource Energy, 2014 Form 10-K at 2.
<sup>68</sup> Eversource Energy, 2014 Form 10-K at 64.
<sup>69</sup> Eversource Energy, 2014 Form 10-K at 70.
<sup>70</sup> Eversource Energy, 2014 Form 10-K at 76.
<sup>71</sup> Eversource Energy, 2014 Form 10-K at 88.
<sup>72</sup> Eversource Energy, 2014 Form 10-K at 82.
<sup>73</sup> Eversource Energy, 2014 Form 10-K at 3.
<sup>74</sup> Eversource Energy, 2014 Form 10-K at 5.
<sup>75</sup> Eversource Energy, 2014 Form 10-K at 5.
<sup>76</sup> Eversource Energy, 2014 Form 10-K at 7.
<sup>77</sup> Eversource Energy, 2014 Form 10-K at 10.
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<sup>78</sup> Eversource Energy, 2014 Form 10-K at 35.
<sup>79</sup> Eversource Energy, 2014 Form 10-K at 35.
<sup>80</sup> Eversource Energy, 2014 Form 10-K at 34.
<sup>81</sup> Eversource Energy, 2014 Form 10-K at 36.
<sup>82</sup> Eversource Energy, 2014 Form 10-K at 3, 5, 7.



136 SNL Financial.137 SNL Financial.138 SNL Financial.

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83 Eversource Energy, 2014 Form 10-K at 8.
84 SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States
85 Eversource Energy, 2014 Form 10-K at 13.
86 Eversource Energy, 2014 Form 10-K at 13, 14.
87 SNL Financial.
88 SNL Financial.
89 SNL Financial.
90 SNL Financial.
91 SNL Financial.
92 SNL Financial.
93 SNL Financial.
94 SNL Financial.
95 Not specified in most recent rate case, which was resolved through settlement agreement.
<sup>96</sup> Eversource Energy, 2014 Form 10-K at 4.
<sup>97</sup> Eversource Energy, 2014 Form 10-K at 6.
98 Eversource Energy, 2014 Form 10-K at 7
99 Eversource Energy, 2014 Form 10-K at 4.
<sup>100</sup> Eversource Energy, 2014 Form 10-K at 6.
<sup>101</sup> Eversource Energy, 2014 Form 10-K at 6.
<sup>102</sup> Eversource Energy, 2014 Form 10-K at 4.
<sup>103</sup> Eversource Energy, 2014 Form 10-K at 4.
<sup>104</sup> Eversource Energy, 2014 Form 10-K at 4.
<sup>105</sup> Eversource Energy, 2014 Form 10-K at 4.
<sup>106</sup> Eversource Energy, 2014 Form 10-K at 6.
<sup>107</sup> Eversource Energy, 2014 Form 10-K at 6.
<sup>108</sup> Eversource Energy, 2014 Form 10-K at 6.
<sup>109</sup> Eversource Energy, 2014 Form 10-K at 6.
110 SNL Financial.
<sup>111</sup> Eversource Energy, 2014 Form 10-K at 7
<sup>112</sup> SNL Financial.
<sup>113</sup> S&P Ratings Direct, Summary: Great Plains Energy Inc. (April 28, 2015)
<sup>114</sup> Great Plains Energy Inc., 2014 Form 10-K at 6.
<sup>115</sup> Great Plains Energy Inc., 2014 Form 10-K at 6.
<sup>116</sup> Great Plains Energy Inc., 2014 Form 10-K at 110.
<sup>117</sup> Great Plains Energy Inc., 2014 Form 10-K at 110.
<sup>118</sup> Great Plains Energy Inc., 2014 Form 10-K at 111.
<sup>119</sup> Great Plains Energy Inc., 2014 Form 10-K at 110.
<sup>120</sup> Great Plains Energy Inc., 2014 Form 10-K at 111.
<sup>121</sup> Great Plains Energy Inc., 2014 Form 10-K at 41.
122 http://www.eia.gov/todayinenergy/detail.cfm?id=6250#.
123 Great Plains Energy Inc., 2014 Form 10-K at 8.
<sup>124</sup> Great Plains Energy Inc., 2014 Form 10-K at 9.
<sup>125</sup> SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States
126 Great Plains Energy Inc., 2014 Form 10-K at 89-94.
127 Great Plains Energy Inc., 2014 Form 10-K at 12.
128 SNL Financial.
129 SNL Financial.
130 SNL Financial.
<sup>131</sup> SNL Financial.
132 SNL Financial.
133 SNL Financial.
134 SNL Financial.
135 SNL Financial.
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139 SNL Financial.
<sup>140</sup> SNL Financial.
<sup>141</sup> Great Plains Energy Inc., 2014 Form 10-K at 34.
<sup>142</sup> Great Plains Energy Inc., 2014 Form 10-K at 34.
143 SNL Financial.
144 SNL Financial.
<sup>145</sup> S&P Ratings Direct, Summary: OGE Energy Corp. (May 22, 2015)
<sup>146</sup> OGE Energy Corp., 2014 Form 10-K at 3.
<sup>147</sup> OGE Energy Corp., 2014 Form 10-K at 5.
<sup>148</sup> SNL Financial, balance as of 06/30/2015.
<sup>149</sup> OGE Energy Corp., 2014 Form 10-K at 5.
<sup>150</sup> OGE Energy Corp., 2014 Form 10-K at 118.
<sup>151</sup> OGE Energy Corp., 2014 Form 10-K at 14.
152 http://www.eia.gov/todayinenergy/detail.cfm?id=6250#.
<sup>153</sup> OGE Energy Corp., 2014 Form 10-K at 5.
<sup>154</sup> OGE Energy Corp., 2014 Form 10-K at 9.
<sup>155</sup> SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States
<sup>156</sup> OGE Energy Corp., 2014 Form 10-K at 13.
<sup>157</sup> OGE Energy Corp., 2014 Form 10-K at 8.
158 SNL Financial.
159 SNL Financial.
<sup>160</sup> SNL Financial.
<sup>161</sup> SNL Financial.
<sup>162</sup> Not specified in most recent rate case, which was resolved through settlement agreement.
<sup>163</sup> SNL Financial.
<sup>164</sup> SNL Financial.
165 SNL Financial.
166 SNL Financial.
<sup>167</sup> SNL Financial.
<sup>168</sup> SNL Financial.
169 SNL Financial.
170 SNL Financial.
<sup>171</sup> SNL Financial.
<sup>172</sup> SNL Financial.
<sup>173</sup> S&P Ratings Direct, Summary: Pinnacle West Capital Corp. (June 30, 2014)
<sup>174</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 3.
<sup>175</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 44.
<sup>176</sup> Arizona Public Service Company, 2014 FERC Form 1 at 300-301.
<sup>177</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 60.
<sup>178</sup> SNL Financial.
<sup>179</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 5.
<sup>180</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 5.
<sup>181</sup> SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States
<sup>182</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 17-22.
<sup>183</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 13.
184 SNL Financial.
<sup>185</sup> SNL Financial.
<sup>186</sup> SNL Financial.
<sup>187</sup> SNL Financial.
<sup>188</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 89.
<sup>189</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 89.
190 SNL Financial.
<sup>191</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 91.
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<sup>192</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 92.<sup>193</sup> Pinnacle West Capital Corp., 2014 Form 10-K at 90.

194 SNL Financial.



- 195 SNL Financial.
- 196 SNL Financial.
- 197 SNL Financial.
- <sup>198</sup> S&P Ratings Direct, Summary: Westar Energy Inc. (April 28, 2015)
- <sup>199</sup> Westar Energy, Inc., 2014 Form 10-K at 7.
- <sup>200</sup> SNL Financial, balance as of 06/30/2015.
- <sup>201</sup> Westar Energy, Inc., 2014 Form 10-K at 7.
- <sup>202</sup> Westar Energy, Inc., 2014 Form 10-K at 48.
- <sup>203</sup> Westar Energy, Inc., 2014 Form 10-K at 48.
- <sup>204</sup> http://www.eia.gov/todayinenergy/detail.cfm?id=6250#.
- <sup>205</sup> Westar Energy, Inc., 2014 Form 10-K at 11.
- <sup>206</sup> SNL Financial and DBRS Regulatory Framework for Utilities: Canada vs. the United States
- <sup>207</sup> Westar Energy, Inc., 2014 Form 10-K at 27.
- <sup>208</sup> Westar Energy, Inc., 2014 Form 10-K at 27.
- <sup>209</sup> Westar Energy, Inc., 2014 Form 10-K at 16.
- <sup>210</sup> SNL Financial.
- <sup>211</sup> SNL Financial.
- <sup>212</sup> SNL Financial.
- <sup>213</sup> SNL Financial.
- <sup>214</sup> SNL Financial.
- <sup>215</sup> SNL Financial.
- <sup>216</sup> SNL Financial.
- <sup>217</sup> SNL Financial.
- <sup>218</sup> SNL Financial.
- <sup>219</sup> SNL Financial.
- <sup>220</sup> SNL Financial.
- <sup>221</sup> SNL Financial.

### 90-DAY CONSTANT GROWTH DCF -- U.S. PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
					Expected	Zacks		Value		Average	<b>:</b>		
		Annualized	Stock	Dividend	Dividend	EPS	SNL EPS	Line EPS	First Call	Growth	Low DCF	Mean	High
Company	Ticker	Dividend	Price	Yield	Yield	Growth	Growth	Growth	Growth	Rate	ROE	DCF ROE	DCF ROE
ALLETE, Inc.	ALE	\$2.02	\$48.88	4.13%	4.26%	N/A	6.00%	6.50%	6.00%	6.17%	10.26%	10.43%	10.77%
Duke Energy Corp	DUK	\$3.18	\$74.39	4.27%	4.38%	4.70%	4.84%	5.00%	4.60%	4.79%	8.97%	9.16%	9.38%
Eversource Energy	ES	\$1.68	\$48.25	3.48%	3.60%	6.80%	5.97%	8.50%	6.21%	6.87%	9.56%	10.47%	12.13%
Great Plains Energy Inc.	GXP	\$0.98	\$25.61	3.83%	3.94%	6.10%	6.78%	5.00%	6.43%	6.08%	8.92%	10.02%	10.74%
OGE Energy Corp.	OGE	\$1.00	\$30.03	3.33%	3.40%	5.00%	5.30%	3.00%	3.34%	4.16%	6.38%	7.56%	8.72%
Pinnacle West Capital Corp	PNW	\$2.38	\$60.22	3.95%	4.05%	5.20%	5.28%	4.00%	5.37%	4.96%	8.03%	9.01%	9.43%
Westar Energy Inc.	WR	\$1.44	\$36.55	3.94%	4.02%	3.90%	3.55%	6.00%	3.40%	4.21%	7.41%	8.24%	10.06%
MEAN		•		3.85%	3.95%	5.28%	5.39%	5.43%	5.05%	5.32%	8.50%	9.27%	10.17%
Flotation Costs											0.50%	0.50%	0.50%
											9.00%	9.77%	10.67%

### Notes

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, 90-day average as of August 31, 2015
- [3] Equals [1] / [2]
- [4] Equals [3] x (1 + 0.5 x [9])
- [5] Source: Zacks at August 31, 2015
- [6] Source: SNL Financial Median Long-Term EPS Growth Rate as of September 21, 2015
- [7] Source: Value Line
- [8] Source: Yahoo! Finance at August 31, 2015
- [9] Equals Average([5], [6], [7], [8])
- [10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])
- [11] Equals [4] + [9]
- [12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])

### 90-DAY CONSTANT GROWTH DCF -- CANADIAN PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
					Expected	Zacks		Value		Average	<b>!</b>		
		Annualized	Stock	Dividend	Dividend	EPS	SNL EPS	Line EPS	First Call	Growth	Low DCF	Mean	High
Company	Ticker	Dividend	Price	Yield	Yield	Growth	Growth	Growth	Growth	Rate	ROE	DCF ROE	DCF ROE
Canadian Utilities Limited	CU	\$1.18	\$35.79	3.30%	3.37%	N/A	3.60%	N/A	4.78%	4.19%	6.96%	7.56%	8.16%
Emera Incorporated	EMA	\$1.60	\$43.69	3.66%	3.78%	N/A	6.60%	N/A	5.99%	6.30%	9.76%	10.07%	10.38%
Enbridge Inc.	ENB	\$1.86	\$54.98	3.38%	3.61%	12.00%	N/A	10.50%	18.40%	13.63%	14.06%	17.25%	22.09%
Valener Inc.	VNR	\$1.04	\$16.73	6.22%	6.47%	N/A	N/A	N/A	8.00%	8.00%	14.47%	14.47%	14.47%
MEAN				4.14%	4.31%	12.00%	5.10%	10.50%	9.29%	8.03%	11.31%	12.34%	13.77%
Flotation Costs											0.50%	0.50%	0.50%
											11.81%	12.84%	14.27%

### Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, 90-day average as of August 31, 2015
- [3] Equals [1] / [2]
- [4] Equals [3]  $\times$  (1 + 0.5  $\times$  [9])
- [5] Source: Zacks at August 31, 2015
- [6] Source: SNL Financial Median Long-Term EPS Growth Rate as of September 21, 2015
- [7] Source: Value Line
- [8] Source: Yahoo! Finance at August 31, 2015
- [9] Equals Average([5], [6], [7], [8])
- [10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])
- [11] Equals [4] + [9]
- [12] Equals [3]  $\times$  (1 + 0.5  $\times$  Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])

### 90-DAY CONSTANT GROWTH DCF -- NORTH AMERICA ELECTRIC PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
					Expected	Zacks		Value		Average			
		Annualized	Stock	Dividend	Dividend	EPS	SNL EPS	Line EPS	First Call	Growth	Low DCF	Mean	High
Company	Ticker	Dividend	Price	Yield	Yield	Growth	Growth	Growth	Growth	Rate	ROE	DCF ROE	DCF ROE
Canadian Utilities Limited	CU	\$1.18	\$35.79	3.30%	3.36%	N/A	2.90%	N/A	4.78%	3.84%	6.24%	7.20%	8.16%
Emera Incorporated	EMA	\$1.60	\$43.69	3.66%	3.78%	N/A	6.50%	N/A	5.99%	6.25%	9.76%	10.02%	10.28%
ALLETE, Inc.	ALE	\$2.02	\$49.06	4.12%	4.24%	N/A	6.00%	6.50%	6.00%	6.17%	10.24%	10.41%	10.75%
Duke Energy Corp	DUK	\$3.18	\$73.94	4.30%	4.40%	4.70%	4.92%	5.00%	4.60%	4.81%	9.00%	9.21%	9.41%
Eversource Energy	ES	\$1.68	\$49.31	3.41%	3.53%	6.80%	7.00%	8.50%	6.21%	7.13%	9.72%	10.66%	12.05%
Great Plains Energy Inc.	GXP	\$0.98	\$25.92	3.78%	3.89%	6.10%	5.88%	5.00%	6.43%	5.85%	8.88%	9.74%	10.33%
OGE Energy Corp.	OGE	\$1.00	\$29.36	3.41%	3.48%	5.00%	5.15%	3.00%	3.34%	4.12%	6.46%	7.60%	8.64%
Pinnacle West Capital Corp	PNW	\$2.38	\$61.85	3.85%	3.94%	5.20%	5.00%	4.00%	5.37%	4.89%	7.93%	8.83%	9.32%
Westar Energy Inc.	WR	\$1.44	\$35.72	4.03%	4.12%	3.90%	4.65%	6.00%	3.40%	4.49%	7.50%	8.61%	10.15%
MEAN				3.76%	3.86%	5.28%	5.33%	5.43%	5.12%	5.28%	8.41%	9.14%	9.90%
Flotation Costs											0.50%	0.50%	0.50%
											8.91%	9.64%	10.40%

### Notes

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, 90-day average as of August 31, 2015
- [3] Equals [1] / [2]
- [4] Equals [3]  $\times$  (1 + 0.5  $\times$  [9])
- [5] Source: Zacks at August 31, 2015
- [6] Source: SNL Financial Median Long-Term EPS Growth Rate as of September 21, 2015
- [7] Source: Value Line
- [8] Source: Yahoo! Finance at August 31, 2015
- [9] Equals Average([5], [6], [7], [8])
- [10] Equals [3] x (1 + 0.5 x Minimum([5], [6], [7], [8])) + Minimum([5], [6], [7], [8])
- [11] Equals [4] + [9]
- [12] Equals [3] x (1 + 0.5 x Maximum([5], [6], [7], [8])) + Maximum([5], [6], [7], [8])

### 90-DAY MULTI-STAGE DCF -- U.S. PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
				Growth						GDP	
		Annualized	Stock	Rate,						Growth	
Company	Ticker	Dividend	Price	Years 1-5	Year 6	Year 7	Year 8	Year 9	Year 10	(perpetuity)	ROE
ALLETE, Inc.	ALE	\$2.02	\$48.88	6.17%	5.90%	5.63%	5.36%	5.09%	4.82%	4.55%	9.53%
Duke Energy Corp	DUK	\$3.18	\$74.39	4.79%	4.75%	4.71%	4.67%	4.63%	4.59%	4.55%	9.28%
Eversource Energy	ES	\$1.68	\$48.25	6.87%	6.48%	6.10%	5.71%	5.32%	4.94%	4.55%	8.93%
Great Plains Energy Inc.	GXP	\$0.98	\$25.61	6.08%	5.82%	5.57%	5.31%	5.06%	4.81%	4.55%	9.14%
OGE Energy Corp.	OGE	\$1.00	\$30.03	4.16%	4.23%	4.29%	4.36%	4.42%	4.49%	4.55%	8.07%
Pinnacle West Capital Corp	PNW	\$2.38	\$60.22	4.96%	4.89%	4.83%	4.76%	4.69%	4.62%	4.55%	8.97%
Westar Energy Inc.	WR	\$1.44	\$36.55	4.21%	4.27%	4.33%	4.38%	4.44%	4.49%	4.55%	8.75%
MEAN				5.32%	5.19%	5.06%	4.93%	4.81%	4.68%	4.55%	8.95%
Flotation Costs											0.50%
										_	9.45%

### Notes:

- [1] Source: Bloomberg Professional
- [2] Source: Bloomberg Professional, 90-day average as of August 31, 2015
- [3] Source: Constant Growth DCF
- [4] Equals [3] ([3] [9]) / 6
- [5] Equals [4] ([3] [9]) / 6
- [6] Equals [5] ([3] [9]) / 6
- [7] Equals [6] ([3] [9]) / 6
- [8] Equals [7] ([3] [9]) / 6
- [9] Consensus Economics Inc., Consensus Forecasts, April 13, 2015, at 3.
- [10] Internal rate of return

### 90-DAY MULTI-STAGE DCF -- CANADIAN PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
				Growth						GDP	
		Annualized	Stock	Rate,						Growth	
Company	Ticker	Dividend	Price	Years 1-5	Year 6	Year 7	Year 8	Year 9	Year 10	(perpetuity)	ROE
Canadian Utilities Limited	CU	\$1.18	\$35.79	4.19%	4.15%	4.11%	4.06%	4.02%	3.98%	3.94%	7.54%
Emera Incorporated	EMA	\$1.60	\$43.69	6.30%	5.90%	5.51%	5.12%	4.72%	4.33%	3.94%	8.52%
Enbridge Inc.	ENB	\$1.86	\$54.98	13.63%	12.02%	10.40%	8.79%	7.17%	5.55%	3.94%	10.45%
Valener Inc.	VNR	\$1.04	\$16.73	8.00%	7.32%	6.65%	5.97%	5.29%	4.62%	3.94%	12.53%
MEAN		•		8.03%	7.35%	6.67%	5.98%	5.30%	4.62%	3.94%	9.76%
Flotation Costs											0.50%
										•	10.26%

### Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, 90-day average as of August 31, 2015

[3] Source: Constant Growth DCF

[4] Equals [3] - ([3] - [9]) / 6

[5] Equals [4] - ([3] - [9]) / 6 [6] Equals [5] - ([3] - [9]) / 6

[7] Equals [6] - ([3] - [9]) / 6

[8] Equals [7] - ([3] - [9]) / 6

[9] Consensus Economics Inc., Consensus Forecasts, April 13, 2015, at 28.

[10] Internal rate of return

### 90-DAY MULTI-STAGE DCF -- NORTH AMERICA ELECTRIC PROXY GROUP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
				Growth						GDP	
		Annualized	Stock	Rate,						Growth	
Company	Ticker	Dividend	Price	Years 1-5	Year 6	Year 7	Year 8	Year 9	Year 10	(perpetuity)	ROE
Canadian Utilities Limited	CU	\$1.18	\$35.79	3.84%	3.86%	3.87%	3.89%	3.91%	3.92%	3.94%	7.46%
Emera Incorporated	EMA	\$1.60	\$43.69	6.25%	5.86%	5.48%	5.09%	4.71%	4.32%	3.94%	8.51%
ALLETE, Inc.	ALE	\$2.02	\$49.06	6.17%	5.90%	5.63%	5.36%	5.09%	4.82%	4.55%	9.52%
Duke Energy Corp	DUK	\$3.18	\$73.94	4.81%	4.76%	4.72%	4.68%	4.64%	4.59%	4.55%	9.32%
Eversource Energy	ES	\$1.68	\$49.31	7.13%	6.70%	6.27%	5.84%	5.41%	4.98%	4.55%	8.91%
Great Plains Energy Inc.	GXP	\$0.98	\$25.92	5.85%	5.64%	5.42%	5.20%	4.98%	4.77%	4.55%	9.02%
OGE Energy Corp.	OGE	\$1.00	\$29.36	4.12%	4.19%	4.27%	4.34%	4.41%	4.48%	4.55%	8.14%
Pinnacle West Capital Corp	PNW	\$2.38	\$61.85	4.89%	4.84%	4.78%	4.72%	4.66%	4.61%	4.55%	8.83%
Westar Energy Inc.	WR	\$1.44	\$35.72	4.49%	4.50%	4.51%	4.52%	4.53%	4.54%	4.55%	8.92%
MEAN				5.28%	5.14%	4.99%	4.85%	4.70%	4.56%	4.41%	8.74%
Flotation Costs										_	0.50%
										_	9.24%

### Notes:

[1] Source: Bloomberg Professional

[2] Source: Bloomberg Professional, 90-day average as of August 31, 2015

[3] Source: Constant Growth DCF

[4] Equals [3] - ([3] - [9]) / 6

[5] Equals [4] - ([3] - [9]) / 6

[6] Equals [5] - ([3] - [9]) / 6

[7] Equals [6] - ([3] - [9]) / 6

[8] Equals [7] - ([3] - [9]) / 6

[9] Consensus Economics Inc., Consensus Forecasts, April 13, 2015, at 3 and 28.

[10] Internal rate of return

		[1] Dividend Yield	[2] Dividend Yield x (1 + 0.50g)	[3]  Expected Growth Rate (g)	[4] Secondary Market Investor Required Return			[13] Forecast Canadian Government Bond 30 Year	[14] Equity Risk Premium
S&P/TSX UTILITIES INDEX		3.28%	3.44%	10.02%	13.46%			3.68%	
		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Talaa	Shares Outstanding (million)		Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Market Capitalization- Weighted Long Term Growth Estimate
Company	Ticker	(minon)	Price	(\$IIIIIIOII)	Capitanzation	Tield	Estimate	Dividend Field	Estimate
Sun Life Financial Inc	SLF	612.078	41.700	25,524	1.8010%	3.65%	8.50%	0.0656%	0.1531%
Enghouse Systems Ltd H&R Real Estate Investment Trust	ESL HR-U	26.285 276.087	48.690 22.440	1,280 6,195	0.0000% 0.0000%	0.99% 6.02%	n/a n/a	0.0000%	n/a n/a
West Fraser Timber Co Ltd	WFT	81.248	68.630	5,576	0.0000%	0.41%	n/a	0.0000%	n/a
Brookfield Asset Management Inc	BAM/A	980.619	43.640	42,794	3.0197%	1.37%	13.00%	0.0415%	0.3926%
Enbridge Income Fund Holdings Inc	ENF	70.351	34.530	2,429	0.0000%	4.47%	n/a	0.0000%	n/a
Saputo Inc	SAP	392.510	30.210	11,858	0.8367%	1.72%	6.67%	0.0144%	0.0558%
Pembina Pipeline Corp Secure Energy Services Inc	PPL SES	332.338 136.107	40.370 12.780	13,416 1,739	0.9467% 0.0000%	4.53% 1.88%	6.60% n/a	0.0429% 0.0000%	0.0625% n/a
Ritchie Bros Auctioneers Inc	RBA	106.045	34.850	3,696	0.2608%	2.01%	13.22%	0.0052%	0.0345%
Seven Generations Energy Ltd	VII	245.153	16.320	4,001	0.0000%	n/a	n/a	n/a	n/a
Performance Sports Group Ltd	PSG	45.526	22.480	1,023	0.0000%	n/a	13.69%	n/a	0.0000%
Gildan Activewear Inc	GIL	242.394	41.490	10,057	0.7097%	0.77%	17.15%	0.0055%	0.1217%
Descartes Systems Group Inc/The	DSG	75.495	20.050	1,514	0.0000%	n/a	15.00%	n/a	0.0000%
Industrial Alliance Insurance & Financial Services Inc Innergex Renewable Energy Inc	IAG INE	101.174 101.269	42.010 10.620	4,250 1,075	0.2999%	2.67% 5.84%	3.40% n/a	0.0080%	0.0102% n/a
Manulife Financial Corp	MFC	1,970.270	23.210	45,730	3.2269%	2.93%	7.10%	0.0000%	0.2291%
Element Financial Corp	EFN	264.204	19.750	5,218	0.0000%	n/a	n/a	n/a	n/a
FirstService Corp	FSV	34.645	34.720	1,203	0.0849%	1.42%	15.00%	0.0012%	0.0127%
Canadian Pacific Railway Ltd	CP	164.062	200.020	32,816	2.3156%	0.70%	15.30%	0.0162%	0.3544%
Husky Energy Inc	HSE	983.840	23.890	23,504	1.6585%	5.02%	17.30%	0.0833%	0.2869%
Bonavista Energy Corp	BNP	206.603	6.790	1,403	0.0000%	6.19%	n/a	0.0000%	n/a
Baytex Energy Corp Crescent Point Energy Corp	BTE CPG	205.599 452.279	19.430 25.630	3,995 11,592	0.2819% 0.8180%	6.18% 10.77%	-101.42% -14.60%	0.0174% 0.0881%	-0.2859% -0.1194%
Centerra Gold Inc	CG	236.475	7.100	1,679	0.1185%	2.25%	0.50%	0.0027%	0.0006%
Newalta Corp	NAL	56.237	14.220	800	0.0000%	3.52%	n/a	0.0000%	n/a
Alaris Royalty Corp	AD	31.996	30.490	976	0.0000%	5.31%	n/a	0.0000%	n/a
Intact Financial Corp	IFC	131.543	86.790	11,417	0.0000%	2.44%	n/a	0.0000%	n/a
George Weston Ltd	WN	127.919	98.110	12,550	0.8856%	1.73%	36.10%	0.0153%	0.3197%
MEG Energy Corp DREAM Unlimited Corp	MEG DRM	223.847 75.993	20.400 9.690	4,566 736	0.0000% 0.0000%	n/a n/a	n/a n/a	n/a n/a	n/a n/a
PrairieSky Royalty Ltd	PSK	149.409	31.510	4,708	0.0000%	4.13%	n/a	0.0000%	n/a
Cameco Corp	CCO	395.793	17.870	7,073	0.4991%	2.24%	40.91%	0.0112%	0.2042%
Turquoise Hill Resources Ltd	TRQ	2,012.309	4.750	9,558	0.0000%	n/a	n/a	n/a	n/a
Canfor Corp	CFP	134.155	27.200	3,649	0.0000%	n/a	n/a	n/a	n/a
ProMetic Life Sciences Inc	PLI	574.974	2.350	1,351	0.0000%	n/a	n/a	n/a	n/a
Interfor Corp Cott Corp	IFP BCB	70.030	20.490 12.210	1,435	0.0000%	n/a 2.45%	n/a	n/a 0.0000%	n/a
Franco-Nevada Corp	FNV	109.375 156.480	59.570	1,335 9,322	0.0000% 0.6578%	1.74%	n/a 5.00%	0.0000%	n/a 0.0329%
Cenovus Energy Inc	CVE	828.436	19.970	16,544	1.1674%	5.33%	20.40%	0.0622%	0.2381%
AutoCanada Inc	ACQ	24.510	41.300	1,012	0.0000%	2.42%	n/a	0.0000%	n/a
Athabasca Oil Corp	ATH	402.944	2.040	822	0.0000%	n/a	n/a	n/a	n/a
Pretium Resources Inc	PVG	133.422	6.760	902	0.0000%	n/a	n/a	n/a	n/a
Empire Co Ltd	EMP/A	58.049	87.970	5,107	0.3603%	1.36%	7.00%	0.0049%	0.0252%
Loblaw Cos Ltd Metro Inc	L MRU	412.628 248.891	63.080 33.520	26,029 8,343	1.8367% 0.5887%	1.59% 1.39%	14.28% 11.10%	0.0291% 0.0082%	0.2623% 0.0653%
Tourmaline Oil Corp	TOU	216.063	37.520	8,107	0.0000%	n/a	n/a	n/a	n/a
Bank of Montreal	BMO	644.256	74.010	47,681	3.3646%	4.43%	4.40%	0.1491%	0.1480%
Bank of Nova Scotia/The	BNS	1,209.962	64.470	78,006	5.5044%	4.22%	5.73%	0.2322%	0.3156%
Canadian Imperial Bank of Commerce/Canada	CM	397.276	92.070	36,577	2.5810%	4.74%	8.80%	0.1222%	0.2271%
Canadian Western Bank	CWB	80.451	28.770	2,315	0.0000%	3.06%	n/a	0.0000%	n/a
Laurentian Bank of Canada Concordia Healthcare Corp	LB CXR	28.945 33.265	48.140 90.250	1,393 3,002	0.0000% 0.0000%	4.65% 0.42%	n/a n/a	0.0000%	n/a n/a
National Bank of Canada	NA	329.390	46.920	15,455	1.0906%	4.43%	8.30%	0.0483%	0.0905%
Toronto-Dominion Bank/The	TD	1,851.851	53.040	98,222	6.9309%	3.85%	12.00%	0.2666%	0.8317%
Amaya Inc	AYA	133.384	34.220	4,564	0.0000%	n/a	n/a	n/a	n/a
Osisko Gold Royalties Ltd	OR	94.142	15.720	1,480	0.1044%	0.76%	50.00%	0.0008%	0.0522%
Sherritt International Corp	S	297.300	2.090	621	0.0000%	1.91%	n/a	0.0000%	n/a
TORC Oil & Gas Ltd TMX Group Ltd	TOG X	156.916 54.172	8.700 53.150	1,365 2,879	0.0963% 0.0000%	6.21% 3.01%	26.00%	0.0060%	0.0250%
Ensign Energy Services Inc	ESI	54.172 153.060	53.150 12.240	1,873	0.0000%	3.92%	n/a n/a	0.0000%	n/a n/a
Parex Resources Inc	PXT	149.828	10.470	1,569	0.0000%	n/a	n/a	n/a	n/a
Trican Well Service Ltd	TCW	148.918	4.150	618	0.0000%	n/a	10.05%	n/a	0.0000%
Aimia Inc	AIM	164.724	13.600	2,240	0.0000%	5.59%	n/a	0.0000%	n/a
Pure Industrial Real Estate Trust	AAR-U	189.411	4.710	892	0.0000%	6.62%	n/a	0.0000%	n/a
Computer Modelling Group Ltd	CMG	78.543	12.660	994	0.0702%	3.16%	32.70%	0.0022%	0.0229%
Genworth MI Canada Inc Chemtrade Logistics Income Fund	MIC CHE-U	93.172 68.275	32.800 20.300	3,056 1,386	0.0000% 0.0000%	4.76% 5.91%	n/a n/a	0.0000%	n/a n/a
	U	00.273	20.500	1,500	0.000070	J. J. I / U	-1/ a		**/ a
Manitoba Telecom Services Inc	MBT	78.935	27.910	2,203	0.1555%	4.66%	0.70%	0.0072%	0.0011%

Company  Restaurant Brands International Inc Constellation Software Inc/Canada Suncor Energy Inc Parkland Fuel Corp Lundin Mining Corp Novagold Resources Inc Kelt Exploration Ltd Aecon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	CEW DIL/B RY CRR-U	Yield  3.28%  [5]  Shares Outstanding (million)  202.304 21.192 1,445.656 89.708 719.326 317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	(1 + 0.50g)  3.44%  [6]  Price  47.870 495.860 34.400 24.880 5.130 4.290 8.440 12.750 39.490 17.230 25.330 31.490	Growth Rate (g)  10.02%  [7]  Market Capitalization (\$million)  9,684 10,508 49,731 2,232 3,690 1,364 1,337 720 4,008 1,247 2,564	Return  13.46%  [8]  Percent of Total Market Capitalization  0.6834% 0.0000% 0.0000% 0.0000% 0.0000% 0.0000% 0.0000%	[9]  Current Dividend Yield  1.04% 0.99% 3.26% 4.34% n/a n/a n/a 2.51%	[10]  BEst Long- Term Growth Estimate  18.52% n/a 16.90% n/a 22.58% n/a n/a -4.00%	3.68%  [11]  Market Capitalization- Weighted Dividend Yield  0.0071% 0.0000% 0.1143% 0.0000% n/a n/a n/a 0.0016%	Premium  9.78%  [12]  Market Capitalization- Weighted Long Term Growth Estimate  0.1265% n/a 0.5930% n/a 0.0000% n/a -0.0020%
Restaurant Brands International Inc Constellation Software Inc/Canada Suncor Energy Inc Parkland Fuel Corp Lundin Mining Corp Novagold Resources Inc Ketl Exploration Ltd Accon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	QSR CSU SU PKI LUN NG KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	Shares Outstanding (million) 202.304 21.192 1,445.656 89.708 719.326 317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	Price 47.870 495.860 34.400 24.880 5.130 4.290 8.440 12.750 39.490 17.230 25.330 31.490	Market Capitalization (\$million)  9,684 10,508 49,731 2,232 3,690 1,364 1,337 720 4,008 1,247	Percent of Total Market Capitalization  0.6834% 0.0000% 3.5092% 0.0000% 0.0000% 0.0000% 0.0000% 0.0508% 0.0000%	Current Dividend Yield 1.04% 0.99% 3.26% 4.34% n/a n/a 3.14% 2.51%	BEst Long- Term Growth Estimate  18.52% n/a 16.90% n/a 22.58% n/a n/a -4.00%	Market Capitalization- Weighted Dividend Yield  0.0071% 0.0000% 0.1143% 0.0000% n/a n/a n/a	Market Capitalization Weighted Long Term Growth Estimate  0.1265% n/a 0.5930% n/a 0.0000% n/a n/a
Restaurant Brands International Inc Constellation Software Inc/Canada Suncor Energy Inc Parkland Fuel Corp Lundin Mining Corp Novagold Resources Inc Ketl Exploration Ltd Accon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	QSR CSU SU PKI LUN NG KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	Outstanding (million)  202.304 21.192 1,445.656 89.708 719.326 317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	47.870 495.860 34.400 24.880 5.130 4.290 8.440 12.750 39.490 17.230 25.330 31.490	Capitalization (\$million) 9,684 10,508 49,731 2,232 3,690 1,364 1,337 720 4,008 1,247	Market Capitalization  0.6834% 0.0000% 3.5092% 0.0000% 0.0000% 0.0000% 0.0000% 0.0508% 0.0000%	Dividend Yield  1.04% 0.99% 3.26% 4.34% n/a n/a 3.14% 2.51%	Term Growth Estimate  18.52% n/a 16.90% n/a 22.58% n/a n/a -4.00%	Capitalization-Weighted Dividend Yield  0.0071% 0.0000% 0.1143% 0.0000% n/a n/a n/a	Capitalization- Weighted Long- Term Growth Estimate  0.1265% n/a 0.5930% n/a 0.0000% n/a n/a
Constellation Software Inc/Canada Suncor Energy Inc Parkland Fuel Corp Lundin Mining Corp Novagold Resources Inc Kelt Exploration Ltd Aecon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	SU SU PKI LUN NG KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	21.192 1,445.656 89.708 719.326 317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	495.860 34.400 24.880 5.130 4.290 8.440 12.750 39.490 17.230 25.330 31.490	10,508 49,731 2,232 3,690 1,364 1,337 720 4,008 1,247	0.0000% 3.5092% 0.0000% 0.0000% 0.0000% 0.0000% 0.0508% 0.0000%	0.99% 3.26% 4.34% n/a n/a n/a 3.14% 2.51%	n/a 16.90% n/a 22.58% n/a n/a -4.00%	0.0000% 0.1143% 0.0000% n/a n/a n/a	n/a 0.5930% n/a 0.0000% n/a n/a
Constellation Software Inc/Canada Suncor Energy Inc Parkland Fuel Corp Lundin Mining Corp Novagold Resources Inc Kelt Exploration Ltd Aecon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	SU SU PKI LUN NG KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	21.192 1,445.656 89.708 719.326 317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	495.860 34.400 24.880 5.130 4.290 8.440 12.750 39.490 17.230 25.330 31.490	10,508 49,731 2,232 3,690 1,364 1,337 720 4,008 1,247	0.0000% 3.5092% 0.0000% 0.0000% 0.0000% 0.0000% 0.0508% 0.0000%	0.99% 3.26% 4.34% n/a n/a n/a 3.14% 2.51%	n/a 16.90% n/a 22.58% n/a n/a -4.00%	0.0000% 0.1143% 0.0000% n/a n/a n/a	n/a 0.5930% n/a 0.0000% n/a n/a
Parkland Fuel Corp Lundin Mining Corp Novagold Resources Inc Kelt Exploration Ltd Aecon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	SU PKI LUN NG KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	1,445.656 89.708 719.326 317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	34.400 24.880 5.130 4.290 8.440 12.750 39.490 17.230 25.330 31.490	49,731 2,232 3,690 1,364 1,337 720 4,008 1,247	3.5092% 0.0000% 0.0000% 0.0000% 0.0000% 0.0508% 0.0000%	3.26% 4.34% n/a n/a n/a 3.14% 2.51%	16.90% n/a 22.58% n/a n/a -4.00%	0.1143% 0.0000% n/a n/a n/a	0.5930% n/a 0.0000% n/a n/a
Parkland Fuel Corp Lundin Mining Corp Novagold Resources Inc Kelt Exploration Ltd Aecon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	PKI LUN NG KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	89.708 719.326 317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	24.880 5.130 4.290 8.440 12.750 39.490 17.230 25.330 31.490	2,232 3,690 1,364 1,337 720 4,008 1,247	0.0000% 0.0000% 0.0000% 0.0000% 0.0508% 0.0000%	4.34% n/a n/a n/a 3.14% 2.51%	22.58% n/a n/a -4.00%	0.0000% n/a n/a n/a	0.0000% n/a n/a
Novagold Resources Inc Kelt Exploration Ltd Accon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	NG KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	317.862 158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	4.290 8.440 12.750 39.490 17.230 25.330 31.490	1,364 1,337 720 4,008 1,247	0.0000% 0.0000% 0.0508% 0.0000%	n/a n/a 3.14% 2.51%	22.58% n/a n/a -4.00%	n/a n/a	0.0000% n/a n/a
Kelt Exploration Ltd Accon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	KEL ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	158.424 56.448 101.502 72.353 101.212 32.170 95.868 28.127	8.440 12.750 39.490 17.230 25.330 31.490	1,337 720 4,008 1,247	0.0000% 0.0508% 0.0000%	n/a 3.14% 2.51%	n/a -4.00%	n/a	n/a
Aecon Group Inc Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	ARE ACO/X IT TFI BNE CFW DII/B RY CRR-U	56.448 101.502 72.353 101.212 32.170 95.868 28.127	12.750 39.490 17.230 25.330 31.490	720 4,008 1,247	0.0508% 0.0000%	3.14% 2.51%	-4.00%		
Atco Ltd/Canada Intertain Group Ltd/The TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	ACO/X IT TFI BNE CFW DII/B RY CRR-U	101.502 72.353 101.212 32.170 95.868 28.127	39.490 17.230 25.330 31.490	4,008 1,247	0.0000%	2.51%		0.0016%	-0.0020%
Intertain Group Ltd/The FransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	IT TFI BNE CFW DII/B RY CRR-U	72.353 101.212 32.170 95.868 28.127	17.230 25.330 31.490	1,247			,		
TransForce Inc Bonterra Energy Corp Calfrac Well Services Ltd	TFI BNE CFW DII/B RY CRR-U	101.212 32.170 95.868 28.127	25.330 31.490		0.00000/		n/a	0.0000%	n/a
Bonterra Energy Corp Calfrac Well Services Ltd	BNE CFW DII/B RY CRR-U	32.170 95.868 28.127	31.490	2.564	0.0000%	n/a	n/a	n/a	n/a
Calfrac Well Services Ltd	CFW DII/B RY CRR-U	95.868 28.127			0.0000%	2.68%	n/a	0.0000%	n/a
	DII/B RY CRR-U	28.127		1,013	0.0000%	5.72%	n/a	0.0000%	n/a
	RY CRR-U		7.710	739	0.0000%	3.24%	n/a	0.0000%	n/a
Dorel Industries Inc	CRR-U		33.410	940	0.0663%	4.39%	10.00%	0.0029%	0.0066%
Royal Bank of Canada		1,443.102	76.380	110,224	7.7778%	4.03%	9.05%	0.3136%	0.7039%
Crombie Real Estate Investment Trust		77.248	12.470	963	0.0000%	7.14%	n/a	0.0000%	n/a
Russel Metals Inc	RUS	61.702	22.730	1,402	0.0990%	6.69%	4.50%	0.0066%	0.0045%
Stantec Inc	STN	93.976	36.500	3,430	0.2420%	1.15%	18.00%	0.0028%	0.0436%
Transcontinental Inc	TCL/A	63.246	15.390	973	0.0687%	4.42%	-2.00%	0.0030%	-0.0014%
Bankers Petroleum Ltd	BNK	261.394	3.100	810	0.0000%	n/a	n/a	n/a	n/a
Home Capital Group Inc	HCG	70.226	43.280	3,039	0.0000%	2.03%	n/a	0.0000%	n/a
Gran Tierra Energy Inc Fortuna Silver Mines Inc	GTE FVI	277.211 128.846	3.740 4.550	1,037 586	0.0000%	n/a	n/a	n/a	n/a
Hudson's Bay Co	HBC	182.100	27.750	5,053	0.3566%	n/a 0.72%	n/a 14.64%	n/a 0.0026%	n/a 0.0522%
Painted Pony Petroleum Ltd	PPY	99.651	7.960	793	0.0000%	n/a	n/a	n/a	n/a
Linamar Corp	LNR	65.112	81.120	5,282	0.0000%	0.49%	n/a	0.0000%	n/a
Nevsun Resources Ltd	NSU	199.658	4.700	938	0.0000%	4.20%	n/a	0.0000%	n/a
North West Co Inc/The	NWC	48.499	24.760	1,201	0.0000%	4.69%	n/a	0.0000%	n/a
Celestica Inc	CLS	150.238	14.540	2,184	0.0000%	n/a	n/a	n/a	n/a
SEMAFO Inc	SMF	294.086	3.360	988	0.0000%	n/a	-10.00%	n/a	0.0000%
ShawCor Ltd	SCL	64.499	36.590	2,360	0.0000%	1.64%	n/a	0.0000%	n/a
RONA Inc	RON	108.037	15.180	1,640	0.1157%	0.92%	0.38%	0.0011%	0.0004%
Silver Standard Resources Inc	SSO	80.754	7.850	634	0.0000%	n/a	3.00%	n/a	0.0000%
BlackBerry Ltd	BB	529.431	10.210	5,405	0.0000%	n/a	-17.60%	n/a	0.0000%
Granite Real Estate Investment Trust	GRT-U	47.014	42.960	2,020	0.0000%	5.36%	n/a	0.0000%	n/a
Toromont Industries Ltd	TIH	77.577	31.240	2,424	0.1710%	2.18%	7.26%	0.0037%	0.0124%
First Majestic Silver Corp	FR	122.215	6.050	739	0.0000%	n/a	n/a	n/a	n/a
Advantage Oil & Gas Ltd	AAV	170.666	7.900	1,348	0.0000%	n/a	n/a	n/a	n/a
Colliers International Group Inc	CIG	36.643	47.800	1,752	0.1236%	1.05%	20.00%	0.0013%	0.0247%
Dominion Diamond Corp	DDC	85.206	17.500	1,491	0.0000%	2.75%	n/a	0.0000%	n/a
Cogeco Cable Inc	CCA	33.532	72.240	2,422	0.1709%	1.94%	13.37%	0.0033%	0.0229%
Canadian Real Estate Investment Trust	REF-U	71.964	42.450	3,055	0.0000%	4.24%	n/a	0.0000%	n/a
First Capital Realty Inc	FCR	222.046	17.880	3,970	0.0000%	4.81%	n/a	0.0000%	n/a
First Quantum Minerals Ltd	FM	688.967	16.330	11,251	0.7939%	0.60%	52.31%	0.0047%	0.4153%
Pason Systems Inc	PSI	83.609	22.350	1,869	0.0000%	3.04%	n/a	0.0000%	n/a
Rogers Communications Inc	RCI/B	402.304	44.300	17,822	1.2576%	4.33%	3.67%	0.0545%	0.0462%
Jean Coutu Group PJC Inc/The	PJC/A	83.566	23.200	1,939	0.1368%	1.90%	6.40%	0.0026%	0.0088%
Major Drilling Group International Inc	MDI	80.137	6.250	501	0.0000%	0.64%	n/a	0.0000%	n/a
Mullen Group Ltd	MTL	91.654	20.410	1,871	0.0000%	5.88%	n/a	0.0000%	n/a
Maple Leaf Foods Inc	MFI	142.956	23.690	3,387	0.0000%	1.35%	n/a	0.0000%	n/a
HudBay Minerals Inc	HBM	235.054	10.400	2,445	0.1725%	0.19%	43.00%	0.0003%	0.0742%
Labrador Iron Ore Royalty Corp	LIF	64.000	14.260	913	0.0644%	7.01%	15.20%	0.0045%	0.0098%
Dream Office Real Estate Investment Trust	D-U	108.123	24.540	2,653	0.0000%	9.13%	n/a	0.0000%	n/a
CCL Industries Inc	CCL/B	32.436	153.200	4,969	0.0000%	0.98%	n/a	0.0000%	n/a
Extendicare Inc	EXE	87.530	7.570	663	0.0000%	6.34%	n/a	0.0000%	n/a
Superior Plus Corp	SPB	126.185	12.560	1,585	0.0000%	5.73%	n/a	0.0000%	n/a
Freehold Royalties Ltd	FRU	97.990	16.140	1,582	0.0000%	6.69%	n/a	0.0000%	n/a
Encana Corp	ECA	840.818	13.770	11,578	0.8170%	2.51%	-9.50%	0.0205%	-0.0776%
Westshore Terminals Investment Corp	WTE	74.250	30.410	2,258	0.0000%	4.34%	n/a	0.0000%	n/a
Northland Power Inc	NPI CAR-U	167.951	15.820 27.600	2,657	0.0000%	6.83%	n/a	0.0000%	n/a
Canadian Apartment Properties REIT Inter Pipeline Ltd	IPL	116.433 334.580	28.700	3,214 9,602	0.0000%	4.42% 5.12%	n/a n/a	0.0000%	n/a n/a

		[1]	[2]	[3]	[4]			[13]	[14]
		Dividend Yield	Dividend Yield x (1 + 0.50g)	Expected Growth Rate (g)	Secondary Market Investor Required Return			Forecast Canadian Government Bond 30 Year	Equity Risk Premium
S&P/TSX UTILITIES INDEX		3.28%	3.44%	10.02%	13.46%			3.68%	9.78%
		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12] Market
Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Capitalization- Weighted Long Term Growth Estimate
Peyto Exploration & Development Corp	PEY	158.958	30.530	4,853	0.0000%	4.32%	n/a	0.0000%	n/a
Avigilon Corp	AVO	46.638	16.840	785	0.0000%	n/a	n/a	n/a	n/a
Algonquin Power & Utilities Corp	AQN	238.132	9.360	2,229	0.0000%	5.08%	n/a	0.0000%	n/a
Veresen Inc	VSN	289.167	16.890	4,884	0.0000%	5.92%	n/a	0.0000%	n/a
Dream Global Real Estate Investment Trust	DRG-U	109.015	9.930	1,083	0.0000%	8.06%	n/a	0.0000%	n/a
Smart Real Estate Investment Trust	SRU-U	124.504	28.920	3,601	0.0000%	5.54%	n/a	0.0000%	n/a
Alacer Gold Corp	ASR	290.918	2.930	852	0.0000%	n/a	-0.18%	n/a	0.0000%
Pan American Silver Corp AltaGas Ltd	PAA ALA	151.643	10.740	1,629 5,129	0.1149%	2.27% 5.05%	4.00%	0.0026%	0.0046%
Cominar Real Estate Investment Trust	CUF-U	134.833 167.877	38.040 17.730	2,976	0.0000%	8.29%	n/a n/a	0.0000%	n/a n/a
DH Corp	DH	105.568	39.920	4,214	0.0000%	3.21%	n/a	0.0000%	n/a
WestJet Airlines Ltd	WJA	107.674	26.360	2,838	0.2003%	2.12%	12.98%	0.0043%	0.0260%
Corus Entertainment Inc	CJR/B	83.343	16.670	1,389	0.0000%	6.84%	n/a	0.0000%	n/a
Emera Inc	EMA	142.101	39.340	5,590	0.0000%	4.07%	n/a	0.0000%	n/a
Birchcliff Energy Ltd	BIR	152.290	6.970	1,061	0.0000%	n/a	n/a	n/a	n/a
MacDonald Dettwiler & Associates Ltd	MDA	36.133	91.270	3,298	0.0000%	1.62%	n/a	0.0000%	n/a
Torex Gold Resources Inc	TXG	785.372	1.130	887	0.0000%	n/a	n/a	n/a	n/a
Trinidad Drilling Ltd	TDG	133.425	4.040	539	0.0000%	4.95%	n/a	0.0000%	n/a
Just Energy Group Inc Progressive Waste Solutions Ltd	JE BIN	146.559 115.180	6.510 33.500	954 3,859	0.0000% 0.2723%	7.68% 1.91%	n/a 9.40%	0.0000% 0.0052%	n/a 0.0256%
Northern Property Real Estate Investment Trust	NPR-U	31.822	22.380	712	0.0000%	7.28%	n/a	0.0002/6	n/a
Allied Properties Real Estate Investment Trust	AP-U	77.283	35.440	2,739	0.0000%	4.12%	n/a	0.0000%	n/a
Keyera Corp	KEY	168.832	41.700	7,040	0.0000%	3.31%	n/a	0.0000%	n/a
Power Financial Corp	PWF	711.174	35.870	25,510	1.8001%	4.15%	12.60%	0.0748%	0.2268%
NuVista Energy Ltd	NVA	152.992	6.690	1,024	0.0000%	n/a	n/a	n/a	n/a
Canadian Energy Services & Technology Corp	CEU	217.007	7.200	1,562	0.0000%	4.58%	n/a	0.0000%	n/a
Barrick Gold Corp	ABX	1,164.670	13.350	15,548	1.0971%	1.87%	-1.93%	0.0205%	-0.0212%
Crew Energy Inc	CR	140.984	5.710	805	0.0000%	n/a	n/a	n/a	n/a
Cineplex Inc	CGX	63.067	47.020	2,965	0.0000%	3.32%	n/a	0.0000%	n/a
BCE Inc	BCE	847.646	53.060	44,976	3.1737%	4.90%	5.07%	0.1555%	0.1609%
Chartwell Retirement Residences Trilogy Energy Corp	CSH-U TET	174.165 105.240	11.480 5.650	1,999 595	0.0000%	4.80% n/a	n/a n/a	0.0000% n/a	n/a n/a
Black Diamond Group Ltd	BDI	41.086	17.510	719	0.0000%	5.48%	n/a	0.0000%	n/a
Surge Energy Inc	SGY	220.060	3.540	779	0.0000%	8.47%	n/a	0.0000%	n/a
Artis Real Estate Investment Trust	AX-U	134.866	13.710	1,849	0.0000%	7.88%	n/a	0.0000%	n/a
Potash Corp of Saskatchewan Inc	POT	834.228	38.680	32,268	2.2769%	5.01%	6.00%	0.1141%	0.1366%
Detour Gold Corp	DGC	170.563	14.370	2,451	0.0000%	n/a	7.00%	n/a	0.0000%
TransCanada Corp	TRP	708.941	50.760	35,986	0.0000%	4.10%	n/a	0.0000%	n/a
OceanaGold Corp	OGC	303.255	3.090	937	0.0661%	1.62%	-3.00%	0.0011%	-0.0020%
Enerflex Ltd	EFX	78.999	13.500	1,066	0.0000%	2.52%	n/a	0.0000%	n/a
B2Gold Corp	BTO	921.483	1.910	1,760	0.0000%	n/a	51.43%	n/a	0.0000%
Valeant Pharmaceuticals International Inc	VRX	340.859	277.070	94,442	0.0000%	n/a	16.10%	n/a	0.0000%
Dollarama Inc Capital Power Corp	DOL CPX	129.356 103.219	75.700 21.540	9,792 2,223	0.6910% 0.0000%	0.48% 6.31%	16.78% n/a	0.0033%	0.1159% n/a
Eldorado Gold Corp	ELD	716.587	5.180	3,712	0.2619%	0.31%	13.90%	0.0000%	0.0364%
Onex Corp	OCX	111.049	69.110	7,675	0.0000%	0.36%	n/a	0.0000%	n/a
Tahoe Resources Inc	THO	224.000	15.140	3,391	0.2393%	1.96%	4.77%	0.0047%	0.0114%
Imperial Oil Ltd	IMO	847.599	48.250	40,897	0.0000%	1.08%	n/a	0.0000%	n/a
Air Canada	AC	286.835	13.210	3,789	0.0000%	n/a	40.13%	n/a	0.0000%
ATS Automation Tooling Systems Inc	ATA	91.630	15.290	1,401	0.0000%	n/a	n/a	n/a	n/a
Brookfield Renewable Energy Partners LP/CA	BEP-U	143.401	37.140	5,326	0.0000%	5.58%	n/a	0.0000%	n/a
Alimentation Couche-Tard Inc	ATD/B	419.263	53.430	22,401	1.5807%	0.34%	17.98%	0.0053%	0.2841%
Pacific Exploration and Production Corp	PRE	316.095	4.710	1,489	0.0000%	n/a	n/a	n/a	n/a
Brookfield Property Partners LP Agnico Eagle Mines Ltd	BPY-U AEM	255.863 216.202	27.620 35.460	7,067 7,667	0.0000% 0.5410%	4.79% 1.12%	n/a 4.40%	0.0000% 0.0061%	n/a 0.0238%
Agnico Eagle Mines Ltd Bombardier Inc	BBD/B	1,932.014	2.250	4,347	0.0000%	n/a	6.44%	0.0061% n/a	0.0238%
TELUS Corp	Т	605.501	43.030	26,055	1.8385%	3.90%	8.00%	0.0718%	0.1471%
Penn West Petroleum Ltd	PWT	502.163	2.150	1,080	0.0000%	1.86%	n/a	0.0000%	n/a
CAE Inc	CAE	267.181	14.870	3,973	0.2803%	1.88%	10.85%	0.0053%	0.0304%
Canadian Natural Resources Ltd	CNQ	1,094.180	33.900	37,093	2.6174%	2.71%	9.20%	0.0710%	0.2408%
DHX Media Ltd	DHX/B	79.885	9.340	746	0.0000%	0.60%	n/a	0.0000%	n/a
Canadian Tire Corp Ltd	CTC/A	73.603	133.580	9,832	0.6938%	1.57%	8.41%	0.0109%	0.0583%
Primero Mining Corp	P	162.264	4.870	790	0.0000%	n/a	48.78%	n/a	0.0000%
Canadian Utilities Ltd	CU	189.373	35.970	6,812	0.0000%	3.28%	n/a	0.0000%	n/a
Western Forest Products Inc	WEF	395.065	2.230	881	0.0000%	3.59%	n/a	0.0000%	n/a
									0.000001
CGI Group Inc	GIB/A	281.744	48.850	13,763	0.0000%	n/a	11.55%	n/a	0.0000%
CGI Group Inc EnerCare Inc New Gold Inc	GIB/A ECI NGD	281.744 91.941 509.083	48.850 13.300 3.350	13,763 1,223 1,705	0.0000% 0.0000% 0.0000%	n/a 6.32% n/a	11.55% n/a 3.50%	n/a 0.0000% n/a	n/a 0.0000%

		[1] Dividend Yield	[2] Dividend Yield x (1 + 0.50g)	Expected Growth Rate (g)	Secondary Market Investor Required Return			Forecast Canadian Government Bond 30 Year	[14] Equity Risk Premium
S&P/TSX UTILITIES INDEX		3.28%	3.44%	10.02%	13.46%			3.68%	9.78%
		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Market Capitalization- Weighted Long- Term Growth Estimate
Finning International Inc	FTT	172.374	23.490	4,049	0.2857%	3.11%	10.00%	0.0089%	0.0286%
Badger Daylighting Ltd	BAD	37.046	26.190	970	0.0000%	1.37%	n/a	0.0000%	
Canaccord Genuity Group Inc	CF	102.621	7.780	798	0.0000%	2.57%	n/a	0.0000%	n/a n/a
Fortis Inc/Canada	FTS	277.493	35.080	9,734	0.0000%	3.88%	n/a	0.0000%	n/a
Goldcorp Inc	G	829.793	20.270	16,820	1.1869%	3.65%	14.20%	0.0433%	0.1685%
Great-West Lifeco Inc	GWO	996.699	36.360	36,240	2.5572%	3.59%	10.00%	0.0917%	0.2557%
BRP Inc/CA	DOO	39.215	29.190	1,145	0.0000%	n/a	10.00%	n/a	0.0000%
Enbridge Inc	ENB	856.713	58.410	50,041	3.5310%	3.18%	5.50%	0.1124%	0.1942%
IGM Financial Inc	IGM	249.490	39.780	9,925	0.7003%	5.66%	5.30%	0.0396%	0.0371%
Magna International Inc	MG	410.776	70.100	28,795	2.0319%	1.57%	10.18%	0.0319%	0.2068%
Great Canadian Gaming Corp	GC	69.782	24.010	1,675	0.0000%	n/a	n/a	n/a	n/a
Precision Drilling Corp	PD	292.823	8.400	2,460	0.1736%	3.33%	-27.28%	0.0058%	-0.0473%
Paramount Resources Ltd	POU	106.188	28.700	3,048	0.0000%	n/a	-5.00%	n/a	0.0000%
Shaw Communications Inc	SJR/B	448.986	27.200	12,212	0.8618%	4.36%	5.71%	0.0375%	0.0492%
SNC-Lavalin Group Inc	SNC	152.142	41.960	6,384	0.0000%	2.38%	n/a	0.0000%	n/a
Martinrea International Inc	MRE	85.756	13.350	1,145	0.0808%	0.90%	22.10%	0.0007%	0.0179%
Teck Resources Ltd	TCK/B	566.863	12.380	7,018	0.4952%	2.42%	23.49%	0.0120%	0.1163%
Boardwalk Real Estate Investment Trust	BEI-U	47.479	56.630	2,689	0.0000%	3.60%	n/a	0.0000%	n/a
Thomson Reuters Corp	TRI	784.473	47.560	37,310	2.6327%	3.44%	8.35%	0.0907%	0.2198%
Whitecap Resources Inc	WCP	298.023	13.180	3,928	0.0000%	5.69%	n/a	0.0000%	n/a
Agrium Inc	AGU	143.250	132.370	18,962	1.3380%	3.26%	20.90%	0.0437%	0.2796%
Norbord Inc	NBD	85.323	26.210	2,236	0.0000%	3.82%	n/a	0.0000%	n/a
Pengrowth Energy Corp	PGF	539.684	3.120	1,684	0.0000%	7.69%	n/a	0.0000%	n/a
Kinross Gold Corp	K	1,146.211	2.910	3,335	0.0000%	n/a	-4.80%	n/a	0.0000%
RioCan Real Estate Investment Trust	REI-U	317.127	26.770	8,489	0.0000%	5.27%	n/a	0.0000%	n/a
TransAlta Corp	TA	278.670	9.680	2,698	0.1903%	7.44%	31.60%	0.0142%	0.0601%
Bellatrix Exploration Ltd	BXE	191.957	2.910	559	0.0000%	n/a	n/a	n/a	n/a
Gibson Energy Inc	GEI	125.616	22.550	2,833	0.0000%	5.68%	n/a	0.0000%	n/a
Vermilion Energy Inc	VET	109.261	53.950	5,895	0.4159%	4.78%	3.14%	0.0199%	0.0131%
CI Financial Corp	CIX	283.439	33.600	9,524	0.6720%	3.93%	12.69%	0.0264%	0.0853%
Yamana Gold Inc	YRI	941.575	3.760	3,540	0.2498%	1.97%	9.70%	0.0049%	0.0242%
Silver Wheaton Corp	SLW	404.098	21.650	8,749	0.6173%	1.11%	14.50%	0.0069%	0.0895%
Mitel Networks Corp	MNW	119.915	11.080	1,329	0.0000%	n/a	15.00%	n/a	0.0000%
WSP Global Inc Ouebecor Inc	WSP	89.632 83.900	39.310 31.220	3,523	0.0000% 0.1848%	3.82% 0.45%	n/a 6.87%	0.0000%	n/a 0.0127%
· · · · · · · · · · · · · · · · · · ·	QBR/B ITP			2,619					
Intertape Polymer Group Inc	POW	59.587 412.437	18.720 31.940	1,115 13,173	0.0000%	3.16% 3.90%	n/a	0.0000%	n/a
Power Corp of Canada Alamos Gold Inc	AGI	412.43/ n/a	31.940 n/a			3.90% n/a	n/a 33.00%	n/a	n/a 0.0000%
Open Text Corp	OTC	n/a 122.224	50.730	6,200	0.0000%	n/a 1.97%	33.00% n/a	n/a 0.0000%	n/a
Canadian National Railway Co	CNR	802.701	72.060	57,843	4.0816%	1.73%	11.30%	0.0708%	0.4612%
Canadian Oil Sands Ltd	COS	484.614	10.100	4,895	0.3454%	1.73%	5.37%	0.0708%	0.4612%
IAMGOLD Corp	IMG	391.336	2.500	978	0.0000%	n/a	0.50%	n/a	0.0105%
Sierra Wireless Inc	SW	32.134	31.030	997	0.0000%	n/a	n/a	n/a	n/a
ARC Resources Ltd	ARX	340.028	21.400	7,277	0.5135%	5.61%	3.60%	0.0288%	0.0185%
Enerplus Corp	ERF	206.215	10.960	2,260	0.1595%	5.47%	-19.62%	0.02887%	-0.0313%
Raging River Exploration Inc	RRX	197.666	8.730	1,726	0.0000%	n/a	n/a	n/a	n/a
Average for Companies Paying Dividends wi				1,720	0.000070	2.80%	13.15%	3.28%	10.02%

Notes:

[1] Equals sum of Column [11]
[2] Equals Column [1] x (1 + 0.5 x Column [3])
[3] Equals sum of Column [12]
[4] Equals Column [2] + Column [3]
[5] Source: Bloomberg Finance L.P., as of September 2, 2015
[6] Source: Bloomberg Finance L.P., as of September 2, 2015

<sup>[7]</sup> Equals Column [5] x Column [6]

<sup>[8]</sup> Equals percent of sum of Column [7] if Current Dividend Yield does not equal "n/a" and Best Long-Term Growth Estimate does not equal "n/a" and is greater than 0%

<sup>[9]</sup> Source: Bloomberg Finance L.P., as of September 2, 2015 [10] Source: Bloomberg Finance L.P., as of September 2, 2015

<sup>[11]</sup> Equals Column [8] x Column [9]

<sup>[13]</sup> Equals Column [8] x Column [7] [12] Equals Column [8] x Column [8

	[1]	[2] Dividend	[3]	[4] Secondary	[13] Forecast US	[14]
	Dividend Yield	Yield x (1 + 0.50g)	Expected Growth Rate (s	Market Investor g) Required Return	Government 30 Year Yield	Equity Risk Premium
S&P 500	2.58%	2.71%	9.66%	12.37%	4.29%	8.08%

		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Market Capitalization- Weighted Long Term Growth Estimate
3337,1137		(mms.r)		(#***********	Supramon				
Alcoa Inc	AA	1,309.818	9.450	12,378	0.0804%	1.27%	5.00%	0.0010%	0.0040%
LyondellBasell Industries NV	LYB	465.875	85.380	39,776	0.2583%	3.65%	5.67%	0.0094%	0.0146%
American Express Co Verizon Communications Inc	AXP VZ	1,001.283 4,065.691	76.720 46.010	76,818 187,062	0.4988% 1.2146%	1.51% 4.78%	9.62% 7.42%	0.0075% 0.0581%	0.0480%
Avago Technologies Ltd	AVGO	259.730	125.970	32,718	0.2124%	1.27%	21.18%	0.0027%	0.0450%
Boeing Co/The	BA	679.495	130.680	88,796	0.5765%	2.79%	11.28%	0.0161%	0.0651%
Caterpillar Inc	CAT	602.633	76.440	46,065	0.2991%	4.03%	9.00%	0.0121%	0.0269%
JPMorgan Chase & Co	JPM	3,698.100	64.100	237,048	1.5391%	2.75%	6.70%	0.0423%	0.1031%
Chevron Corp	CVX	1,881.735	80.990	152,402	0.9895%	5.28%	-2.02%	0.0523%	-0.0200%
Coca-Cola Co/The	KO	4,350.004	39.320	171,042	1.1105%	3.36%	6.40%	0.0373%	0.0710%
AbbVie Inc	ABBV	1,655.276	62.410	103,306	0.6707%	3.27%	8.55%	0.0219%	0.0573%
Walt Disney Co/The	DIS	1,687.858	101.880	171,959	1.1165%	1.30%	11.43%	0.0145%	0.1276%
EI du Pont de Nemours & Co Exxon Mobil Corp	DD XOM	904.838 4,169.449	51.500 75.240	46,599 313,709	0.3026% 2.0368%	2.95% 3.88%	3.40% 11.36%	0.0089% 0.0790%	0.0103% 0.2313%
Phillips 66	PSX	537.660	79.070	42,513	0.2760%	2.83%	3.54%	0.0078%	0.231376
General Electric Co	GE	10,096.429	24.820	250,593	1.6270%	3.71%	7.92%	0.0603%	0.1289%
Hewlett-Packard Co	HPQ	1,806.415	28.060	50,688	0.3291%	2.51%	4.01%	0.0083%	0.0132%
Home Depot Inc/The	HD	1,284.103	116.460	149,547	0.9710%	2.03%	13.64%	0.0197%	0.1324%
International Business Machines Corp	IBM	979.530	147.890	144,863	0.9406%	3.52%	6.65%	0.0331%	0.0625%
Johnson & Johnson	JNJ	2,769.106	93.980	260,241	1.6897%	3.19%	5.97%	0.0539%	0.1009%
McDonald's Corp	MCD	941.810	95.020	89,491	0.5810%	3.58%	7.89%	0.0208%	0.0459%
Merck & Co Inc	MRK	2,816.635	53.850	151,676	0.9848%	3.34%	6.33%	0.0329%	0.0624%
3M Co Bank of America Corp	MMM BAC	624.745 10,438.420	142.140 16.340	88,801 170,564	0.5766% 1.1074%	2.88% 1.22%	8.90% 6.65%	0.0166% 0.0136%	0.0513% 0.0736%
Pfizer Inc	PFE	6,167.348	32.220	198,712	1.2902%	3.48%	2.05%	0.0448%	0.0264%
Procter & Gamble Co/The	PG	2,713.146	70.670	191,738	1.2449%	3.75%	6.70%	0.0467%	0.0834%
AT&T Inc	T	6,151.000	33.200	204,213	1.3259%	5.66%	3.72%	0.0751%	0.0493%
Travelers Cos Inc/The	TRV	311.206	99.550	30,981	0.2011%	2.45%	8.62%	0.0049%	0.0173%
United Technologies Corp	UTX	890.598	91.610	81,588	0.5297%	2.79%	8.71%	0.0148%	0.0461%
Analog Devices Inc	ADI	313.675	55.860	17,522	0.1138%	2.86%	11.38%	0.0033%	0.0129%
Wal-Mart Stores Inc	WMT	3,220.549	64.730	208,466	1.3535%	3.03%	5.23%	0.0410%	0.0708%
Cisco Systems Inc	CSCO	5,085.889	25.880	131,623	0.8546%	3.25%	8.36%	0.0277%	0.0714%
Intel Corp General Motors Co	INTC GM	4,754.000 1,583.997	28.540 29.440	135,679 46,633	0.8809%	3.36% 4.89%	7.99% 11.86%	0.0296% 0.0148%	0.0704%
Microsoft Corp	MSFT	7,997.981	43.520	348,072	2.2599%	2.85%	10.47%	0.0644%	0.2366%
Dollar General Corp	DG	294.660	74.490	21,949	0.1425%	1.18%	11.85%	0.0017%	0.0169%
Kinder Morgan Inc/DE	KMI	2,191.937	32.410	71,041	0.4612%	6.05%	9.33%	0.0279%	0.0430%
Citigroup Inc	C	3,009.845	53.480	160,967	1.0451%	0.37%	20.61%	0.0039%	0.2154%
American International Group Inc	AIG	1,293.887	60.340	78,073	0.5069%	1.86%	9.04%	0.0094%	0.0458%
Honeywell International Inc	HON	781.762	99.270	77,606	0.5039%	2.09%	9.51%	0.0105%	0.0479%
Altria Group Inc	MO	1,960.695	53.580	105,054	0.6821%	4.22%	7.59%	0.0288%	0.0518%
HCA Holdings Inc	HCA	415.192	86.620	35,964	0.0000%	n/a	10.75%	n/a	0.0000%
Under Armour Inc International Paper Co	UA IP	179.962 417.741	95.530 43.140	17,192 18,021	0.0000% 0.1170%	n/a 3.71%	22.75% 8.28%	n/a 0.0043%	0.0000%
Abbott Laboratories	ABT	1,490.441	45.290	67,502	0.4383%	2.12%	12.28%	0.0043%	0.0538%
Aflac Inc	AFL	430.694	58.600	25,239	0.1639%	2.66%	8.79%	0.0044%	0.033676
Air Products & Chemicals Inc	APD	214.982	139.530	29,996	0.1948%	2.32%	9.10%	0.0045%	0.0177%
Airgas Inc	ARG	74.654	96.520	7,206	0.0468%	2.49%	9.08%	0.0012%	0.0042%
Royal Caribbean Cruises Ltd	RCL	219.944	88.160	19,390	0.1259%	1.36%	20.54%	0.0017%	0.0259%
American Electric Power Co Inc	AEP	490.560	54.290	26,633	0.1729%	3.91%	5.10%	0.0068%	0.0088%
Hess Corp	HES	287.058	59.450	17,066	0.1108%	1.68%	-3.78%	0.0019%	-0.0042%
Anadarko Petroleum Corp	APC	508.012	71.580	36,363	0.2361%	1.51%	8.33%	0.0036%	0.0197%
Aon PLC	AON	280.043	93.440	26,167	0.1699%	1.28%	11.04%	0.0022%	0.0188%
Apache Corp Archer-Daniels-Midland Co	APA ADM	377.987 608.940	45.240 44.990	17,100 27,396	0.1110% 0.1779%	2.21% 2.49%	8.50% 4.21%	0.0025%	0.0094% 0.0075%
AGL Resources Inc	GAS	120.088	60.990	7,324	0.0476%	3.34%	6.50%	0.0016%	0.007576
Automatic Data Processing Inc	ADP	465.810	77.320	36,016	0.2338%	2.53%	10.40%	0.0059%	0.0243%
AutoZone Inc	AZO	30.872	715.990	22,104	0.0000%	n/a	13.79%	n/a	0.0000%
Avery Dennison Corp	AVY	91.438	58.080	5,311	0.0345%	2.55%	7.35%	0.0009%	0.0025%
Baker Hughes Inc	BHI	435.882	56.000	24,409	0.1585%	1.21%	8.15%	0.0019%	0.0129%
Ball Corp	BLL	137.328	65.910	9,051	0.0588%	0.79%	9.07%	0.0005%	0.0053%
Bank of New York Mellon Corp/The	BK	1,106.518	39.800	44,039	0.2859%	1.71%	12.10%	0.0049%	0.0346%
CR Bard Inc	BCR	74.199	193.790	14,379	0.0934%	0.50%	10.00%	0.0005%	0.0093%
Baxter International Inc Becton Dickinson and Co	BAX	545.539 210.254	38.450	20,976	0.1362%	1.20%	5.62%	0.0016%	0.0076%
Berkshire Hathaway Inc	BDX BRK/B	210.254	141.020	29,650 167,197	0.1925% 0.0000%	1.70%	11.09% 5.80%		0.0213%
Best Buy Co Inc	BBY	1,247.366 352.771	134.040 36.740	12,961	0.0842%	n/a 2.50%	10.69%	n/a 0.0021%	0.0000%
H&R Block Inc	HRB	276.285	34.020	9,399	0.0610%	2.35%	11.00%	0.0021%	0.0050%
Boston Scientific Corp	BSX	1,343.957	16.740	22,498	0.0000%	n/a	9.72%	n/a	0.0000%
Bristol-Myers Squibb Co	BMY	1,667.503	59.470	99,166	0.6439%	2.49%	13.58%	0.0160%	0.0875%
	BF/B	121.963	98.100	11,965	0.0777%	1.28%	8.80%	0.0010%	0.0068%
Brown-Forman Corp	DF/D	121.703	20.100	11,505			0.000	0100000	0.0272%

	[1]	[2]	[3]	[4]	[13]	[14]
	Dividend Yield	Dividend Yield x (1 + 0.50g)	Expected Growth Rate (g	Secondary Market Investor () Required Return	Forecast US Government 30 Year Yield	Equity Risk Premium
S&P 500	2.58%	2.71%	9.66%	12.37%	4.29%	8.08%

		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Market Capitalization- Weighted Long- Term Growth Estimate
Campbell Soup Co	CPB	310.521	47.990	14,902	0.0968%	2.60%	3.64%	0.0025%	0.0035%
Kansas City Southern	KSU	110.360	92.740	10,235	0.0665%	1.42%	11.38%	0.002376	0.0076%
Carnival Corp	CCL	593.457	49.230	29,216	0.1897%	2.44%	17.12%	0.0046%	0.0325%
Qorvo Inc	QRVO	149.531	55.510	8,300	0.0000%	n/a	16.84%	n/a	0.0000%
CenturyLink Inc	CTL	562.986	27.040	15,223	0.0988%	7.99%	-1.74%	0.0079%	-0.0017%
Chubb Corp/The	CB	226.977	120.810	27,421	0.1780%	1.89%	7.73%	0.0034%	0.0138%
Cigna Corp	CI	257.495	140.790	36,253	0.2354%	0.03%	11.36%	0.0001%	0.0267%
Frontier Communications Corp	FTR	1,168.207	5.070	5,923	0.0385%	8.28%	3.00%	0.0032%	0.0012%
Clorox Co/The	CLX	128.644	111.170	14,301	0.0929%	2.77%	7.05%	0.0026%	0.0065%
CMS Energy Corp	CMS	276.668	32.780	9,069	0.0589%	3.54%	6.03%	0.0021%	0.0036%
Coca-Cola Enterprises Inc	CCE	229.086	51.490	11,796	0.0766%	2.18%	6.19%	0.0017%	0.0047%
Colgate-Palmolive Co	CL	900.132	62.810	56,537	0.3671%	2.42%	8.41%	0.0089%	0.0309%
Comerica Inc	CMA	177.929	44.000	7,829	0.0508%	1.91%	9.41%	0.0010%	0.0048%
CA Inc	CA	441.305	27.290	12,043	0.0782%	3.66%	5.70%	0.0029%	0.0045%
Computer Sciences Corp	CSC	138.332	61.990	8,575	0.0557%	1.48%	9.30%	0.0008%	0.0052%
ConAgra Foods Inc	CAG	431.735	41.680	17,995	0.1168%	2.40%	-3.05%	0.0028%	-0.0036%
Consolidated Edison Inc	ED	292.872	62.910	18,425	0.1196%	4.13%	3.33%	0.0049%	0.0040%
SL Green Realty Corp	SLG	99.707	103.510	10,321	0.0670%	2.32%	5.78%	0.0016%	0.0039%
Corning Inc	GLW	1,225.935	17.210	21,098	0.1370%	2.79%	1.28%	0.0038%	0.0018%
CSX Corp	CSX	983.737	27.380	26,935	0.1749%	2.63%	9.53%	0.0046%	0.0167%
Cummins Inc	CMI	178.650	121.750	21,751	0.1412%	3.20%	9.99%	0.0045%	0.0141%
Danaher Corp	DHR	683.488	87.020	59,477	0.3862%	0.62%	12.73%	0.0024%	0.0491%
Target Corp	TGT	628.430	77.710	48,835	0.3171%	2.88%	9.25%	0.0091%	0.0293%
Deere & Co	DE	328.166	81.780	26,837	0.1742%	2.93%	5.27%	0.0051%	0.0092%
Dominion Resources Inc/VA	D	594.322	69.750	41,454	0.2692%	3.71%	6.40%	0.0100%	0.0172%
Dover Corp	DOV	156.465	61.950	9,693	0.0629%	2.71%	12.00%	0.0017%	0.0076%
Dow Chemical Co/The	DUK	1,158.102 688.330	43.760 70.910	50,679 48,809	0.3290%	3.84% 4.65%	6.93% 4.84%	0.0126% 0.0147%	0.0228%
Duke Energy Corp Eaton Corp PLC	ETN	467.500	57.060	26,676	0.1732%	3.86%	8.51%	0.0147%	0.0155%
Ecolab Inc	ECL	295.092	109.140	32,206	0.1732%	1.21%	13.17%	0.0067%	0.0147%
PerkinElmer Inc	PKI	113.383	48.680	5,519	0.0358%	0.58%	8.54%	0.0023%	0.0031%
EMC Corp/MA	EMC	1,924.726	24.870	47,868	0.3108%	1.85%	10.66%	0.0057%	0.0331%
Emerson Electric Co	EMR	657.140	47.720	31,359	0.2036%	3.94%	5.83%	0.0080%	0.0119%
EOG Resources Inc	EOG	549.171	78.310	43,006	0.2792%	0.86%	-4.17%	0.0024%	-0.0116%
Entergy Corp	ETR	179,528	65,330	11,729	0.0762%	5.08%	4.73%	0.0039%	0.0036%
Equifax Inc	EFX	118.244	97.900	11,576	0.0752%	1.18%	12.67%	0.0009%	0.0095%
EQT Corp	EQT	152.404	77.820	11,860	0.0770%	0.15%	25.00%	0.0001%	0.0193%
XL Group PLC	XL	302.314	37.290	11,273	0.0732%	2.15%	9.50%	0.0016%	0.0070%
FedEx Corp	FDX	282.501	150.610	42,547	0.2763%	0.66%	14.80%	0.0018%	0.0409%
Macy's Inc	M	330.983	58.610	19,399	0.1260%	2.46%	8.78%	0.0031%	0.0111%
FMC Corp	FMC	133.615	42.310	5,653	0.0367%	1.56%	6.75%	0.0006%	0.0025%
Ford Motor Co	F	3,896.986	13.870	54,051	0.3509%	4.33%	15.44%	0.0152%	0.0542%
NextEra Energy Inc	NEE	452.104	98.410	44,492	0.2889%	3.13%	6.01%	0.0090%	0.0174%
Franklin Resources Inc	BEN	613.818	40.580	24,909	0.1617%	1.48%	8.87%	0.0024%	0.0143%
Freeport-McMoRan Inc	FCX	1,040.228	10.640	11,068	0.0719%	1.88%	-16.19%	0.0014%	-0.0116%
TEGNA Inc	TGNA	226.472	23.790	5,388	0.0350%	2.35%	4.08%	0.0008%	0.0014%
Gap Inc/The	GPS	417.355	32.810	13,693	0.0889%	2.80%	10.60%	0.0025%	0.0094%
General Dynamics Corp	GD	322.727	142.030	45,837	0.2976%	1.94%	10.64%	0.0058%	0.0317%
General Mills Inc	GIS	598.738	56.760	33,984	0.2207%	3.10%	7.25%	0.0068%	0.0160%
Genuine Parts Co	GPC	151.597	83.490	12,657	0.0822%	2.95%	9.17%	0.0024%	0.0075%
WW Grainger Inc	GWW	65.975	223.440	14,741	0.0957%	2.09%	11.87%	0.0020%	0.0114%
Halliburton Co	HAL	854.749	39.350	33,634	0.2184%	1.83%	12.60%	0.0040%	0.0275%
Harley-Davidson Inc	HOG	205.967	56.050	11,544	0.0750%	2.21%	11.33%	0.0017%	0.0085%
Harman International Industries Inc	HAR	71.172	97.740	6,956	0.0452%	1.43%	17.00%	0.0006%	0.0077%
Joy Global Inc	JOY	97.454	24.220	2,360	0.0153%	3.30%	13.60%	0.0005%	0.0021%
Harris Corp	HRS	123.592	76.820	9,494	0.0000%	2.60%	n/a	0.0000%	n/a
HCP Inc		462.587	37.060	17,143	0.1113%	6.10%	3.02%	0.0068%	0.0034%
Helmerich & Payne Inc	HP	107.751	59.010	6,358	0.0413%	4.66%	27.51%	0.0019%	0.0114%
Hershey Co/The	HSY	158.765	89.520	14,213	0.0923%	2.61%	8.20%	0.0024%	0.0076%
Hormel Foods Corp Starwood Hotels & Resorts Worldwide Inc	HRL HOT	264.275 170.379	61.100 71.470	16,147 12,177	0.1048% 0.0791%	1.64% 2.10%	6.60% 9.55%	0.0017% 0.0017%	0.0069% 0.0076%
	MDLZ		42.360		0.0791%	1.61%	9.55% 10.86%	0.0017%	0.0076%
Mondelez International Inc	MDLZ	1,611.307	42.560	68,255	0.4432%	1.61%	10.86%	0.00/1%	0.0481%

	[1]	[2]	[3]	[4]	[13]	[14]
	Dividend Yield	Dividend Yield x (1 + 0.50g)	Expected Growth Rate (g	Secondary Market Investor () Required Return	Forecast US Government 30 Year Yield	Equity Risk Premium
S&P 500	2.58%	2.71%	9.66%	12.37%	4.29%	8.08%

		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
									Market
		£1		Madag	D	Current	DE-1	Market	Capitalization-
		Shares Outstanding		Market Capitalization	Percent of Total Market	Dividend	BEst Long- Term Growth	Capitalization- Weighted	Weighted Long- Term Growth
Company	Ticker	(million)	Price	(\$million)	Capitalization	Yield	Estimate	Dividend Yield	Estimate
C . Disp. I	CNID	120.242	40.620	0.044	0.05208/	F 200/	1.050/	0.00200/	0.00220/
CenterPoint Energy Inc Humana Inc	CNP HUM	430.262 148.215	18.620 182.790	8,011 27,092	0.0520%	5.32% 0.63%	4.25% 12.55%	0.0028%	0.0022% 0.0221%
Illinois Tool Works Inc	ITW	366.089	84.530	30,946	0.1759%	2.60%	9.08%	0.0011%	0.0221%
Ingersoll-Rand PLC	IR	265.353	55.290	14,671	0.0953%	2.10%	10.22%	0.0032%	0.018276
Interpublic Group of Cos Inc/The	IPG	410.401	18,880	7,748	0.0503%	2.54%	3.90%	0.002076	0.0020%
International Flavors & Fragrances Inc	IFF	80.586	109.550	8,828	0.0573%	2.04%	9.20%	0.0012%	0.0053%
Jacobs Engineering Group Inc	JEC	123,799	40,410	5,003	0.0000%	n/a	8.42%	n/a	0.0000%
Johnson Controls Inc	JCI	654.069	41.140	26,908	0.1747%	2.53%	10.50%	0.0044%	0.0183%
Hanesbrands Inc	HBI	402.477	30.110	12,119	0.0787%	1.33%	11.25%	0.0010%	0.0089%
Kellogg Co	K	353.581	66.280	23,435	0.1522%	3.02%	5.07%	0.0046%	0.0077%
Perrigo Co PLC	PRGO	146.279	182.970	26,765	0.1738%	0.27%	12.29%	0.0005%	0.0214%
Kimberly-Clark Corp	KMB	364.275	106.530	38,806	0.2520%	3.30%	7.68%	0.0083%	0.0193%
Kimco Realty Corp	KIM	413.135	23.050	9,523	0.0618%	4.16%	4.69%	0.0026%	0.0029%
Kohl's Corp	KSS	197.876	51.030	10,098	0.0656%	3.53%	8.28%	0.0023%	0.0054%
Oracle Corp	ORCL	4,336.077	37.090	160,825	1.0442%	1.62%	7.89%	0.0169%	0.0824%
Kroger Co/The	KR	971.423	34.500	33,514	0.2176%	1.22%	10.42%	0.0026%	0.0227%
Legg Mason Inc	LM	109.708	44.330	4,863	0.0316%	1.80%	15.50%	0.0006%	0.0049%
Leggett & Platt Inc	LEG	136.829	44.420	6,078	0.0000%	2.88%	n/a	0.0000%	n/a
Lennar Corp	LEN	173.937	50.900	8,853	0.0575%	0.31%	20.20%	0.0002%	0.0116%
Leucadia National Corp	LUK	366.603	21.460	7,867	0.0000%	1.17%	n/a	0.0000%	n/a
Eli Lilly & Co	LLY	1,108.541	82.350	91,288	0.5927%	2.43%	10.45%	0.0144%	0.0619%
L Brands Inc	LB	291.964	83.900	24,496	0.1590%	2.38%	10.50%	0.0038%	0.0167%
Lincoln National Corp Loews Corp	LNC L	250.952 363.082	50.790 36.450	12,746 13,234	0.0828%	1.58% 0.69%	10.06% n/a	0.0013%	0.0083% n/a
Lowe's Cos Inc	LOW	932.686	69.170		0.4189%	1.62%	n/a 16.67%	0.0000%	0.0698%
Host Hotels & Resorts Inc	HST	751.123	17.730	64,514 13,317	0.4189%	4.51%	5.00%	0.0039%	0.0043%
Marsh & McLennan Cos Inc	MMC	529.993	53.730	28,477	0.1849%	2.31%	11.53%	0.0035%	0.0213%
Masco Corp	MAS	343.950	26.230	9,022	0.0586%	1.37%	15.39%	0.0008%	0.0090%
Mattel Inc	MAT	338.613	23.430	7,934	0.0515%	6.49%	9.65%	0.0033%	0.0050%
McGraw Hill Einancial Inc	MHEI	272.500	96.990	26,430		1.36%	11.83%	0.0023%	0.0203%
Medtronic PLC	MDT	1,414.189	72.290	102.232	0.6638%	2.10%	9.10%	0.0140%	0.0604%
CVS Health Corp	CVS	1,114.486	102.400	114,123	0.7410%	1.37%	14.68%	0.0101%	0.1088%
Micron Technology Inc	MU	1,083.436	16.410	17,779	0.0000%	n/a	6.49%	n/a	0.0000%
Motorola Solutions Inc	MSI	206.777	64.820	13,403	0.0870%	2.10%	8.80%	0.0018%	0.0077%
Murphy Oil Corp	MUR	172.752	31.000	5,355	0.0348%	4.52%	13.00%	0.0016%	0.0045%
Mylan NV	MYL	491.554	49.590	24,376	0.0000%	n/a	11.00%	n/a	0.0000%
Laboratory Corp of America Holdings	LH	101.100	117.810	11,911	0.0000%	n/a	10.27%	n/a	0.0000%
Tenet Healthcare Corp	THC	99.564	49.230	4,902	0.0000%	n/a	12.33%	n/a	0.0000%
Newell Rubbermaid Inc	NWL	267.800	42.130	11,282	0.0733%	1.80%	9.52%	0.0013%	0.0070%
Newmont Mining Corp	NEM	529.055	17.070	9,031	0.0586%	0.59%	2.10%	0.0003%	0.0012%
Twenty-First Century Fox Inc	FOXA	1,220.940	27.390	33,442	0.2171%	1.10%	15.58%	0.0024%	0.0338%
NIKE Inc	NKE	677.926	111.750	75,758	0.4919%	1.00%	11.21%	0.0049%	0.0552%
NiSource Inc	NI	317.859	16.790	5,337	0.0347%	3.69%	-0.30%	0.0013%	-0.0001%
Noble Energy Inc	NBL	428.034	33.410	14,301	0.0929%	2.16%	3.53%	0.0020%	0.0033%
Norfolk Southern Corp	NSC	301.387	77.910	23,481	0.1525%	3.03%	9.37%	0.0046%	0.0143%
Eversource Energy	ES	317.173	47.240	14,983	0.0973%	3.54%	6.50%	0.0034%	0.0063%
Northrop Grumman Corp	NOC	187.393	163.740	30,684	0.1992%	1.95%	6.57%	0.0039%	0.0131%
Wells Fargo & Co Nucor Corp	WFC NUE	5,133.359 319.600	53.330 43.290	273,762 13,835	1.7775% 0.0898%	2.81% 3.44%	11.71% 12.43%	0.0500%	0.2081% 0.0112%
	PVH				0.0639%			0.0031%	
PVH Corp Occidental Petroleum Corp	OXY	82.692 763.951	118.980 73.010	9,839 55,776	0.3621%	0.13% 4.11%	9.61% 7.00%	0.0001%	0.0061% 0.0253%
Omnicom Group Inc	OMC	242.948	66,980	16,273	0.1057%	2.99%	5.33%	0.0032%	0.0056%
ONEOK Inc	OKE	209.167	36.010	7,532	0.0489%	6.72%	9.63%	0.0032%	0.0047%
Owens-Illinois Inc	OI	160.768	20.850	3,352	0.0000%	n/a	2.37%	n/a	0.0000%
PG&E Corp	PCG	489.166	49.580	24,253	0.1575%	3.67%	6.00%	0.0058%	0.0094%
Parker-Hannifin Corp	PH	138.419	107.660	14,902	0.0968%	2.34%	8.95%	0.0023%	0.0087%
PPL Corp	PPL	669.970	30.990	20,762	0.1348%	4.87%	2.85%	0.0066%	0.0038%
PepsiCo Inc	PEP	1,468.993	92.930	136,514	0.8863%	3.02%	5.96%	0.0268%	0.0528%
Exelon Corp	EXC	861.618	30.760	26,503	0.1721%	4.03%	6.69%	0.0069%	0.0115%
ConocoPhillips	COP	1,233.459	49.150	60,625	0.3936%	6.02%	1.82%	0.0237%	0.0072%
PulteGroup Inc	PHM	352.790	20.690	7,299	0.0474%	1.55%	14.00%	0.0007%	0.0066%
Pinnacle West Capital Corp	PNW	110.814	59.530	6,597	0.0428%	4.00%	5.54%	0.0017%	0.0024%

	[1]	[2]	[3]	[4]	[13]	[14]
	Dividend Yield	Dividend Yield x (1 + 0.50g)	Expected Growth Rate (g	Secondary Market Investor () Required Return	Forecast US Government 30 Year Yield	Equity Risk Premium
S&P 500	2.58%	2.71%	9.66%	12.37%	4.29%	8.08%

		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
									Market
		61		36.1	D		DE . Y	Market	Capitalization-
		Shares Outstanding		Market Capitalization	Percent of Total Market	Current Dividend	BEst Long- Term Growth	Capitalization- Weighted	Weighted Long- Term Growth
Company	Ticker	(million)	Price	(\$million)	Capitalization	Yield	Estimate	Dividend Yield	Estimate
Pitney Bowes Inc	PBI	201.919	19.810	4,000	0.0260%	3.79%	14.00%	0.0010%	0.0036%
Plum Creek Timber Co Inc	PCL	174.729	38.490	6,725	0.0437%	4.57%	11.45%	0.0020%	0.0050%
PNC Financial Services Group Inc/The	PNC	513.600	91.120	46,799	0.3039%	2.24%	7.80%	0.0068%	0.0237%
PPG Industries Inc Prayair Inc	PPG PX	270.721 286.472	95.290 105.750	25,797 30,294	0.1675%	1.51% 2.70%	7.10% 9.00%	0.0025%	0.0119%
Precision Castparts Corp	PCP	137.498	230,250	31,659	0.1967%	0.05%	10.56%	0.0055%	0.0177%
Progressive Corp/The	PGR	585,932	29,960	17,555	0.1140%	2.29%	7.92%	0.0026%	0.00217%
Public Service Enterprise Group Inc	PEG	505.875	40.250	20.361	0.1322%	3.88%	5.67%	0.0051%	0.0075%
Raytheon Co	RTN	303,548	102,560	31,132	0.2021%	2.61%	8.35%	0.0053%	0.0169%
Robert Half International Inc	RHI	134.500	51.030	6,864	0.0446%	1.57%	14.10%	0.0007%	0.0063%
Ryder System Inc	R	53.374	81.970	4,375	0.0284%	2.00%	12.75%	0.0006%	0.0036%
SCANA Corp	SCG	142.917	52.890	7,559	0.0491%	4.12%	5.90%	0.0020%	0.0029%
Edison International	EIX	325.811	58.480	19,053	0.1237%	2.86%	5.68%	0.0035%	0.0070%
Schlumberger Ltd	SLB	1,265.449	77.370	97,908	0.6357%	2.59%	10.12%	0.0164%	0.0643%
Charles Schwab Corp/The	SCHW	1,315.624	30.380	39,969	0.2595%	0.79%	22.39%	0.0021%	0.0581%
Sherwin-Williams Co/The	SHW	93.211	255.810	23,844	0.1548%	1.05%	19.65%	0.0016%	0.0304%
JM Smucker Co/The	SJM	119.667	117.720	14,087	0.0915%	2.28%	8.83%	0.0021%	0.0081%
Snap-on Inc	SNA	58.172	159.770	9,294	0.0603%	1.33%	3.90%	0.0008%	0.0024%
AMETEK Inc	AME	242.164	53.820	13,033	0.0846%	0.67%	10.84%	0.0006%	0.0092%
Southern Co/The BB&T Corp	SO BBT	908.425 779.607	43.410 36.920	39,435 28,783	0.2560%	5.00% 2.93%	4.16% 8.37%	0.0128%	0.0107% 0.0156%
Southwest Airlines Co	LUV	659.356	36.700	24,198	0.1509%	0.82%	18.02%	0.0055%	0.0156%
Southwest Alimes Co Southwestern Energy Co	SWN	384.488	16.240	6,244	0.0000%	n/a	9.29%	n/a	0.028376
Stanley Black & Decker Inc	SWK	153.239	101.520	15,557	0.1010%	2.17%	10.67%	0.0022%	0.0108%
Public Storage	PSA	172.967	201.270	34.813	0.2260%	3.38%	4.60%	0.0076%	0.0104%
SunTrust Banks Inc	STI	514.047	40.370	20,752	0.1347%	2.38%	6.59%	0.0032%	0.0089%
Sysco Corp	SYY	586.766	39.870	23,394	0.1519%	3.01%	8.25%	0.0046%	0.0125%
TECO Energy Inc	TE	235.216	21.070	4,956	0.0322%	4.27%	5.00%	0.0014%	0.0016%
Tesoro Corp	TSO	123.097	92.010	11,326	0.0735%	2.17%	16.42%	0.0016%	0.0121%
Texas Instruments Inc	TXN	1,026.386	47.840	49,102	0.3188%	2.84%	9.23%	0.0091%	0.0294%
Textron Inc	TXT	276.422	38.800	10,725	0.0696%	0.21%	9.26%	0.0001%	0.0064%
Thermo Fisher Scientific Inc	TMO	398.488	125.370	49,958	0.3244%	0.48%	11.30%	0.0016%	0.0367%
Tiffany & Co	TIF	128.947	82.250	10,606	0.0689%	1.95%	11.57%	0.0013%	0.0080%
TJX Cos Inc/The	TJX	674.371	70.320	47,422	0.3079%	1.19%	10.92%	0.0037%	0.0336%
Torchmark Corp	TMK TSS	125.115 183.950	58.460 45.830	7,314	0.0475%	0.92%	8.04% 11.75%	0.0004%	0.0038%
Total System Services Inc Tyco International Plc	TYC	421.516	36.290	8,430 15,297	0.0547%	2.26%	11.03%	0.0005%	0.0064%
Union Pacific Corp	UNP	867.692	85,740	74,396	0.4830%	2.57%	9.03%	0.0022%	0.0436%
UnitedHealth Group Inc	UNH	953,563	115,700	110,327	0.7163%	1.73%	12.53%	0.0124%	0.0897%
Unum Group	UNM	246.681	33.540	8,274	0.0537%	2.21%	8.50%	0.0012%	0.0046%
Marathon Oil Corp	MRO	677.185	17.290	11,709	0.0760%	4.86%	-20.11%	0.0037%	-0.0153%
Varian Medical Systems Inc	VAR	98.717	81.250	8,021	0.0000%	n/a	12.75%	n/a	0.0000%
Ventas Inc	VTR	332.502	55.020	18,294	0.1188%	5.74%	2.89%	0.0068%	0.0034%
VF Corp	VFC	425.642	72.430	30,829	0.2002%	1.77%	12.12%	0.0035%	0.0243%
Vornado Realty Trust	VNO	188.497	87.190	16,435	0.1067%	2.89%	6.26%	0.0031%	0.0067%
ADT Corp/The	ADT	169.933	32.780	5,570	0.0362%	2.56%	6.33%	0.0009%	0.0023%
Vulcan Materials Co	VMC	133.186	93.620	12,469	0.0810%	0.43%	41.23%	0.0003%	0.0334%
Weyerhaeuser Co	WY	514.194	27.940	14,367	0.0933%	4.44%	3.50%	0.0041%	0.0033%
Whirlpool Corp	WHR	78.418	168.100	13,182	0.0856%	2.14%	19.24%	0.0018%	0.0165%
Williams Cos Inc/The	WMB	749.711	48.200	36,136	0.2346%	4.90%	3.75%	0.0115%	0.0088%
WEC Energy Group Inc Xerox Corp	WEC XRX	315.684 1,068.795	47.650 10.170	15,042 10,870	0.0977% 0.0706%	1.96% 2.75%	4.07% 9.00%	0.0019% 0.0019%	0.0040%
Adobe Systems Inc	ADBE	497.645	78.570	39,100	0.0000%	n/a	16.25%	n/a	0.0004%
AES Corp/VA	AES	682.827	12.000	8,194	0.0532%	3.33%	5.20%	0.0018%	0.0028%
Amgen Inc	AMGN	758.250	151.780	115,087	0.7472%	2.08%	8.63%	0.0016%	0.0645%
Apple Inc	AAPL	5,702.722	112.760	643,039	4.1751%	1.84%	16.92%	0.0770%	0.7064%
Autodesk Inc	ADSK	226.199	46.750	10,575	0.0000%	n/a	13.74%	n/a	0.0000%
Cintas Corp	CTAS	110.211	84.990	9,367	0.0608%	1.00%	11.70%	0.0006%	0.0071%
Comcast Corp	CMCSA	2,114.785	56.330	119,126	0.7735%	1.78%	12.68%	0.0137%	0.0981%
Molson Coors Brewing Co	TAP	162.774	68.090	11,083	0.0720%	2.41%	1.55%	0.0017%	0.0011%
KLA-Tencor Corp	KLAC	157.531	50.110	7,894	0.0513%	4.15%	17.27%	0.0021%	0.0089%
Marriott International Inc/MD	MAR	265.888	70.660	18,788	0.1220%	1.42%	14.42%	0.0017%	0.0176%
McCormick & Co Inc/MD	MKC	115.965	79.280	9,194	0.0000%	2.02%	n/a	0.0000%	n/a
Nordstrom Inc	JWN	190.534	72.880	13,886	0.0902%	2.03%	10.12%	0.0018%	0.0091%
		354.968		20.022	0.425007				
PACCAR Inc Costco Wholesale Corp	PCAR COST	439.488	58.970 140.050	20,932 61,550	0.1359% 0.3996%	1.63% 1.14%	7.70% 9.79%	0.0022%	0.0105% 0.0391%

	[1]	[2]	[3]	[4]	[13]	[14]
	Dividend Yield	Dividend Yield x (1 + 0.50g)	Expected Growth Rate (g	Secondary Market Investor ) Required Return	Forecast US Government 30 Year Yield	Equity Risk Premium
S&P 500	2.58%	2.71%	9.66%	12.37%	4.29%	8.08%

		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Market Capitalization- Weighted Long- Term Growth Estimate
Company	Ticker	(million)	Price	(\$million)	Capitalization	1 ieid	Estimate	Dividend Yield	Estimate
Sigma-Aldrich Corp	SIAL	119.804	139.410	16,702	0.1084%	0.66%	5.13%	0.0007%	0.0056%
St Jude Medical Inc	STJ	281.745	70.810	19,950	0.1295%	1.64%	11.40%	0.0021%	0.0148%
Stryker Corp	SYK	376.558	98.650	37,147	0.2412%	1.40%	10.97%	0.0034%	0.0265%
Tyson Foods Inc	TSN	304.359	42.280	12,868	0.0836%	0.95%	6.00%	0.0008%	0.0050%
Altera Corp	ALTR	302.836	48.550	14,703	0.0955%	1.48%	12.27%	0.0014%	0.0117%
Applied Materials Inc Time Warner Inc	AMAT TWX	1,200.619 815.581	16.085 71.100	19,312 57,988	0.1254% 0.3765%	2.49% 1.97%	11.96% 15.14%	0.0031%	0.0150% 0.0570%
Bed Bath & Beyond Inc	BBBY	169,596	62.110	10,534	0.0000%	n/a	6.61%	n/a	0.0000%
American Airlines Group Inc	AAL	671.821	38.980	26,188	0.1700%	1.03%	17.78%	0.0017%	0.0302%
Cardinal Health Inc	CAH	327.359	82.270	26,932	0.1749%	1.88%	10.40%	0.0033%	0.0182%
Celgene Corp	CELG	790.540	118.080	93,347	0.0000%	n/a	23.83%	n/a	0.0000%
Cerner Corp	CERN	345.074	61.760	21,312	0.0000%	n/a	16.78%	n/a	0.0000%
Cincinnati Financial Corp	CINF	164.093	52.330	8,587	0.0000%	3.52%	n/a	0.0000%	n/a
Cablevision Systems Corp	CVC	222.337	25.170	5,596	0.0363%	2.38%	1.84%	0.0009%	0.0007%
DR Horton Inc	DHI	366.778	30.370	11,139	0.0723%	0.82%	21.50%	0.0006%	0.0155%
Flowserve Corp	FLS	133.368	45.130	6,019	0.0391%	1.60%	7.04%	0.0006%	0.0028%
Electronic Arts Inc	EA ESRX	311.746 675.731	66.150 83.600	20,622 56,491	0.0000%	n/a	11.68% 12.12%	n/a	0.0000%
Express Scripts Holding Co Expeditors International of Washington Inc	EXPD	189.160	48.970	9,263	0.0000%	n/a 1.47%	12.12%	n/a 0.0009%	0.0000%
Fastenal Co	FAST	290.165	38,540	11,183	0.0726%	2.91%	15.60%	0.000976	0.007076
M&T Bank Corp	MTB	133,238	118.240	15,754	0.1023%	2.37%	8.09%	0.0024%	0.001376
Fisery Inc	FISV	234.578	85.270	20,002	0.0000%	n/a	12.80%	n/a	0.0000%
Fifth Third Bancorp	FITB	809.290	19.920	16,121	0.1047%	2.61%	4.20%	0.0027%	0.0044%
Gilead Sciences Inc	GILD	1,467.606	105.070	154,201	1.0012%	1.64%	4.40%	0.0164%	0.0440%
Hasbro Inc	HAS	124.903	74.590	9,317	0.0605%	2.47%	10.20%	0.0015%	0.0062%
Huntington Bancshares Inc/OH	HBAN	803.066	10.910	8,761	0.0569%	2.20%	8.64%	0.0013%	0.0049%
Health Care REIT Inc	HCN	351.885	63.350	22,292	0.1447%	5.21%	4.55%	0.0075%	0.0066%
Biogen Inc	BIIB	235.169	297.300	69,916	0.0000%	n/a	14.45%	n/a	0.0000%
Linear Technology Corp	LLTC	239.758	40.280	9,657	0.0627%	2.98%	7.20%	0.0019%	0.0045%
Range Resources Corp Northern Trust Corp	RRC NTRS	169.362 232.853	38.620 69.840	6,541 16,262	0.0425%	0.41% 2.06%	10.45% 13.79%	0.0002% 0.0022%	0.0044%
Pavchex Inc	PAYX	361.206	44.660	16,131	0.1036%	3.76%	9.89%	0.0022%	0.0146%
People's United Financial Inc	PBCT	309.993	15.500	4,805	0.0000%	4.32%	n/a	0.0000%	n/a
Patterson Cos Inc	PDCO	103.376	45.830	4,738	0.0308%	1.92%	8.62%	0.0006%	0.0027%
QUALCOMM Inc	QCOM	1,571.202	56.580	88,899	0.5772%	3.39%	10.80%	0.0196%	0.0623%
Roper Technologies Inc	ROP	100.666	162.090	16,317	0.1059%	0.62%	13.20%	0.0007%	0.0140%
Ross Stores Inc	ROST	411.357	48.620	20,000	0.1299%	0.97%	10.67%	0.0013%	0.0139%
AutoNation Inc	AN	113.441	59.840	6,788	0.0000%	n/a	13.16%	n/a	0.0000%
Starbucks Corp	SBUX	1,484.200	54.710	81,201	0.5272%	1.17%	18.35%	0.0062%	0.0967%
KeyCorp	KEY	840.861	13.740	11,553	0.0750%	2.18%	7.10%	0.0016%	0.0053%
Staples Inc	SPLS	643.566	14.210	9,145	0.0594%	3.38%	0.89%	0.0020%	0.0005%
State Street Corp US Bancorp	STT USB	408.113 1,761.004	71.920 42.350	29,351 74,579	0.1906% 0.4842%	1.89% 2.41%	9.01% 8.12%	0.0036% 0.0117%	0.0172% 0.0393%
Symantec Corp	SYMC	684.173	20.490	14,019	0.4842%	2.93%	8.35%	0.0117%	0.0393%
T Rowe Price Group Inc	TROW	256.213	71.880	18,417	0.1196%	2.89%	11.26%	0.002776	0.0070%
Waste Management Inc	WM	452.250	50.060	22,640	0.1470%	3.08%	7.88%	0.0045%	0.0135%
CBS Corp	CBS	444.408	45.240	20,105	0.1305%	1.33%	15.02%	0.0017%	0.0196%
Allergan plc	AGN	393.636	303.740	119,563	0.0000%	n/a	12.35%	n/a	0.0000%
Whole Foods Market Inc	WFM	357.858	32.760	11,723	0.0761%	1.59%	12.30%	0.0012%	0.0094%
Constellation Brands Inc	STZ	171.987	128.000	22,014	0.1429%	0.97%	12.21%	0.0014%	0.0175%
Xilinx Inc	XLNX	258.658	41.890	10,835	0.0704%	2.96%	8.58%	0.0021%	0.0060%
DENTSPLY International Inc	XRAY	139.808	52.410	7,327	0.0476%	0.55%	9.36%	0.0003%	0.0045%
Zions Bancorporation	ZION	204.170	29.000	5,921	0.0384%	0.83%	8.47%	0.0003%	0.0033%
Invesco Ltd	IVZ	428.719	34.110	14,624	0.0949%	3.17%	11.21%	0.0030%	0.0106%
Intuit Inc Moreon Stanley	INTU	275.669	85.750	23,639	0.1535%	1.40%	17.06%	0.0021%	0.0262%
Morgan Stanley Microchip Technology Inc	MS MCHP	1,953.385 211.091	34.450 42.500	67,294 8,971	0.4369% 0.0582%	1.74% 3.37%	11.93% 4.60%	0.0076% 0.0020%	0.0521% 0.0027%
ACE Ltd	ACE	323.805	102.160	33,080	0.0582%	2.62%	4.60% 8.16%	0.0020%	0.0027%
Chesapeake Energy Corp	CHK	665.367	7.810	5,197	0.2148%	2.0270 n/a	7.98%	n/a	0.0175%
O'Reilly Automotive Inc	ORLY	99.403	240.070	23,864	0.0000%	n/a	18.05%	n/a	0.0000%

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S&P 500	2.58%	2.71%	9.66%	12.37%	4.29%	8.08%

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Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Term Growth
Company	TICKCI	(illillioii)	rnce	(ammon)	Capitanzation	Ticiu	Estimate	Dividend Field	Estillate
FLIR Systems Inc	FLIR	140.248	28.630	4,015	0.0261%	1.54%	13.50%	0.0004%	0.0035%
Equity Residential BorgWarner Inc	EQR BWA	364.082 226.315	71.250 43.640	25,941 9,876	0.1684% 0.0641%	3.10% 1.19%	8.52% 11.03%	0.0052%	0.0143%
Newfield Exploration Co	NFX	162,989	33,310	5,429		n/a	7.21%	n/a	0.0071%
Urban Outfitters Inc	URBN	125.126	30.860	3,861	0.0000%	n/a	15.79%	n/a	0.0000%
Simon Property Group Inc	SPG	309.410	179.320	55,483	0.3602%	3.46%	7.55%	0.0125%	0.0272%
Eastman Chemical Co	EMN	148.664	72.460	10,772	0.0699%	2.21%	7.17%	0.0015%	0.0050%
AvalonBay Communities Inc	AVB	132.902	165.060	21,937	0.1424%	3.03%	7.40%	0.0043%	0.0105%
Prudential Financial Inc	PRU	451.000	80.700	36,396	0.2363%	2.87%	15.78%	0.0068%	0.0373%
United Parcel Service Inc	UPS AIV	698.448 156.282	97.650 36.030	68,203 5.631	0.4428%	2.99%	11.49% 7.21%	0.0132%	0.0509%
Apartment Investment & Management Co Walgreens Boots Alliance Inc	WBA	1.092.283	86,550	94,537	0.6138%	1.66%	14.00%	0.0012%	0.0026%
McKesson Corn	MCK	232.403	197.580	45,918		0.57%	10.80%	0.010276	0.0322%
Lockheed Martin Corp	LMT	310.535	201.180	62,473		2.98%	8.13%	0.0121%	0.0330%
AmerisourceBergen Corp	ABC	216.202	100.040	21,629	0.1404%	1.16%	17.79%	0.0016%	0.0250%
Cameron International Corp	CAM	191.514	66.760	12,785	0.0000%	n/a	2.27%	n/a	0.0000%
Capital One Financial Corp	COF	542.429	77.750	42,174	0.2738%	2.06%	6.42%	0.0056%	0.0176%
Waters Corp	WAT	82.270	121.380	9,986		n/a	9.69%	n/a	0.0000%
Dollar Tree Inc	DLTR	234.637	76.260	17,893		n/a	15.00%	n/a	0.0000%
Darden Restaurants Inc SanDisk Corp	DRI SNDK	127.683 204.439	68.010 54.560	8,684 11,154	0.0564%	3.23% 2.20%	12.11% 0.38%	0.0018%	0.0068%
Diamond Offshore Drilling Inc	DO	137.159	23.710	3,252	0.0000%	2.11%	n/a	0.0010%	n/a
NetApp Inc	NTAP	300.083	31.960	9,591	0.0623%	2.25%	10.02%	0.0014%	0.0062%
Citrix Systems Inc	CTXS	160.701	68.110	10,945	0.0000%	n/a	14.38%	n/a	0.0000%
Goodyear Tire & Rubber Co/The	GT	269.399	29.770	8,020	0.0521%	0.81%	7.00%	0.0004%	0.0036%
DaVita HealthCare Partners Inc	DVA	215.500	75.640	16,300		n/a	10.26%	n/a	0.0000%
Hartford Financial Services Group Inc/The	HIG	414.845	45.950	19,062		1.83%	9.25%	0.0023%	0.0114%
Iron Mountain Inc	IRM	210.826	28.340	5,975	0.0388%	6.70%	4.60%	0.0026%	0.0018%
Estee Lauder Cos Inc/The Yahoo! Inc	EL YHOO	225.861 941.391	79.770 32.240	18,017 30,350	0.1170%	1.20% n/a	11.49% 13.33%	0.0014% n/a	0.0134%
Principal Financial Group Inc	PFG	294.745	50.350	14,840		3.02%	10.17%	0.0029%	0.0098%
Stericycle Inc	SRCL	84.833	141.140	11,973	0.0000%	n/a	15.37%	n/a	0.0000%
Universal Health Services Inc	UHS	91.736	137.140	12,581	0.0817%	0.29%	10.19%	0.0002%	0.0083%
E*TRADE Financial Corp	ETFC	290.307	26.290	7,632	0.0000%	n/a	17.42%	n/a	0.0000%
Skyworks Solutions Inc	SWKS	190.738	87.350	16,661	0.1082%	1.19%	21.08%	0.0013%	0.0228%
National Oilwell Varco Inc	NOV	383.809	42.330	16,247	0.1055%	4.35%	-14.01%	0.0046%	-0.0148%
Quest Diagnostics Inc	DGX	143.553	67.800	9,733		2.24%	11.30%	0.0014%	0.0071%
Activision Blizzard Inc Rockwell Automation Inc	ATVI ROK	729.020 134.106	28.630 111.830	20,872 14,997	0.1355%	0.80%	9.78% 8.40%	0.0011%	0.0133%
Kraft Heinz Co/The	KHC	1,212.833	72.660	88,124	0.5722%	3.03%	12.30%	0.0023%	0.0704%
American Tower Corp	AMT	423,279	92.190	39,022		1.91%	14.48%	0.0048%	0.0367%
Regeneron Pharmaceuticals Inc	REGN	101.737	513.500	52,242		n/a	21.33%	n/a	0.0000%
Amazon.com Inc	AMZN	467.710	512.890	239,884	0.0000%	n/a	47.77%	n/a	0.0000%
Ralph Lauren Corp	RL	59.767	111.190	6,645	0.0431%	1.80%	11.09%	0.0008%	0.0048%
Boston Properties Inc	BXP	153.574	113.380	17,412		2.29%	6.35%	0.0026%	0.0072%
Amphenol Corp	APH	309.147	52.360	16,187	0.1051%	1.07%	6.69%	0.0011%	0.0070%
Pioneer Natural Resources Co Valero Energy Corp	PXD VLO	149.308 497.112	123.060 59.340	18,374 29,499	0.1193% 0.1915%	0.07% 2.70%	8.73% -1.23%	0.0001%	0.0104% -0.0023%
L-3 Communications Holdings Inc	LLL	80.332	105.470	8,473	0.0550%	2.47%	6.79%	0.0052%	0.0023%
Western Union Co/The	WU	511.432	18.440	9,431	0.0612%	3.36%	9.03%	0.0021%	0.0055%
CH Robinson Worldwide Inc	CHRW	141.801	67.430	9,562		2.25%	10.63%	0.0014%	0.0066%
Accenture PLC	ACN	624.135	94.270	58,837	0.3820%	2.16%	10.33%	0.0083%	0.0395%
Yum! Brands Inc	YUM	431.206	79.770	34,397	0.2233%	2.06%	11.82%	0.0046%	0.0264%
Prologis Inc	PLD	524.047	38.000	19,914		4.21%	4.99%	0.0054%	0.0064%
FirstEnergy Corp	FE	422.453	31.960	13,502		4.51%	-0.68%	0.0039%	-0.0006%
VeriSign Inc	VRSN PWR	113.493	68.940 24.240	7,824	0.0000%	n/a	10.40% 7.45%	n/a	0.0000%
Quanta Services Inc	AEE	196.832 242.635	40.290	4,771 9,776	0.0000%	n/a 4.07%	6.77%	n/a 0.0026%	0.0000%
Ameren Corp Henry Schein Inc	HSIC	242.035 83.397	136.810	11,410		4.0776 n/a	11.12%	n/a	0.0045%
Broadcom Corp	BRCM	559.000	51.670	28,884	0.1875%	1.08%	12.24%	0.0020%	0.0230%
NVIDIA Corp	NVDA	539.000	22.480	12,117	0.0787%	1.73%	8.80%	0.0014%	0.0069%
Sealed Air Corp	SEE	205.842	51.450	10,591	0.0688%	1.01%	10.11%	0.0007%	0.0069%
Cognizant Technology Solutions Corp	CTSH	609.529	62.940	38,364		n/a	15.50%	n/a	0.0000%
Intuitive Surgical Inc	ISRG	37.019	510.950	18,915		n/a	15.36%	n/a	0.0000%
CONSOL Energy Inc	CNX	229.004	15.230	3,488	0.0226%	0.26%	12.40%	0.0001%	0.0028%
Aetna Inc	AET	348.688	114.520	39,932	0.2593%	0.87%	12.06%	0.0023%	0.0313%
Affiliated Managers Group Inc	AMG RSG	54.284 348.917	186.440 40.980	10,121	0.0000%	n/a 2.93%	14.71% 4.85%	n/a 0.0027%	0.0000%
Republic Services Inc	RSG	348.91/	40.980	14,299	0.0928%	2.95%	4.85%	0.0027%	0.0045%

	[1]	[2]	[3]	[4]	[13]	[14]
	Dividend Yield	Dividend Yield x (1 + 0.50g)	Expected Growth Rate (s	Secondary Market Investor g) Required Return	Forecast US Government 30 Year Yield	Equity Risk Premium
S&P 500	2.58%	2.71%	9.66%	12.37%	4.29%	8.08%

		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Market Capitalization- Weighted Long- Term Growth Estimate
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eBay Inc	EBAY	1,218.228	27.110	33,026	0.0000%	n/a	9.71%	n/a	0.0000%
Goldman Sachs Group Inc/The	GS	432.871	188.600	81,639	0.5301%	1.38%	18.98%	0.0073%	0.1006%
Sempra Energy	SRE	247.580	94.850	23,483	0.1525%	2.95%	7.75%	0.0045%	0.0118%
Moody's Corp	MCO	200.300	102.310	20,493	0.1331%	1.33%	13.50%	0.0018%	0.0180%
Priceline Group Inc/The F5 Networks Inc	PCLN FFIV	50.702 71.004	1,248.640 121.410	63,309 8,621	0.0000%	n/a n/a	18.97% 15.41%	n/a n/a	0.0000%
Akamai Technologies Inc	AKAM	178.595	71.310	12,736	0.0000%	n/a	15.80%	n/a	0.0000%
Reynolds American Inc	RAI	714.551	83.750	59,844	0.3886%	3.44%	11.08%	0.0134%	0.0431%
Devon Energy Corp	DVN	411.000	42.660	17,533	0.1138%	2.25%	6.24%	0.0134%	0.0071%
Google Inc	GOOGL	289.886	647.820	187,794	0.0000%	n/a	17.33%	n/a	0.0000%
Red Hat Inc	RHT	183,483	72.210	13,249	0.0000%	n/a	17.86%	n/a	0.0000%
Hudson City Bancorp Inc	HCBK	529.529	9.300	4,925	0.0320%	1.72%	-3.00%	0.0006%	-0.0010%
Netflix Inc	NFLX	424.363	115.030	48,814	0.0000%	n/a	32.49%	n/a	0.0000%
Allegion PLC	ALLE	95.812	59.610	5,711	0.0371%	0.67%	14.70%	0.0002%	0.0055%
Agilent Technologies Inc	A	333.192	36.310	12,098	0.0786%	1.10%	5.90%	0.0009%	0.0046%
Anthem Inc	ANTM	261.587	141.050	36,897	0.2396%	1.77%	9.61%	0.0042%	0.0230%
CME Group Inc/IL	CME	337.756	94.440	31,898	0.2071%	2.12%	12.36%	0.0044%	0.0256%
Juniper Networks Inc	JNPR	384.427	25.710	9,884	0.0642%	1.56%	11.84%	0.0010%	0.0076%
BlackRock Inc	BLK	163.636	302.470	49,495	0.3214%	2.88%	14.62%	0.0093%	0.0470%
DTE Energy Co	DTE	179.330	78.060	13,998	0.0909%	3.74%	5.15%	0.0034%	0.0047%
NASDAQ OMX Group Inc/The	NDAQ	168.930	51.190	8,648	0.0561%	1.95%	6.88%	0.0011%	0.0039%
Philip Morris International Inc	PM	1,549.186	79.800	123,625	0.8027%	5.01%	5.87%	0.0402%	0.0471%
Time Warner Cable Inc	TWC	282.974	186.020	52,639	0.3418%	1.61%	9.75%	0.0055%	0.0333%
salesforce.com inc	CRM	660.000	69.360	45,778	0.0000%	n/a	25.57%	n/a	0.0000%
MetLife Inc	MET	1,116.881	50.100	55,956	0.3633%	2.99%	7.25%	0.0109%	0.0264%
Monsanto Co	MON	467.835	97.650	45,684	0.2966%	2.21%	10.90%	0.0066%	0.0323%
Coach Inc	COH	276.627	30.250	8,368	0.0543%	4.46%	10.88%	0.0024%	0.0059%
Fluor Corp	FLR	144.943	45.620	6,612	0.0429%	1.84%	2.49%	0.0008%	0.0011%
Dun & Bradstreet Corp/The	DNB	36.111	105.970	3,827	0.0248%	1.75%	10.15%	0.0004%	0.0025%
Edwards Lifesciences Corp	EW	107.516	140.880	15,147	0.0000%	n/a	15.20%	n/a	0.0000%
Ameriprise Financial Inc	AMP	178.221	112.670	20,080	0.1304%	2.38%	11.65%	0.0031%	0.0152%
Xcel Energy Inc	XEL	507.211	33.730	17,108	0.1111%	3.79%	5.05%	0.0042%	0.0056%
Rockwell Collins Inc	COL	131.770	81.850	10,785	0.0700%	1.61%	9.88%	0.0011%	0.0069%
FMC Technologies Inc	FTI	229.474	34.780	7,981	0.0000%	n/a	7.58%	n/a	0.0000%
Zimmer Biomet Holdings Inc	ZBH	203.365	103.560	21,060	0.1367%	0.85%	10.87%	0.0012%	0.0149%
CBRE Group Inc	CBG	333.180	32.020	10,668	0.0000%	n/a	10.50%	n/a	0.0000%
Signet Jewelers Ltd	SIG	80.127	138.000	11,058	0.0718%	0.64%	8.00%	0.0005%	0.0057%
MasterCard Inc GameStop Corp	MA GME	1,108.884 106.720	92.370 42.480	102,428	0.6650% 0.0294%	0.69% 3.39%	16.58% 14.43%	0.0046%	0.1103%
CarMax Inc	KMX	208.042	61.000	4,533 12,691	0.0000%	n/a	14.98%	n/a	0.0000%
Intercontinental Exchange Inc	ICE	110.489	228.410	25,237	0.1639%	1.31%	15.55%	0.0022%	0.0255%
Fidelity National Information Services Inc	FIS	281.583	69.060	19,446	0.1263%	1.51%	12.62%	0.002276	0.0255%
Chipotle Mexican Grill Inc	CMG	31.142	710,010	22,111	0.0000%	n/a	21.24%	n/a	0.0000%
Pepco Holdings Inc	POM	253.072	22.980	5,816	0.0378%	4.70%	4.70%	0.0018%	0.0018%
Wynn Resorts Ltd	WYNN	101.537	75.050	7,620	0.0495%	2.66%	7.90%	0.0013%	0.0039%
Hospira Inc	HSP	172.934	89.970	15,559	0.0000%	n/a	14.30%	n/a	0.0000%
Assurant Inc	AIZ	66.818	74.350	4,968	0.0323%	1.61%	8.14%	0.0005%	0.0026%
NRG Energy Inc	NRG	330.655	19.920	6,587	0.0428%	2.91%	23.90%	0.0012%	0.0102%
Genworth Financial Inc	GNW	497.419	5.180	2,577	0.0000%	n/a	5.00%	n/a	0.0000%
Monster Beverage Corp	MNST	204.193	138.460	28,273	0.0000%	n/a	20.50%	n/a	0.0000%
Regions Financial Corp	RF	1,324.907	9.590	12,706	0.0825%	2.50%	2.86%	0.0021%	0.0024%
Teradata Corp	TDC	141.600	29.230	4,139	0.0000%	n/a	8.11%	n/a	0.0000%
Mosaic Co/The	MOS	337.159	40.830	13,766	0.0894%	2.69%	9.30%	0.0024%	0.0083%
Expedia Inc	EXPE	116.334	114.990	13,377	0.0869%	0.83%	13.75%	0.0007%	0.0119%
Discovery Communications Inc	DISCA	149.302	26.600	3,971	0.0000%	n/a	13.57%	n/a	0.0000%
CF Industries Holdings Inc	CF	233.048	57.380	13,372	0.0868%	2.09%	12.00%	0.0018%	0.0104%
Viacom Inc	VIAB	347.460	40.770	14,166	0.0920%	3.92%	9.25%	0.0036%	0.0085%
Google Inc	GOOG	343.929	618.250	212,634	0.0000%	n/a	17.33%	n/a	0.0000%
	WYN	118.111	76.480	9,033	0.0586%	2.20%	10.00%	0.0013%	0.0059%

		[1]	[2]	[3]	[4]			[13]	[14]
		Dividend Yield	Dividend Yield x (1 + 0.50g)	Expected Growth Rate (g)	Secondary Market Investor Required Return			Forecast US Government 30 Year Yield	Equity Risk Premium
S&P 500		2.58%	2.71%	9.66%	12.37%			4.29%	8.08%
		[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company	Ticker	Shares Outstanding (million)	Price	Market Capitalization (\$million)	Percent of Total Market Capitalization	Current Dividend Yield	BEst Long- Term Growth Estimate	Market Capitalization- Weighted Dividend Yield	Market Capitalization- Weighted Long- Term Growth Estimate
Spectra Energy Corp	SE	671.363	29.070	19,517	0.1267%	5.09%	3.85%	0.0065%	0.0049%
First Solar Inc	FSLR	100.903	47.840	4,827	0.0000%	n/a	-2.95%	n/a	0.0000%
Ensco PLC	ESV	235.679	18.110	4,268	0.0000%	3.31%	n/a	0.0000%	n/a
Mead Johnson Nutrition Co	MJN	202.739	78.340	15,883	0.1031%	2.11%	8.80%	0.0022%	0.0091%
TE Connectivity Ltd	TEL	402.384	59.290	23,857	0.1549%	2.23%	10.45%	0.0034%	0.0162%
Discover Financial Services	DFS	435.307	53.730	23,389	0.1519%	2.08%	9.22%	0.0032%	0.0140%
TripAdvisor Inc	TRIP	131.296	69.900	9,178	0.0000%	n/a	20.05%	n/a	0.0000%
Dr Pepper Snapple Group Inc	DPS SNI	190.886	76.730 53.090	14,647	0.0951%	2.50% 1.73%	7.26% 11.45%	0.0024%	0.0069%
Scripps Networks Interactive Inc Visa Inc	V	94.201 1,951.387	71.300	5,001 139,134	0.0325%	0.67%	18.08%	0.0006% 0.0061%	0.1634%
Xylem Inc/NY	XYL	181.499	32.450	5,890	0.0382%	1.74%	9.87%	0.0001%	0.1034%
Marathon Petroleum Corp	MPC	536.157	47.310	25,366	0.1647%	2.71%	2.58%	0.0045%	0.0043%
Tractor Supply Co	TSCO	135.819	85.310	11,587	0.0752%	0.94%	15.33%	0.0007%	0.0115%
Level 3 Communications Inc	LVLT	355.833	44.730	15,916	0.0000%	n/a	26.99%	n/a	0.0000%
Transocean Ltd	RIG	363.554	14.230	5,173	0.0336%	4.22%	-25.40%	0.0014%	-0.0085%
Essex Property Trust Inc	ESS	65.744	214.620	14,110	0.0916%	2.68%	8.18%	0.0025%	0.0075%
General Growth Properties Inc	GGP	885.657	25.380	22,478	0.1459%	2.68%	7.91%	0.0039%	0.0115%
Realty Income Corp	O	234.869	44.690	10,496	0.0681%	5.10%	3.92%	0.0035%	0.0027%
Seagate Technology PLC	STX	302.034	51.400	15,525	0.1008%	4.20%	8.30%	0.0042%	0.0084%
WestRock Co	WRK	261.848	59.350	15,541	0.1009%	2.53%	7.46%	0.0026%	0.0075%
Western Digital Corp	WDC	230.403	81.960	18,884	0.1226%	2.44%	5.00%	0.0030%	0.0061%
Fossil Group Inc	FOSL	48.147	61.580	2,965	0.0000%	n/a	11.13%	n/a	0.0000%
JB Hunt Transport Services Inc	JBHT	116.251	72.780	8,461	0.0549%	1.15%	14.83%	0.0006%	0.0081%
Lam Research Corp	LRCX	158.187	72.770	11,511	0.0747%	1.65%	6.41%	0.0012%	0.0048%
Mohawk Industries Inc Pentair PLC	MHK PNR	73.913 180.056	196.970 55.290	14,559 9,955	0.0000%	n/a 2.32%	12.05% 14.40%	n/a 0.0015%	0.0000%
Vertex Pharmaceuticals Inc	VRTX	244.656	127.520	31,199	0.0000%	n/a	25.67%	n/a	0.009376
Facebook Inc	FB	2,259.737	89.430	202,088	0.0000%	n/a	24.17%	n/a	0.0000%
United Rentals Inc	URI	95.370	69.330	6,612	0.0000%	n/a	12.20%	n/a	0.0000%
Navient Corp	NAVI	374.033	12.790	4,784	0.0000%	5.00%	n/a	0.0000%	n/a
Delta Air Lines Inc	DAL	795.398	43.780	34,823	0.2261%	1.23%	22.14%	0.0028%	0.0501%
Baxalta Inc	BXLT	676.969	35.150	23,795	0.1545%	0.80%	4.55%	0.0012%	0.0070%
Mallinckrodt PLC	MNK	117.343	86.240	10,120	0.0000%	n/a	13.05%	n/a	0.0000%
Keurig Green Mountain Inc	GMCR	154.058	56.600	8,720	0.0566%	2.03%	14.20%	0.0012%	0.0080%
Macerich Co/The	MAC	158.321	76.180	12,061	0.0783%	3.41%	6.31%	0.0027%	0.0049%
Martin Marietta Materials Inc	MLM	67.001	167.800	11,243	0.0730%	0.95%	24.07%	0.0007%	0.0176%
PayPal Holdings Inc	PYPL	1,218.736	35.000	42,656	0.0000%	n/a	16.75%	n/a	0.0000%
Alexion Pharmaceuticals Inc	ALXN	226.155	172.190	38,942	0.0000%	n/a	23.19%	n/a	0.0000%
Columbia Pipeline Group Inc	CPGX	317.615	25.360	8,055	0.0523%	1.97%	36.00%	0.0010%	0.0188%
Endo International PLC	ENDP	208.251	77.000	16,035	0.0000%	n/a	8.97%	n/a	0.0000%
News Corp Crown Castle International Corp	NWSA CCI	380.999 333.762	13.630 83.390	5,193 27,832	0.0337%	1.47% 3.93%	10.35% 22.67%	0.0005% 0.0071%	0.0035%
Delphi Automotive PLC	DLPH	284.349	75.520	21,474	0.1807%	1.32%	13.73%	0.0071%	0.0410%
Advance Auto Parts Inc	AAP	73.217	175.250	12,831	0.0833%	0.14%	13.68%	0.0018%	0.0191%
Michael Kors Holdings Ltd	KORS	193.422	43.460	8,406	0.0000%	n/a	27.34%	n/a	0.0000%
Alliance Data Systems Corp	ADS	61.433	257.190	15,800	0.0000%	n/a	14.60%	n/a	0.0000%
Nielsen Holdings PLC	NLSN	366.860	45.230	16,593	0.1077%	2.48%	14.00%	0.0027%	0.0151%
Garmin Ltd	GRMN	190.936	37.610	7,181	0.0466%	5.42%	7.95%	0.0025%	0.0037%
Cimarex Energy Co	XEC	94.456	110.510	10,438	0.0678%	0.58%	-4.37%	0.0004%	-0.0030%
Zoetis Inc	ZTS	498.944	44.870	22,388	0.1454%	0.74%	12.50%	0.0011%	0.0182%
Equinix Inc	EQIX	56.958	269.770	15,366	0.0998%	2.51%	38.74%	0.0025%	0.0386%
Discovery Communications Inc	DISCK	274.284	25.360	6,956	0.0000%	n/a	13.57%	n/a	0.0000%
•									

Average for Companies Paying Dividends with Positive Long-Term Growth Estimates

Notes: [1] Equals sum of Column [11]

[2] Equals Column [1] x (1 + 0.5 x Column [3])

[2] Equals Column [1] x (1 + 0.3 x Column [2])
[3] Equals sum of Column [2]
[4] Equals Column [2] + Column [3]
[5] Source: Bloomberg Finance L.P., as of August 31, 2015
[6] Source: Bloomberg Finance L.P., as of August 31, 2015

[7] Equals Column [5] x Column [6]

[8] Equals percent of sum of Column [7] if Current Dividend Yield does not equal "n/a" and Best Long-Term Growth Estimate does not equal "n/a" and is greater than 0% [9] Source: Bloomberg Finance L.P., as of August 31, 2015

[10] Source: Bloomberg Finance L.P., as of August 31, 2015

[10] Equals Column [8] x Column [9]
[12] Equals Column [8] x Column [10]
[13] Source: April 2015 Consensus Forecast Average 2016-2018 Forecasts 10-Year bond yield plus Average Daily Spread between 10-year and 30-year government bonds August 2015
[14] Equals Column [4] - (Column [13]/100)

10.00% 2.58%

9.66%

2.39%

### Regression Analysis of MRP to GOC Long-term Bond Yields from 1976 - 2014

	[1]	[2]		[3]													
Year	Canada Long Bond	Dummy		MRP				SUMMARY OUTPUT									
1976	9.61	50111111	0	-0.2				301411417 11(1 0011 01									
1977	9.15		0	-2.3			_	Regression Sto									
1978 1979	9.57 10.50		0	21.7 40.8				Multiple R R Square		0.4457109 .19865821							
1980			0	12.4				Adjusted R Square		15413922							
1981	15.59		0	-23.8				Standard Error		5.6325895							
1982	14.75		0	-8.7			- 1	Observations		39							
1983 1984			0	22.1 -13.6				ANOVA									
1985	11.20		0	11.5			-	NOVA		df	SS	MS	F r	nificance	F		
1986	9.30		0	-0.4			Ī	Regression		2	2180.986958	1090.493479					
1987	9.75		0	-1.3				Residual			8797.602785	244.3778551					
1988 1989	10.05 9.66		0	-2.1 11.4			-	[otal		38	10978.58974						
1990	10.69		0	-22.1			-		Сс	efficients S	tandard Error	t Stat	P-value c	ower 95%r	oper 95%	wer 95.00	per 95.0%
1991	9.72		0	1.3			ī	ntercept			6.345553584	2.234177095	0.03177	1.30771	27.0465	1.30771	27.0465
1992	8.68		0	-11.6				Canada Long Bond			0.745857732	-1.48901713				-2.6233	
1993 1994	7.86 8.69		0	15.2 -4.3			_	Dummy		45.184734	16.0825281	-2.809554174	0.00/9/	-//.802	-12.568	-//.802	-12.568
1995			0	6.9													
1996	7.75		0	22.4													
1997 1998	6.66 5.59		0	11.7 -4.4			ı	RESIDUAL OUTPUT					F	PROBABILI	IIY OUTPL	JT	
1998	5.59		0	-4.4 40.5			-	Observation	rer	dicted MRI	Residuals a	ndard Residua	ls Pe	ercentile	MRP		
2000	5.71		0	3.3			-	1		3.5033476	-3.703347603	-0.243390768	-	1.28205	-35.5		
2001	5.76		0	-20.8				2			-6.312370284	-0.414860504		3.84615	-23.8		
2002 2003			0	-19.4 21.4				3		.54592041	18.15407959 38.28878388	1.193119266 2.516408805		6.41026 8.97436	-22.1 -20.8		
2003	5.14		0	8.7				5		0.0644386	12.46443864	0.819185672		11.5385	-19.4		
2005			0	21				6			-20.66291536	-1.358004535		14.1026	-13.6		
2006 2007	4.28 4.32		0	13.7				7	-		-6.493964114 21.33704541	-0.426795182 1.402309593		16.6667 19.2308	-12.1 -11.6		
2007			1	-35.5				9				-0.876565205		21.7949	-11.6		
2009	3.90		0	29.9				10			9.761572857	0.641548396		24.359	-4.4		
2010	3.73		0	11.1				11	-		-4.243930051	-0.278918834		26.9231	-4.3		
2011	3.29 2.43		0	-12.1 3.7				12			-4.646938815 -5.119313308	-0.305405306 -0.33645062		29.4872 32.0513	-2.3 -2.1		
2013			0	11.1						44596686	7.954033136	0.522753584		34.6154	-1.3		
2014	2.73		0	8.7							-24.40205408	-1.60374756		37.1795	-0.4		
Notes ou	ad Dawilto of Analysis							16 17		38766063	-2.08766063	-0.137204869		39.7436	-0.2		
[1]	nd Results of Analysis: Bank of Canada, Date	a and Statistic	cs Office Sel	ected Governme	nt of Cana	da Renchr	mark f			4.5352754 45059073	-16.1352754 9.749409269	-1.060439768 0.640748983		42.3077 44.8718	1.3		
[2]	Dummy Variable for C				ii oi oana	da bonem	none :				-8.829722427	-0.580305484		47.4359	3.7		
[3]	MRP from Morningstar	Ibbotson thr	ough 2011, a		rom 2011-: Forecast	2014		20	) 4.	.84068901	2.05931099	0.135341679		50	6.2		
					30-Yr.	August	31,										
					Bond	2015 Spo											
					Yield	Yr. Bond		0.1		57100070	1 / 0001 /000	1 105070000		50.5741			
[4]	Intercept				Scenario 14.18%	Scenar	10 4.18%				16.82816932 4.920397324	1.105978022 0.323377498		52.5641 55.1282	6.9 8.7		
[5]	Coefficient for Canac	dian Long Bor	nd		-1.11%		1.11%					-0.812843556		57.6923	8.7		
[6]	Coefficient for Global				-45.18%		5.18%				32.67736358	2.147616014		60.2564	11.1		
[7]	Lower Bound of Confi Upper Bound of Confi				-2.62% 0.40%		2.62%	25 26				-0.298148305 -1.878333978		62.8205 65.3846	11.1 11.4		
[8] [9]	30-year Bond Yield, Fo				3.68	,	2.23	26 27			-28.58006362	-1.792162647		67.9487	11.4		
[10]	Canadian Proxy Grou	p Beta			0.62		0.62	28	8 8	25114097	13.14885903	0.86416703		70.5128	11.7		
[11]	Calculation of Market	Risk Premiun	n = [4] +([9]	x [5])+ (0 x [6])	10.09%	11	.70%				0.225814544	0.014840944		73.0769	12.4		
	Calculation of Canad	ian Utility POI	F = [9] + ([10]*	1111	9.97%		.52%	30		.28862175	11.71137825 4.279957853	0.769693168 0.281286647		75.641 78.2051	13.7 15.2		
	ound	, KO	- [1] ([10]		/0			32			-3.174692854	-0.208646612		80.7692	21		
								33	-		-1.42109E-14	-9.33963E-16		83.3333	21.4		
	Cana	da Long E	sond Res	idual Plot							20.04867682 1.060801174	1.317635656 0.069717791		85.8974 88.4615	21.7		
50	1							36			-22.62323312			91.0256	22.1		
40	-							37			-7.776493778	-0.511085374		93.5897	29.9		
30		•						38 39			0.076999156 -2.444240792	0.005060525 -0.160639969		96.1538 98.7179	40.5 40.8		
20				•			-	39	, I	1.1442408	-2.444240/92	-0.100037767	-	70./1/9	40.8		
	1		• •	*													
Sign 10	1	•	• •	•													
Res o		6.00	8.00 10.00	12.00 14.00	45.05												
-10	0.00 2.00 4.00	₩.00	8.00 🔷 🐬 10900	12.00 14.00	16.00	18.00											
-20	-	•	•	•	•												
-30	•	•		•													
-40																	
140		C	anada Long Bond	Į.													

### **Capital Asset Pricing Model**

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
						Average			
			Value	Average	Dick Eroo	-	Basic CAPM	Flotation	Total
US Proxy Group	Ticker	Bloomberg	Line	Beta	Rate	Premium	Calculation	Cost	CAPM
ALLETE, Inc.	ALE	0.75	0.80	0.78	4.29%	7.62%	10.20%	0.50%	10.70%
Duke Energy	DUK	0.55	0.60	0.78	4.27%	7.62% 7.62%	8.68%	0.50%	9.18%
Eversource Energy	ES	0.68	0.75	0.38	4.27%	7.62% 7.62%	9.72%	0.50%	10.22%
Great Plains	GXP	0.76	0.75	0.80	4.29%	7.62%	10.41%	0.50%	10.22%
OG&E Corp	OGE	0.78	0.90	0.84	4.29%	7.62%	10.70%	0.50%	11.20%
Pinnacle West Capital	PNW	0.72	0.70	0.71	4.27%	7.62%	9.68%	0.50%	10.18%
Westar	WR	0.67	0.75	0.71	4.27%	7.62%	9.71%	0.50%	10.10%
MEAN	YYIX	0.70	0.76	0.73	4.27/0	7.02/6	9.87%	0.5076	10.21%
THEATT		0.70	0.70	0.70			7.0770		10.07 /0
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
						Average			
			Value	Average	Risk Free	Market Risk	Basic CAPM	Flotation	Total
Canada Proxy Group	Ticker	Bloomberg	Line	Beta	Rate	Premium	Calculation	Cost	CAPM
Canadian Utilities Limited	CU	0.62	N/A	0.62	3.68%	7.62%	8.37%	0.50%	8.87%
Emera Inc.	EMA	0.71	N/A	0.71	3.68%	7.62%	9.08%	0.50%	9.58%
Enbridge Inc.	ENB	0.79	N/A	0.79	3.68%	7.62%	9.71%	0.50%	10.21%
Valener Inc.	VNR	0.43	N/A	0.43	3.68%	7.62%	6.98%	0.50%	7.48%
MEAN		0.64		0.64			8.54%		9.04%
		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
						Average			
North American Electric Proxy			Value	Average	Risk Free	•	Basic CAPM	Flotation	Total
Group	Ticker	Bloomberg	Line	Beta	Rate	Premium	Calculation	Cost	CAPM
ALLETE, Inc.	ALE	0.75	0.80	0.78	4.29%	7.62%	10.20%	0.50%	10.70%
Canadian Utilities Limited	CU	0.62	N/A	0.62	3.68%	7.62%	8.37%	0.50%	8.87%
Duke Energy	DUK	0.55	0.60	0.58	4.29%	7.62%	8.68%	0.50%	9.18%
Emera Inc.	EMA	0.71	N/A	0.71	3.68%	7.62%	9.08%	0.50%	9.58%
Eversource Energy	ES	0.68	0.75	0.71	4.29%	7.62%	9.72%	0.50%	10.22%
Great Plains	GXP	0.76	0.85	0.80	4.29%	7.62%	10.41%	0.50%	10.91%
OG&E Corp	OGE	0.78	0.90	0.84	4.29%	7.62%	10.70%	0.50%	11.20%
Pinnacle West Capital	PNW	0.72	0.70	0.71	4.29%	7.62%	9.68%	0.50%	10.18%
Westar	WR	0.67	0.75	0.71	4.29%	7.62%	9.71%	0.50%	10.21%
MEAN		0.69	0.76	0.72			9.62%		10.12%

<sup>[1]</sup> Source: Bloomberg Professional; average of five years of weekly market-adjusted betas

<sup>[2]</sup> Source: Value Line as of August 31, 2015 [3] Equals mean of [1] and [2]

<sup>[4]</sup> Source: Equals average long-term Consensus Forecast of 10-year government bond yields for the period 2016-2018 as of April 13, 2015. (Pg. plus the 30-day average spread between 10- and 30-year bond ending August 31, 2015.

<sup>[5]</sup> Source: Average of the Duff and Phelps Canada historical risk premium (1936-2013), Duff and Phelps US historical risk premium (1926-2013),

Bloomberg; TSX total return less [4] as of August 31, 2015 Bloomberg; S&P 500 total return less [4] as of August 31, 2015

<sup>[6]</sup> Equals [4] + ([5] x [6]) [7] Flotation Costs

<sup>[8]</sup> Equals [6] + [8]

# APPENDIX A:

# **CAPITAL STRUCTURE**

# OCTOBER 16, 2015



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### LIST OF EXHIBITS

1	MC –	1	Proxy	Group	Stat

JMC – 2 Credit Metrics-Holding Companies

JMC – 3 % Regulated

JMC – 4 Operating Stats

JMC – 5, Schedule 1 Regulated Generation Risk

JMC – 5, Schedule 2 Volume Risk

JMC – 5, Schedule 3 Capital Cost Recovery Risk

JMC – 5, Schedule 4 Rate Regulation & ESM

JMC – 5, Schedule 5 Regulatory Lag

JMC – 5, Schedule 6 Other Cost Recovery Risk



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### I. **INTRODUCTION**

### A. Purpose and Background

In Order No. P.U. 13(2013), the Newfoundland and Labrador Board of Commissioners of Public Utilities (the "Board") found that Newfoundland Power continues to be an average risk Canadian utility.1 The Board determined that it was appropriate to maintain the deemed common equity ratio of 45 percent for Newfoundland Power. It is important to note that in the 2013 Order, the Board observed that "Newfoundland Power has had a deemed common equity ratio of approximately 45% for the last twenty-five years and the evidence is clear that the rating agencies place importance on its strong common equity position."2

In its 2013 Order, the Board also noted that it had been some time since Newfoundland Power's capital structure was comprehensively reviewed and that it may be appropriate for this issue to be addressed in the Company's next general rate application ("GRA"). The Board directed that Newfoundland Power file a comprehensive report in relation to its capital structure with its next GRA.<sup>3</sup> This appendix to the cost of capital report was prepared for Newfoundland Power by Concentric Energy Advisors, Inc. ("Concentric") in response to the Board's requirements in Order No. P.U. 13(2013).

- Concentric's assessment of Newfoundland Power's capital structure is based on an analysis of risk and is organized in three parts:
  - 1) Comparison of the risk of Newfoundland Power today to the circumstances at the time of the Company's last GRA filing in September 2012;
  - Comparison of the risk of Newfoundland Power to other investor-owned electric utilities in Canada to determine if the Company continues to be an average risk Canadian utility; and

Newfoundland and Labrador Board of Commissioners of Public Utilities, Order No. P.U. 13(2013), at 17.

Ibid.

Ibid.



3) Comparison of the current risk of Newfoundland Power to a proxy group of comparable electric utilities in the United States.

Concentric examines risk from two primary perspectives: (1) financial risk; and (2) business risk. Financial risk primarily relates to the risk associated with the way in which a company has financed its business, as evidenced by the relative percentages of debt and equity in the capital structure. To the extent the company is more highly leveraged, it requires higher net income to cover its fixed interest obligations, which must be paid before there is any net income for shareholders. Business risk for a regulated utility encompasses both operational risk (e.g., weather conditions/climate, geography, topography, etc.) and regulatory risk (e.g., opportunity for timely recovery of prudently incurred costs). Taken together, financial risk and business risk are the primary elements of investment risk that investors consider when establishing their return requirements.

## B. Executive Summary

The following points summarize the conclusions of our risk assessment.

- 1) Newfoundland Power has higher business risk today than at the time of the Company's last GRA filing in 2012. In particular, Newfoundland Power is exposed to more risk due to changes in the electricity supply from Newfoundland and Labrador Hydro, which is expected to result in a substantial increase in the supply price over the near term. In addition, the provincial economy has been negatively impacted by the sharp drop in oil prices as the oil industry represents about 28 percent of the Newfoundland and Labrador GDP.
- 2) Newfoundland Power has comparable financial risk as the Canadian proxy group companies. Although Newfoundland Power has more common equity in its capital structure than the companies in the Canadian proxy group, Newfoundland Power's long-term issuer rating of Baa1 from Moody's (equivalent to BBB+ from S&P) is one notch lower than the Canadian proxy group average of A-. Furthermore, Newfoundland



1 Power's credit metrics are weaker than the average for the Canadian proxy 2 group companies in terms of cash flow interest coverage and cash flow to 3 debt. 4 3) Newfoundland Power has higher business risk than the Canadian utility 5 proxy group. In particular, factors contributing to this higher risk profile 6 include Newfoundland Power's small size, dependence on one supplier, 7 weather and storm related risk, and weaker macroeconomic and 8 demographic trends in the province as compared to the remainder of 9 Canada. 10 4) Newfoundland Power has more financial leverage in its capital structure 11 and weaker credit metrics than the U.S. electric utility proxy group 12 companies. Newfoundland Power's long-term issuer rating of Baa1 is also 13 one notch lower than the U.S. electric utility proxy group average of A-. 14 While credit rating agencies may be satisfied with the degree of regulatory 15 and cash flow protection for debt investors, these metrics expose equity 16 investors to greater risk than their U.S. counterparts. 17 Newfoundland Power has greater financial risk than the U.S. proxy group.

5) Newfoundland Power has somewhat higher business risk than the proxy group of U.S. electric utility companies. In particular, factors contributing to this higher risk profile include Newfoundland Power's small size, dependence on one supplier, weather and storm related risk, as compared to companies in the U.S. proxy group.

### II. FINANCIAL RISK

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### A. Definition of Financial Risk

Financial risk exists to the extent a company incurs debt obligations in financing its operations. These fixed obligations increase the level of income which must be generated to cover interest payments before common stockholders receive any return, and they are considered by both debt and equity investors in addition to business risks. Fixed financial obligations also reduce a



company's financial flexibility and its ability to respond to adverse economic circumstances and capital market conditions, such as those during the credit crisis and financial market disruptions of 2008 and 2009.

### B. Implication of Capital Structure on Rate of Return

The capital structure relates to a company's financial risk, which represents the risk that a company may not have adequate cash flows to meet its financial obligations, and is a function of the percentage of debt (or financial leverage) in the capital structure. The Board has observed the relationship between rates of return and capital structure in previous decisions, stating: "The interrelationship between rates of return and capital structure is quite strong and, therefore, selecting a range for capital structure is a critical component of the decision for all parties." Moreover, the Board has also stated: "However, the higher the debt as a proportion of total capital, the greater the risk to shareholders. Debtors rank ahead of shareholders for cash flow and in the event of liquidation." In that regard, as the percentage of debt and preferred equity in the capital structure increases, so do the fixed obligations for the repayment of that debt. Consequently, as the degree of financial leverage increases, the risk of financial distress for common equity holders (i.e., financial risk) also increases. Since the capital structure can affect the company's overall level of risk, it is an important consideration in establishing a fair return.

### C. Newfoundland Power's Deemed Equity Ratio

In 2013, the Board reaffirmed the deemed common equity ratio for Newfoundland Power at 45 percent, stating:

NLP [Newfoundland Power] has had a deemed common equity ratio of approximately 45% for the last 25 years, and the evidence is clear that the rating agencies place importance on its strong common equity position. There is no evidence of a change in circumstances which would justify a change in the ratio and little substantive evidence demonstrating that the appropriate common equity ratio for Newfoundland Power is 40%. The Board therefore finds that

<sup>&</sup>lt;sup>4</sup> Order No. P.U. 16 (1998-99), at p. 47.

<sup>&</sup>lt;sup>5</sup> *Ibid*, at p. 49.

<sup>6</sup> See Roger A. Morin, New Regulatory Finance, Public Utility Reports, Inc., 2006, at pp. 45-46.



a change in the common equity ratio has not been justified in the circumstances.<sup>7</sup>

In 1999, the Board explained the rationale for its decision supporting the 45.0 percent deemed common equity ratio as follows: "The Board believes that in order to maintain an "A" rating and appropriate access to capital markets, as a small utility, NLP will require a stable and strong capital structure." In particular, the Board observed that Newfoundland Power's smaller size reduces the Company's financial flexibility.9

### D. Comparison to Other Investor-Owned Utilities

As explained in Section IV of the Cost of Capital Report, I have selected three proxy groups consisting of Canadian, U.S., and North American utilities for purposes of establishing my ROE recommendation for Newfoundland Power. In order to assess the reasonableness of the common equity ratio for Newfoundland Power, my analysis is based on a comparison to the equity ratios of other investor-owned electric utilities in Canada and the U.S. at the operating company level because that is the level at which a regulated capital structure is established based on an evaluation of the business risk of the utility and related factors.

One way to assess the reasonableness of Newfoundland Power's deemed equity ratio is by comparison to other investor-owned electric utilities. As shown in Figure 1, Newfoundland Power's deemed common equity ratio of 45.0 percent is higher than the five other Canadian investor-owned electric utilities.

<sup>&</sup>lt;sup>7</sup> Order No. P.U. 13(2013), at p. 17.

<sup>8</sup> Order No. P.U. 16(1998-99), at p. 58.

<sup>&</sup>lt;sup>9</sup> Order No. P.U. 16(1998-99), at p. 37.



### Figure 1: Comparison of Allowed Equity Ratios

### Canadian Investor Owned Electric Utilities

Operating Utility	Deemed Equity Ratio
ATCO Electric Distribution	38.0%
FortisAlberta	40.0%
FortisBC Electric	40.0%
Maritime Electric	41.9%
Nova Scotia Power	37.5%
Average	39.1%

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As shown in Figure 2 (also see Exhibit JMC-1), the average authorized common equity ratio for

the operating companies in the U.S. electric utility proxy group is higher than Newfoundland

Power's current allowed common equity ratio of 45.0 percent. Newfoundland Power's common

equity ratio would be at the low end of this range for the U.S. electric proxy group, which is from

44.44 percent for Duke Energy Indiana to 54.29 percent for Minnesota Power.



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## 1 Figure 2: U.S. Electric Utility Proxy Group

### Authorized Common Equity Ratio<sup>10</sup>

**Authorized Common** Company **Eauity Ratio** Minnesota Power 54.29% 46.74% Duke Energy Florida Duke Energy Indiana 44.44% Duke Energy Kentucky N/A Duke Energy Carolinas – NC 53.00% Duke Energy Ohio 53.30% Duke Energy Carolinas – SC 53.00% Connecticut Light and Power 50.38% NSTAR Electric N/A Public Service of New Hampshire 52.40% Western Mass Electric 50.70% Kansas City Power and Light – KS 50.48% Kansas City Power and Light – MO 50.09% Oklahoma Gas and Electric - OK N/A Arizona Public Service 53.94% Kansas Gas and Electric 50.13% Westar Energy 52.63% 51.11% Average

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Concentric also compared Newfoundland Power's common equity ratio of 45.0 percent to other Transmission and Distribution ("T&D") utilities of similar size in the U.S. Figure 3 presents the average allowed common equity ratio for a group of T&D utilities that provide electric utility service in the northeastern U.S. Each company has 1) a rate base between \$500 million and \$3

billion, 2) more than 200,000 customers but less than 600,000 customers, and 3) a 2014 rate case

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For utilities with operations in multiple jurisdictions, the authorized equity ratios shown are those for the jurisdiction in which the utility predominantly operates. Those utilities marked "N/A" did not have an authorized common equity ratio in their most recent rate case decision. In most instances, those cases were resolved through a settlement agreement that did not specify the authorized equity ratio.



decision. The average common equity ratio for this group of T&D utilities is 49.83 percent, reflecting higher overall equity ratios than Newfoundland Power.

# Figure 3: U.S. T&D Utility Sample

### **Authorized Common Equity Ratio**

Company	Authorized Common Equity Ratio
United Illuminating Company (CT)	50.00%
Delmarva Power and Light (DE)	49.22%
Western Massachusetts Electric	50.70%
Potomac Electric Power	49.19%
Central Maine Power	50.00%
Public Service of New Hampshire	52.40%
Atlantic City Energy	49.83%
Orange and Rockland Utilities	48.00%
Narragansett Electric	49.14%
Mean	49.83%

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### E. Assessment of Credit Metrics

Financial risk is also measured through other credit metrics, such as the ratio of Funds From Operations ("FFO") to debt, as well as interest coverage ratios that compare Earnings Before Interest, Taxes, Depreciation and Amortization ("EBITDA") and FFO to interest payments on long-term debt, and the ratio of FFO to debt. As shown in Exhibit JMC-2, the credit metrics for Newfoundland Power in 2014 were generally comparable to the companies in the Canadian and U.S. proxy groups. Specifically, Newfoundland Power has a lower debt to capital ratio, a stronger EBITDA/interest coverage ratio, a weaker FFO/interest coverage ratio, a weaker FFO to debt ratio, and a stronger debt to EBITDA ratio than the Canadian proxy group average. Compared to the U.S. proxy group average, Newfoundland Power has a higher debt to capital ratio, a weaker EBITDA to interest coverage ratio, a weaker FFO/interest coverage ratio, a weaker FFO to debt ratio, and a stronger debt to EBITDA ratio.

Based on a comparison of the equity ratios and the credit metrics of Newfoundland Power to the companies in the Canadian and U.S. proxy groups, Concentric concludes that Newfoundland



Power has comparable financial risk to the Canadian proxy group and higher financial risk than the U.S. electric utility proxy group on this factor.

# F. Change in Newfoundland Power's Financial Risk Since 2012

Newfoundland Power's first mortgage bonds have consistently maintained credit ratings of "A" from DBRS since 1997 and "A2" from Moody's Investors Service ("Moody's") since 2009. The long-term issuer rating for Newfoundland Power from DBRS is "A" and from Moody's is "Baa1". In previous Orders, the Board has observed that "the evidence is clear that the rating agencies place importance on its [Newfoundland Power's] strong common equity position." A January 2015 Moody's report reaffirmed the current ratings for Newfoundland Power, noting the supportive regulatory and business environment in Newfoundland and Labrador. However, Moody's expressed some degree of caution with respect to the development of the Muskrat Falls hydroelectric project and the expected upward pressure on electricity rates as a result of this new generation project. Moody's commented:

The rating is consistent with NPI's financial metrics but reflects a cautionary note related to our concern that the utility's future ability to fully recover costs and earn returns may be compromised as the Province of Newfoundland and Labrador undertakes development of the Muskrat Falls hydroelectric project on the lower Churchill river and the related transmission infrastructure. This politically charged project is large relative to the provincial economy and is expected to place considerable upward pressure on future electricity rates.<sup>12</sup>

Even though this has financial risk implications, due to the potential impact on credit ratings, we consider this an operating and regulatory risk; therefore, this is covered in more detail in the section on business risk.

#### G. Conclusions on Financial Risk

Newfoundland Power with its 45 percent common equity ratio has comparable financial risk as other investor-owned electric utilities in Canada. Although Newfoundland Power has more common equity in its capital structure than the other Canadian investor-owned electric utilities,

<sup>&</sup>lt;sup>11</sup> Order No. P.U. 13(2013), at p. 17.

Moody's Investors Service Global Credit Research, Credit Opinion: Newfoundland Power Inc., January 19, 2015, at p. 2.



- 1 Newfoundland Power's long-term issuer rating of Baa1 from Moody's (equivalent to BBB+ from
- 2 S&P) is one notch lower than the Canadian proxy group average of A-. Furthermore,
- 3 Newfoundland Power's credit metrics are weaker than the average for the Canadian proxy group
- 4 companies in terms of cash flow interest coverage and cash flow to debt.
- 5 Newfoundland Power has greater financial leverage in its capital structure and weaker credit
- 6 metrics than the U.S. electric utility proxy group companies. Newfoundland Power's long-term
- 7 issuer rating of Baa1 is also one notch lower than the U.S. electric utility proxy group average of
- 8 A-. While credit rating agencies may be satisfied with the degree of regulatory and cash flow
- 9 protection for debt investors, these weaker interest coverage and cash flow metrics expose equity
- investors to greater risk than their U.S. counterparts. As such, Newfoundland Power has greater
- financial risk than the U.S. proxy group.

#### III. BUSINESS RISK

#### A. Definition of Business Risk

- Business risk for a regulated utility results from variability in cash flows and earnings that impact
- 15 the ability of the utility to recover its costs including the fair return on, and of, its capital in a timely
- manner. Concentric includes operating risk and regulatory risk under this broad definition of
- 17 business risk.

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#### B. Analysis of Change in Business Risk Since 2012

- In order to assess the change in business risk since the Company's 2012 GRA filing, Concentric
- 20 examined the following factors: 1) the small size of Newfoundland Power relative to other
- 21 investor-owned electric utilities; 2) macroeconomic and demographic trends in Newfoundland
- and Labrador; 3) operating risks associated with the Company's service territory, particularly the
- 23 prevalence of severe weather conditions and the low population density of the service territory; 4)
- 24 upcoming changes in the power supply of Newfoundland Power; and 5) competition from
- alternative fuels.



#### 1. Small Size

I compared Newfoundland Power to other investor-owned electric utilities in Canada and the operating companies in the U.S. electric utility proxy group, both in terms of retail electric customers and 2014 net property, plant and equipment. Figure 4 shows that Newfoundland Power has fewer retail customers than most investor-owned electric utilities in Canada and the operating companies in the U.S. electric utility proxy group. Furthermore, in terms of 2014 net property, plant and equipment, Newfoundland Power is smaller than other investor-owned electric utilities in Canada with the exception of Maritime Electric, and is substantially smaller than the electric utility operating companies in the U.S. proxy group except for Duke Energy Kentucky. As such, Newfoundland Power has greater risk associated with adverse economic conditions in the province that could result in reduced customer demand for electricity among residential and commercial customers.



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# Figure 4: Small Size of Newfoundland Power

# Retail Electric Customers and Net Property, Plant and Equipment

Company	Retail Electric Customers	2014 Net PP&E (\$ millions)
Newfoundland Power	259,000	984.3
Canadian Investor Owned Electrics		C\$
ATCO Electric Distribution	251,800	2,091.1
FortisAlberta	530,000	2,866.9
FortisBC Electric	166,000	1,419.2
Maritime Electric	78,000	362.5
Nova Scotia Power	503,700	3,276.4
U.S. Electric Proxy Group		US\$
Minnesota Power	145,000	2,995.6
Duke Energy Florida	1,700,000	9,955.0
Duke Energy Indiana	810,000	8,815.0
Duke Energy Kentucky	140,000	1,029.1
Duke Energy Carolinas – NC	3,200,000	20,089.2
Duke Energy Ohio	700,000	4,937.0
Duke Energy Carolinas – SC	730,000	4,582.8
Connecticut Light and Power	1,223,700	6,809.7
NSTAR Electric	1,179,900	5,335.4
Public Service of New Hampshire	504,000	2,635.8
Western Mass Electric	207,900	1,461.3
Kansas City Power and Light – KS	247,000	1,724.0
Kansas City Power and Light – MO	589,100	4,111.7
Oklahoma Gas and Electric - OK	811,200	6,941.5
Arizona Public Service	1,163,100	11,074.4
Kansas Gas and Electric	321,500	3,899.3
Westar Energy	374,500	4,542.1

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The small size of Newfoundland Power also affects the terms of the Company's debt financing. Specifically, Newfoundland Power's debt issuances are typically in the range of \$75 million, while

Canadian debt markets generally require a minimum issuance amount of \$100 million, and \$200



- million to reach the liquid stage of the market. The Company's evidence also discusses how the smaller size of debt issuances for Newfoundland Power contributes to liquidity issues in placing the debt and in higher pricing differentials with long Canada bond yields.
  - As previously noted, the Board has recognized that the small size of Newfoundland Power limits the Company's financial flexibility and makes it more risky than other electric utilities in Canada. This finding has been used to support a higher than average common equity ratio. Nothing has changed in this regard since the previous GRA filing.

## 2. Macroeconomic and Demographic Trends

According to the Conference Board of Canada's ("Conference Board") Long-Term Economic Forecast, Newfoundland and Labrador is expected to post only modest economic growth over the long-term, with GDP advancing at a compound annual growth rate of 0.8 percent between 2014 and 2035 – the lowest in Canada.<sup>13</sup> The Conference Board projects that, while the Province will continue to benefit from increased investment in natural resources, a declining population will be a key driver of weak economic growth. In particular, the Conference Board observes that the demographic situation in the province will remain one of the main impediments to stronger economic growth over the long term.<sup>14</sup> Population growth in Newfoundland and Labrador has been positive over the past seven years, with the population increasing from about 510,000 in 2007 to more than 527,000 in 2014. However, the population is expected to start declining after 2019, putting pressure on employers trying to fill skilled positions and on the Province's health care system as the population ages.<sup>15</sup> In addition, the Conference Board notes that a decade of escalating offshore royalties allowed the government to substantially reduce the level of debt per capita in the Province. However, this trend has reversed over the past two years, as the government of Newfoundland and Labrador has again posted deficits.<sup>16</sup>

The Conference Board of Canada, Provincial Outlook 2015, Long-Term Economic Forecast, March 2015, at pages 12-13.

<sup>&</sup>lt;sup>14</sup> *Ibid*, at 2.

*Ibid*, at 2-3.

*Ibid*, at 8-9.



Figure 5 compares Newfoundland and Labrador to Canada on a number of key macroeconomic indicators over the period from 2014-2035.

Figure 5: Key Economic Indicators<sup>17</sup>

Economic Indicator	NL 2014-2035	Canada 2014-2035
GDP Growth	0.8%	2.0%
Labor Force Growth	(0.8%)	0.8%
Population Growth	(0.2%)	1.0%
Employment Growth	(0.6%)	0.9%
Household Disposable Income	1.8%	3.6%
Retail Sales	2.3%	3.6%
Housing Starts	(7.7%)	(0.5%)

As shown in Figure 5, Newfoundland Power's business environment is characterized by weak long-term macroeconomic growth in the Province and declining population in the Company's service territory. Furthermore, Newfoundland and Labrador is projected to be weaker than Canada for each of these key economic indicators from 2014-2035.

In the near-term, the Conference Board reports that economic conditions in Canada are expected to weaken in 2015 as plummeting oil prices have a significant negative impact on the Canadian economy. In addition to low oil prices, economic growth will also be affected by weaker growth in household spending, a result of high debt levels and ongoing fiscal restraint at both the national and provincial levels.<sup>18</sup> Although low oil prices provide a benefit to Canadian consumers, that benefit does not offset the negative impact that low crude prices have on the Canadian oil industry. Low oil prices and weak exports have led to a contraction in the provincial economy of Newfoundland and Labrador in the beginning of 2015.

As a result of these economic and demographic trends, it is more likely that Newfoundland Power's electric sales growth will be weaker in coming years even as the Company needs to continue investing capital to maintain and modernize its aging infrastructure so that service quality and reliability are not compromised. At the same time, as discussed in more detail later in this

The Conference Board of Canada, Provincial Outlook 2015, Long-Term Economic Forecast, March 2015, at pages 12-13 (Newfoundland and Labrador) and pages 124-125 (Canada).

*Ibid*, at i.



report, customer rates for electricity are expected to increase significantly due to higher power supply costs, placing even more pressure on electricity usage. For all of these reasons, it is important that Newfoundland Power be allowed to maintain a capital structure that reflects the risk associated with long-term macroeconomic and demographic trends in the Province.

#### 3. Operating Risks

Newfoundland Power is an integrated electric utility serving approximately 259,000 residential and commercial customers on the island portion of Newfoundland and Labrador. In 2014, the Company had an electric rate base of approximately \$965 million and delivered 5,898 GWh of power. Newfoundland Power purchases approximately 93 percent of its electricity supply from Newfoundland and Labrador Hydro ("NLH"), while generating the remaining 7 percent using company-owned hydro-electric plants. One of the most important operating risks for Newfoundland Power is weather-related service disruptions. As described in the Company's testimony, Newfoundland Power's service territory is characterized by the most severe ice and wind conditions in the populated regions of Canada. The need to address supply disruptions caused by severe weather conditions involves unanticipated and potentially volatile capital and operating costs. Newfoundland Power's capital structure and allowed ROE must provide the Company with the financial flexibility necessary to respond to unforeseen capital and operating costs in order to restore electric service promptly to customers.

Furthermore, Newfoundland Power's load center is in and around St. John's. As discussed in more detail in the next section on supply risk, NLH plans to shift a significant portion of its electric generation from the Holyrood plant to the Nalcor Energy Muskrat Falls development. The new electricity supply will be served by a new 1,100 kilometer transmission line, which will cross eight different climatic zones to reach St. John's, thereby increasing the potential weather-related risk to Newfoundland Power's electricity supply.

#### 4. Power Supply Risk

Newfoundland Power is not allowed to develop new supply for the Province with the exception of emergency supply; only NLH is authorized to build generation. As mentioned above, NLH plans to shut down the Holyrood facility and replace it with the Muskrat Falls development in the



near term. The new Muskrat Falls generation and transmission facility is expected to cost approximately \$9 billion, as compared to NLH's 2014 rate base of about \$1.6 billion. There are questions about the reliability of NLH's current and future generation sources, as well as concerns that the cost of the new power supply will have a significant impact on rates. With regard to the reliability of NLH's generation, the Board is currently conducting an investigation into several events that occurred in early 2014 which caused customers of Newfoundland Power to lose electricity for a period of time. In particular, the Board has determined that the January 2014 outages were the result of NLH's lack of available generation capacity to meet customer demand, resulting in a request for customer conservation and rotating power outages and subsequent equipment failure on NLH's bulk transmission system resulting in further widespread outages.<sup>19</sup> The Board has also expressed concern about the winter readiness of NLH's system, citing Liberty Consulting Group's finding that "a continuing and unacceptably high risk of outages from such causes remains for the 2015-2017 winter seasons."<sup>20</sup> As a result of these events, as many as 187,500 Newfoundland Power customers experienced outages including rotating power outages in January 2014.

With regard to the impact of Nalcor Energy's new generation plant at Muskrat Falls, Newfoundland Power expects that electricity rates will increase substantially due to higher supply costs. According to Newfoundland Power's evidence, power supply costs currently account for approximately 64 percent of the Company's 2014 revenue. Newfoundland Power recovers changes in power supply costs through the Rate Stabilization Account ("RSA"), which allows for recovery of variations in NLH's production costs. The RSA also recovers or credits, as appropriate, variations in Newfoundland Power's supply costs due to changes from test year energy and demand costs. The RSA effectively limits Newfoundland Power's risk of recovery of supply costs to approximately +/-\$640,000, which represents approximately 25 percent of the range of return on rate base typically approved by the Board. By contrast, the vast majority of distribution utilities in Canada and the U.S. are allowed to pass through all fuel and purchased power costs, without limitation. Furthermore, Moody's and DBRS have both expressed concern

Newfoundland and Labrador Board of Commissioners of Public Utilities, *In the Matter of an Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System*, Interim Report, May 15, 2014, at i.

<sup>20</sup> Ibid, at 4. The Board's interim report cites the Liberty Consulting Group report at ES-1.



with increasing business risk for Newfoundland Power due to higher supply costs, and how those costs might impact customer demand for electricity and timely cost recovery for the Company. For example, Moody's has commented on the power supply situation as follows:

The rating is consistent with NPI's financial metrics but reflects a cautionary note related to our concern that the utility's future ability to fully recover costs and earn returns may be compromised as the Province of Newfoundland and Labrador undertakes development of the Muskrat Falls hydroelectric project on the lower Churchill river and the related transmission infrastructure. This politically charged project is large relative to the provincial economy and is expected to place considerable upward pressure on future electricity rates."<sup>21</sup>

In terms of both current and future reliability of the power supply and future electricity prices, it is clear that Newfoundland Power's risk is higher now than it was at the time of the 2012 GRA filing.

#### 5. Alternative Fuel Risk

Currently, Newfoundland Power does not face significant competition from alternative fuel sources. Approximately 66 percent of Newfoundland Power's residential customers use electricity for space heating. Historically, large increases in the price of fuel oil combined with moderate increases in the price of electricity have favored electric space heating. The increase in electric space heating market share has had a direct impact on the growth in Newfoundland Power's average electricity usage per residential customer and energy sales.

The completion of the Muskrat Falls development is expected to result in higher electricity prices over the near term. Combined with the sharp decline in oil prices, there is greater potential that the competitive advantage will shift away from electricity and negatively impact the electric space heating market share of Newfoundland Power.

#### 6. Conclusions on Change in Business Risk Since 2012

The business risk for Newfoundland Power is higher than it was in 2012 for the Company's previous GRA filing. In particular, the risk associated with higher electricity prices has increased

<sup>&</sup>lt;sup>21</sup> Moody's Investors Service, Credit Opinion: Newfoundland Power, January 19, 2015, at 2.



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substantially; the risk of more frequent supply disruptions and outages has increased, as noted by Liberty Consulting's report to the Board; the future electricity supply from NLH will be located farther from the load center, causing more uncertainty with regard to reliability; and the risk related to macroeconomic and demographic trends has increased as the Provincial economy is projected to experience weaker economic growth and an aging population/declining customer base over the next 20 years. This higher business risk profile magnifies the risk associated with the small size of Newfoundland Power and the limited possibilities for growth in the Company's service territory.

## C. Comparison to other Canadian Investor-Owned Electric Utilities

Concentric also compared the business risk of Newfoundland Power to five other Canadian investor-owned electric utilities in order to assess whether the Company continues to be an average risk Canadian utility, as the Board has stated in previous decisions.<sup>22</sup> Those five investor-owned electric utilities are: ATCO Electric; FortisAlberta; FortisBC Electric; Maritime Electric; and Nova Scotia Power.<sup>23</sup>

In assessing the business risk of Newfoundland Power relative to other Canadian investor-owned electric utilities, Concentric considered the following factors:

- 1) Power supply risk and electricity prices;
- 2) Macro-economic and demographic conditions in the various service territories;
- 3) Volume/demand risk;
- 4) Competition from alternative fuels;
- 5) Regulatory environment; and
- 21 6) Capital and operating cost recovery.

## 1. Power Supply Risk

As discussed in the previous section, Newfoundland Power purchases approximately 93 percent of its power supply from NLH. The price of Newfoundland Power's electricity supply is expected to increase substantially as NLH shifts generation from Holyrood to the Muskrat Falls

<sup>&</sup>lt;sup>22</sup> Order No. P.U. 13(2013), at 17.

<sup>&</sup>lt;sup>23</sup> Concentric did not include crown corporations in the risk comparison because crown corporations cannot be used for purposes of estimating the cost of equity since they are not publicly traded and no market data are available.



development. Newfoundland Power's RSA permits recovery of the difference between the marginal energy supply cost and the average energy supply cost, and effectively limits Newfoundland Power's risk of recovery of supply costs to +/-\$640,000, or approximately 25 percent of the range of return on rate base typically approved by the Board. The purpose of the RSA is to ensure that variations in NLH's production costs, which were captured in NLH's Rate Stabilization Plan, are recovered in or credited to Newfoundland Power's customer rates in a timely fashion.

Nova Scotia Power is the only Canadian investor-owned electric utility that owns significant regulated generation; it has an annual fuel adjustment mechanism that includes an incentive component whereby Nova Scotia Power retains or absorbs 10 percent of the over- or under-recovered amount up to a maximum of \$5 million. FortisBC Electric and Maritime Electric both own limited regulated generation; FortisBC Electric has an annual fuel and purchased power cost recovery mechanism, and Maritime Electric has a monthly fuel and purchased power cost recovery mechanism. The Alberta electric utilities, including ATCO Electric and FortisAlberta, are not responsible for the generation function.

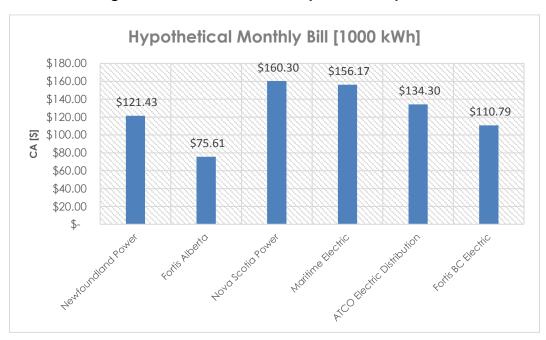
In summary, Newfoundland Power has more risk associated with recovery of variations in fuel or purchased power costs than other Canadian investor-owned electric utilities except for Nova Scotia Power. Moreover, we note that Newfoundland Power is uniquely dependent on a single source of electric supply, creating greater supply risk than utilities such as FortisBC, Nova Scotia Power, or the Alberta utilities that rely on a more diverse mix of generation and market sources.

#### 2. Electricity Price Comparison

As discussed above, Newfoundland Power's electricity prices are expected to increase substantially when NLH shifts a significant portion of the power supply to the Muskrat Falls development. As shown on Figure 6, Newfoundland Power's residential electricity prices are currently lower than three of the five investor-owned electric utilities in Canada.



Figure 6: Residential Electricity Price Comparison



While prices for other Canadian investor-owned electric utilities are also expected to increase, the magnitude of the forecasted increase for Newfoundland Power is much higher than average. These higher prices typically result in lower electricity demand from customers, as well as more customers considering alternative sources of energy. It is reasonable to expect that the anticipated increase in electricity prices will place pressure on Newfoundland Power's demand, which could impact the Company's credit metrics and would inhibit the Company's ability to recover its authorized return on equity.

# 3. Macroeconomic and Demographic Conditions

Macroeconomic conditions in Newfoundland and Labrador are projected by the Conference Board to be generally weaker than other Canadian provinces for the period from 2014-2035. As shown in Figure 7, Concentric compared the projected macroeconomic conditions in Newfoundland and Labrador to those in the provinces where the other five investors-owned electric utilities are located, as well as Ontario and Quebec.



Figure 7: Key Economic Indicators – NL and Other Provinces<sup>24</sup>

	NL	ALB	ВС	NS	ONT	PEI	QC
GDP Growth at Market Prices	0.8%	2.0%	2.1%	1.1%	2.1%	1.4%	1.6%
Labor Force Growth	(0.8%)	1.1%	0.8%	(0.3%)	0.9%	0.1%	0.4%
Population Growth	(0.2%)	1.4%	1.0%	0.0%	1.1%	0.4%	0.7%
Employment Growth	(0.6%)	1.2%	0.9%	(0.1%)	1.0%	0.2%	0.5%
Disposable Income	1.8%	4.0%	3.9%	2.4%	3.8%	2.8%	3.0%
Retail Sales	2.3%	3.8%	3.7%	2.8%	3.7%	3.3%	3.3%
Housing Starts	(7.7%)	(1.3%)	(0.8%)	(3.5%)	1.2%	(3.3%)	(2.1%)

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As shown in Figure 7, Newfoundland and Labrador has the lowest projected growth rate for each of the key economic indicators over the period from 2014-2035.

#### 4. Volume/Demand Risk

In order to mitigate volume/demand risk, Newfoundland Power has a weather-related variance account that allows the Company to recover in a future period the difference between projected and actual revenues due to abnormal weather conditions in the test year. This variance account, however, does not take into consideration changes in demand caused by economic conditions, electricity prices, or energy efficiency and conservation programs.

By comparison, among Canadian investor-owned electric utilities, FortisBC Electric operates under a revenue stabilization plan that includes full protection against volumetric risk. Nova Scotia Power has a Fixed Cost Recovery deferral account that provides for recovery of lost revenues associated with two large industrial customers. ATCO Electric Distribution and FortisAlberta both are subject to a performance based regulation plan that adjusts revenues annually based on

<sup>&</sup>lt;sup>24</sup> The Conference Board of Canada, Provincial Outlook 2015, Long Term Economic Forecast, March 2015.



inflation less a productivity factor; however, the PBR plan does not include protection against changes in volume/demand. Maritime Electric has no protection against changes in volume/demand. In summary, Newfoundland Power's weather-related variance account provides less regulatory protection against changes in volume/demand than FortisBC, but more protection than Nova Scotia Power, Maritime Electric, or the Alberta electric utilities. Newfoundland Power has the highest market share of electric heating customers among Canadian investor-owned electric utilities. The Company has been allowed to implement a weather-related variance account to mitigate this risk. The Company's volumetric/demand risk is more analogous to a gas distribution company than to the typical electric utility. Gas distribution companies typically have weather normalization accounts.

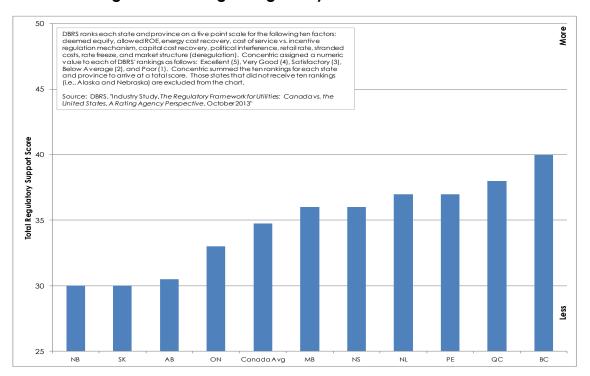
#### 5. Regulatory Environment

According to an October 2013 DBRS report, the regulatory environment in Newfoundland and Labrador is characterized as "Excellent" or "Very Good" on most factors with the exception of Deemed Equity Ratio ("Below Average"), Allowed ROE ("Poor"), and Political Interference ("Below Average").<sup>25</sup> Concentric has assigned numeric scores to each of the ten factors considered by DBRS in order to derive a total score for each Canadian jurisdiction. On that basis, Newfoundland and Labrador's score of 37.0 is slightly above the Canadian average of 35.0. British Columbia and Quebec are the two Canadian provinces with higher scores than Newfoundland and Labrador based on the DBRS data. Figure 8 shows the relative ranking of Canadian regulatory environments.

DBRS, "Industry Study: The Regulatory Framework for Utilities: Canada vs. the United States, A Rating Agency Perspective," October 2013, at 123.



#### Figure 8: Ranking of Regulatory Jurisdictions – Canada



6. Capital Cost Recovery

Newfoundland Power files a capital budget with the Board annually, which includes the Company's capital budget for the upcoming year, as well as a five year outlook. The Board reviews Newfoundland Power's capital plan and either approves the capital budget or modifies it. Similarly, Nova Scotia Power, FortisBC Electric, and Maritime Electric also file for pre-approval of capital expenditures. In Alberta, the Commission does not pre-approve capital spending plans for electric utilities, but it has allowed ATCO Electric and FortisAlberta to recover significant capital expenditures that are made between rate cases under the PBR plan. None of the electric utilities in Canada are allowed to earn a cash return on Construction Work in Progress, but all utilities are permitted AFUDC. In summary, Newfoundland Power has similar risk associated with capital cost recovery as other investor-owned electric utilities in Canada.

#### 7. Operating Cost Recovery

Concentric has identified five categories of operating costs that tend to distinguish specific areas of costs where cost recovery mechanisms vary between jurisdictions. These are costs that (1) tend



to fluctuate substantially from year to year, (2) are significant in magnitude, and (3) are generally beyond the control of utility management. Regulators in Canada have typically used variance and deferral accounts to mitigate the risks associated with these types of costs. As shown in Figure 9, Newfoundland Power has deferral/variance accounts for pension expenses and energy efficiency and conservation costs, while other Canadian investor-owned electric utilities have varying levels of protection against these risks, with the exception of FortisAlberta, which does not have any deferral/variance accounts related to these costs.

Figure 9: Operating Cost Recovery Mechanisms

Cost	Pension/OPEB Expense	Bad Debt Expense	Storm Costs	Change in Interest Rates	Energy Efficiency and DSM
Newfoundland Power	Yes	No	No	No	Yes
ATCO Electric	Yes	No	Yes	Yes	No
FortisBC Electric	Yes	No	Yes	Yes	Yes
FortisAlberta	No	No	No	No	No
Maritime Electric	Yes	No	No	No	Yes
Nova Scotia Power	No	No	No	No	Yes

Importantly, while Newfoundland Power has protection against pension and retirement expenses, the Company does not have a storm-related deferral account like ATCO Electric and FortisBC Electric, despite operating in a service territory characterized by the most severe ice and wind storms in Canada.

# 8. Conclusions on Business Risk Compared to Other Canadian Electric Utilities

Concentric concludes that Newfoundland Power has above average business risk compared to other Canadian electric utilities. Further, Newfoundland Power's business risk has increased compared to other Canadian investor-owned electric utilities since its last GRA. In particular, factors contributing to this higher risk profile include Newfoundland Power's small size, dependence on one supplier, weather and storm related risk, and weaker macroeconomic and demographic trends in the province as compared to the remainder of Canada. While the regulatory framework in Newfoundland and Labrador is generally supportive of maintaining credit quality, there are certain aspects of the operating environment where Newfoundland Power has higher business risk than other Canadian investor-owned electric utilities. For example, the small size of



Newfoundland Power in terms of retail customers and revenues from electric utility service makes the Company more vulnerable to changes in customer demand due to economic and demographic conditions in the Province. Furthermore, the rising cost of the electricity supply for Newfoundland Power is expected to contribute to a substantial increase in electricity rates, which places significant pressure on customer demand and raises uncertainty with regard to cost recovery. Compared to other electric utilities in Canada, Newfoundland Power has more risk associated with variations in purchased power costs due to the limitations associated with the Revenue Stabilization Account. As mentioned, Newfoundland Power is exposed to elevated storm-related risk in its service territory, but does not have regulatory protection that ensures recovery of unanticipated storm-related costs through a deferral account, unlike several other electric utilities in Canada.

# D. Comparison to U.S. Electric Utility Proxy Group

## 1. Regulated Electric Utility Operations

Newfoundland Power derives 100 percent of its operating income and revenues from regulated electric utility service. As shown in Exhibit JMC-3, the U.S. electric utility proxy group companies derive approximately 98 percent of regulated income and 97 percent of regulated revenues from electric utility service, and approximately 96 percent of regulated assets are dedicated to electric utility operations. For this reason, Concentric believes that the U.S. electric utility proxy group is more representative of Newfoundland Power's electric utility operations than the Canadian proxy group companies, which generally derive substantially lower percentages of operating income and revenues from electric utility service, and have a lower percentage of assets dedicated to electric utility operations.

Exhibit JMC-4 presents a summary of several operating statistics for the companies in the U.S. electric utility proxy group, including: 1) the state(s) in which the utility provides service; 2) the S&P credit rating for each operating company; 3) the 2014 regulated electric revenues for each operating company; and 4) the number of retail distribution customers served. In that regard, Newfoundland Power is smaller in terms of 2014 regulated electric revenues and retail distribution customers than the vast majority of operating companies in the U.S. electric utility proxy group.



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## 2. Credit Rating Agency View on U.S. Regulatory Framework

- In September 2013, Moody's issued a report discussing its evolving view of U.S. utility regulation.
  - In that report, Moody's stated:

Based on our observations of trends and events, we propose to adopt a generally more favorable view of the relative credit supportiveness of the U.S. utility regulatory environment. Our updated view considers improving regulatory trends that include the increased prevalence of automatic cost recovery provisions, reduced regulatory lag, and generally fair and open relationships between utilities and regulators.

Our revised view that the regulatory environment and timely recovery of costs is in most cases more reliable than we previously believed is expected to lead to a one notch upgrade of most regulated utilities in the U.S., with some exceptions. This evolving view is independent of the proposed changes in the methodology that are highlighted in the Summary section that follows, and would have taken place even if the 2009 methodology were to remain in place without modification.26

As discussed previously, DBRS ranked each U.S. state and Canadian province in an October 2013 report. Figure 10 compares the regulatory environment in Newfoundland and Labrador to that in Canada and the U.S. As shown in Figure 10, the regulatory environment in Newfoundland and Labrador of 37.0 ranks higher than the Canadian average of 35.0 but lower than the U.S. average of slightly above 40.0.

<sup>&</sup>quot;Proposed Refinements to the Regulated Utilities Rating Methodology and our Evolving View of US Utility Regulation," Moody's Investors Service, September 23, 2013, at 1.



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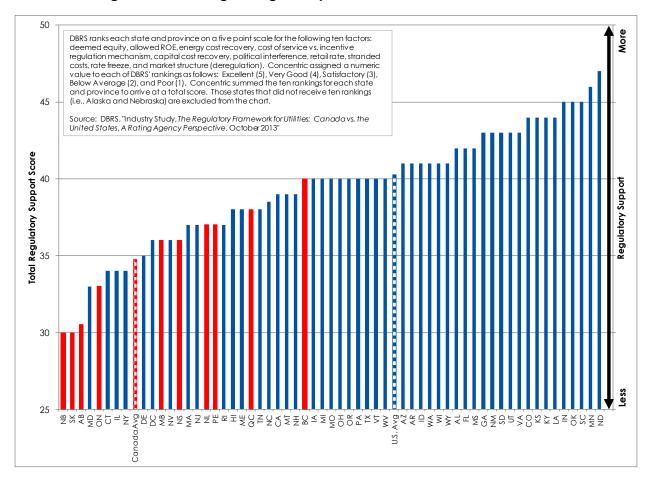
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## Figure 10: Ranking of Regulatory Jurisdictions – U.S. and Canada



3. Comparison to U.S. Electric Utility Proxy Group

As a preliminary matter, Concentric notes that from the investors' perspective, both short-term and long-term risk is important. Regulation generally is better at addressing short-term risk, whereas long-term risk cannot be mitigated as effectively by regulation. For example, changes in competitive positioning vs. alternative fuels, shifts in service area demographics, or policy mandates impacting long-term business prospects may not be fully protected. In order to compare the business risk for Newfoundland Power to the U.S. electric utility proxy group, Concentric assessed the following factors:

- (1) Regulated generation risk;
- (2) Fuel and purchased power cost risk;
- (3) Volume/demand risk;



1	(4) Capital cost recovery risk;
2	(5) Rate regulation and earnings sharing;
3	(6) Regulatory lag; and
4	(7) Operating cost recovery mechanisms.
5	Detailed results for each company in the U.S. Electric utility proxy group are presented in Exhibit
6	JMC-5, Schedules 1-6. The following briefly summarizes our conclusions with regard to the major
7	categories of business risk for Newfoundland Power relative to the U.S. electric utility proxy
8	group:
9	(1) Regulated generation risk: Newfoundland Power owns limited regulated generation assets
10	and therefore has lower generation risk than the U.S. electric utility proxy group operating
11	companies, the majority of which own regulated generation assets. See Exhibit JMC 5,
12	Schedule 1.
13	(2) Fuel and purchased power cost risk: Newfoundland Power purchases approximately 93
14	percent of its power supply from NLH and generates the remaining 7 percent of its energy
15	supply from Company-owned hydro-electric plants. The Company is allowed to recover
16	variations in NLH's production costs in a timely fashion through the Rate Stabilization
17	Account, subject to certain limitations described previously. All of the electric utility
18	companies in the U.S. proxy group have fuel adjustment clauses that allow them to pass
19	through fuel and purchased power costs to customers. As such, the U.S. electric utility
20	companies are not at risk for differences between the projected and actual cost of fuel and
21	purchased power. We note that Newfoundland Power's predominant reliance on a single
22	source of power places it at greater risk of supply disruptions than the average U.S. utilities
23	and the effective limitations on Newfoundland Power's RSA constrain the Company's ability
24	to recover variations in purchased power costs. See Exhibit JMC-5, Schedule 1.
25	(3) Volume/demand risk: Newfoundland Power has a weather normalization adjustment
26	clause which provides regulatory protection against changes in volume/demand caused by
27	abnormal weather conditions. By comparison, about 17 percent of the operating companies
28	in the U.S. electric utility provy group (based on percentage of customers served) have full



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revenue decoupling mechanisms, while another 24 percent have partial decoupling or Lost Revenue Adjustment Mechanisms. See Exhibit JMC-5, Schedule 2.

- (4) <u>Capital cost recovery risk</u>: Newfoundland Power annually files a capital investment plan with the Board, and the Board approves a specified amount that will be recoverable in future rates. Approximately 50 percent of the operating companies in the U.S. electric utility proxy group (based on percentage of customers served) also receive pre-approval for capital expenditures. More than 70 percent of the operating companies in the U.S. proxy group are allowed to earn a cash return on Construction Work in Progress, and 52 percent have cost tracking mechanisms that allow them to recover capital costs between rate cases. Newfoundland Power does not have any capital tracking mechanisms, and is allowed to earn AFUDC on capital costs rather than a cash return on CWIP. See Exhibit JMC-5, Schedule 3.
- (5) Rate regulation and earnings sharing: Newfoundland Power has historically operated under cost-of-service regulation, and has been required to segregate for customer's benefit 100 percent of excess earnings above authorized levels. Among the U.S. electric utility proxy group, 100 percent of the operating companies are currently under cost of service regulation, and 29 percent have an earning sharing mechanism while the other 71 percent absorb earnings above or below the authorized level. See Exhibit JMC-5, Schedule 4.
- (6) Regulatory lag: Newfoundland Power files rate applications based on a forecasted test year, while 81 percent of operating companies in the U.S. proxy group use historical test years adjusted for known and measurable changes. Newfoundland Power's revenue requirement is determined based on average rate base, while 82 percent of operating companies in the U.S. proxy group use year-end rate base, which provides more timely recovery of capital investments. Newfoundland Power may request interim rates under exceptional circumstances (i.e., financial emergency), but has never done so. By comparison 44 percent of operating companies in the U.S. proxy group are permitted to implement interim rates on a routine basis, and the other 56 percent are allowed interim rates if the financial integrity of the utility would be harmed without interim rates. See Exhibit JMC-5, Schedule 5.
- (7) Operating cost recovery mechanisms: Newfoundland Power has been allowed to implement a number of deferral and variance accounts; likewise, the operating companies in



the U.S. proxy group enjoy similar regulatory protection against specific categories of costs that tend to fluctuate significantly from year to year, are material in nature, and are beyond the control of utility management. For example, Newfoundland Power has an account for recovery of energy efficiency and conservation costs, and 76 percent of operating companies in the U.S. proxy group also have an account for this purpose. A notable exception is that Newfoundland Power has limited protection against storm-related costs (both operating and capital costs), which tend to be a significant risk factor in any given year due to harsh climate conditions in the Province. Newfoundland Power is allowed to place storm-related capital investments in rate base, but cost recovery of that capital investment is delayed until the next rate case. Such regulatory protection is widely available to the companies in the U.S. electric utility proxy group, with 69 percent of the operating companies having a storm-cost recovery account. See Exhibit JMC-5, Schedule 6.

In addition to these short-term risks, as discussed previously, Newfoundland Power has higher long-term business risk than the U.S. proxy group companies due to (1) unfavorable demographic trends (e.g., Newfoundland Power serves an island where the population is aging and is expected to decline in absolute terms over the next 20 years), and (2) the fact that macroeconomic growth is projected to be weak in the Province over the next 20 years. In addition, Newfoundland Power's service territory is exposed to severe weather conditions, especially wind and ice storms that create significant risk that Newfoundland Power will incur substantial capital and operating costs to restore service in any given year.

# 4. Conclusions on Business Risk of Newfoundland Power Compared to U.S.

# **Electric Utility Proxy Group**

Based on the business risk analysis, Concentric concludes Newfoundland Power has somewhat higher business risk than the proxy group of U.S. electric utility companies. In particular, factors contributing to this higher risk profile include Newfoundland Power's small size, dependence on one supplier, and weather and storm related risk. Newfoundland Power has similar business risk to the U.S. electric utility proxy group on most factors that affect the short and intermediate term variability of earnings and cash flows. Notable differences include: a) the approval of CWIP in rate base for companies in the U.S. proxy group; b) the use of forecasted test years for



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- 1 Newfoundland Power; and c) the prevalence of storm cost trackers for the U.S. proxy group.
- 2 Further, Newfoundland Power faces a less favorable economic and demographic environment, as
- 3 well as a more severe operating environment and smaller size.
- 4 One distinguishable difference in business risk between Newfoundland Power and the U.S. proxy
- 5 group is the higher percentage of U.S. proxy group companies that own regulated generation
- 6 assets. However, Newfoundland Power has an offsetting risk related to its reliance on a single
- source of electric supply. On balance, Newfoundland Power's business risk is somewhat higher
- 8 than the operating companies in the U.S. electric utility proxy group that would cause an investor
- 9 to assign a higher risk profile to Newfoundland Power.

#### IV. RISK ANALYSIS CONCLUSIONS

- Based on the results of the financial and business risk analyses discussed throughout this report,
- 12 Concentric recommends that the Board find that:
- The business risk of Newfoundland Power is higher than that of other

  Canadian investor-owned electric utilities:
  - The business risk of Newfoundland Power is higher than at the time of the last GRA in 2012;
    - The small size of Newfoundland Power and the operating challenges of providing electricity in the Company's service territory continues to support a higher common equity ratio than other investor-owned electric utilities in Canada;
    - Certain factors suggest that the business risk for Newfoundland Power is likely
      to increase as the cost of the Company's power supply increases, and as
      demographic and macroeconomic trends in the Province turn less favorable;
    - Regulatory protections to mitigate business risk for Newfoundland Power generally are similar to those for the operating companies in the U.S. electric utility proxy group;



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• The financial risk of Newfoundland Power with 45 percent common equity is comparable to that of the Canadian proxy group and somewhat higher than the U.S. electric utility proxy group, based on an analysis of deemed equity ratios and key cash flow and interest coverage metrics; and

Based on the foregoing, I conclude that the current deemed common equity ratio for

Newfoundland Power of 45.0 percent remains the minimum appropriate level given these relative financial and business risks.

## **Proxy Group Stats**

U.S. Proxy Group	S&P Rating	Bloomberg Beta [2]	Operating Company	Authorized ROE	Allowed Equity Ratio	Decision Date
ALLETE, Inc.	BBB+	0.71	Minnesota Power	10.38%	54.29%	11/2/2010
Duke Energy Corporation	A-	0.49	Duke Energy Florida	10.50%	46.74%	3/5/2010
			Duke Energy Indiana	10.50%	44.44%	5/18/2004
			Duke Energy Kentucky	N/A [1]	N/A [1]	12/21/2006
			Duke Energy Carolinas - NC	10.20%	53.00%	9/24/2013
			Duke Energy Carolinas - SC	10.20%	53.00%	9/11/2013
			Duke Energy Ohio	9.84%	53.30%	5/1/2013
Eversource Energy	Α	0.65	Connecticut Light and Power	9.17%	50.38%	12/17/2014
			NSTAR Electric	10.50%	N/A [1]	12/30/2005
			Public Service of New Hampshire	9.67%	52.40%	6/28/2010
			Western Mass. Electric	9.60%	50.70%	1/31/2011
Great Plains Energy Inc.	BBB+	0.72	Kansas City Power and Light - KS	9.30%	50.48%	9/10/2015
			Kansas City Power and Light - MO	9.50%	50.09%	9/2/2015
OG&E Energy Corporation	A-	0.77	Oklahoma Gas and Electric - OK	10.20%	N/A [1]	7/9/2012
Pinnacle West Capital Corp.	A-	0.69	Arizona Public Service	10.00%	53.94%	5/15/2012
Westar Energy, Inc.	BBB+	0.65	Kansas Gas and Electric	10.40%	50.13%	1/27/2010
			Westar Energy	10.00%	52.63%	11/21/2013
Average	A-	0.67		10.00%	51.11%	

		Bloomberg	Operating Company	Authorized	Deemed	Decision
Canadian Proxy Group	S&P Rating	Beta [2]	,	ROE	<b>Equity Ratio</b>	Date
Canadian Utilities	Α	0.68	ATCO Electric Distribution	8.30%	38.00%	3/23/2015
Emera Corp.	BBB+	0.59	Nova Scotia Power Inc.	9.00%	37.50%	12/21/2012 also has 3.8% preferred
Enbridge, Inc.	A-	1.05	Enbridge Gas Distribution, Inc.	9.30%	36.00%	11/20/2014
Valener, Inc.	A-	0.43	Gaz Metro QDA	8.90%	38.50%	5/16/2014 also has 7.5% preferred
Average	A-	0.69		8.88%	37.50%	
Fortis, Inc.	A-	0.48	Newfoundland Power	8.80%	45.00%	4/17/2013

#### Notes:

- [1] Not specified in most recent rate case, which was resolved through settlement agreement.
- [2] Bloomberg beta as of July 31, 2015.

Company Name	<u>Ticker</u>		Debt to Capital Ratio	EBITDA to Interest Coverage	FFO to Interest Coverage	FFO / Debt (%)	Debt to EBITDA
Newfoundland Power		[1]	55%	4.52	3.61	17.5%	3.30
		U.S.	. Proxy Gro	<u>quc</u>			
ALLETE, Inc.	ALE		49%	4.92	3.90	18.9%	4.19
Duke Energy Corporation	DUK		53%	4.42	3.95	18.4%	4.86
Eversource Energy	ES		53%	5.18	4.07	16.5%	4.75
Great Plains Energy Inc	GXP		57%	4.13	3.15	16.5%	4.60
OG&E Energy Corp	OGE		49%	5.78	4.86	25.8%	3.26
Pinnacle West Capital Corp	PNW		48%	5.12	3.89	25.7%	2.95
Westar Energy, Inc	WR		56%	4.68	3.67	19.4%	4.04
U.S. Proxy Group			52%	4.89	3.92	20.2%	4.09
	<u>C</u>	anac	<u>dian Proxy</u>	Group			
Canadian Utilities Limited	CU		63%	3.69	4.48	13.4%	5.18
Emera Incorporated	EMA		59%	5.13	5.13	17.8%	4.19
Enbridge Inc.	ENB		69%	3.55	2.57	10.0%	7.25
Valener, Inc.	VNR	[2]	68%	N/A	N/A	33.6%	2.30
Canadian Proxy Group	-		65%	4.12	4.06	18.7%	4.73

## Notes & Sources:

Unless otherwise noted, all values are based on Standard and Poor's adjusted credit metrics for the holding-company [1] Provided by Newfoundland Power in response to data request.

[2] Credit metrics for Valener are for 2013; the S&P report does not include interest coverage metrics for Valener.

# 2014 % Regulated

Utility	% Regulated Income	% Electric Revenues	% Electric Income	% Electric Assets
ALLETE, Inc.	97%	97%	97%	99%
Duke Energy Corporation	100%	98%	97%	97%
Eversource Energy	100%	87%	91%	89%
Great Plains Energy, Inc.	100%	100%	100%	100%
OG&E Energy Corp	100%	100%	100%	85%
Pinnacle West Capital	100%	100%	100%	100%
Westar Energy	100%	100%	100%	100%
U.S. Proxy Group Average	100%	97%	98%	96%

Note: Percentage of operating income may exceed 100% due to losses at affiliates.

#### **Operating Stats**

U.S. Proxy Group	Ticker	Operating Utility	State	S&P Credit Rating (Operating Utility)	2014 Regulated Electric Revenues US\$	2014 Retail Customers	Notes
ALLETE, Inc.	ALE	Minnesota Power	MN	BBB+	956,416,000	144,000	[1]
Duke Energy Corporation	DUK	Duke Energy Florida	FL	A-	4,975,000,000	1,700,000	
		Duke Energy Indiana	IN	A-	3,175,000,000	810,000	
		Duke Energy Kentucky	KY	A-	368,894,000	140,000	
		Duke Energy Carolinas - NC	NC	A-	5,985,551,750	3,200,000	[2]
		Duke Energy Carolinas - SC	SC	A-	1,365,448,250	730,000	[2]
		Duke Energy Ohio	ОН	A-	1,316,000,000	700,000	
Eversource Energy	ES	Connecticut Light and Power	CT	Α	2,545,794,000	1,223,743	
		NSTAR Electric	MA	Α	2,382,578,000	1,179,867	
		Public Service of New Hampshire	NH	Α	888,459,000	504,000	
		Western Mass. Electric	MA	Α	417,449,000	207,877	
Great Plains Energy Inc.	GXP	Kansas City Power and Light - KS	KS	BBB+	973,347,800	316,800	[2]
		Kansas City Power and Light - MO	MO	BBB+	1,594,852,200	519,100	[2]
OG&E Energy Corporation	OGE	Oklahoma Gas and Electric - OK	OK	Α-	2,453,100,000	814,982	
Pinnacle West Capital Corp.	PNW	Arizona Public Service	ΑZ	A-	3,488,946,000	1,163,079	
Westar Energy, Inc.	WR	Kansas Gas and Electric	KS	BBB+	771,687,000	321,501	
		Westar Energy	KS	BBB+	1,014,778,000	374,472	

Canadian Proxy Group	Ticker	Operating Utility	Province	S&P Credit Rating (Operating Utility)	C\$ 2014 Regulated Revenue	2014 Retail Customers	
Canadian Utilities Ltd.	CU	ATCO Electric Ltd.	AB	Α	1,061,006,000	251,755	[1]
Emera, Inc.	EMA	Nova Scotia Power	NS	BBB+	1,319,200,000	503,676	
Enbridge	ENB	Enbridge Gas Distribution	ON	BBB+	3,200,000,000	2,098,145	[3]
Valener, Inc.	VNR	Gaz Metro QDA	QC	Α	1,561,700,000	195,617	[3]
Fortis, Inc		Newfoundland Power	NL	BBB+	227,000,000	259,000	[1]

#### <u>Notes</u>

- [1] S&P credit rating is for ALLETE Inc., Canadian Utilities Ltd., and Fortis, Inc.
- [2] Regulated electric revenues allocated between states based on percentage of retail customers.
- [3] Regulated revenues and number of customers are from gas distribution operations.

<sup>\*</sup> Revenue for U.S. utilities shown in US\$; Revenue for Canadian utilities shown in CAN\$

# **Regulated Generation**

				Regulated	Fuel/PP	
U.S. Proxy Group		Operating Utility	State	Generation	Costs	Customers
ALLETE, Inc.	ALE	Minnesota Power	MN	Yes	Monthly	144,000
Duke Energy Corporation	DUK	Duke Energy Florida	FL	Yes	Annually	1,700,000
		Duke Energy Indiana	IN	Yes	Quarterly	810,000
		Duke Energy Kentucky	KY	Yes	Monthly	140,000
		Duke Energy Carolinas - NC	NC	Yes	Annually	3,200,000
		Duke Energy Carolinas - SC	SC	Yes	Monthly	730,000
		Duke Energy Ohio	ОН	No	N/A	700,000
Eversource Energy	ES	Connecticut Light and Power	CT	No	Bi-Annual	1,223,743
		NSTAR Electric	MA	No	Bi-Annual	1,179,867
		Public Service of New Hampshire	NH	Yes	Annually	504,000
		Western Mass. Electric	MA	Limited	Bi-Annual	207,877
Great Plains Energy Inc.	GXP	Kansas City Power and Light - KS	KS	Yes	Monthly	316,800
		Kansas City Power and Light - MO	MO	Yes	Bi-Annual	519,100
OG&E Energy Corporation	OGE	Oklahoma Gas and Electric - OK	OK	Yes	Bi-Annual	814,982
Pinnacle West Capital Corp.	PNW	Arizona Public Service	ΑZ	Yes	Annually	1,163,079
Westar Energy, Inc.	WR	Kansas Gas and Electric	KS	Yes	Quarterly	321,501
		Westar Energy	KS	Yes	Quarterly	374,472
Canadian Proxy Group		Utility	Province			
Canadian Utilities Ltd.	CU	ATCO Electric Distribution	AB	No	N/A	251,755
Emera, Inc.	EMA	Nova Scotia Power	NS	Yes	Annually	503,676
Enbridge	ENB	Enbridge Gas Distribution	ON	N/A	Quarterly	2,098,145
Valener, Inc.	VNR	Gaz Metro	QC	N/A	Monthly	195,617
Fortis, Inc		Newfoundland Power	NL	Limited	Monthly	259,000

_	U.S.	Canada
Total Number of Customers	12,886,342	755,431
Own Regulated Generation	74.30%	66.67%
Own Limited Generation	1.61%	0.00%
Do not own Generation	24.08%	33.33%

#### Volume/Demand Risk

U.S. Proxy Group		Operating Utility	State	Full Decoupling	Partial Decoupling or LRAM	Weather Norm	Customers
ALLETE, Inc.	ALE	Minnesota Power	MN	No	No	No	144,000
Duke Energy Corporation	DUK	Duke Energy Florida	FL	No	No	No	1,700,000
		Duke Energy Indiana	IN	No	Yes	No	810,000
		Duke Energy Kentucky	KY	No	Yes	No	140,000
		Duke Energy Carolinas - NC	NC	No	No	No	3,200,000
		Duke Energy Carolinas - SC	SC	No	No	No	730,000
		Duke Energy Ohio	ОН	Yes	No	No	700,000
Eversource Energy	ES	Connecticut Light and Power	CT	Yes	No	No	1,223,743
		NSTAR Electric	MA	No	No	No	1,179,867
		Public Service of New Hampshire	NH	No	No	No	504,000
		Western Mass. Electric	MA	Yes	No	No	207,877
Great Plains Energy Inc.	GXP	Kansas City Power and Light - KS	KS	No	No	No	316,800
		Kansas City Power and Light - MO	MO	No	Yes	No	519,100
OG&E Energy Corp	OGE	Oklahoma Gas and Electric	OK	No	Yes	No	814,982
Pinnacle West Capital	PNW	Arizona Public Service	AZ	No	Yes	No	1,163,079
Westar Energy, Inc.	WR	Kansas Gas and Electric	KS	No	Yes	No	321,501
		Westar Energy	KS	No	Yes	No	374,472
Canadian Proxy Group		Utility	Province				
Canadian Utilities Ltd.	CU	ATCO Electric Distribution	AB	No	No	No	251,755
Emera, Inc.	EMA	Nova Scotia Power	NS	No	Yes	No	503,676
Enbridge	ENB	Enbridge Gas Distribution	ON	No	Yes	No	2,098,145
Valener, Inc.	VNR	Gaz Metro	QC	No	No	Yes	195,617
Fortis, Inc.		Newfoundland Power	NL	No	No	Yes	259,000

_	U.S.	Canada
<b>Total Number of Customers</b>	12,886,342	3,049,193
Full Decoupling	16.54%	0.00%
Partial Decoupling or LRAM	23.13%	85.33%
<b>Weather Normalization</b>	0.00%	6.42%

#### Capital Cost Recovery Risk

U.S. Proxy Group		Operating Utility	State	Pre-Approval	CWIP	AFUDC	Cost Tracking Mechanism	Customers
ALLETE, Inc.	ALE	Minnesota Power	MN	No	Limited	Yes	Yes	144,000
Duke Energy Corporation	DUK	Duke Energy Florida	FL	Yes	Yes	Yes	Yes	1,700,000
		Duke Energy Indiana	IN	No	Yes	Yes	Yes	810,000
		Duke Energy Kentucky	KY	No	Yes	Yes	No	140,000
		Duke Energy Carolinas - NC	NC	Yes	Yes	Yes	No	3,200,000
		Duke Energy Carolinas - SC	SC	Yes	Yes	Yes	No	730,000
		Duke Energy Ohio	ОН	No	Yes	Yes	Yes	700,000
Eversource Energy	ES	Connecticut Light and Power	CT	No	No	Yes	No	1,223,743
		NSTAR Electric	MA	No	No	Yes	Yes	1,179,867
		Public Service of New Hampshire	NH	No	No	Yes	Yes	504,000
		Western Mass. Electric	MA	No	No	Yes	Yes	207,877
Great Plains Energy Inc.	GXP	Kansas City Power and Light - KS	KS	No	Yes	Yes	No	316,800
		Kansas City Power and Light - MO	MO	No	No	Yes	No	519,100
OG&E Energy Corp	OGE	Oklahoma Gas and Electric	OK	Yes	Yes	Yes	Yes	814,982
Pinnacle West Capital	PNW	Arizona Public Service	AZ	No	No	Yes	Yes	1,163,079
Westar Energy, Inc.	WR	Kansas Gas and Electric	KS	No	Yes	Yes	Yes	321,501
		Westar Energy	KS	No	Yes	Yes	Yes	374,472
Canadian Proxy Group		Utility	Province	•				
Canadian Utilities Ltd.	CU	ATCO Electric Distribution	AB	No	No	Yes	Yes	251,755
Emera, Inc.	EMA	Nova Scotia Power	NS	No	No	Yes	No	503,676
Enbridge	ENB	Enbridge Gas Distribution	ON	Yes	No	Yes	Yes	2,098,145
Valener, Inc.	VNR	Gaz Metro	QC	Yes	No	Yes	No	195,617
Fortis, Inc.		Newfoundland Power	NL	Yes	No	Yes	No	259,000

_	U.S.	Canada
<b>Total Number of Customers</b>	12,886,342	3,049,193
<b>Pre-Approval of Capital Projects</b>	50.01%	75.23%
CWIP in Rate Base	70.68%	0.00%
AFUDC	100.00%	100.00%
Cost Tracking Mechanism	52.43%	77.07%

## Rate Regulation and Earnings Sharing

							# of
U.S. Proxy Group		Operating Utility	State	Cost of Svc	Incentive Reg	ESM	Customers
ALLETE, Inc.	ALE	Minnesota Power	MN	Yes	No	No	144,000
Duke Energy Corporation	DUK	Duke Energy Florida	FL	Yes	No	No	1,700,000
		Duke Energy Indiana	IN	Yes	No	Yes	810,000
		Duke Energy Kentucky	KY	Yes	No	No	140,000
		Duke Energy Carolinas - NC	NC	Yes	No	No	3,200,000
		Duke Energy Carolinas - SC	SC	Yes	No	No	730,000
		Duke Energy Ohio	ОН	Yes	No	No	700,000
Eversource Energy	ES	Connecticut Light and Power	CT	Yes	No	Yes	1,223,743
		NSTAR Electric	MA	Yes	No	Yes	1,179,867
		Public Service of New Hampshire	NH	Yes	No	Yes	504,000
		Western Mass. Electric	MA	Yes	No	No	207,877
Great Plains Energy Inc.	GXP	Kansas City Power and Light - KS	KS	Yes	No	No	316,800
		Kansas City Power and Light - MO	MO	Yes	No	No	519,100
OG&E Energy Corp	OGE	Oklahoma Gas and Electric	OK	Yes	No	No	814,982
Pinnacle West Capital	PNW	Arizona Public Service	ΑZ	Yes	No	No	1,163,079
Westar Energy, Inc.	WR	Kansas Gas and Electric	KS	Yes	No	No	321,501
		Westar Energy	KS	Yes	No	No	374,472
Canadian Proxy Group		Utility	Province				
Canadian Utilities Ltd.	CU	ATCO Electric Distribution	AB	No	Yes	No	251,755
Emera, Inc.	EMA	Nova Scotia Power	NS	Yes	No	No	503,676
Enbridge	ENB	Enbridge Gas Distribution	ON	No	Yes	Yes	2,098,145
Valener, Inc.	VNR	Gaz Metro	QC	Yes	No	Yes	195,617
Fortis, Inc.		Newfoundland Power	NL	Yes	No	Yes	259,000

_	U.S.	Canada
<b>Total Number of Customers</b>	12,886,342	3,049,193
Cost of Service Regulation	100.00%	22.93%
<b>Incentive Regulation Plan</b>	0.00%	77.07%
<b>Earnings Sharing Mechanism</b>	28.85%	75.23%

Incentive Regulation includes performance-based, multi-year, and formula rate plans.

#### **Regulatory Lag**

							Rate Case Lag	
U.S. Proxy Group		Operating Utility	State	Test Year	Interim Rates	Rate Base	(months)	Customers
ALLETE, Inc.	ALE	Minnesota Power	MN	Partial Forecast	Yes	Average	12	144,000
Duke Energy Corporation	DUK	Duke Energy Florida	FL	Forecast	Yes	Average	11	1,700,000
		Duke Energy Indiana	IN	Historical	Yes	Year-end	16	810,000
		Duke Energy Kentucky	KY	Historical	Emergency	Year-end	6	140,000
		Duke Energy Carolinas - NC	NC	Historical	Emergency	Year-end	7	3,200,000
		Duke Energy Carolinas - SC	SC	Historical	Yes	Year-end	5	730,000
		Duke Energy Ohio	ОН	Historical	Emergency	Year-end	9	700,000
Eversource Energy	ES	Connecticut Light and Power	CT	Historical	Emergency	Year-end	6	1,223,743
		NSTAR Electric	MA	Historical	Emergency	Year-end	6	1,179,867
		Public Service of New Hampshire	NH	Historical	Yes	Average	12	504,000
		Western Mass. Electric	MA	Historical	Emergency	Year-end	6	207,877
Great Plains Energy Inc.	GXP	Kansas City Power and Light - KS	KS	Historical	Yes	Year-end	7	316,800
		Kansas City Power and Light - MO	MO	Partial Forecast	Emergency	Year-end	10	519,100
OG&E Energy Corp	OGE	Oklahoma Gas and Electric	OK	Historical	Yes	Year-end	11	814,982
Pinnacle West Capital	PNW	Arizona Public Service	ΑZ	Historical	Yes	Year-end	11	1,163,079
Westar Energy, Inc.	WR	Kansas Gas and Electric	KS	Historical	Yes	Year-end	7	321,501
		Westar Energy	KS	Historical	Yes	Year-end	7	374,472
Canadian Proxy Group		Utility	Province					
Canadian Utilities Ltd.	CU	ATCO Electric Distribution	AB	Forecast	Yes	Average	N/A	251,755
Emera, Inc.	EMA	Nova Scotia Power	NS	Forecast	No	Average	6.5	503,676
Enbridge	ENB	Enbridge Gas Distribution	ON	Forecast	N/A	Average	N/A	2,098,145
Valener, Inc.	VNR	Gaz Metro	QC	Forecast	Yes	Average	7	195,617
Fortis, Inc		Newfoundland Power	NL	Forecast	Emergency	Average	6	259,000

_	U.S.	Canada
<b>Total Number of Customers</b>	12,886,342	3,049,193
Forecasted Test Year	13.19%	100.00%
Partially Forecasted Test Year	5.15%	0.00%
Historical Adjusted Test Year	81.66%	0.00%
Interim Rates	44.36%	14.67%
Interim Rates in Financial Emergency	55.64%	0.00%
Average Rate Base	18.22%	100.00%
Year End Rate Base	81.78%	0.00%
Rate Case Lag in Months	8.76	6.75

#### Other Cost Recovery

U.S. Proxy Group		Operating Utility	State	Pension Expense	Bad Debt Expense	Storm Cost Recovery	Interest Rate Tracker	Energy Efficiency Cost	Customers
ALLETE, Inc.	ALE	Minnesota Power	MN	No	No	No	No	Yes	144,000
Duke Energy Corporation	DUK	Duke Energy Florida	FL	No	No	Yes	Yes	No	1,700,000
		Duke Energy Indiana	IN	No	No	No	No	Yes	810,000
		Duke Energy Kentucky	KY	No	No	No	No	Yes	140,000
		Duke Energy Carolinas - NC	NC	No	No	Yes	No	Yes	3,200,000
		Duke Energy Caorlinas - SC	SC	No	No	No	No	No	730,000
		Duke Energy Ohio	ОН	No	No	No	No	No	700,000
Eversource Energy	ES	Connecticut Light and Power	CT	No	No	Yes	No	Yes	1,223,743
		NSTAR Electric	MA	Yes	Yes	Yes	No	Yes	1,179,867
		Public Service of New Hampshire	NH	No	No	Yes	No	Yes	504,000
		Western Mass. Electric	MA	Yes	Yes	Yes	No	Yes	207,877
Great Plains Energy Inc.	GXP	Kansas City Power and Light - KS	KS	Yes	No	No	No	Yes	316,800
		Kansas City Power and Light - MO	MO	Yes	No	No	No	Yes	519,100
OG&E Energy Corp	OGE	Oklahoma Gas and Electric	OK	Yes	No	Yes	No	Yes	814,982
Pinnacle West Capital	PNW	Arizona Public Service	ΑZ	Yes	No	No	No	Yes	1,163,079
Westar Energy, Inc.	WR	Kansas Gas and Electric	KS	Yes	No	No	No	Yes	321,501
		Westar Energy	KS	Yes	No	No	No	<u>Yes</u>	374,472
Canadian Proxy Group		Utility	Province						
Canadian Utilities Ltd.	CU	ATCO Electric Distribution	AB	Yes	No	Yes	Yes	No	251,755
Emera, Inc.	EMA	Nova Scotia Power	NS	Yes	No	No	No	Yes	503,676
Enbridge	ENB	Enbridge Gas Distribution	ON	Yes	No	No	No	Yes	2,098,145
Valener, Inc.	VNR	Gaz Metro	QC	Yes	Yes	Yes	No	Yes	195,617
Fortis, Inc.		Newfoundland Power	NL	Yes	No	No	No	Yes	259,000

	U.S.	Canada
Total Number of Customers	12,886,342	3,049,193
Pension Expense Cost Recovery	28.98%	100.00%
Bad Debt Expense Cost Recovery	10.77%	6.42%
Storm Cost Recovery	68.53%	14.67%
Interest Rate Tracker for Change in Interest Rates	13.19%	8.26%
Energy Efficiency and DSM Cost Recovery	75.71%	91.74%

# **NEWFOUNDLAND POWER INC.**

ST. JOHN'S, NEWFOUNDLAND

# **2014 DEPRECIATION STUDY**

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO ELECTRIC PLANT
AS OF DECEMBER 31, 2014

Prepared by:



Excellence Delivered As Promised

# NEWFOUNDLAND POWER INC.

St. John's, Newfoundland

## 2014 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO ELECTRIC PLANT
AS OF DECEMBER 31, 2014

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC Valley Forge, Pennsylvania



#### Excellence Delivered As Promised

September 29, 2015

Newfoundland Power Inc. 55 Kenmount Road St. John's, Newfoundland A1B 3P6

Attention Jocelyn Perry

Vice President, Finance & CFO

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to electric plant of Newfoundland Power Inc. (NFP) as of December 31, 2014. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual depreciation.

A separately bound volume includes appendices which set forth the statistical support for the life and net salvage estimates and the detailed tabulations of annual and accrued depreciation.

We gratefully acknowledge the assistance of Newfoundland Power Inc. personnel in the conduct of the study.

Respectfully submitted,

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

JØHN F. WIEDMAYER

Project Manager, Depreciation Studies

JFW:krm

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#### **NEWFOUNDLAND POWER INC.**

#### **DEPRECIATION STUDY**

#### **EXECUTIVE SUMMARY**

Pursuant to Newfoundland Power Inc.'s ("NFP" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to NFP's electric plant as of December 31, 2014. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes.

The depreciation rates are based on the straight line method using the equal life group ("ELG") procedure and were applied on a whole life basis. Additionally, an adjustment to depreciation expense was made to amortize, over the account's remaining life, the difference between the company's book accumulated depreciation and the theoretical reserve. The calculations were based on attained ages and estimated average service life and net salvage for each depreciable group of assets.

The depreciation calculations included in the prior depreciation study report submitted and approved by the Board were based on electric plant in service as of December 31, 2010. The depreciation calculations included with this report are based on electric plant in service as of December 31, 2014. The annual accrual rate calculations were based on the same group procedures and bases as those used in the prior depreciation report.

The calculated accrued depreciation as of December 31, 2014 is \$659.6 million and the book accumulated depreciation is \$645.8 million, a difference of \$13.8 million or 2.1 percent, well within the 5 percent tolerance level, overall. In the 2010 depreciation study report, the reserve variance was 1.8 percent which is comparable to the 2.1 percent determined as of December 31, 2014. The calculated accrued depreciation is

used as a measure to assess the adequacy of the Company's book accumulated depreciation amount. The calculated accrued depreciation should not be viewed in exact terms as the correct reserve amount. Rather it should be viewed as a benchmark or a tool used by the depreciation professional to assess the standing of the book accumulated depreciation amount based on the most recent available information. The reserve variance that exceeds the 5 percent tolerance threshold for each individual plant account is approximately \$12.2 million and is set forth on Table 2, column 7 in Part VI of the report. Gannett Fleming recommends that Newfoundland Power for each plant account amortize the reserve variance in excess of the five percent tolerance threshold over a period equal to the composite remaining life of the assets. This is the industry's most commonly used method for adjusting depreciation. Also it decreases the probability of large fluctuations in depreciation expense that can occur with relatively short amortization periods, such as five years, and is the method that Gannett Fleming considers appropriate for Newfoundland Power. The remaining lives of the various accounts range from a few years to over forty years. An explanation of the monitoring of the accumulated depreciation reserve and the calculation of the reserve variance amortization is presented beginning on page V-5 of the report.

This report includes an updated service life and net salvage study. Some of the accounts' service life and net salvage estimates were revised based on having 4 years of additional company experienced retirement data to analyze as well as knowledge of management's current plans and outlook. In general, some of the service lives for the larger plant accounts such as poles and overhead conductors increased which lowers depreciation while the negative net salvage percents for these accounts also increased which results in higher depreciation expense being charged. The impacts on depreciation expense of these changes are mostly offsetting. The composite depreciation rate for all accounts including the reserve variance amortization is 3.42

percent as set forth in the summary table below. This is the same composite depreciation rate as determined in the prior depreciation study based on electric plant in service as of December 31, 2010.

Gannett Fleming recommends the calculated annual depreciation accrual rates, set forth herein apply specifically to electric plant in service as of December 31, 2014, be used for book and ratemaking purposes. The depreciation rates are summarized by depreciable category in Table 1 in Part VI of the study. Supporting analysis and calculations are provided within the technical appendices in the companion volume of the study.

The study results set forth a total annual depreciation expense of \$54.176 million when applied to depreciable plant balances as of December 31, 2014. \$53.531 million of the total \$54.176 million represents the whole-life accruals which are set forth on Table 1 in Part VI and \$0.645 million represents the amortization of the reserve variance which are set forth on Table 2 in Part VI of the report. The results are summarized at the functional level as follows:

SUMMARY OF ORIGINAL COST, PROPOSED ACCRUAL RATES AND AMOUNTS

<u>FUNCTION</u>	ORIGINAL COST AT DECEMBER 31, 2014	ACCRUAL RATE	TOTAL ACCRUAL AMOUNT
Hydro Production	180,399,279	2.47	4,450,687
Other Production	23,883,457	4.69	1,120,273
Substation	203,496,477	3.08	6,268,718
Transmission	126,331,172	3.08	3,886,424
Distribution	918,393,672	3.26	29,936,732
General			
Computer - Hardware	9,863,535	16.90	1,666,957
Computer - Software	26,877,868	9.05	2,432,696
Transportation	27,270,277	9.06	2,471,845
Other	56,149,792	3.00	1,684,911
Communications	10,153,549	2.53	257,139
Total	1,582,819,078	3.42	54,176,382

### PART I. INTRODUCTION

## NEWFOUNDLAND POWER INC. DEPRECIATION STUDY

#### PART I. INTRODUCTION

#### SCOPE

This report sets forth the results of the depreciation study for Newfoundland Power Inc. (NFP), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of electric plant as of December 31, 2014. The rates and amounts are based on the straight line method of depreciation using the equal life group procedure and the whole life technique. Additionally, a separate amortization has been calculated to adjust the reserve variance in a manner consistent with the prior depreciation study. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to electric plant in service as of December 31, 2014.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through 2013, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the electric industry, including knowledge of service lives and net salvage estimates used for other electric companies.

#### PLAN OF REPORT

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and the methods used in the service life and net salvage studies. Part III, Service Life Considerations, presents the factors and judgment utilized in the average service life analysis. Part IV, Net Salvage Considerations, presents the

Depreciation, describes the procedures used in the calculation of group depreciation. Part VI, Results of Study, presents summaries by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. The statistical analyses of service life and net salvage and the detailed tabulations of annual and accrued depreciation are set forth in a separately bound volume "Appendices to Depreciation Study." Appendix A, Service Life Statistics presents the statistical analysis of service life estimates, Appendix B, Net Salvage Statistics sets forth the statistical indications of net salvage percents, and Appendix C, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

#### **BASIS OF THE STUDY**

#### **Depreciation**

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to

distribute an equal amount of cost to each year of service life. This method is known as the straight-line method of depreciation.

For most accounts, the annual depreciation was calculated by the straight line method using the equal life group procedure. For certain General and Communication Plant accounts, the annual depreciation is based on amortization accounting. Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage. Variances between the calculated accrued depreciation or amortization and the book accumulated depreciation which exceed five percent of the calculated accrued depreciation are amortized over the composite remaining life of the assets. Accounts for which the composite remaining lives are less than five years, the amortization period used to minimize the reserve variance was set at five years which is the period of time between depreciation studies. This was done to reduce the annual fluctuations to depreciation expense related to the reserve variance amortizations for accounts with short composite remaining lives.

The straight line method, equal life group procedure has been used by the Company for many years and Gannett Fleming recommends its continued use. The equal life group procedure provides for a better match of depreciation expense and loss in service value than the average service life procedure. Amortization accounting for certain General and Communication accounts was approved in 1996 by Newfoundland and Labrador Board of Commissioners of Public Utilities ("Board"). Amortization accounting is used for certain General and Communication Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-4 of the report.

#### **Service Life and Net Salvage Estimates**

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated analyses of available historical plant accounting data, a review of management's plans, policies and outlook, a general knowledge of the electric utility industry, and comparisons of the service life and net salvage estimates from our studies of other electric utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for utility plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting. For life span groups such as an office building or thermal plant, the estimates of survivor curves are consistent because the calculations of the lives of the units within each group are obtained by using a single probable retirement date for the entire group. The estimates of net salvage are expressed as the average net salvage percent of the investment to be incurred or recovered upon its retirement.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and estimates of future experience yielded estimated survivor curves from which the average service lives were derived.

A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirement was obtained through discussions with operating and engineering management personnel and was incorporated in the interpretation and extrapolation of the statistical analyses.

# PART II. ESTIMATION OF SURVIVOR CURVES

#### PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

#### **SURVIVOR CURVES**

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the

differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of lowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

#### **Iowa Type Curves**

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the lowa type curves. There are four families in the lowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

The lowa curves were developed at the lowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves,

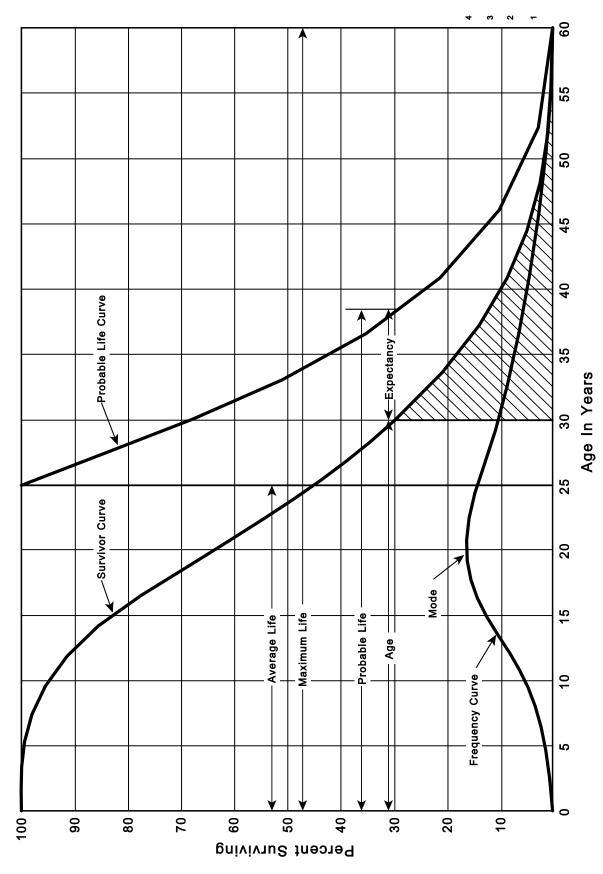


Figure 1. A Typical Survivor Curve and Derived Curves

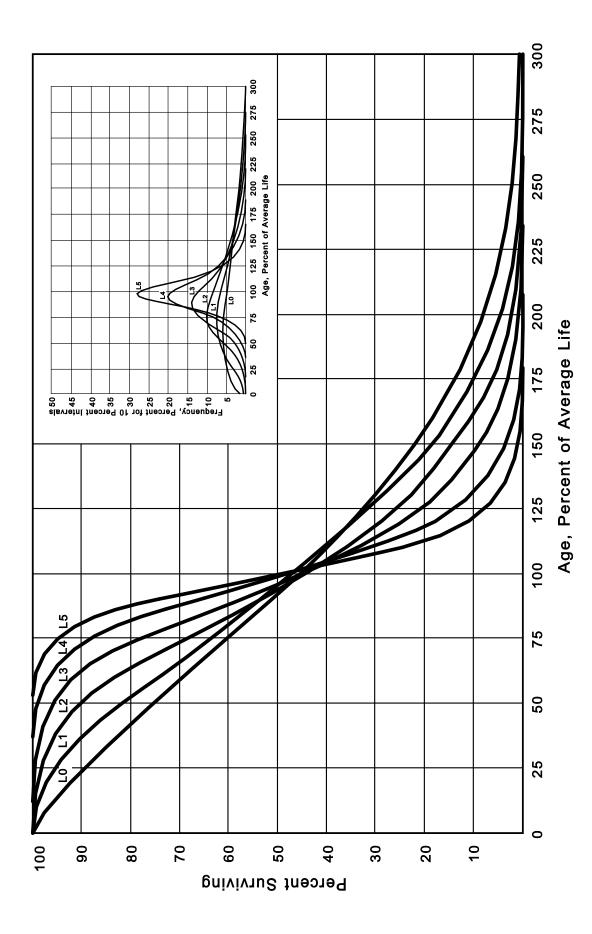


Figure 2. Left Modal or "L" lowa Type Survivor Curves

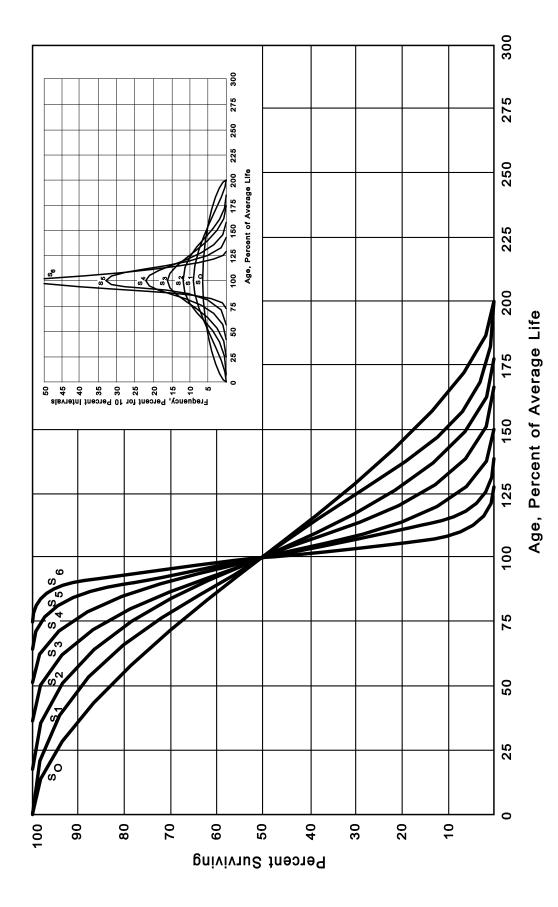


Figure 3. Symmetrical or "S" lowa Type Survivor Curves

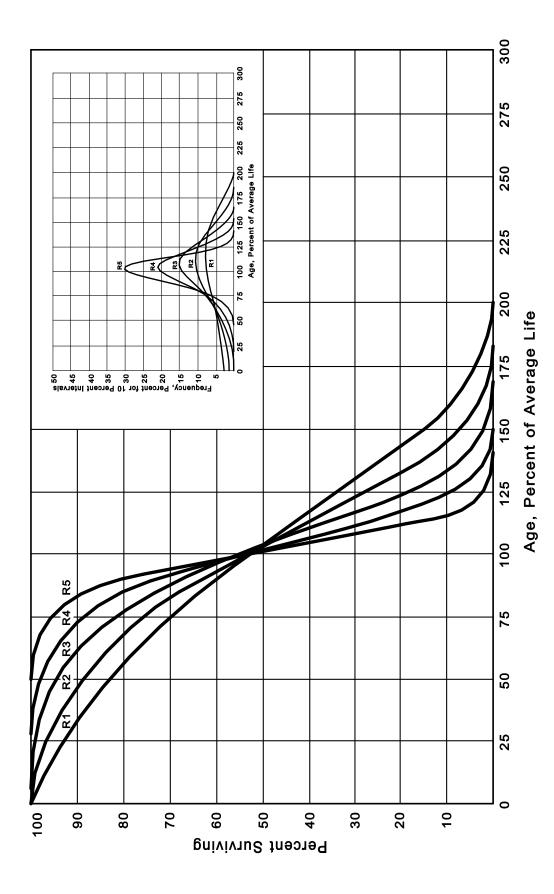
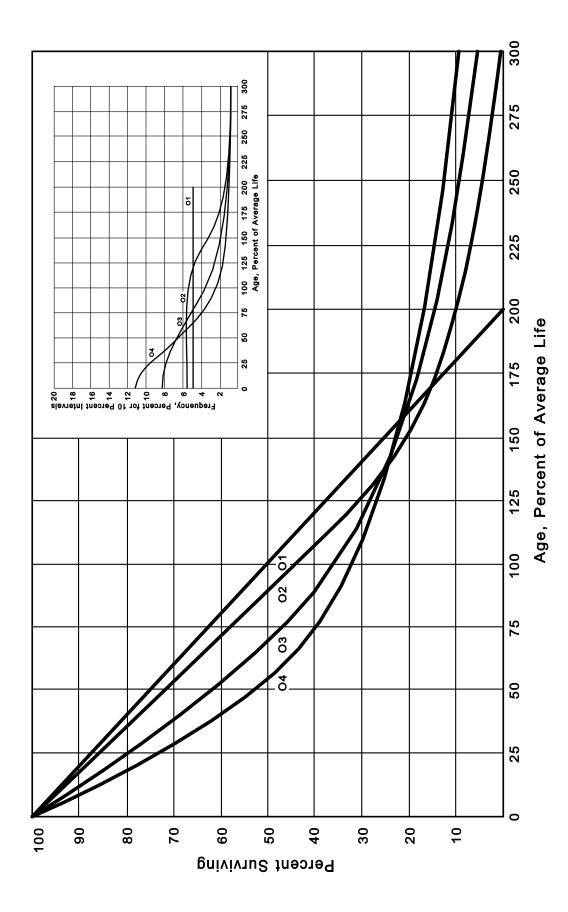


Figure 4. Right Modal or "R" lowa Type Survivor Curves



Origin Modal or "O" lowa Type Survivor Curves Figure 5.

which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125. These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation." In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

#### **Retirement Rate Method of Analysis**

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements," Engineering Valuation and Depreciation, and "Depreciation Systems."

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the <u>experience band</u>, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the <u>placement band</u>. An example of the calculations used in the development of a life table follows. The example includes

Newfoundland Power December 31, 2014

<sup>&</sup>lt;sup>1</sup>Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

<sup>&</sup>lt;sup>2</sup>Winfrey, Robley, <u>Statistical Analyses of Industrial Property Retirements</u>. Iowa State College Engineering Experiment Station. Bulletin 125. 1935..

<sup>&</sup>lt;sup>3</sup>Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

<sup>&</sup>lt;sup>4</sup>Wolf, Frank K. and W. Chester Fitch. <u>Depreciation Systems</u>. Iowa State University Press. 1994.

schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

#### <u>Schedules of Annual Transactions in Plant Records</u>

A hypothetical property group is used to illustrate the retirement rate method. This property group is observed for the experience band 2005-2014 during which there were placements during the years 2000-2014. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2000 were retired in 2005. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2005 retirements of 2000 installations and ending with the 2014 retirements of the 2009 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20$$
.



SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2005-2014 SUMMARIZED BY AGE INTERVAL

Placement Band 2000-2014

111/2-121/2 101/2-111/2 91/2-101/2 131/2-141/2 121/2-131/2 Interval 71/2-81/2 51/2-61/2 41/2-51/2 31/2-41/2 21/2-31/2 11/2-21/2 81/2-91/2 61/2-71/2 1/2-11/2 **Fotal During** Age Interval 151 80 1,606 131 (12)20 20 20 20 19 19 20 25 25 (11) 22 22 0 1 0 1 0 1 0 1 0 1 22 23 (10) 6) 17 15 16 21 21 Retirements, Thousands of Dollars 4 5 16 <u>∞</u> ο 15 4 8 **During Year** 5 5 7 (2) o 2  $\overline{0}$ Placed Year 2005 2006 2007 Total  $\Xi$ 

Experience Band 2005-2014

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2005-2014 SUMMARIZED BY AGE INTERVAL

Placement Band 2000-2014

Experience Band 2005-2014

Acquisitions, Transfers and Sales, Thousands of Dollars

	Age Interval	(13)	13½-14½	12½-13½	111/2-121/2	101/2-111/2	91/2-101/2	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2		
	Total During Age Interval	(12)		1	1	09	1	(2)	9	ı	ı	1	10	1	(121)	ı	1	(50)	
	2014	(11)						1							$(102)^{c}$	1		(102)	
	2013	(10)		,	,			1			,	$22^{a}$	,			Ī		22	
	2012	(6)	ı			(2) <sub>p</sub>	е <sub>в</sub>				(12) <sup>b</sup>		(19) <sup>b</sup>					(30)	
	2011	(8)	e0 <sub>9</sub>															09	
During Year	2010	(2)	ı																
During	2009	(9)	ı																
	2008	(2)	ı	,	,														
	2007	(4)	ı	,	,	•	•												
	2006	(3)	ı	•	•	•	•	1											
		(2)	ı	,	,			1											
•	Year Placed	(1)	2000	2001	2002	2003	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total	

<sup>&</sup>lt;sup>a</sup> Transfer Affecting Exposures at Beginning of Year

 $<sup>^{\</sup>rm b}$  Transfer Affecting Exposures at End of Year  $^{\circ}$  Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

#### Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2005 through 2014 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2010 are calculated in the following manner:

```
Exposures at age 0 = amount of addition = $750,000 

Exposures at age \frac{1}{2} = $750,000 - $8,000 = $742,000 

Exposures at age \frac{1}{2} = $742,000 - $18,000 = $724,000 

Exposures at age \frac{2}{2} = $724,000 - $20,000 - $19,000 = $685,000 

Exposures at age \frac{3}{2} = $685,000 - $22,000 = $663,000
```

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1 OF EACH YEAR 2005-2014 SUMMARIZED BY AGE INTERVAL

Placement Band 2000-2014

	Age	Interval	(13)	131/2-141/2	12½-13½	11½-12½	10%-11½	91/2-101/2	81/2-91/2	71/2-81/2	61/2-71/2	51/2-61/2	41/2-51/2	31/2-41/2	21/2-31/2	11/2-21/2	1/2-11/2	0-1/2	
Total at	Beginning of	Age Interval	(12)	167	323	531	823	1,097	1,503	1,952	2,463	3,057	3,789	4,332	4,955	5,719	6,579	7,490	44,780
		2014	(11)	167	131	162	226	261	316	326	412	482	609	663	799	926	1,069	$1,220^{a}$	7,799
		<u>2013</u>	(10)	192	153	184	242	280	332	374	431	501	628	685	821	949	1,080 <sup>a</sup>		6,852
	ar	2012	(6)	216	174	205	262	297	347	390	448	530	623	724	841	<sub>e</sub> 096			6,017
ollars	Annual Survivors at the Beginning of the Year	2011	(8)	239	194	224	276	307	361	405	464	546	639	742	850 <sup>a</sup>				5,247
Exposures, Thousands of Dollars	e Beginnin	2010	(7)	195	212	241	289	321	374	419	479	561	653	750 <sup>a</sup>					4,494
sures, Thou	ivors at the	2009	(9)	209	228	257	300	334	386	432	492	574	e009						3,872
Expos	nnual Surv	2008	(2)	222	243	271	311	346	397	444	504	580 <sup>a</sup>							3,318
	A			234															2,824
		2006	(3)	245	268	296	330	367	416	460 <sup>a</sup>									2,382
		2002	(2)	255	279	307	338	376	420 <sup>a</sup>										1,975
	Year	Placed	<del>(</del> E)	2000	2001	2002	2003	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total

Experience Band 2005-2014

For the entire experience band 2005-2014, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Table 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

#### **Original Life Table**

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

```
Percent surviving at age 4½
                                       88.15
                                =
Exposures at age 4½
                                = 3,789,000
Retirements from age 4\frac{1}{2} to 5\frac{1}{2}
                                     143.000
Retirement Ratio
                                     143,000 \div 3,789,000 = 0.0377
                                =
Survivor Ratio
                                       1.000 -
                                                   0.0377 = 0.9623
                                =
Percent surviving at age 5½
                                      (88.15) \times (0.9623) =
                                                               84.83
                                =
```

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

## SCHEDULE 4. ORIGINAL LIFE TABLE CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2005-2014

Placement Band 2000-2014

(Exposure and Retirement Amounts are in Thousands of Dollars)

					Percent
Age at	Exposures at	Retirements			Surviving at
Beginning of	Beginning of	During Age	Retirement	Survivor	Beginning of
Interval	Age Interval	Interval	Ratio	Ratio	Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
(.,	(-)	(0)	( · /	(3)	(0)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u> 167</u>	<u>26</u>	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			



Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

#### **Smoothing the Original Survivor Curve**

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The lowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the lowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R lowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 lowa curve would be selected as the most representative of the plotted survivor characteristics of the group, assuming no contrary relevant information external to the analysis of historical data.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

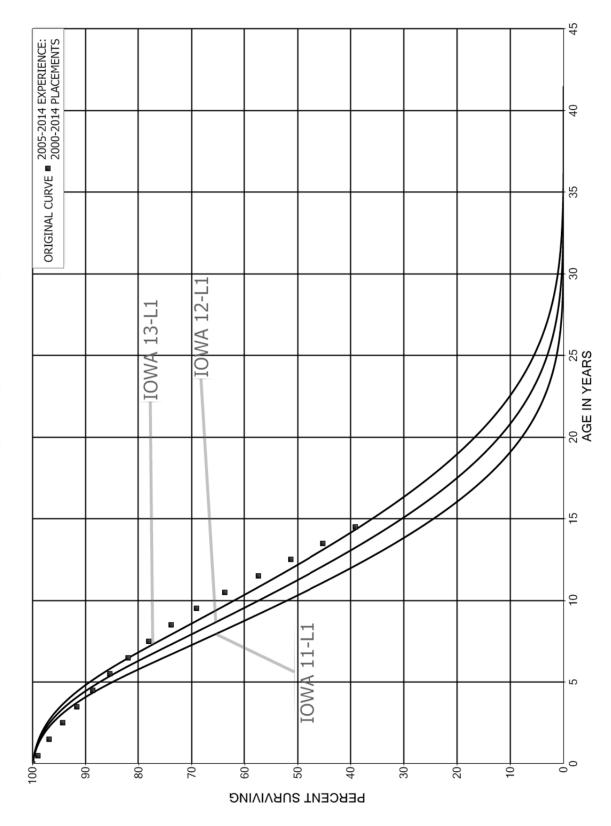


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN SO IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

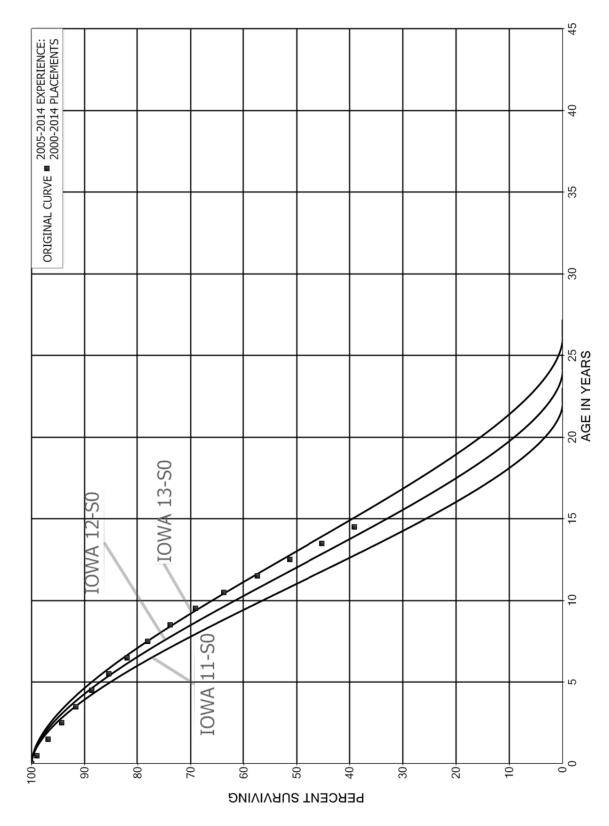


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

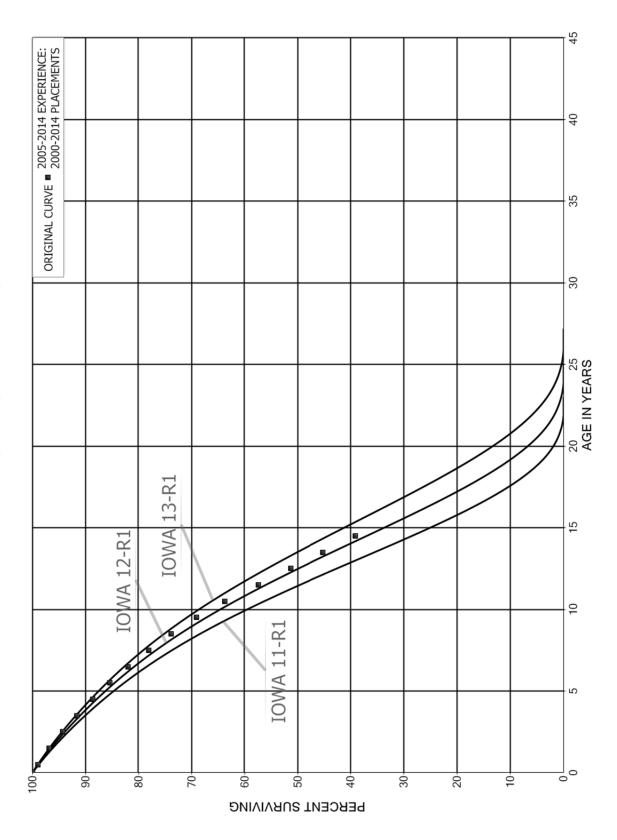
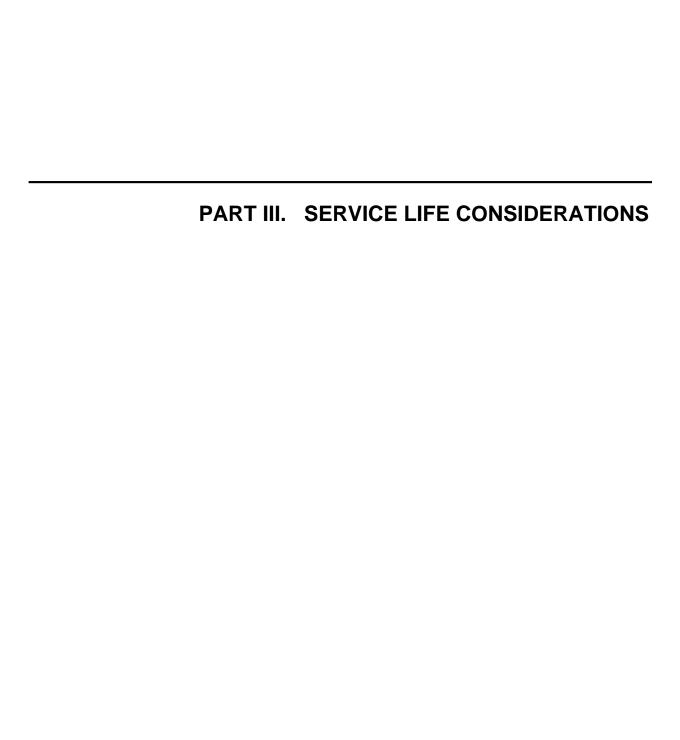


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, SO AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

45 ORIGINAL CURVE 2000-2014 EXPERIENCE: 2000-2014 PLACEMENTS 40 35 30 20 25 AGE IN YEARS 15 19 2 IOWA I 70 70 10 90 80 50 30 20 РЕВСЕИТ SURVIVING



#### PART III. SERVICE LIFE CONSIDERATIONS

#### FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, a field trip was conducted for the study. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the most recent field trips.

#### Monday, September 8, 2014

#### Central Newfoundland

Clarenville Service Center Princeton Pond Substation Lockston Hydro Plant Lockston Substation Wesleyville Gas Turbine New-Wes Valley Substation Gander Substation

#### Tuesday, September 9, 2014

#### Central Newfoundland

Cobbs Pond Substation
Gander Service Center
Rattling Brook Hydro Plant
Amy's Lake Dam
Rattling Lake Dam and Spillway
Heart's Content Hydro Plant
Heart's Content Substation

#### Wednesday, June 16, 2010

#### St. John's Area

Kenmount Road Office
Duffy Place Service Center
Topsail Road Electrical Maintenance Facility
Topsail Road System Control Center



#### Southern Shore Area

Mobile Hydro Plant

Rocky Pond Hydro Plant

Transmission Line 20L (rebuilt 2007-2009)

Transmission Line 21L (rebuild scheduled for 2011)

#### Thursday, June 17, 2010

#### St. John's / Mount Pearl Area

Stamps Lane Substation

Virginia Waters Substation

Quidi Vidi Lake – Transmission Line 16L (rebuild scheduled for 2011)

Mobile Gas Turbine – Located in Donovan's Industrial Park (repairs ongoing)

Petty Harbour Hydro Plant

#### Topsail and Conception Bay South Area

Topsail Hydro Plant

Seal Cove Hydro Plant

Chamberlains Substation

#### Thursday, May 18, 2006

#### St. John's / Mount Pearl Area

**Duffy Place Service Center** 

Kenmount Road Substation

Glendale Substation

Topsail Road Electrical Maintenance Facility

**Topsail Road System Control Center** 

Stamps Lane Substation

Kenmount Road Office

#### Monday, August 14, 2000

#### Western Newfoundland

**Doyles District Building** 

Port Aux Basques Service Center

**Grand Bay Substation** 

Portable Gas Turbine

Portable Diesel #1

Portable Diesel #2

Port Aux Basques Diesel Plant

Long Lake Substation

Rose Blanche Hydro Plant



#### Tuesday, August 15, 2000

#### Western Newfoundland

Wheelers Substation

St. Georges Substation

Gallant Street Substation and Building

Stephenville Office and Service Building

Lookout Brook Hydro Plant

Corner Brook - West Street Office

Corner Brook - Maple Valley Building

Bay View Substation

**Humber Substation** 

Marble Mountain Substation (Steady Brook)

Deer Lake Substation

Deer Lake District Building

#### Wednesday, August 16, 2000

#### St. John's Area

Kenmount Road Office

Topsail Road Electrical Maintenance Facility

**Topsail Road System Control Center** 

Petty Harbour Hydro Plant

#### Monday, December 4, 1995

#### St. John's Area

Kenmount Road Office Building

Topsail Road - Old System Control Centre Building

Topsail Road – Electrical Maintenance Facility

St. John's Diesel Plant

St. John's Steam Plant

Petty Harbour Hydro Plant

**Duffy Place Service Center** 

O'Leary Avenue Service Center

#### Southern Shore Area

Bay Bulls Big Pond Substation

Pierre's Brook Hydro Plant

Mobile Hydro Plant

Pierre's Brook Forebay Dam, Spillway and Penstock

#### Tuesday, December 5, 1995

#### Avalon Peninsula

Colliers Substation

**Upper Island Cove Substation** 

Carbonear Business Office and Warehouse



Victoria Hydro Plant
Heart's Content Hydro Plant
Whitbourne Business Office and Service Center
Blaketown Substation
Thomas Pond Dam and Spillway – Topsail Hydro Plant
Glendale Substation
Molloy's Lane Substation

#### LIFE ANALYSIS

The retirement rate method of life analysis is an actuarial method of developing survivor curves using the average rates at which property is retired from each depreciable group. The method involves the analysis of historical retirements of property of various ages, in relation to the property units exposed to retirement at those same ages. Application of this method requires an extensive compilation of historical aged retirement data as well as related plant accounting data including additions, acquisitions, sales and transfers. Plant accounting data for the years 1948 through 2013 were available to study. The life analyses were performed using Gannett Fleming's depreciation software programs. The actuarial data may or may not produce a complete life cycle of experience. A complete life cycle is indicated by the life table reaching zero percent surviving for the last age interval shown on the life table. The curve-fitting portion of Gannett Fleming's depreciation software program matches the stub survivor curves (i.e., from the original life tables) with each member of the lowa curve family. The curve-fitting results are based on a least squares solution of the differences between the stub curve and the lowa curve. Survivor data developed by the actuarial analysis and set forth on the original life table are graphed and compared visually and statistically with the lowa curves. There are two distinct steps in the estimation of service lives and retirement dispersions which must be recognized in the interpretation of the service life analysis results. The first step, life analysis, refers to the

application of statistical procedures to determine life and dispersion indications based solely on past experience. The second step, life estimation, refers to the exercise of informed judgment in making sound estimates of service lives and retirement dispersions. Life estimation incorporates known historical experience, estimated historical trends and estimated future trends or events in order to define complete patterns of estimated service life characteristics. The results of the life analyses, performed as the first step, are only one of the relevant factors to be considered during the decision making process of life estimation.

#### LIFE ESTIMATION

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other electric companies.

Several subaccounts were combined and analyzed as a single depreciable group based on discussions with operating and management personnel. These subaccounts include assets which have similar service life characteristics or which perform similar or related operating functions. The following is a list of subaccounts that were combined and analyzed as a single depreciable group:

Account No.	Account Description
355.1 and 355.2	Poles and Pole Fixtures
361.14 and 361.30	Aerial Cable and Special Insulated Copper Cable
361.20 and 367.20	U/G Cable and U/G Switches and Switchgear
362.1, 362.2, and 361.1	Poles - Wood - All Sizes and O/H Conductor - Bare Copper
364.10, 364.11, 364.20,	Line Transformers - All Ratings, Voltage Regulators
364.30 and 364.40	Capacitor Banks and Reclosers

Account No.	Account Description
365.1, 361.11 and 361.15	O/H Services, W/P Copper and Duplex, Triplex and Quadruplex
366.3 and 366.4	Instrument Transformers and Metering Tanks
378.3 and 378.4	Transportation Equipment - Large Trucks with Hydraulic Derricks and Large Trucks with Line and Stake Bodies

Out of the fifty-five mass property accounts for which the Retirement Rate Method of Life Analysis was performed, the estimates in the Depreciation Study represent increases in average service lives over the approved estimates for twenty-one, decreases for three, and no change for thirty-one accounts.

For many of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in reasonable indications of the survivor patterns experienced. These accounts represent 75 percent of depreciable plant. Generally, the information external to the statistics led to no significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in Appendix A.

Account No.	Account Description
HYDRO PRODUCTION	
321	Roads, Trails and Bridges
323	Canals, Penstocks, Surge Tanks and Tailraces
324	Dams and Reservoirs
325	Prime Movers, Generators and Auxiliaries
SUBSTATION 342	Equipment
TRANSMISSION	
353.1	Overhead Conductors
355.1	Poles
355.2	Pole Fixtures
355.3	Insulators

DISTRIBUTION	
361.10	Overhead Conductors - Bare Copper
361.11	Overhead Conductors - Weather-Proof Copper
361.12	Overhead Conductors - Bare Aluminum
361.13	Overhead Conductors - Weather-Proof Aluminum
361.14	Overhead Conductors - Aerial Cable
361.15	Overhead Conductors - Duplex, Triplex, and Quadruplex
361.2	Underground Cables
361.3	Special Insulated Copper Cable
362.1	Poles and Fixtures - Wood - Under 35 ft.
362.2	Poles and Fixtures - Wood - 35 ft. and Over
362.3	Poles and Fixtures - Concrete and Steel
365.1	Services Overhead
365.2	Services Underground
367.2	Underground Switches and Switchgear
GENERAL PROPERTY	
378.2	Transportation - Pick-Up Trucks, Window Vans
378.3	Transportation - Large Trucks with Hydraulic Derricks
378.4	Transportation - Trucks with Line and Stake Bodies
378.5	Transportation - Miscellaneous
COMMUNICATIONS	
386	SCADA Equipment

Accounts 355.1, Poles and Account 355.2, Pole Fixtures, are used to illustrate the manner in which the study was conducted for the group of accounts in the preceding list. These depreciable groups were combined for life analysis purposes. Aged plant accounting data have been compiled for the years 1948 through 2013. These data have been coded in the course of the Company's normal recordkeeping according to account or property group, type of transaction, year in which the transaction took place, and year in which the electric plant was placed in service. The retirements, other plant transactions, and plant additions were analyzed by the retirement rate method.

Discussions with management indicated the primary causes of retirements have been inadequacy, deterioration, storm damage and pole relocations. That is, poles are

DIOTRIBLITION

retired for clearance issues, their inability to support heavier conductors, the requirements of others in addition to the degradation of the poles caused by natural forces, i.e., decay and wear and tear. These causes of retirement are expected to continue in the foreseeable future. The previous estimate was the lowa 47-R2 for Poles and Pole Fixtures.

During the past 5 years many improvements and enhancements have been made to the NFP transmission system. Design and material standards are better, the maintenance program has improved and there is a greater focus on rebuilding deteriorated lines some of which were built before there were design standards for transmission poles. For instance, the use of larger class poles and fixtures in areas prone to high wind and severe ice loading that often exceed Canadian Standards Association criteria are expected to result in longer lives for poles and pole fixtures. Additionally, Newfoundland Power has made improvements to its design standards such as reducing the number of wooden crossarms on single pole structures (armless construction) to changing the guying attachment configuration for double downguys. This means stronger and longer lasting lines are being built. The survivor curve estimate for these accounts is the lowa 52-R0.5 and is based on the statistical indication for the period 1948 through 2013. The lowa 52-R0.5 is a good fit of the significant portion of the original survivor curve as set forth in Appendix A and is within the typical service life range of 35 to 55 years for wood transmission poles and fixtures.

There are a couple of plant accounts where the historical life indications are not representative of future service life expectations due to operational and maintenance changes implemented by Newfoundland Power. The two plant accounts that I will discuss are Pole Mounted Line Transformers and Meters.

The historical life indication for Pole Top Line Transformers as determined from a study of past retirements experienced by the company is approximately 30 years. However, for this account the future service life expectations differ from the historical life indications due to changes implemented by Newfoundland Power in recent years. One of the primary causes of retirement for line transformers was due to rust on the steel tank of the line transformer. In coastal areas, the corrosion of the steel tank was so significant that some of the line transformers needed to be replaced after 10 years or less. Typically a line transformer can expect to be in service 35 to 40 years or more. Engineering management expects the service lives of line transformers to increase based upon changes that they have implemented in the past 10 years or so. Since 2001, the company has been installing line transformers with stainless steel tanks and has concentrated the installation of line transformers with stainless steel tanks in areas where the corrosion effect is the greatest, mostly in coastal areas. Line transformers with stainless steel tanks are expected to have a substantially longer life than units with steel tanks. The stainless steel tanks are resistant to rust and that cause of retirement should be greatly reduced. In 2005, approximately 20 percent of the pole top line transformers had stainless steel tanks. As of year-end 2013, over 60 percent of the pole top line transformers have stainless steel tanks. In addition, it was not economical in the past to refurbish a pole mounted line transformer that had a steel tank. However, it is economical to refurbish stainless steel units and it is expected that the number of line transformers scrapped will be reduced and that a longer service life will be realized. Also, since the mid 1990's all new line transformers were installed with lightning arrestors and this should reduce the numbers of units retired prematurely. Based on this, we have estimated a 40 year average service life for line transformers.

Another account where the future service life expectations differ from the historical service life indications is meters. Meters are undergoing a transformational technological change not just at Newfoundland Power but worldwide. The traditional electromechanical (E/M) meter served the industry well for many years. The design of a standard residential electromechanical watt-hour meter, refined over a hundred years, was an impressive combination of economy, accuracy, durability and simplicity. For this reason and others, electricity meters have been relatively late to converting to solid state electronics, compared to other common devices. However, electromechanical watt-hour meters were only capable of recording total electricity consumption. Electromechanical demand meters also recorded total electricity consumption as well as capturing peak demand. These meters had to be manually read each month. The impetus that finally drove the transition to solid state (a.k.a., digital) metering in the electric industry was the need for more advanced functionality typically associated with smart meters or advanced metering infrastructure (AMI) meters. In recent years, the major electricity meter manufacturers have introduced price competitive solid state meters equipped with AMR communication modules and have discontinued their production of electromechanical meters. The issue with respect to depreciation is that the service lives for digital AMR meters are expected to be significantly less than the service lives of meters historical experienced at Newfoundland Power when the predominant meter type was an electromechanical meter.

The company periodically reviews and updates its metering strategy to reflect changes in technology and changes in regulations that may have an effect on their plans. As a result of technological and regulatory changes, Newfoundland Power plans to accelerate its implementation of digital AMR meters so that 100 percent of its

customers will have an AMR meter by year-end 2017. As of December 31, 2014, approximately 53 percent of the installed meters were AMR meters compared with approximately 13 percent as of December 31, 2010. The company's accelerated metering strategy plan will substantially change the asset mix related to meters as the non-AMR equipped meters will be replaced with AMR meters. The non-AMR equipped meters include electromechanical and digital meters. In the 2010 depreciation study, over 55 percent of the non-AMR equipped meters were electromechanical meters that were capable of being in service for 40 years or more prior to Measurement Canada's regulatory changes in S-S-06 in 2011 as explained later in the report. The service life of a digital meter is expected to range from 15 to 20 years, on average. At year-end 2014, approximately 43 percent of the non-AMR meters were E/M meters.

Also contributing to the company's decision for faster deployment of AMR meters was the reduction in cost of an AMR equipped meter vis-à-vis a non-AMR meter. At one time the price differential was significant enough that it was not cost-effective to convert all meters to AMR meters. Also, recent improvements in AMR technology including the use of a mobile collector unit for gathering AMR meter readings has significantly increased the number of meters that can be read in one day from a few hundred to several thousand.

Regarding regulatory issues affecting the service lives for meters, Measurement Canada in 2011 amended the legislation related to sample testing electricity meters. In lieu of testing every meter owned by the company, utilities sample test each homogeneous groups of meters based on vintage, manufacturer, model type, etc. If the selected sample of meters passes the test, all meters within that population group are deemed approved and recertified. Previous to the implementation of the new sampling

standard S-S-06, meters could be recertified indefinitely until the test results indicated otherwise. Under the new procedures, the number of times a meter group can be tested is now finite and the length of the recertification (i.e., seal extension) is reduced with each round of testing. The effective maximum life of meters, based on the new sampling standard S-S-06 is 27 years. When meters reach this age the entire meter group must be retired since it can no longer be granted a seal extension. This is a significant departure from the prior depreciation study when meters as old as 50 years were certified and in service. Additionally, meters typically are retired when they fail the testing procedures before age 27 or when they have stopped working due to damage or other reasons.

Another important change made by Measurement Canada had to do with the actual testing of the sampled meters. Under the previous specifications, meters could receive a seal extension as long as the accuracy test showed meters were within ±3% of specification. The new specifications allow for an accuracy of ±2% of specification. This reduction has resulted in more electromechanical meters failing the sample testing process and an increase in meter retirements since 2011. The retired electromechanical meters are being replaced with digital AMR meters which have a shorter average service life than E/M meters.

In this study, the average service life for Account 366.1, Watt-hour Meters was reduced from 25 years to 18 years. Similarly, the service life estimate for Account 366.2, Demand Meters was reduced from 22 years to 18 years based on the information discussed above.

In addition, Gannett Fleming forecasted aged retirements for meters over the next 30 years using the company's plans to implement 100% AMR meter penetration by

year-end 2017 and a 20-S2 survivor curve estimate for AMR meters. The model assumes a 20 year average service life for AMR meters which is a typical estimate for AMR meters, albeit at the upper end of the service life range. The forecasted retirements for the period 2015-2044 were appended to the actual retirements that occurred during the years 2008-2014 when the AMR meter installations at Newfoundland Power became more pronounced. The service life indications for meters during this period 2008-2044 range from 17 to 18 years. An 18-S1 survivor curve was selected to describe the survivor characteristics for both Watt-hour meters and Demand meters.

For Other Production Plant accounts and General Plant, Large Buildings and Structures, the life span technique was employed in conjunction with the use of interim survivor curves. Interim survivor curves reflect retirements that occur prior to the ultimate retirement of the major unit or building. An interim survivor curve was estimated for each plant account, inasmuch as the rate of interim retirements differs from account to account. The interim survivor curves estimated for other production plant were based on the retirement rate method of life analysis which incorporated experienced aged retirements for the period 1948 through 2013. The statistical support for the interim rates of retirement for other production plant accounts are set forth in Appendix A.

The life span method is appropriate for certain electric facilities in which all assets at the facility are expected to be retired concurrently upon the final retirement of the facility. The life span estimates for these facilities were based on current Company policies and outlook as determined during field review, discussions with management and the range of estimates from other electric utility companies.

The range of life spans for other similar electric facilities varies widely from company to company and is dependent on numerous factors other than just the physical condition of the facility. The operation of these types of facilities is largely due to the continued economic attractiveness compared with similar, new equipment or alternative energy sources. The life span estimates for thermal plants were the result of considering experienced life spans of similar generating units, the age of surviving units, general operating characteristics of the units, major refurbishing, and discussions with management personnel concerning the outlook for the units.

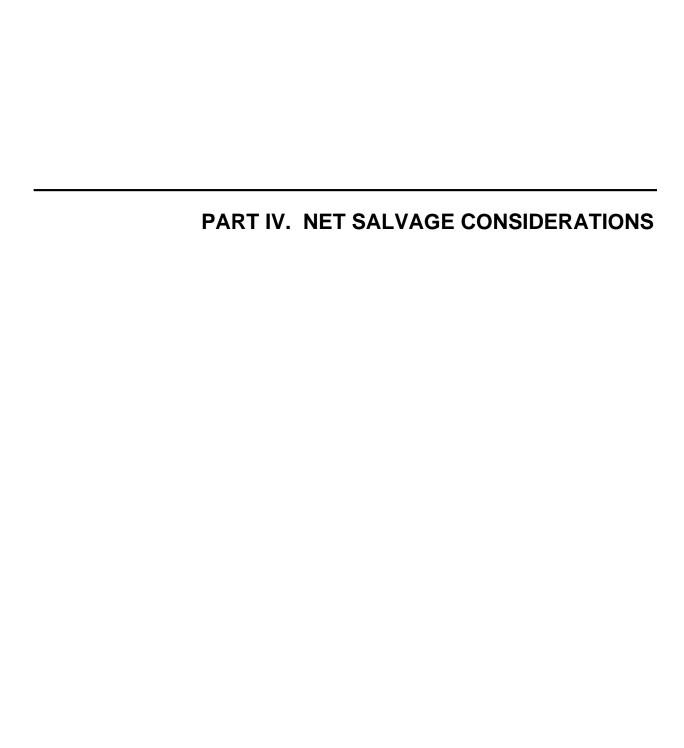
A summary of the year in service, probable retirement year for depreciation purposes, and life span for each power production facility follows:

Depreciable Group	Year in <u>Service</u>	Probable Retirement <u>Year</u>	Life <u>Span</u>
Other Production Plant			
Green Hill Gas Turbine Wesleyville Gas Turbine Portable Gas Turbine Port Aux Basques Diesel Mobile Diesel #3	1975 1969/2003 1974/2003 1969 2004	2021 2024 2020 2020 2036	46 55/21 46/17 51 32

The Wesleyville Gas Turbine and Portable Gas Turbine were significantly refurbished to like-new condition in 2003. In the table above, the year of major refurbishment and the life span from the year of major refurbishment to its expected terminal date also are presented for these two units.

Amortization accounting is used for certain General and Communication Plant accounts that represent numerous units of property, but a small portion of the depreciable electric plant in service. A discussion of the basis for the amortization periods is presented in the section "Calculation of Annual and Accrued Amortization."

Generally, the survivor curve estimates for the remaining accounts, were based on judgments which considered the nature of the plant and equipment, reviews of available historical data, and a general knowledge of service lives for similar equipment in other electric companies.



#### PART IV. NET SALVAGE CONSIDERATIONS

#### SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 1976 through 2013. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

The experienced net salvage data were available by account for Distribution, General and Communication Plant accounts. The historical net salvage data through 2013 for the two Substation accounts and the six Transmission accounts were available only in total for the function as is typical when the depreciation reserve is maintained by function.

For Distribution Plant, there were several depreciable groups where the net salvage data were not readily available at the depreciable group level as it is impractical to segregate salvage receipts between such groups. The following presents the depreciable groups for which net salvage was analyzed as one group in order to develop historical indications of net salvage.

Account Number	Account Description
361.10, 361.11, 361.14 and 361.3	O/H Conductors - Bare Copper, Weather-Proof Copper, Aerial Cable and Special Insulated Copper Cable

Account Number	Account Description	
361.12, 361.13 and 361.15	O/H Conductors - Bare Aluminum, Weather- Proof Aluminum and Duplex, Triplex and Quadruplex	
361.2 and 361.4	U/G Cable and Submarine Cable	
362.10 and 362.20	Poles - Under 35 ft. and Poles - 35 ft. and Over	
364.10, 364.11, 364.2, 364.3, and 364.4	Line Transformers (Includes all groups in Account 364)	
365.10 and 365.20	O/H Service and U/G Services	
366.1, 366.2, 366.3 and 366.4	Watt-Hour Meters, Demand Meters, Instrument Transformers, Metering Tanks	
378.3 and 378.4	Transportation Equipment - Trucks with Hydraulic Derricks - and Transportation Equipment - Trucks with Line and Stake Bodies	

#### **Net Salvage Considerations**

The cost of removal related to Substation, Transmission and Distribution asset replacement projects has trended up during the period 2005 – 2010 in comparison to previous periods. During this period Newfoundland Power implemented new strategies for the replacement, refurbishment and modernization of deteriorated and aged assets in Distribution (2004), Transmission (2006) and Substations (2007).

Newfoundland Power's management believes the trend seen during 2005 – 2010 is not representative of the future. In 2010 a review of costs in these capital projects identified some inconsistency in the allocation of total project labor to the cost of removal for deteriorated and aged assets and the installation of the replacement assets. As a result the company implemented new guidelines in 2011 regarding the allocation of cost for capital projects involving the replacement, refurbishment and modernization of

deteriorated and aged assets. The cost of removal amounts were adjusted for the years 2005 through 2010 as if the new guidelines implemented in 2011 had been in place during those years. The pro forma cost of removal amounts for accounts affected by the new 2011 guidelines are set forth in the section of the report beginning on page B-47.

This change in allocation will have an impact on future cost of removal and net salvage, expressed as a percent of plant retirements. The net salvage estimates selected for the plant accounts affected by these guidelines reflect the expectation of lower removal costs in the future.

The estimates of salvage were based primarily on judgment which considered a number of factors. The primary factors were the analyses of historical data; the net salvage characteristics of other electric utility properties, a knowledge of management's plans and operating policies; and net salvage estimates from previous studies of this Company and other electric companies. The accounts for which the historical analyses were representative of expectations for future net salvage levels are presented below:

#### **SUBSTATION**

All Accounts as a Group.

#### **TRANSMISSION**

All Accounts as a Group.

#### **DISTRIBUTION**

361.10	Overhead Conductors - Bare Copper
361.11	Overhead Conductors – Weather-Proof Copper
361.12	Overhead Conductors - Bare Aluminum
361.13	Overhead Conductors - Weather-Proof Aluminum
361.14	Overhead Conductors – Aerial Cable
361.15	Overhead Conductors - Duplex, Triplex, and Quadruplex

361.30	Overhead Conductors – Special Insulated Copper Cable
362.10	Poles - Wood – Under 35 ft.
362.20	Poles - Wood – 35 ft. and Over
363	Street Lights
364.10	Transformers and Mountings - Up to and Including 15 kVA
364.11	Transformers and Mountings - Over 15 kVA
364.2	Voltage Regulators
364.3	Capacitor Banks
364.4	Reclosers
365.1	Services - Overhead
365.2	Services - Underground
366.1	Meters - Watt-Hour
366.2	Meters - Demand
366.3	Meters - Instrument Transformers
366.4	Meters - Metering Tanks

#### **GENERAL PROPERTY**

378.1	Transportation - Sedans and Station Wagons
378.2	Transportation - Pick-Up Trucks, Window Vans
378.3	Transportation - Trucks with Hydraulic Derricks
378.4	Transportation - Trucks with Line and Stake Bodies
378.5	Transportation - Miscellaneous

Accounts 362.10 Distribution Poles - Wood and 362.20 Distribution Pole Fixtures - Wood are used to illustrate the manner in which the study was conducted for the group of accounts in the preceding list. Depreciation reserve accounting data were compiled for the years 2000 through 2013. These data include the retirements, cost of removal and salvage.

Discussions with management indicated that wood distribution poles are retired and removed for a variety of reasons such as clearance issues, relocations, physical condition, storm damage and accidents. The removed poles have minimal salvage value although at times can be reused. The previous estimate of net salvage for Account 362.10 Poles – Wood and 362.20 Pole Fixtures - Wood was negative 25

percent. The range of typical net salvage estimates used by other electric utilities for wood poles and fixtures is negative 25 percent to negative 65 percent.

The net salvage estimate for Accounts 362.10, Poles – Wood and 362.20 Pole Fixtures is negative 35 percent and is based on the experienced net salvage data for the years 2000 through 2013. The three-year moving average for net salvage remained fairly level during the period 2000 through 2011 ranging from negative 25 percent to negative 45 percent. The years 2011-2013 experienced an increase in removal costs as expressed as a percent of retirements. However, the company believes that this is atypical and not likely to continue in the future. The overall net salvage percent experienced by Newfoundland Power during the period 2000 through 2013 was negative 38 percent as shown in the tabulation in Appendix B. The net salvage estimate of negative 35 percent is appropriate for Account 362.10, Poles – Wood and 362.2, Pole Fixtures. Negative 35 percent was consistent with the historical experience and with management's outlook regarding future net salvage and therefore was selected.

production The salvage estimates for plant reflect estimated decommissioning costs associated with each generating station. The decommissioning cost estimate for each location was based on the results of a decommissioning study conducted the Company's engineering department. The Company's by decommissioning cost estimates were stated in current (2014) dollars. The decommissioning of the hydroelectric, gas turbines and diesel units are projected to occur at various dates in the future. The decommissioning cost estimates were adjusted for the effect of inflation between 2014 and the projected retirement date to develop the net salvage percent estimate as shown in the table on the following page.

NEWFOUNDLAND POWER, INC.

SUMMARY OF THE CALCULATION OF NET SALVAGE PERCENT RELATED TO PRODUCTION PLANT FACILITIES

PLANT (1)	DECOMMISSIONING COSTS STATED IN 2014 DOLLARS (2)	AVERAGE REMAINING LIFE (3)	INFLATION FACTOR (4)*	DECOMMISSIONING COSTS INFLATED TO THE PROBABLE RETIREMENT DATE (5)=(2)*(4)	ORIGINAL COST AT 12/31/2014 (6)	NET SALVAGE PERCENT (7)=(5)/(6)
HYDROELECTRIC PLANT	(38,370,000)	36.6	2.06	(79,042,200)	180,399,279	(43.82)
DIESEL PLANTS PORT AUX BASQUES	(153,800)	5.4	1.11	(170,718)	1,243,154	(13.73)
GAS TURBINES	(672,000)	8.0	1.17	(786,240)	17,888,371	(4.40)

\* Column (4) =  $(100\% + 2\%) ^{\wedge}$  Column (3)

Amortization accounting is used for certain General and Communication Plant accounts. Gross salvage and removal costs related to these accounts are expected to be minimal amounts. Any future gross salvage and removal cost for these accounts will be recorded as revenue and expense, respectively. Inasmuch as there will be no depreciation reserve entries related to salvage or cost of removal, the estimate of net salvage for accounts subject to amortization is zero percent.

Generally, the net salvage estimates for the remaining accounts were based on judgments which considered the nature of the plant and equipment, the Company's accounting policies and practices, reviews of available historical data, and a general knowledge of net salvage percents for similar equipment, in other electric companies.

# PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

## PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

After the survivor curve and net salvage are estimated, the annual and accrued depreciation can be calculated. In the average service life procedure, the annual accrual rate is computed by the following equation:

$$\textit{Annual Accrual Rate, Percent} = \frac{(100\% - \textit{Net Salvage, Percent})}{\textit{Average Service Life}}$$

The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account, based upon the attained age and the estimated survivor curve. The accrued depreciation ratios are calculated as follows:

Ratio=
$$(1 - \frac{Average\ Remaining\ Life\ Expectancy}{Average\ Service\ Life})\ (1 - Net\ Salvage, Percent).$$

The application of these procedures is described for a single unit of property and a group of property units. Net Salvage is omitted from the description for ease of application.

#### Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4+6)}$$
 = \\$100 per year.

The accrued depreciation is:

$$$1,000\left(1-\frac{6}{10}\right)=$400.$$

#### **Group Depreciation Procedures**

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group.

#### **Average Service Life Procedure**

In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life. The recovery of cost is complete at the end of the life cycle, but the distribution of the capital cost to annual expense does not match the consumption of the service value of the plant.

#### **Equal Life Group Procedure**

In the equal life group procedure, also known as the unit summation procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group.

The relative size of each equal life group is determined from the property's life dispersion curve. This procedure eliminates the need to base depreciation on average lives, inasmuch as each group is a unit having a single life (i.e., no dispersion of lives). The full cost of short-lived units is accrued during their lives, leaving no deferral of accruals required to be added to the annual cost associated with long-lived units. The calculated depreciation for the property groups is the summation of the calculated depreciation based on the service life of each equal life unit. Thus, the equal life group procedure is responsive to management's goal of fully depreciating each asset by the time it is retired but it avoids the effort required to depreciate each unit of property separately.

The equal life group procedure is superior to the average service life procedure because it allocates the capital cost of a group property to annual cost of service in accordance with the consumption of the service value of the group.

#### CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were the same as those presented and approved in the previous depreciation report. The amortization

periods were based on judgment which incorporated a consideration of the period during which the assets

will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used under depreciation accounting.

Amortization accounting is used for certain General and Communication Plant accounts that represent numerous units of property, but a very small portion of depreciable electric plant in service. The accounts and their amortization periods are as follows:

Account		Amortization Period, <u>Years</u>
372	Furniture and Equipment	25
373	Stores Equipment	25
374	Shop Equipment	25
375	Laboratory and Testing Equipment	25
376	Miscellaneous Equipment	15
377	Engineering Equipment	25
379.1	Computer Equipment - Hardware	5
379.2	Computer Equipment - Software	10
381	Mobile Radio	15
383	Radio Equipment	15

The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the original cost by the period of amortization for the account.

#### MONITORING OF BOOK ACCUMULATED DEPRECIATION

The calculated accrued depreciation or amortization represents that portion of the depreciable cost which will not be allocated to expense through future depreciation accruals, if current forecasts of service life characteristics and net salvage materialize and are used as a basis for depreciation accounting. Thus, the calculated accrued depreciation provides a measure of the book accumulated depreciation. The use of this measure is recommended in the amortization of book accumulated depreciation variances to insure complete recovery of capital over the life of the property.

The reserve variance amortization developed in this study is based on the variance between the book accumulated depreciation and the calculated accrued depreciation where the variance exceeds five percent of the calculated accrued depreciation and an amortization period equal to the composite remaining life for each property group. The calculated accrued depreciation or theoretical reserve is based on the mid-year convention. This accounting convention assumes that property is in service for six months in the year it is installed.

The composite remaining life for use in reducing accumulated depreciation variances is derived by compositing the individual equal life group remaining lives in accordance with the following equation:

Cosposite Remaining Life = 
$$\frac{\sum (\frac{Book\ Cost}{Life}\ x\ Remaining\ Life)}{\sum \frac{Book\ Cost}{Life}}.$$

The book costs and lives of the several equal life groups which are summed in the foregoing equation are defined by the estimated future survivor curve.

Inasmuch as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$Composite \ Remaining \ Life = \frac{\sum Whole \ Life \ Future \ Accruals}{Whole \ Life \ Annual \ Accruals}$$
 or

Composite Remaining Life = 
$$\frac{\sum Book\ Cost - Calc.\ Reserve}{\sum Whole\ Life\ Annual\ Accruals}.$$

### PART VI. RESULTS OF STUDY

#### PART VI. RESULTS OF STUDY

#### **QUALIFICATION OF RESULTS**

The calculated annual and accrued depreciation and the annual provision for true-up (a.k.a., amortization of the accumulated depreciation variance) are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line method of depreciation, using the equal life group procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the electric plant in service as of December 31, 2014. The calculated accrued depreciation represents that portion of the depreciable cost which will not be allocated to future annual expense through depreciation accruals, if current forecasts of service life and salvage materialize and are used as a basis for straight line equal life group depreciation accounting.

#### **DESCRIPTION OF SUMMARY TABULATIONS**

Tables 1 and 2 are summaries of the results of the study as applied to the original cost of electric plant respectively, at December 31, 2014. Table 1 presents for each account the proposed survivor curve and net salvage estimates, the original cost, the calculated annual accrual rate and amount and the calculated accrued depreciation

as of December 31, 2014. Table 2 presents the calculation of the reserve variance amortization amounts. The summary schedules are presented on pages VI-5 through VI-15 of this report.

#### **DESCRIPTION OF DETAILED TABULATIONS**

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other electric utilities. The results of the statistical analysis of service life are presented in Appendix A of the companion volume to this report.

The estimated survivor curves for each account are presented in graphical form. The charts depict the estimated smooth survivor curve and original survivor curve(s), when applicable, related to each specific group. For groups where the original survivor curve was plotted, the calculation of the original life table is also presented. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which where plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The analyses of net salvage data are presented in the companion volume to this report in Appendix B titled, "Net Salvage Statistics". The tabulations present annual

cost of removal and salvage data, three-year moving averages and the most recent fiveyear average. Data are shown in dollars and as percentages of original costs retired.

The tables of the calculated annual depreciation applicable to depreciable assets as of December 31, 2014 are presented in account sequence in Appendix C of the companion volume. The tables indicate the estimated survivor curve and salvage percent for the account and set forth for each installation year the original cost, the calculated annual accrual rate and amount, and the calculated accrued depreciation factor and amount.

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL DEPRECIATION RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

CALCULATED ACCRUED DEPRECIATION (8)	404,623 1,525,656 4,133,808 23,182,461 14,546,330 13,700,994 6,836,117 497,106	311,174 337,093 60,127 708,394	8,545 95,152 457,438 125,631 496,355
ANNUAL ACCRUAL RATE (7)=(6)/(5)	2.27 2.27 2.15 2.15 2.44 2.80 2.80	8.28 5.29 6.52 65	5.70 5.34 5.97 3.49 4.35
ANNUAL ACCRUAL AMOUNT (6)	15,065 84,061 182,316 1,417,060 891,918 867,661 864,896 38,457	34,242 25,639 9,015 68,896	6,048 35,120 15,151 47,648
ORIGINAL COST AT 12/31/14 (5)	1,054,326 4,311,837 10,035,341 62,426,491 41,546,526 40,188,197 19,462,225 1,374,335	413,396 484,537 138,314 1,036,247	5,179 106,126 657,909 253,645 1,365,091 2,387,950
NET SALVAGE PERCENT (4)	0 (10) (25) (25) (25) (25) (25)	(20) (3)	(65) (20) (3) (3) 0
ESTIMATED SURVIVOR CURVE (3)	75 - R2.5 60 - R3 75 - R2.5 60 - L3 70 - S0.5 65 - R2.5 35 - S0 50 - R2.5	08 - 09 09 - 09	70 - C0 70 - C0 70 - C0 70 - C0 70 - C0
PROBABLE RETIREMENT YEAR (2)		6-2020 6-2021 6-2024	12-2010 6-2020 6-2021 6-2024 6-2036
DEPRECIABLE GROUP (1)	HYDRO PRODUCTION  320 LAND AND LAND CLEARING 321 ROADS, TRAILS, AND BRIDGES 322 BUILDINGS AND STRUCTURES 323 CANALS, PENSTOCKS, SURGE TANKS AND TAILRACES 324 DAMS AND RESERVOIRS 325 PRIME MOVERS, GENERATORS AND AUXILIARIES 326 SWITCHING, METERING AND CONTROL EQUIPMENT 327 MISCELLANEOUS POWER PLANT EQUIPMENT 327 TOTAL HYDRO PRODUCTION	OTHER PRODUCTION  331 BUILDINGS AND STRUCTURES PORT AUX BASQUES DIESEL GREEN HILL GAS TURBINE WESLEYVILLE GAS TURBINE TOTAL ACCOUNT 331	332 ELECTRICAL PLANT PORT UNION DIESEL PORT AUX BASQUES DIESEL GREEN HILL GAS TURBINE WESLEYVILLE GAS TURBINE MOBILE DIESEL #3 TOTAL ACCOUNT 332

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL DEPRECIATION RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

		PROBABLE RETIREMENT	ESTIMATED SURVIVOR	NET SALVAGE	ORIGINAL COST AT	ANNUAL ACCRUAL	ANNUAL ACCRUAL	CALCULATED ACCRUED
	DEFRECIABLE GROOF	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	DEFRECIATION (8)
333	PRIME MOVERS, GENERATORS AND AUXILIARIES PORT UNION DIESEL	12-2010	55 - L1	(65)	52.594			86,781
	PORT AUX BASQUES DIESEL	6-2020	55 - L1	(20)	621,377	58,926	9.48	428,089
	PORTABLE GAS TURBINE	6-2020	55 - L1	0	2,471,612	144,592	5.85	1,696,517
	GREEN HILL GAS TURBINE	6-2021	55 - L1	(3)	6,133,900	242,065	3.95	4,819,478
	WESLEYVILLE GAS TURBINE	6-2024	55 - L1	(3)	9,225,767	535,588	5.81	4,645,462
	MOBILE DIESEL #3	6-2036	55 - L1	0	839,912	31,587	3.76	258,050
	TOTAL ACCOUNT 333				19,345,162	1,012,758	5.24	11,934,377
334	FUEL HOLDERS							
	PORT UNION DIESEL	12-2010	Square	(65)	17,545			28,949
	PORT AUX BASQUES DIESEL	6-2020	Square	(20)	95,357	8,139	8.54	69,646
	GREEN HILL GAS TURBINE	6-2021	Square	(3)	792,888	64,985	8.20	394,284
	WESLEYVILLE GAS TURBINE	6-2024	Square	(3)	201,410	8,667	4.30	125,163
	TOTAL ACCOUNT 334				1,107,200	81,791	7.39	618,042
335	MISCELLANEOUS POWER PLANT EQUIPMENT PORT ALIX BASOLIES DIESEL	6.2020	Special	(00)	808	134	20	7 537
	11010 010000000000000000000000000000000	0.505-0		(22)	0000	2	<u>;</u>	50,
	TOTAL OTHER PRODUCTION				23,883,457	1,267,546	5.31	14,451,471
SUBSTATION	NOIL							
341 342	BUILDINGS AND STRUCTURES EQUIPMENT		50 - R2.5 50 - R1	(15) (15)	11,386,944 192,109,534	291,927 5,697,303	2.56 2.97	3,801,140 64,535,997
	TOTAL SUBSTATION				203,496,477	5,989,230	2.94	68,337,137

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL DEPRECIATION RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

	DEPRECIABLE GROUP	PROBABLE RETIREMENT YEAR	ESTIMATED SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AT 12/31/14	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE	CALCULATED ACCRUED DEPRECIATION
	(1)	(2)	(3)	(4)	(5)	(9)	(2)/(9)=(2)	(8)
TRANSMISSION	NOIS							
350.01	ROW CLEARING AND EASEMENT SURVEY		65 - R4	0	8,291,352	131,444	1.59	3,450,164
350.02	ROADS, TRAILS AND BRIDGES		65 - R4	0	78,266	1,238	1.58	35,155
353.1	OVERHEAD CONDUCTORS		57 - R3	(32)	27,644,643	689,139	2.49	14,107,745
353.2	UNDERGROUND CABLES		50 - R4	(25)	1,645,955	41,483	2.52	915,022
355.1	POLES		52 - S0.5	(32)	37,038,771	1,089,268	2.94	17,881,545
355.2	POLE FIXTURES		52 - S0.5	(32)	28,767,681	878,595	3.05	12,017,180
355.3	INSULATORS		31 - S1	(32)	22,864,503	1,061,030	4.64	13,086,570
	TOTAL TRANSMISSION				126,331,172	3,892,197	3.08	61,493,381
DISTRIBUTION	NOI							
	OVERHEAD CONDUCTORS AND UNDERGROUND CABLES	ES.						
361.1	BARE COPPER		53 - R1.5	(25)	494,303	6,597	1.94	444,129
361.11	WEATHER-PROOF COPPER		49 - R2	(25)	1,607,235	32,499	2.02	1,613,605
361.12	BARE ALUMINUM		57 - R2.5	(32)	129,653,261	3,415,391	2.63	53,438,160
361.13	WEATHER-PROOF ALUMINUM		36 - R1.5	(32)	35,214,194	1,469,932	4.17	18,368,547
361.14	AERIAL CABLE		29 - R1	(25)	1,076,258	53,719	4.99	551,617
361.15	DUPLEX, TRIPLEX, AND QUADRUPLEX		49 - R2	(32)	5,762,312	184,327	3.20	2,108,026
361.2	UNDERGROUND CABLES		47 - R4	(10)	26,155,568	633,238	2.42	10,100,725
361.3	SPECIAL INSULATED COPPER CABLE		29 - R1	(25)	102,076	3,114	3.05	102,756
361.4	SUBMARINE CABLE		40 - R3	(2)	18,426,771	551,619	2.99	2,532,168
	TOTAL ACCOUNT 361			1	218,491,976	6,353,436	2.91	89,259,733

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL DEPRECIATION RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

	DEPRECIABLE GROUP	PROBABLE RETIREMENT YEAR	ESTIMATED SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AT 12/31/14	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE	CALCULATED ACCRUED DEPRECIATION
	(1)	(2)	(3)	(4)	(5)	(9)	(2)/(9)=(2)	(8)
362.1	POLES AND FIXTURES WOOD - INDER 35 FT		53 . R1	(35)	74 253 328	2 166 010	2 02	36 486 161
362.2	WOOD - 35 FT. AND OVER		53 - R1	(32)	319,401.751	9.860.506	3.09	135,101,352
362.3	CONCRETE AND STEEL		44 - R2.5	(32)	8,166,625	267,548	3.28	4,306,725
362.4	STEEL TOWERS		50 - R3	(32)	195,337	5,114	2.62	166,370
	TOTAL ACCOUNT 362				402,017,041	12,299,178	3.06	176,060,608
363	STREET LIGHTS		20 - R0.5	(10)	20,191,132	1,159,516	5.74	10,311,128
364.1	TRANSFORMERS AND MOUNTINGS							
	UP TO AND INCLUDING 15 KVA		40 - \$1	(5)	9,292,994	265,304	2.85	3,355,154
	OVER 15 KVA		40 - S1	(2)	122,631,962	3,596,871	2.93	36,994,930
	TOTAL ACCOUNT 364.1				131,924,957	3,862,175	2.93	40,350,084
364.2	VOLTAGE REGULATORS		40 - S1	(2)	5,496,238	157,484	2.87	1,819,603
364.3	CAPACITOR BANKS		40 - S1	(2)	331,138	9,711	2.93	105,926
364.4	RECLOSERS		40 - S1	(2)	1,157,315	34,467	2.98	284,912
365.1	SERVICES OVERHEAD		49 - R2	(09)	88,497,636	3,182,791	3.60	50,988,369
365.2	SERVICES UNDERGROUND		45 - R4	(10)	10,004,732	254,442	2.54	3,168,568
	METERS							
366.1	WATT-HOUR		18 - S1	(5)	15,356,756	970,287	6.32	5,978,566
366.2	DEMAND		18 - S1	(2)	7,535,922	525,719	86.9	1,752,714
366.3	INSTRUMENT TRANSFORMERS		36 - R2.5	(2)	2,951,154	89,733	3.04	1,310,953
366.4	METERING TANKS		36 - R2.5	(2)	1,213,035	33,358	2.75	773,613
	TOTAL ACCOUNT 366				27,056,868	1,619,097	5.98	9,815,846
367.1	UNDERGROUND DUCTS AND MANHOLES		65 - R4	(10)	10,290,061	182,598	1.77	2,692,829
367.2	UNDERGROUND SWITCHES AND SWITCHGEAR		47 - R4	(10)	2,934,579	72,469	2.47	648,333
	TOTAL DISTRIBUTION				918,393,672	29,187,364	3.18	385,505,939

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL DEPRECIATION RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

	DEPRECIABLE GROUP	PROBABLE RETIREMENT YEAR	ESTIMATED SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AT 12/31/14	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE	CALCULATED ACCRUED DEPRECIATION
	(1)	(2)	(3)	(4)	(5)	(9)	(2)-(6)/(2)	(8)
GENERAL	GENERAL PROPERTY							
371.1	BUILDINGS AND STRUCTURES - SMALL BUILDINGS AND STRUCTURES - LARGE		37 - S0	(10)	1,956,986	50,692	2.59	1,330,237
<u>!</u> 5	TOPSAIL ROAD - TRANSFORMER STORAGE	6-2033	70 - R1	0	1,711,140	62,635	3.66	682,650
	TOPSAIL ROAD - SYSTEM CONTROL CENTER	6-2054	70 - R1	0	1,672,350	40,942	2.45	434,824
	KENMOUNT ROAD	6-2049	70 - R1	0	8,449,945	204,888	2.42	2,942,332
	DUFFY PLACE	6-2065	70 - R1	0	13,079,875	247,579	1.89	4,561,937
	CARBONEAR - OFFICE/WAREHOUSE	6-2052	70 - R1	0	2,573,071	69,126	2.69	741,549
	WHITBOURNE	6-2023	70 - R1	0	715,140	29,883	4.18	471,965
	SALT POND	6-2023	70 - R1	0	008'606	37,788	4.15	601,376
	CLARENVILLE REGIONAL BUILDING	6-2050	70 - R1	0	2,064,724	41,199	2.00	894,797
	GANDER	6-2037		0	1,707,555	49,153	2.88	762,224
	GRAND FALLS SERVICE BUILDING	6-2056		0	1,503,207	34,122	2.27	439,960
	CORNER BROOK - MAPLE VALLEY SERVICE BUILDING	6-2057	70 - R1	0	1,618,842	36,398	2.25	464,507
	STEPHENVILLE OFFICE AND SERVICE BUILD	6-2028	70 - R1	0	1,104,951	31,088	2.81	712,057
	PORT AUX BASQUES	6-2035	70 - R1	0	314,098	8,131	2.59	166,519
	TOTAL ACCOUNT 371.2				37,424,698	892,932	2.39	13,876,697
372	OFFICE EQUIPMENT		25 - SQ	0	6,515,766	243,674	4.00 (a)	4,162,533
373	STORE EQUIPMENT		25 - SQ	0	557,243	17,764	4.00 (a)	451,921
374	SHOP EQUIPMENT		25 - SQ	0	674,511	25,188	4.00 (a)	477,192
375	LABORATORY AND TESTING EQUIPMENT		25 - SQ	0	5,848,467	227,214	4.00 (a)	3,367,355
376	MISCELLANEOUS EQUIPMENT		15 - SQ	0	3,009,958	194,312	6.67 (a)	1,532,349
377	ENGINEERING EQUIPMENT		25 - SQ	0	162,163	6,141	4.00 (a)	296'59

TABLE 1. SUMMARY OF SERVICE LIFE AND NET SALVAGE ESTIMATES AND CALCULATED ANNUAL DEPRECIATION RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

	DEPRECIABLE GROUP	PROBABLE RETIREMENT YEAR	ESTIMATED SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AT 12/31/14	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE	CALCULATED ACCRUED DEPRECIATION
	(1)	(2)	(3)	(4)	(2)	(9)	(2)=(2)/(2)	(8)
378.1	TRANSPORTATION SEDANS AND STATION WAGONS							
378.2	PICK-UP TRUCKS, WINDOW VANS		6 - R4 11 B3	15	6,097,702	809,221	13.27	2,938,029
378.4	LARGE TRUCKS WITH HIDRAUGIC DENNICKS LARGE TRUCKS WITH LINE AND STAKE BODIES		11 - R3	ດທ	4,187,992	378,922	9.05	1,538,122
378.5	MISCELLANEOUS		15 - L1.5	15	1,257,652	77,804	6.19	446,159
	TOTAL ACCOUNT 378				27,270,277	2,586,375	9.48	13,189,271
379.1	COMPUTERS - HARDWARE		5 - SQ	0	9,863,535	1,666,957	20.00 (a)	5,662,291
379.2	COMPUTERS - SOFTWARE		10 - SQ	0	26,877,868	2,432,696	10.00 (a)	14,265,430
	TOTAL GENERAL PROPERTY				120,161,472	8,343,945	6.94	58,381,243
TELECOM	TELECOMMUNICATIONS							
381.1	MOBILE RADIOS		15 - SQ	0	195,419	13,034	6.67 (a)	145,037
381.2	PORTABLE RADIOS		15 - SQ	0	75,913	3,758	6.67 (a)	60,341
381.3	BASE STATIONS			(			ļ	
382.1	RADIO SITES - ROADS		30 - R4	0 !	141,801	4,207	2.97	100,030
382.2	RADIO SITES - BUILDINGS		30 - R4	(2)	391,415	11,972		350,941
383	RADIO EQUIPMENT		15 - SQ	0	1,521,788	101,503	6.67 (a)	408,607
384	COMMUNICATION CABLES		25 - R3	(2)	2,720,442	114,533	4.21	1,455,418
386	SCADA EQUIPMENT		15 - L2	(1)	3,741,640	182,446	4.88	2,857,158
389.1	TELEPHONE AND DATA COLLECTION EQUIPMENT		10 - L2.5	0	840,905	47,247	5.62	747,897
391	COMMUNICATION LEST EQUIPMENT		15 - R3	0	524,225	10,995	2.10	516,688
	TOTAL TELECOMMUNICATIONS				10,153,549	489,695	4.82	6,642,117
	TOTAL DEPRECIABLE PLANT				1,582,819,078	53,531,411		659,638,383
	TOTAL NONDEPRECIABLE PLANT				9,797,183			
	TOTAL ELECTRIC PLANT				1,592,616,262			

(a) Amortization rate shown is applicable to vintages that are not fully amortized. (Amortization Rate=1/Amortization Period, Years)



NEWFOUNDLAND POWER INC.

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF RESERVE VARIANCE AMORTIZATIONS RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

		ORIGINAL	CALCULATED	BOOK	ACCL	ACCUMULATED RESERVE VARIANCE	ERVE	PROBABLE	RESERVE
	DEPRECIABLE GROUP	COST AT 12/31/14	ACCRUED DEPRECIATION	ACCUMULATED DEPRECIATION	AMOUNT	PERCENT	AMOUNT > THRESHOLD	REMAINING	VARIANCE AMORTIZATION
	(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) $(a)$	(8)	(9)=(1)/(8)
<b>DEPRECIABLE PLANT</b>	<u>SLE PLANT</u>								
HYDRO PRODUCTION 320 LAND A	DDUCTION LAND AND LAND CLEARING	1,054,326	404,623	430,564	(25,941)	à 4.	(25,941)	43.1	(601)
321	ROADS, TRAILS, AND BRIDGES	4,311,837	1,525,656	1,677,825	(152,169)	-10.0	(152,169)	38.3	(3,976)
322 323	BUILDINGS AND STRUCTURES CANALS PENSTOCKS STIRGE TANKS AND TAIL RACES	10,035,341 62 426 491	4,133,808 23,182,461	4,551,079	(417,271) 1 064 532	-10.1 4.6	(417,271)	46.1 38.7	(9,046) - (h)
324	DAMS AND RESERVOIRS	41,546,526	14,546,330	14,542,175	4,155	0.0		41.9	(g) -
325	PRIME MOVERS, GENERATORS AND AUXILIARIES	40,188,197	13,700,994	12,317,826	1,383,169	10.1	1,383,169	42.1	32,847
326 327	SWITCHING, METERING AND CONTROL EQUIPMENT MISCELLANEOUS POWER PLANT EQUIPMENT	19,462,225 1,374,335	6,836,117 497,106	5,495,556 378,664	1,340,561 118,442	19.6 23.8	1,340,561 118,442	20.2 31.8	66,299 3,730
	TOTAL HYDRO PRODUCTION	180,399,279	64,827,095	61,511,616	3,315,479	5.1	2,246,791		89,253
OTHER PRODUCTION 331 BUILD	DDUCTION BUILDINGS AND STRUCTURES								
	PORT AUX BASQUES DIESEL	413,396	311,174	249,618	61,556	19.8	61,556	5.4	11,399
	GREEN HILL GAS TURBINE	484,537	337,093	323,700	13,393	4.0	- 0	6.3	- (b)
	WESLET VILLE GAS LORBINE TOTAL ACCOUNT 331	1036247	708.394	52,220	3,907	6.0	5,907	- 	11 827
332	ELECTRICAL PLANT PORT UNION DIESEL	5,179	8,545	1,766	6,779	79.3	6,779	0.0	1,356 (c)
	PORT AUX BASQUES DIESEL	106,126	95,152	102,557	(7,405)	-7.8	(7,405)	5.3	(1,392)
	GREEN HILL GAS LURBINE	657,909	457,438	525,152 155,123	(67,714)	-14.8 -23.5	(67,714)	 	(10,800)
	MOBILE DIESEL #3	1,365,091	496,355	550,030	(53,675)	-10.8	(53,675)	18.2	(2,944)
	TOTAL ACCOUNT 332	2,387,950	1,183,121	1,334,628	(151,507)	-12.8	(151,507)	I	(17,075)
333	PRIME MOVERS, GENERATORS AND AUXILIARIES								
	PORT UNION DIESEL	52,594	86,781	82,445	4,336	20.0	4,336	0.0	867 (c)
	PORT AUX BASQUES DIESEL	175,120	428,089	512,497	(84,408)	7.61	(84,408)	4.0	(15,000)
	PORTABLE GAS TORBINE	2,471,612	1,696,517	1,720,917	(24,400)	4.1-	• 1	5.4	(q) -
	GREEN HILL GAS TURBINE	6,133,900	4,819,478	5,567,991	(748,513)	-15.5	(748,513)	6.2	(120,923)
	WESLEYVILLE GAS TURBINE	9,225,767	4,645,462	4,536,467	108,995	23.4	•	1.0.1	(a) (4)
	TOTAL ACCOUNT 333	19.345.162	11.934.377	12.682.569	(748.192)	5.6	(828.585)	<u>†</u>	(135.716)
				00001	(=) () ()	5	(000(000)		(2(22.)



NEWFOUNDLAND POWER INC.

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF RESERVE VARIANCE AMORTIZATIONS RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

					1004	ACCUMILI ATED RESERVE	FRVF		
		ORIGINAL	CALCULATED	BOOK		VARIANCE		PROBABLE	RESERVE
	DEPRECIABLE GROUP	COST AT 12/31/14	ACCRUED DEPRECIATION	ACCUMULATED DEPRECIATION	AMOUNT	PERCENT	AMOUNT > THRESHOLD	REMAINING LIFE	VARIANCE AMORTIZATION
	(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) (a)	(8)	(8)/(2)=(6)
334	FUEL HOLDERS PORT UNION DIESEL	17,545	28,949	32,052	(3,103)	-10.7	(3,103)	0:0	(621) (c)
	PORT AUX BASQUES DIESEL	95,357	69,646	64,235	5,411	7.8	5,411	5.5	984
	GREEN HILL GAS TURBINE	792,888	394,284	436,735	(42,451)	-10.8	(42,451)	6.5	(6,531)
	WESLEYVILLE GAS TURBINE	201,410	125,163	123,091	2,072	1.7		9.5	(q) -
	TOTAL ACCOUNT 334	1,107,200	618,042	656,114	(38,072)	-6.2	(40,143)	!	(6, 168)
335	MISCELLANEOUS POWER PLANT EQUIPMENT PORT AUX BASQUES DIESEL	6,898	7,537	8,315	(778)	-10.3	(778)	5.5	(141)
	TOTAL OTHER PRODUCTION	23,883,457	14,451,471	15,311,164	(859,693)		(955,550)	l	(147,273)
SUBSTATION	2								
341		11,386,944	3,801,140	3,472,412	328,728	8.6	328,728	31.8	10,324
342	EQUIPMENT	192,109,534	64,535,997	57,147,445	7,388,552	4.11	7,388,552	27.5	269,164
	TOTAL SUBSTATION	203,496,477	68,337,137	60,619,856	7,717,281	11.3	7,717,280		279,488
TRANSMISSION	NOI								
350.01	ROW CLEARING AND EASEMENT SURVEY	8,291,352	3,450,164	3,430,296	19,868	9.0		36.8	(q) -
350.02	ROADS, TRAILS AND BRIDGES	78,266	35,155	38,794	(3,639)	-10.4	(3,639)	34.8	(105)
353.1	OVERHEAD CONDUCTORS	27,644,643	14,107,745	13,471,837	635,908	4.5		33.7	(q) -
353.2	UNDERGROUND CABLES	1,645,955	915,022	861,844	53,178	5.8	53,178	27.5	1,931
355.1	POLES	37,038,771	17,881,545	16,380,330	1,501,215	8.4	1,501,215	29.5	906'09
355.2	POLE FIXTURES	28,767,681	12,017,180	13,803,339	(1,786,159)	-14.9	(1,786,159)	30.5	(28,505)
355.3	INSULATORS	22,864,503	13,086,570	12,615,279	471,291	3.6		16.8	(q) -
	TOTAL TRANSMISSION	126,331,172	61,493,381	60,601,720	891,661	1.5	(235,405)		(5,773)



NEWFOUNDLAND POWER INC.

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF RESERVE VARIANCE AMORTIZATIONS RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

		ORIGINAL	CALCULATED	ВООК	ACCU	ACCUMULATED RESERVE VARIANCE	ERVE	PROBABLE	RESERVE
	DEPRECIABLE GROUP	COST AT 12/31/14	ACCRUED DEPRECIATION	ACCUMULATED DEPRECIATION	AMOUNT	PERCENT	AMOUNT > THRESHOLD	REMAINING LIFE	VARIANCE AMORTIZATION
	(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) (a)	(8)	(9)=(1)/(8)
ISTRIBUTION									
361.1	OVERHEAD CONDUCTORS AND UNDERGROUND CABLES RAPE COPPER	49.4 303	977 777	716 817	(970,688)	7.49	(270,688)	, ,	(15,066)
361.11	WEATHER-PROOF COPPER	1.607.235	1.613.605	2.049.177	(435.572)	-27.0	(435,572)	12.2	(15,086)
361.12	BARE ALUMINUM	129,653,261	53,438,160	54,074,122	(635,962)	-1.2	. '	35.6	(q) -
361.13	WEATHER-PROOF ALUMINUM	35,214,194	18,368,547	18,792,224	(423,677)	-2.3		19.8	(q) -
361.14	AERIAL CABLE	1,076,258	551,617	637,200	(85,583)	-15.5	(85,583)	14.8	(2,790)
361.15	DUPLEX, TRIPLEX, AND QUADRUPLEX	5,762,312	2,108,026	2,408,493	(300,467)	-14.3	(300,467)	30.8	(6,765)
361.2	UNDERGROUND CABLES	26,155,568	10,100,725	10,702,171	(601,446)	9-0	(601,446)	29.5	(20,402)
361.3	SPECIAL INSULATED COPPER CABLE	102,076	102,756	138,636	(35,880)	-34.9	(35,880)	8.0	(4,496)
361.4	SUBMARINE CABLE	18,426,771	2,532,168	2,705,965	(173,797)	-6.9	(173,797)	30.5	(5,702)
	TOTAL ACCOUNT 361	218,491,976	89,259,733	92,224,804	(2,965,071)	-3.3	(1,905,433)		(97,012)
	POLES AND FIXTURES								
362.1	WOOD - UNDER 35 FT.	74,253,328	36,486,161	33,374,341	3,111,820	8.5	3,111,820	29.4	105,736
362.2	WOOD - 35 FT. AND OVER	319,401,751	135,101,352	135,276,784	(175,432)	-0.1		30.0	(q) -
362.3	CONCRETE AND STEEL	8,166,625	4,306,725	4,580,294	(273,569)	-6.4	(273,569)	25.1	(10,895)
362.4	SIEEL IOWERS	195,337	166,370	146,516	19,854	11.9	19,854	19.0	1,043
	TOTAL ACCOUNT 362	402,017,041	176,060,608	173,377,935	2,682,673	1.5	2,858,105		95,884
363	STREET LIGHTS	20,191,132	10,311,128	8,759,262	1,551,866	15.1	1,551,866	10.3	151,254
364.1	TRANSFORMERS AND MOUNTINGS								
	UP TO AND INCLUDING 15 KVA	9,292,994	3,355,154	2,377,080	978,074	29.2	978,074	23.1	42,378
	OVER 15 KVA	122,631,962	36,994,930	33,658,902	3,336,028	0.6	3,336,028	24.5	136,220
	TOTAL ACCOUNT 364.1	131,924,957	40,350,084	36,035,982	4,314,102	10.7	4,314,102		178,598
364.2	VOLTAGE REGULATORS	5,496,238	1,819,603	1,411,813	407,790	22.4	407,790	24.0	16,963
364.3	CAPACITOR BANKS	331,138	105,926	113,839	(7,913)	-7.5	(7,913)	23.9	(332)
364.4	RECLOSERS	1,157,315	284,912	315,468	(30,556)	-10.7	(30,556)	26.0	(1,176)
365.1	SERVICES OVERHEAD	88,497,636	50,988,369	62,879,037	(11,890,668)	-23.3	(11,890,668)	28.5	(417,656)
365.2	SERVICES UNDERGROUND	10,004,732	3,168,568	3,078,119	90,449	2.9		30.8	(q) -
	METERS	1					1		
366.1	WAII-HOUR	15,356,756	5,978,566	(753, 165)	6,731,731	112.6	6,731,731	10.5	643,569
366.2	DEMAND INSTRIMENT TRANSFORMERS	7,535,922	1,752,714	(384,616)	2,137,330	9.121	2,137,330	11.7	182,366 (h)
366.4	METERING TANKS	1,213,035	773.613	819,939	(46.326)	-6.0	(46.326)	15.0	(3.090)
	TOTAL ACCOUNT 366	27,056,868	9,815,846	1,017,742	8,798,104	89.6	8,822,735	1	822,845
367.1	UNDERGROUND DUCTS AND MANHOLES	10,290,061	2,692,829	2,581,179	111,650	4.1	•	47.2	(q) -
367.2	UNDERGROUND SWITCHES AND SWITCHGEAR	2,934,579	648,333	673,504	(25,171)	-3.9		35.6	(q) -
	TOTAL DISTRIBUTION	918,393,672	385,505,939	382,468,684	3,037,255	0.8	4,120,028		749,368



NEWFOUNDLAND POWER INC.

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF RESERVE VARIANCE AMORTIZATIONS RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

		ORIGINAL	CALCULATED	BOOK	ACCL	ACCUMULATED RESERVE VARIANCE	SERVE	PROBABLE	RESERVE
	DEPRECIABLE GROUP (1)	COST AT 12/31/14 (2)	ACCRUED DEPRECIATION (3)	ACCUMULATED DEPRECIATION (4)	AMOUNT (5)=(3)-(4)	PERCENT (6)=(5)/(3)	AMOUNT > THRESHOLD (7)=(3)-(4) (a)	REMAINING LIFE (8)	VARIANCE AMORTIZATION (9)=(7)/(8)
GENERAL PROPERTY	ROPERTY								
371.1	BUILDINGS AND STRUCTURES - SMALL	1,956,986	1,330,237	1,464,867	(134,630)	-10.1	(134,630)	16.2	(8,300)
371.2	BUILDINGS AND STRUCTURES - LARGE								
	TOPSAIL ROAD - TRANSFORMER STORAGE	1,711,140	682,650	683,102	(452)	0.1		16.4	(q) -
	TOPSAIL ROAD - SYSTEM CONTROL CENTER	1,672,350	434,824	473,448	(38,624)	-8.9	(38,624)	30.2	(1,278)
	KENMOUNT ROAD	8,449,945	2,942,332	1,956,985	985,347	33.5	985,347	26.9	36,657
	DUFFY PLACE	13,079,875	4,561,937	4,666,192	(104,255)	-2.3		34.4	(q) -
	CARBONEAR - OFFICE/WAREHOUSE	2,573,071	741,549	532,792	208,757	28.2	208,757	26.5	7,878
	WHITBOURNE	715,140	471,965	400,743	71,222	15.1	71,222	8.1	8,750
	SALT POND	008'606	601,376	587,088	14,288	2.4		8.2	(q) -
	CLARENVILLE REGIONAL BUILDING	2,064,724	894,797	945,145	(50,348)	-5.6	(50,348)	28.4	(1,773)
	GANDER	1,707,555	762,224	1,035,881	(273,657)	-35.9	(273,657)	19.2	(14,231)
	GRAND FALLS SERVICE BUILDING	1,503,207	439,960	346,782	93,178	21.2	93,178	31.2	2,990
	CORNER BROOK - MAPLE VALLEY SERVICE BUILDING	1,618,842	464,507	405,587	58,920	12.7	58,920	31.7	1,858
	STEPHENVILLE OFFICE AND SERVICE BUILD	1,104,951	712,057	754,727	(42,670)	-6.0	(42,670)	12.6	(3,376)
	PORT AUX BASQUES	314,098	166,519	191,311	(24,792)	-14.9	(24,792)	18.2	(1,366)
	TOTAL ACCOUNT 371.2	37,424,698	13,876,697	12,979,784	896,913	6.5	987,333	I	36,109
372	OFFICE EQUIPMENT	6,515,766	4,162,533	4,148,404	14,129	0.3		9.7	(q) -
373	STORE EQUIPMENT	557,243	451,921	448,250	3,671	0.8		5.9	(q) -
374	SHOP EQUIPMENT	674,511	477,192	492,717	(15,525)	-3.3	•	7.8	(q) -
375	LABORATORY AND TESTING EQUIPMENT	5,848,467	3,367,355	3,284,681	82,674	2.5	•	10.9	(q) -
376	MISCELLANEOUS EQUIPMENT	3,009,958	1,532,349	1,603,087	(70,738)	4.6		9.7	
377	ENGINEERING EQUIPMENT	162,163	296'59	78,725	(12,758)	-19.3	(12,758)	15.7	(815)
	TRANSPORTATION								
378.1	SEDANS AND STATION WAGONS			(10.544)	10,544		10.544	0:0	2.109 (d)
378.2	PICK-UP TRUCKS, WINDOW VANS	6,097,702	2,938,029	2,864,835	73,194	2.5	. '	2.8	(q) -
378.3	LARGE TRUCKS WITH HYDRAULIC DERRICKS	15,726,931	8,266,961	9,416,945	(1.149.984)	-13,9	(1.149.984)	5.1	(227.720)
378.4	LARGE TRUCKS WITH LINE AND STAKE BODIES	4,187,992	1,538,122	1,040,478	497,644	32.4	497,644	6.4	77,274
378.5	MISCELLANEOUS	1,257,652	446,159	175,365	270,794	60.7	270,794	8.0	33,807
	TOTAL ACCOUNT 378	27,270,277	13,189,271	13,487,079	(297,808)	-2.3	(371,002)	I	(114,530)
379.1	COMPLITERS - HARDWARE	0 863 535	5 662 201	5 809 001	(146 710)	90-		о ч	(4)
379.2	COMPUTERS - SOFTWARE	26,877,868	14,265,430	13,601,729	663,701	4.7		5.2	(a) (a)
								I	
	TOTAL GENERAL PROPERTY	120,161,472	58,381,243	57,398,323	982,920	1.7	468,943		(87,536)

NEWFOUNDLAND POWER INC.

TABLE 2. CALCULATED ACCRUED DEPRECIATION, BOOK ACCUMULATED DEPRECIATION AND DETERMINATION OF RESERVE VARIANCE AMORTIZATIONS RELATED TO ORIGINAL COST OF ELECTRIC PLANT AT DECEMBER 31, 2014

ACCRUED   ACCUMULATED   ACCUMULATED   AMOUNT   PERCENT   THRESHOLD   LIFE   AMOUNT			IVNICION	CALCILIATED	AO O	ACC	ACCUMULATED RESERVE	ERVE	n lavacida	DESEBVE
Petrolalic Group   1287/14   DEPRECIATION   DEPRE			COST AT	ACCRUED	ACCUMULATED		TONIVINA.	AMOUNT >	REMAINING	VARIANCE
(1) (2) (3) (4) (5) (4) (6) (4) (6) (6) (4) (6) (7) (7) (7) (4) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7		DEPRECIABLE GROUP	12/31/14	DEPRECIATION	DEPRECIATION	AMOUNT	PERCENT	THRESHOLD	LIFE	AMORTIZATION
PADIOS         TOSA         145,037         145,037         145,037         145,037         145,037         145,037         145,037         141,160         7.7         11,160         3.9         2,222           PADIOS         7.5,913         60,341         60,341         64,319         (3,978)         6.6         (3,78)         4.1         (796)           S. ROADS         141,801         100,030         113,276         (41,066)         -13,2         (41,066)         -13,2         (13,46)         9.9         (13,46)         9.9         (13,46)         9.9         (13,46)         9.9         (13,46)         9.9         (13,46)         9.9         (13,46)         9.9         (13,46)         9.9         (13,46)         9.9         (13,49)         9.9         (13,49)         9.9         (13,41)         (13,46)         9.9         (13,49)         9.9         (13,49)         9.9         (13,49)         9.9         (13,41)         (13,41)         11,10		(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) (a)	(8)	(8)/(2)=(6)
1,000,   1	TELECOMM	IUNICATIONS								
CADIOLOS         TS,913         G4,319         G4,376         G6,376         G7,970         G7,133         G7,13	381.1	MOBILE RADIOS	195,419	145,037	133,877	11,160	7.7	11,160	3.9	2,232 (c)
1,000,000,000,000,000,000,000,000,000,0	381.2	PORTABLE RADIOS	75,913	60,341	64,319	(3,978)	9.9-	(3,978)	4.1	(c) (96Z)
1,32,76   1,32,6	381.3	BASE STATIONS			45	(42)		(45)	0.0	(p) (6)
S. BULDINGS         S. BULDINGS         S. BULDINGS         1.17         (41,066)         5.0         (8.184)           PENDLINGS         S. BULDINGS         S. BULDINGS         S. B.	382.1	RADIO SITES - ROADS	141,801	100,030	113,276	(13,246)	-13.2	(13,246)	6.6	(1,334)
PAMENT   P	382.2	RADIO SITES - BUILDINGS	391,415	350,941	392,027	(41,086)	-11.7	(41,086)	5.0	(8,184)
Table   Tabl	383	RADIO EQUIPMENT	1,521,788	408,607	375,494	33,113	8.1	33,113	11.0	3,018
PIPMENT   3741,640   2.857,158   3.468,744   (611,586)   2.14   (611,586)   5.1   (11,586)   2.14   (611,5	384	COMMUNICATION CABLES	2,720,442	1,455,418	1,515,948	(60,530)	-4.2		12.2	
E AND DATA COLLECTION EQUIPMENT         640,906         747,897         1,144,290         (396,393)         -53.0         (396,392)         2.0         (1,157,552)         2.0 <td>386</td> <td>SCADA EQUIPMENT</td> <td>3,741,640</td> <td>2,857,158</td> <td>3,468,744</td> <td>(611,586)</td> <td>-21.4</td> <td>(611,586)</td> <td>5.1</td> <td>(121,106)</td>	386	SCADA EQUIPMENT	3,741,640	2,857,158	3,468,744	(611,586)	-21.4	(611,586)	5.1	(121,106)
ATION TEST EQUIPMENT         524,225         516,688         652,180         (135,492)         -26.2         (135,492)         0.7         0           ECOMMUNICATIONS         10,153,549         6,642,117         7,880,200         (1,218,083)         -18.3         (1,157,553)         0.7         0           RECIABLE PLANT IN SERVICE         1,582,819,078         659,638,383         645,771,564         13,866,819         2.1         12,204,534         63,245           RECIABLE PLANT IN SERVICE         -         -         (63,245)         63,245         63,245         63,245         63,245           ALLS OFFICE BUILDING         -         -         (61,952)         (1,953)         (1,953)         (37,783)         (37,783)           RECIABLE PLANT         -         54,516         (64,516)         (64,516)         (64,516)         (64,516)         (64,516)           RECIABLE PLANT         1,582,616,262         -         -         54,516         (64,516)         (64,516)         (64,516)         (64,516)           CTRIC PLANT         -         -         -         54,516         (64,516)         (64,516)         (64,516)         (64,516)	389.1	TELEPHONE AND DATA COLLECTION EQUIPMENT	840,905	747,897	1,144,290	(396,393)	-53.0	(396,393)	2.0	(79,279) (c)
ECOMMUNICATIONS         10,153,549         6,642,117         7,880,200         (1,218,083)         -18.3         (1,157,553)         (2           RECIABLE PLANT IN SERVICE         1,582,819,078         659,638,383         645,771,564         13,866,819         2.1         12,204,534         6           NIT - RETIRED ALL S OFFICE BUILDING ALL S OFFICE BUILDING SPROK - WEST STREET SPR	391	COMMUNICATION TEST EQUIPMENT	524,225	516,688	652,180	(135,492)	-26.2	(135,492)	0.7	(27,098) (c)
RECIABLE PLANT IN SERVICE         1,582,819,078         659,638,383         645,771,564         13,866,819         2.1         12,204,534         6           NT - RETIRED         -         -         -         (63,245)         (63,245)         (63,245)         (63,245)         (63,245)         (63,245)         (63,245)         (63,245)         (63,245)         (63,245)         (61,932) <td< th=""><th></th><th>TOTAL TELECOMMUNICATIONS</th><th>10,153,549</th><th>6,642,117</th><th>7,860,200</th><th>(1,218,083)</th><th>-18.3</th><th>(1,157,553)</th><th>Į</th><th>(232,556)</th></td<>		TOTAL TELECOMMUNICATIONS	10,153,549	6,642,117	7,860,200	(1,218,083)	-18.3	(1,157,553)	Į	(232,556)
NT - RETIRED         - (63,245)         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,245         63,7783         63,7783         637,783         637,783         637,783         641,932<		TOTAL DEPRECIABLE PLANT IN SERVICE		659,638,383	645,771,564	13,866,819	2.1	12,204,534	II	644,971
STEAM PLANT   TRETREE   CONTRELED   CONTRET   CONTRET	ACCOUNTS	NOT STUDIED						0		
GRAND FALLS OFFICE BUILDING         -<	371.2	STEAM PLANT - KETIRED BLIII DINGS - RETIRED	•	•	(63,245)	63,245		63,245		21,082 (e)
CORNER BROOK - WEST STREET         .         81,932         (81,932)         (81,932)           POWER LINE CARRIER         .         .         .         (1,953)         1,953         1,953           TOTAL ACCOUNTS NOT STUDIED         . <td><u>:</u></td> <td>GRAND FALLS OFFICE BUILDING</td> <td></td> <td></td> <td>37,783</td> <td>(37,783)</td> <td></td> <td>(37,783)</td> <td></td> <td>(12,594) (e)</td>	<u>:</u>	GRAND FALLS OFFICE BUILDING			37,783	(37,783)		(37,783)		(12,594) (e)
-     54,516     (54,516)     (54,516)       1,582,819,078     659,638,383     645,826,081     13,812,302     12,150,017       1,592,616,282	390	CORNER BROOK - WEST STREET POWER LINE CARRIER			81,932 (1,953)	(81,932) 1,953		(81,932) 1,953		(27,311) (e) 1,953 (f)
1,582,819,078     659,638,383     645,826,081     13,812,302     12,150,017       9,797,183     1,592,616,262		TOTAL ACCOUNTS NOT STUDIED	,	,	54,516	(54,516)		(54,516)		(16,870)
1,582,819,078     659,638,383     645,826,081     13,812,302     12,150,017       9,797,183     1,592,616,262									ļ	
		TOTAL DEPRECIABLE PLANT	1,582,819,078	659,638,383	645,826,081	13,812,302		12,150,017	II	628,101
		TOTAL NONDEPRECIABLE PLANT	9,797,183							
		TOTAL ELECTRIC PLANT								

The reserve variance for accounts that exceed the 5% tolerance threshold are listed.

No reserve variance amortization calculated when reserve variance is less than five percent.

Reserve variance is amortized over five years for those accounts with a composite remaining life of less than 5 years.

No assets remain in this account. Reserve variance is amortized over 5 years.

No assets remain in this account. The true-up from the previous depreciation study will eliminate any reserve variance by year end 2017.

No assets remain in this account. The true-up will eliminate any reserve variance by year end 2015. = € € € € €

ST. JOHN'S, NEWFOUNDLAND

## **APPENDICES TO**

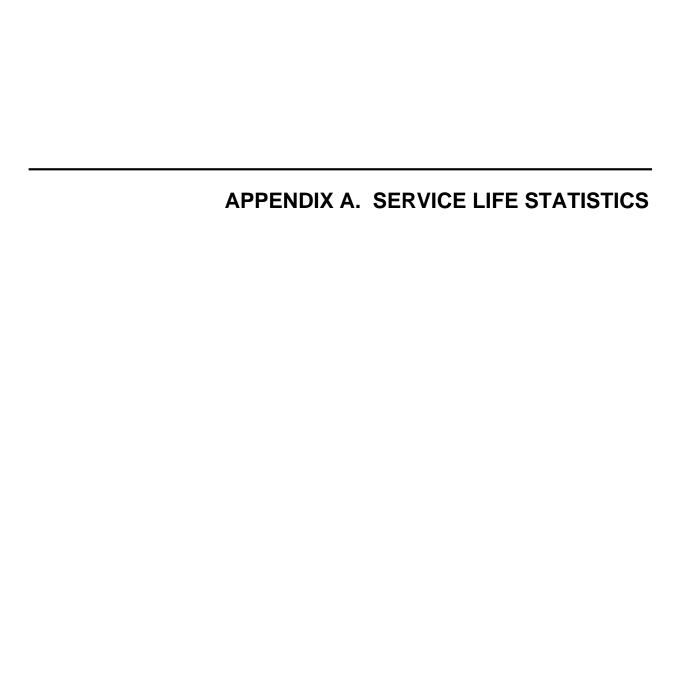
# **2014 DEPRECIATION STUDY**

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO ELECTRIC PLANT
AS OF DECEMBER 31, 2014

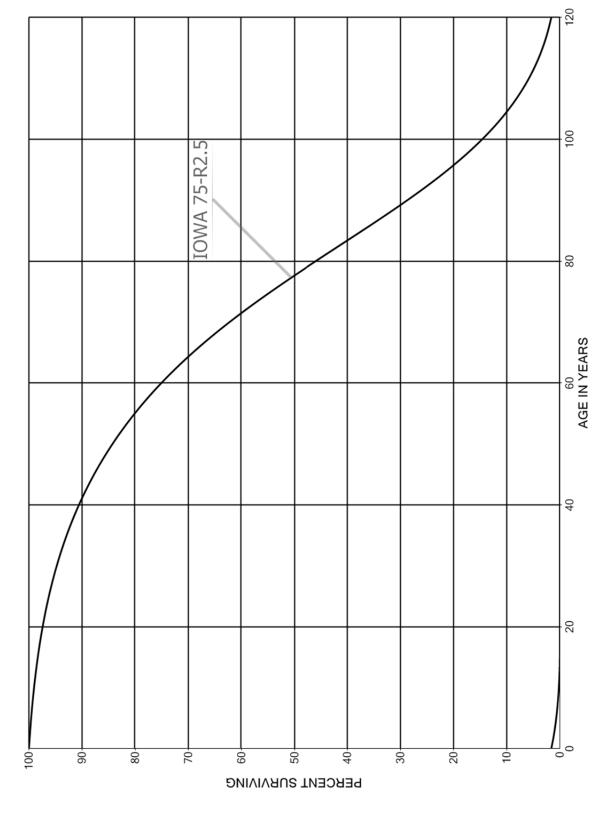
Prepared by:



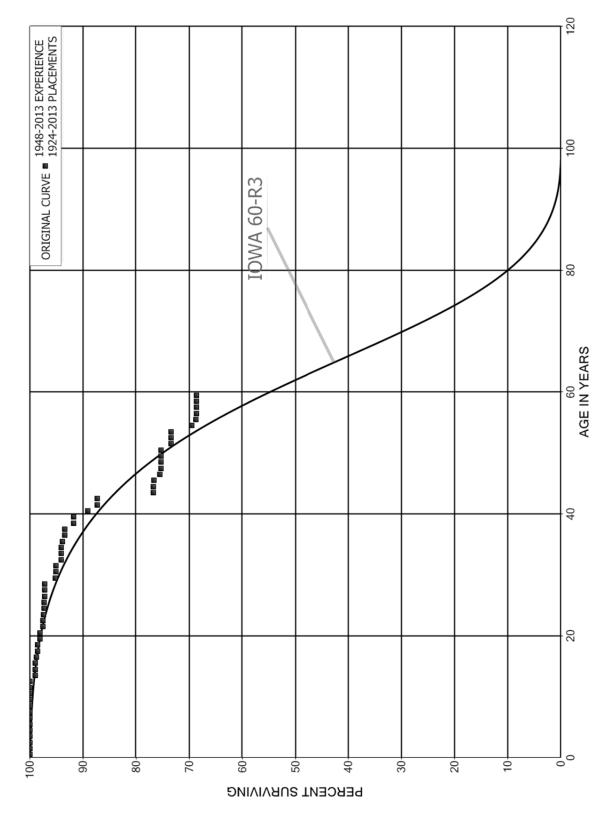
Excellence Delivered As Promised



NEWFOUNDLAND POWER INC.
ACCOUNT 320.00 - LAND AND LAND CLEARING
SMOOTH SURVIVOR CURVE



NEWFOUNDLAND POWER INC. ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

PLACEMENT I	BAND 1924-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5	2,868,865 2,959,830 2,846,633 2,737,219 2,582,754 2,282,312 2,230,627 2,110,141		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00
7.5 8.5	2,960,073 2,718,039		0.0000	1.0000 1.0000	100.00 100.00
9.5 10.5 11.5	2,709,319 2,520,578 2,544,406	1,500	0.0006 0.0000 0.0000	0.9994 1.0000 1.0000	100.00 99.94 99.94
12.5 13.5 14.5 15.5 16.5 17.5	2,544,406 2,622,492 2,622,492 1,816,940 1,357,714 1,353,714	24,232 600 3,994 4,000 6,105	0.0095 0.0000 0.0002 0.0022 0.0029 0.0000 0.0045	0.9905 1.0000 0.9998 0.9978 0.9971 1.0000 0.9955	99.94 98.99 98.99 98.97 98.75 98.46 98.46
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5	1,303,188 1,291,473 1,020,954 1,078,369 1,122,367 1,079,145 1,081,145 1,031,314	7,000 1,571 1,220 1,100	0.0000 0.0054 0.0000 0.0015 0.0011 0.0000 0.0010	1.0000 0.9946 1.0000 0.9985 0.9989 1.0000 0.9990	98.02 98.02 97.49 97.49 97.34 97.24 97.24
27.5 28.5	1,014,801 1,009,191	20,900	0.0000 0.0207	1.0000 0.9793	97.14 97.14
29.5 30.5 31.5 32.5 33.5	988,291 913,064 909,856 901,031 888,956	1,104 8,825	0.0011 0.0000 0.0097 0.0000 0.0000	0.9989 1.0000 0.9903 1.0000 1.0000	95.13 95.02 95.02 94.10 94.10
34.5 35.5 36.5 37.5 38.5	888,956 886,956 882,544 901,261 885,483	2,000 4,412 610 15,778	0.0022 0.0050 0.0007 0.0175 0.0000	0.9978 0.9950 0.9993 0.9825 1.0000	94.10 93.89 93.42 93.36 91.72

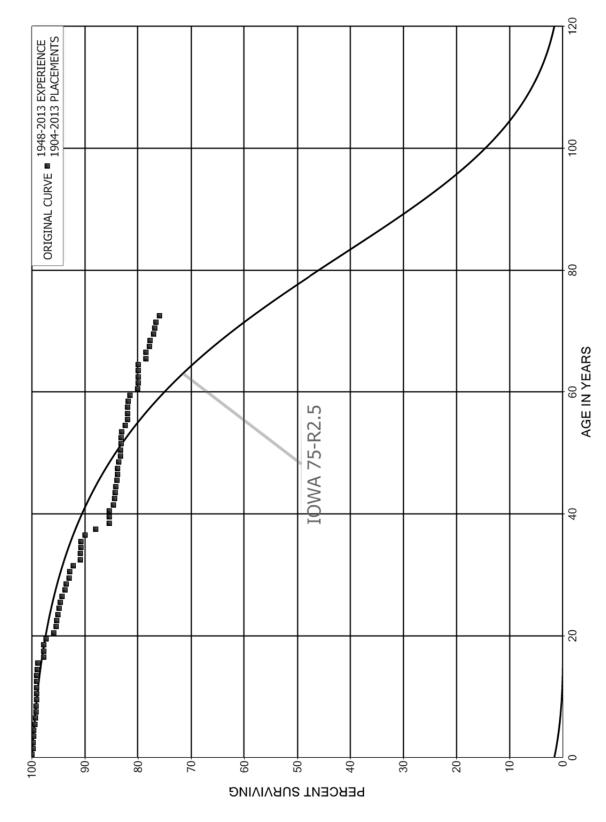
#### ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

PLACEMENT E	BAND 1924-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5	885,483 803,540 789,225 787,320 691,404 691,404	25,912 15,530 95,916 251 10,316	0.0293 0.0193 0.0000 0.1218 0.0000 0.0004 0.0149	0.9707 0.9807 1.0000 0.8782 1.0000 0.9996	91.72 89.04 87.32 87.32 76.68 76.68
46.5 47.5 48.5	680,837 678,096 678,096	2,000	0.0029 0.0000 0.0000	0.9971 1.0000 1.0000	75.51 75.29 75.29
49.5 50.5 51.5 52.5	675,485 589,473 574,473 574,473	15,000	0.0000 0.0254 0.0000 0.0000	1.0000 0.9746 1.0000 1.0000	75.29 75.29 73.37 73.37
53.5 54.5 55.5 56.5 57.5 58.5	572,826 452,963 407,383 395,111 374,711 341,383	30,517 4,600 990	0.0533 0.0102 0.0024 0.0000 0.0000	0.9467 0.9898 0.9976 1.0000 1.0000	73.37 69.46 68.76 68.59 68.59 68.59
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	244,956 209,073 175,417 198,892 176,892 180,877 173,290 173,290 152,980	500 1,500	0.0000 0.0000 0.0029 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9971 1.0000 1.0000 1.0000 1.0000 1.0000 0.9902	68.59 68.59 68.59 68.39 68.39 68.39 68.39 68.39 68.39
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	151,480 110,860 98,929 71,679 71,679 87,021 87,021 87,021 88,521 86,221		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	67.72 67.72 67.72 67.72 67.72 67.72 67.72 67.72 67.72

#### ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

PLACEMENT	BAND 1924-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5	86,221 86,221 22,697 22,697 22,697 4,370 4,370 4,370 4,370	500	0.0000 0.0000 0.0058 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9942 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	67.72 67.72 67.72 67.33 67.33 67.33 67.33 67.33 67.33
89.5					67.33

NEWFOUNDLAND POWER INC.
ACCOUNT 322.00 - BUILDINGS AND STRUCTURES
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

PLACEMENT H	BAND 1904-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	6,244,818 6,105,590 5,602,021 5,550,309 5,060,380 4,881,487 4,626,593 4,678,468 6,216,269 6,275,248	15,199 648 3,970 2,702 8,977 7,011 6,441 5,159	0.0000 0.0025 0.0001 0.0007 0.0005 0.0018 0.0015 0.0014 0.0000 0.0008	1.0000 0.9975 0.9999 0.9993 0.9995 0.9982 0.9986 1.0000 0.9992	100.00 100.00 99.75 99.74 99.67 99.61 99.43 99.28 99.14
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	6,213,620 5,966,794 5,822,457 5,669,113 5,366,861 5,303,747 3,573,909 3,639,545 3,562,537 3,528,944	108 500 75 4,245 4,571 40,147 308 3,095 13,791	0.0000 0.0001 0.0000 0.0000 0.0008 0.0009 0.0112 0.0001 0.0009 0.0039	1.0000 0.9999 1.0000 1.0000 0.9992 0.9991 0.9888 0.9999 0.9991	99.06 99.06 99.05 99.05 99.05 98.97 98.89 97.78 97.77
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	3,905,251 3,841,719 3,747,268 3,764,254 3,944,441 3,888,159 3,519,600 3,451,389 3,607,319 3,572,374	57,722 17,144 4,221 9,726 8,500 11,535 12,800 20,368 7,146 23,318	0.0148 0.0045 0.0011 0.0026 0.0022 0.0030 0.0036 0.0059 0.0020 0.0065	0.9852 0.9955 0.9989 0.9974 0.9978 0.9970 0.9964 0.9941 0.9980 0.9935	97.30 95.86 95.44 95.33 95.08 94.88 94.60 94.25 93.70 93.51
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	3,314,870 2,614,628 2,554,513 2,436,910 2,220,216 2,186,425 2,150,589 2,133,074 2,082,778 2,014,019	2,227 17,173 38,954 723 1,992 50 17,040 47,705 61,269 200	0.0007 0.0066 0.0152 0.0003 0.0009 0.0000 0.0079 0.0224 0.0294 0.0001	0.9993 0.9934 0.9848 0.9997 0.9991 1.0000 0.9921 0.9776 0.9706	92.90 92.84 92.23 90.82 90.79 90.71 90.71 89.99 87.98 85.39



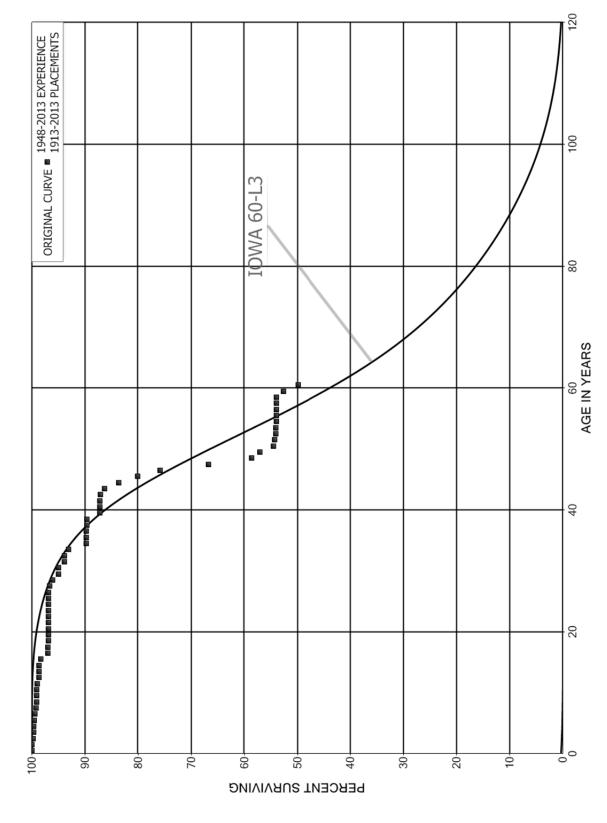
#### ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

PLACEMENT E	BAND 1904-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	2,010,290 2,010,790 1,989,943 2,046,872 2,060,237 2,063,306 2,063,415 2,072,864 2,072,004 2,092,108	17,350 6,250 2,950 2,942 3,500 4,100 735 4,194 9,100	0.0000 0.0086 0.0031 0.0014 0.0017 0.0020 0.0004 0.0020 0.0043	1.0000 0.9914 0.9969 0.9986 0.9986 0.9983 0.9980 0.9996 0.9980	85.38 85.38 84.65 84.38 84.26 84.14 84.00 83.83 83.80 83.63
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	2,023,557 1,910,830 1,910,764 1,910,332 1,907,152 1,422,029 1,326,791 1,182,768 1,093,568 1,092,068	3,000 750 15,028 8,865 1,500 4,638	0.0000 0.0016 0.0000 0.0004 0.0079 0.0062 0.0000 0.0000 0.0014 0.0042	1.0000 0.9984 1.0000 0.9996 0.9921 0.9938 1.0000 1.0000 0.9986 0.9958	83.27 83.27 83.13 83.13 83.10 82.45 81.93 81.93 81.93
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	789,598 775,616 796,489 697,157 696,857 683,816 683,816 620,106 618,692	13,982 1,027 300 12,541 5,400 1,000 4,858	0.0177 0.0013 0.0000 0.0000 0.0004 0.0180 0.0000 0.0079 0.0016 0.0079	0.9823 0.9987 1.0000 1.0000 0.9996 0.9820 1.0000 0.9921 0.9984 0.9921	81.47 80.03 79.92 79.92 79.92 79.89 78.45 78.45 77.83 77.71
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	613,834 599,834 588,584 405,922 408,891 388,951 386,191 381,525 381,025 380,525	2,300 1,500 5,200 14,940 2,760 4,000 500 500	0.0037 0.0025 0.0088 0.0000 0.0365 0.0071 0.0104 0.0013 0.0013	0.9963 0.9975 0.9912 1.0000 0.9635 0.9929 0.9896 0.9987 0.9987	77.10 76.81 76.62 75.94 75.94 73.16 72.65 71.89 71.80 71.70

#### ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

PLACEMENT 1	BAND 1904-2013		EXPE	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5	380,525 380,525 366,305 288,883 288,883 272,383 271,883 271,883 271,883	500	0.0000 0.0000 0.0000 0.0000 0.0000 0.0018 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9982 1.0000 1.0000 1.0000	71.70 71.70 71.70 71.70 71.70 71.70 71.57 71.57 71.57
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	85,570 40,650 40,650 34,639 34,639 33,950 33,950 16,500 16,500 15,500	689 1,000	0.0000 0.0000 0.0000 0.0000 0.0199 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9801 1.0000 1.0000 0.9394 1.0000	71.57 71.57 71.57 71.57 71.57 70.15 70.15 70.15 70.15
99.5 100.5 101.5 102.5 103.5 104.5 105.5 106.5 107.5 108.5	15,500 15,500 15,500 15,500 15,500 15,500 15,500 15,500 15,500		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	65.90 65.90 65.90 65.90 65.90 65.90 65.90 65.90
109.5					65.90

NEWFOUNDLAND POWER INC.
ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS AND TAILRACES
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS AND TAILRACES

PLACEMENT	BAND 1913-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	70,767,053 70,233,599 69,412,068 69,681,324 68,858,088 65,923,976 64,742,526 52,214,741	31,906 167,543 45,818 96,939 53,735 126,050	0.0000 0.0005 0.0024 0.0007 0.0000 0.0015 0.0008 0.0024	1.0000 0.9995 0.9976 0.9993 1.0000 0.9985 0.9992 0.9976	100.00 100.00 99.95 99.71 99.65 99.65 99.50
7.5 8.5	40,974,375 41,190,336	28,399	0.0007	0.9993	99.18 99.11
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	39,192,161 37,657,172 35,007,087 33,314,650 30,589,476 26,000,894 22,696,879 22,891,555 22,580,060 22,508,904	52,793 139,426 2,534 74,904 316,329 10,983 4,122	0.0000 0.0014 0.0040 0.0000 0.0001 0.0029 0.0139 0.0000 0.0005 0.0005	1.0000 0.9986 0.9960 1.0000 0.9999 0.9971 0.9861 1.0000 0.9995 0.9998	99.11 99.11 98.97 98.58 98.58 98.57 98.28 96.91 96.91 96.87
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	22,735,592 22,291,305 21,879,008 21,246,746 18,569,718 16,728,289 16,728,289 15,791,233 15,676,020 13,587,850	2,000 8,790 2,166 21,751 98,896 162,400	0.0000 0.0001 0.0000 0.0004 0.0000 0.0000 0.0001 0.0014 0.0063 0.0120	1.0000 0.9999 1.0000 0.9996 1.0000 1.0000 0.9999 0.9986 0.9937 0.9880	96.85 96.85 96.84 96.80 96.80 96.79 96.66 96.05
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5	12,869,595 11,979,887 11,840,987 9,541,282 9,484,099 8,594,878 8,463,106 8,462,971	138,900 75,213 342,275 135 11,588	0.0000 0.0116 0.0000 0.0079 0.0361 0.0000 0.0000	1.0000 0.9884 1.0000 0.9921 0.9639 1.0000 1.0000	94.90 94.90 93.80 93.80 93.06 89.70 89.70
37.5 38.5	8,451,383 8,451,383	225,183	0.0000 0.0266	1.0000 0.9734	89.58 89.58



# ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS AND TAILRACES ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1913-2013		EXPEF	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	8,226,200 8,225,728 8,238,296 8,252,633 8,176,631 7,926,592 7,592,918 7,195,640 6,329,439 4,910,585	472 5,832 1,834 75,060 251,039 336,074 407,028 864,201 770,179 123,646	0.0001 0.0007 0.0002 0.0091 0.0307 0.0424 0.0536 0.1201 0.1217 0.0252	0.9999 0.9993 0.9998 0.9909 0.9693 0.9576 0.9464 0.8799 0.8783 0.9748	87.19 87.18 87.12 87.10 86.31 83.66 80.11 75.82 66.71 58.60
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	4,782,962 4,061,672 4,051,508 4,053,595 4,070,251 3,333,333 3,184,758 3,175,987 2,948,591 2,798,536	219,900 19,078 13,350 4,000 500 1,910 1,600 68,137	0.0460 0.0047 0.0033 0.0010 0.0001 0.0000 0.0006 0.0000 0.0005 0.0243	0.9540 0.9953 0.9967 0.9990 0.9999 1.0000 0.9994 1.0000 0.9995 0.9757	57.12 54.49 54.24 54.06 54.01 54.00 54.00 53.97 53.97
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	1,876,983 1,726,201 1,670,224 1,230,385 1,216,545 1,211,780 1,028,957 1,028,957 935,239 777,970	7,518 157,270 5,000	0.0534 0.0000 0.0003 0.0000 0.0000 0.0000 0.0073 0.1682 0.0064	0.9466 1.0000 0.9997 1.0000 1.0000 1.0000 0.9927 0.8318 0.9936	52.62 49.81 49.81 49.80 49.80 49.80 49.80 49.80 49.83 41.12
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	772,970 486,652 395,587 293,200 298,200 281,513 262,305 261,921 259,496 247,901	1,975 1,345 19,208 2,425 11,595	0.0000 0.0041 0.0000 0.0000 0.0045 0.0682 0.0000 0.0093 0.0447 0.0000	1.0000 0.9959 1.0000 1.0000 0.9955 0.9318 1.0000 0.9907 0.9553 1.0000	40.86 40.86 40.69 40.69 40.69 40.51 37.74 37.74 37.74



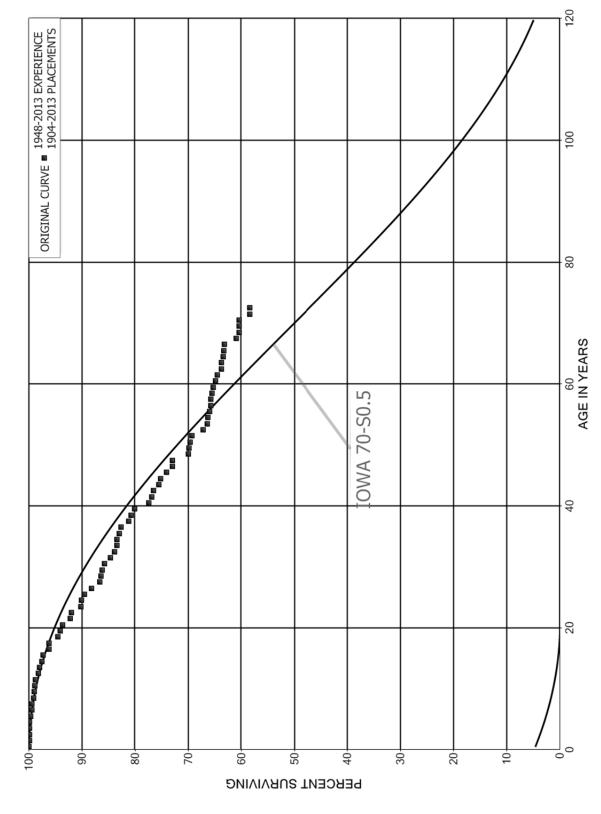
# ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS AND TAILRACES ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1913-2013		EXPE	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5 89.5 90.5 91.5 92.5 93.5	239,467 238,197 231,693 142,673 135,751 135,751 125,501 125,501 125,501 64,976 64,976 64,976 64,976 64,976 62,576	10,250	0.0000 0.0000 0.0000 0.0000 0.0000 0.0755 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9245 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	35.72 35.72 35.72 35.72 35.72 35.72 35.72 33.03 33.03 33.03 33.03 33.03 33.03 33.03
95.5 96.5 97.5 98.5	62,576 33,500 33,500 33,500		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	33.03 33.03 33.03 33.03
99.5	33,500		0.0000	1.0000	33.03

100.5

33.03

NEWFOUNDLAND POWER INC. ACCOUNT 324.00 - DAMS AND RESERVOIRS ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 324.00 - DAMS AND RESERVOIRS

PLACEMENT 1	BAND 1904-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	35,430,017 34,686,497 31,210,000 26,170,660 25,144,423 24,144,617 22,864,034 22,512,644 25,832,980	39,250 1,259 8,892 8,602 55,136 45,628	0.0000 0.0011 0.0000 0.0003 0.0003 0.0023 0.0020 0.0000 0.0035	1.0000 0.9989 1.0000 0.9997 0.9977 0.9980 1.0000 0.9965	100.00 100.00 99.89 99.88 99.85 99.81 99.59 99.39
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	25,947,706 26,104,238 25,545,575 25,396,436 24,830,451 24,063,978 21,912,646 17,331,411 17,207,285 16,626,177	9,279 44,252 26,858 138,652 56,421 108,762 53,822 196,461 12,379 281,497	0.0004 0.0017 0.0011 0.0055 0.0023 0.0045 0.0025 0.0113 0.0007 0.0169	0.9996 0.9983 0.9989 0.9945 0.9977 0.9955 0.9975 0.9887 0.9993 0.9831	99.04 99.01 98.84 98.74 98.20 97.98 97.53 97.29 96.19 96.12
18.5 19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	15,122,301 14,784,692 14,190,785 12,575,243 12,825,045 12,480,086 11,900,208 11,310,628 10,779,297 10,072,559 9,857,791	72,772 68,076 209,384 39,085 249,215 13,886 73,404 166,877 194,252 16,170 34,533	0.0048 0.0046 0.0148 0.0031 0.0194 0.0011 0.0062 0.0148 0.0180 0.0016 0.0035	0.9952 0.9954 0.9852 0.9969 0.9806 0.9989 0.9938 0.9852 0.9820 0.9984 0.9965	94.49 94.04 93.61 92.22 91.94 90.15 90.05 89.50 88.18 86.59 86.45
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	9,452,826 8,916,550 7,637,007 7,303,533 7,021,273 7,055,922 6,893,801 6,982,105 6,973,284 6,930,508	49,977 107,000 76,789 39,699 899 38,247 24,696 122,201 38,151 53,112	0.0053 0.0120 0.0101 0.0054 0.0001 0.0054 0.0036 0.0175 0.0055 0.0077	0.9947 0.9880 0.9899 0.9946 0.9999 0.9946 0.9825 0.9945 0.9923	86.14 85.69 84.66 83.81 83.35 83.34 82.89 82.59 81.15 80.71

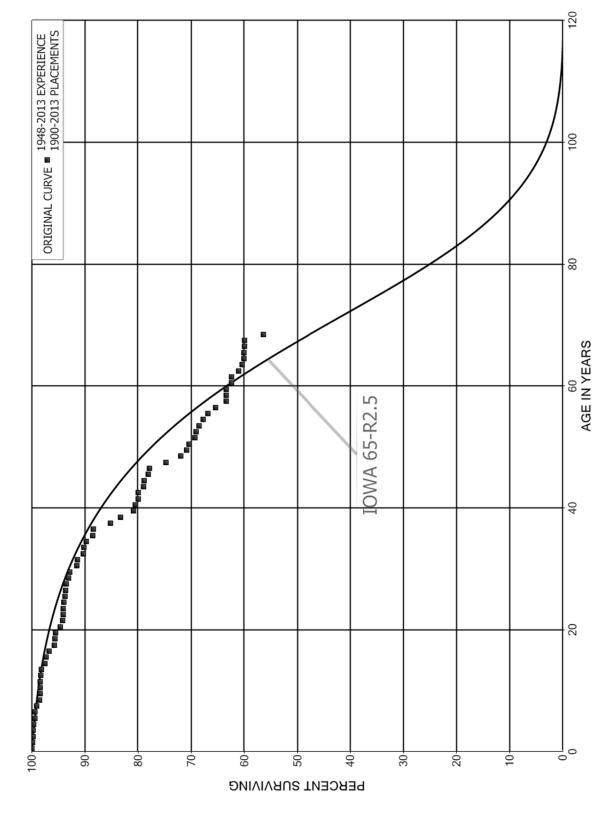
#### ACCOUNT 324.00 - DAMS AND RESERVOIRS

PLACEMENT I	BAND 1904-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	6,877,396 6,635,790 6,555,913 6,539,964 6,398,310 6,396,425 6,319,573 6,242,302 6,287,025 6,016,224	232,641 48,278 26,507 87,945 28,365 90,322 91,535 6,958 258,324 6,543	0.0338 0.0073 0.0040 0.0134 0.0044 0.0141 0.0145 0.0011 0.0411	0.9662 0.9927 0.9960 0.9866 0.9956 0.9859 0.9855 0.9989	80.09 77.38 76.81 76.50 75.48 75.14 74.08 73.01 72.93 69.93
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	5,997,108 5,482,453 5,388,786 5,210,536 5,158,700 4,414,639 4,339,840 3,341,453 2,993,695 3,002,718	24,579 25,123 164,042 60,510 5,730 21,690 12,157 2,455 10,071 8,800	0.0041 0.0046 0.0304 0.0116 0.0011 0.0049 0.0028 0.0007 0.0034 0.0029	0.9959 0.9954 0.9696 0.9884 0.9989 0.9951 0.9972 0.9993 0.9966 0.9971	69.85 69.57 69.25 67.14 66.36 66.29 65.96 65.78 65.73
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	2,200,756 1,921,727 1,863,664 1,761,080 1,748,327 1,750,161 1,693,043 1,693,621 1,568,213 1,553,579	15,757 10,480 21,000 10,000 3,824 922 59,722 14,634 1,160	0.0072 0.0055 0.0113 0.0000 0.0057 0.0022 0.0005 0.0353 0.0093 0.0007	0.9928 0.9945 0.9887 1.0000 0.9943 0.9978 0.9995 0.9647 0.9907	65.31 64.85 64.49 63.77 63.77 63.40 63.26 63.23 61.00 60.43
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	1,395,719 1,167,257 1,086,144 866,567 859,687 799,555 797,035 700,151 699,130 699,130	38,613 5,000 57,832 2,520 19,412 550 20,017	0.0000 0.0331 0.0000 0.0058 0.0673 0.0032 0.0244 0.0008 0.0000	1.0000 0.9669 1.0000 0.9942 0.9327 0.9968 0.9756 0.9992 1.0000 0.9714	60.38 60.38 58.39 58.39 58.05 54.15 53.97 52.66 52.62

#### ACCOUNT 324.00 - DAMS AND RESERVOIRS

PLACEMENT E	BAND 1904-2013		EXPE	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5 88.5	679,113 677,307 678,742 393,761 393,761 308,414 242,769 242,769 242,769 239,142	1,806 922	0.0027 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0038 0.0000	0.9973 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9962 1.0000	51.11 50.98 50.98 50.98 50.98 50.98 50.98 50.98 50.98
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	82,952 65,638 45,544 42,904 29,356 29,356 29,356 22,000 22,000	17,314 20,094	0.2087 0.3061 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.7913 0.6939 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	50.78 40.18 27.88 27.88 27.88 27.88 27.88 27.88 27.88
99.5 100.5 101.5 102.5 103.5 104.5 105.5 106.5 107.5	22,000 22,000 22,000 22,000 22,000 22,000 22,000 22,000 22,000 22,000		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	27.88 27.88 27.88 27.88 27.88 27.88 27.88 27.88 27.88
109.5					41.00

NEWFOUNDLAND POWER INC.
ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

PLACEMENT	BAND 1900-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	39,113,589 36,448,077 33,753,671 31,123,486 28,836,323 26,726,172 25,344,875 23,951,380	34,600 21,417 32,026 4,306 39,741 52,446 18,140 66,192	0.0009 0.0006 0.0009 0.0001 0.0014 0.0020 0.0007 0.0028	0.9991 0.9994 0.9991 0.9999 0.9986 0.9980 0.9993	100.00 99.91 99.85 99.76 99.74 99.61 99.41 99.34
7.5 8.5	26,417,388 25,472,737	159,880 6,331	0.0061	0.9939	99.07 98.47
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	23,899,576 22,353,032 21,424,590 20,337,831 19,883,274 18,822,897 15,997,519 15,145,804 14,231,251 14,036,853	13,699 5,000 20,228 20,000 135,929 31,453 95,296 157,559 15,309 24,661	0.0006 0.0002 0.0009 0.0010 0.0068 0.0017 0.0060 0.0104 0.0011 0.0018	0.9994 0.9998 0.9991 0.9990 0.9932 0.9983 0.9940 0.9896 0.9989	98.44 98.39 98.36 98.27 98.17 97.50 97.34 96.76 95.75 95.65
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	13,474,890 13,188,856 12,890,170 12,745,241 12,044,755 11,996,477 11,818,854 11,474,533 9,404,753 8,896,997	128,821 62,075 13,952 14,525 19,070 20,749 7,500 49,000 17,641	0.0096 0.0047 0.0011 0.0000 0.0012 0.0016 0.0018 0.0007 0.0052 0.0020	0.9904 0.9953 0.9989 1.0000 0.9988 0.9984 0.9982 0.9993 0.9948 0.9980	95.48 94.57 94.12 94.02 94.02 93.91 93.76 93.60 93.53 93.05
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	7,712,255 4,999,352 4,903,336 4,817,927 4,688,822 4,575,376 4,539,151 4,502,695 4,430,597 4,328,962	116,434 1,500 63,530 1,500 23,597 64,440 5,872 161,580 101,635 125,150	0.0151 0.0003 0.0130 0.0003 0.0050 0.0141 0.0013 0.0359 0.0229 0.0289	0.9849 0.9997 0.9870 0.9997 0.9950 0.9859 0.9987 0.9641 0.9771	92.86 91.46 91.43 90.25 90.22 89.77 88.50 88.39 85.22 83.26

### ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

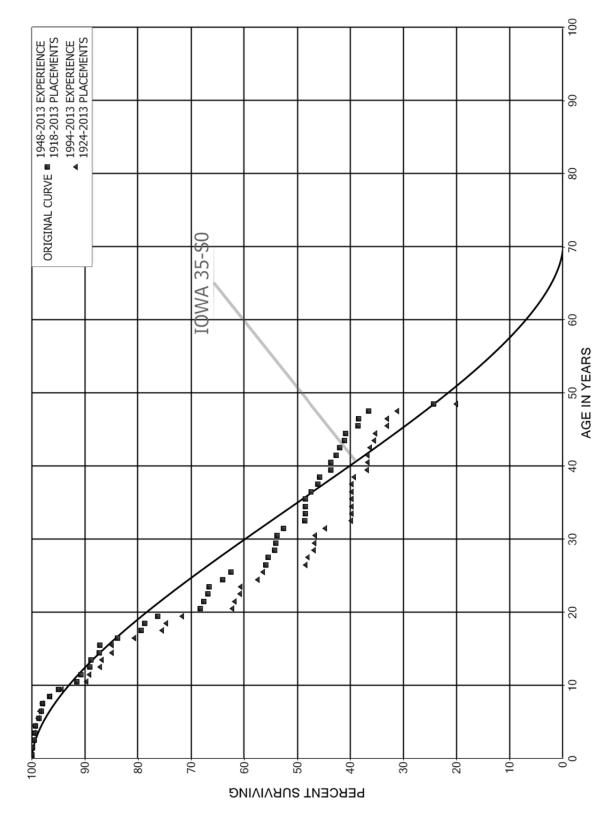
PLACEMENT	BAND 1900-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	4,203,812 4,274,999 4,398,765 4,387,902 4,217,223 4,194,247 4,154,520 4,109,639 4,361,678	18,295 29,600 1,500 56,282 2,522 40,399 15,744 163,554 163,257	0.0044 0.0069 0.0003 0.0128 0.0006 0.0096 0.0038 0.0398 0.0374	0.9956 0.9931 0.9997 0.9872 0.9994 0.9904 0.9962 0.9602 0.9626	80.85 80.50 79.94 79.92 78.89 78.84 78.09 77.79 74.69
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5	4,232,010 4,168,894 3,747,497 3,586,771 3,612,833 3,573,475 2,683,778 2,550,019	61,740 25,777 60,304 10,793 31,081 40,573 36,000 55,190	0.0146 0.0062 0.0161 0.0030 0.0086 0.0114 0.0134 0.0216	0.9854 0.9938 0.9839 0.9970 0.9914 0.9886 0.9866 0.9784	71.90 70.85 70.41 69.28 69.07 68.48 67.70 66.79
56.5 57.5 58.5	2,346,342 2,231,391 2,231,391 1,841,614	69,541 1,000 27,400	0.0296 0.0000 0.0004 0.0149	0.9704 1.0000 0.9996 0.9851	65.34 63.41 63.41
60.5 61.5 62.5 63.5 64.5 65.5	1,814,214 1,813,621 1,498,194 1,480,546 1,473,046	400 38,540 17,648 7,000	0.0002 0.0213 0.0118 0.0047 0.0000 0.0014	0.9998 0.9787 0.9882 0.9953 1.0000 0.9986	62.44 62.42 61.10 60.38 60.09 60.09
66.5 67.5 68.5	1,473,046 1,471,546 1,383,546	88,000 18,900	0.0000 0.0598 0.0137	1.0000 0.9402 0.9863	60.01 60.01 56.42
69.5 70.5 71.5 72.5 73.5 74.5	1,364,646 1,349,646 1,306,556 1,030,521 1,028,247 961,615	15,000 1,000 200 2,274	0.0110 0.0007 0.0002 0.0022 0.0000	0.9890 0.9993 0.9998 0.9978 1.0000	55.65 55.04 55.00 54.99 54.87 54.87
75.5 76.5 77.5 78.5	961,615 957,067 957,067 957,067	4,548 77,572	0.0047 0.0000 0.0000 0.0811	0.9953 1.0000 1.0000 0.9189	54.87 54.61 54.61 54.61



### ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

PLACEMENT E	BAND 1900-2013		EXPE	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5 87.5	879,495 879,495 879,495 791,714 791,714 751,714 751,714 735,214 735,214	40,000 16,500	0.0000 0.0000 0.0000 0.0000 0.0505 0.0219 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 0.9495 0.9781 1.0000 1.0000	50.18 50.18 50.18 50.18 50.18 47.65 46.60 46.60
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5	583,696 583,696 583,314 583,314 583,114 575,424 575,424 521,494 521,494 521,494	382 200 7,690	0.0000 0.0007 0.0000 0.0003 0.0132 0.0000 0.0000 0.0000 0.0000	1.0000 0.9993 1.0000 0.9997 0.9868 1.0000 1.0000 1.0000	46.60 46.60 46.57 46.57 46.55 45.94 45.94 45.94 45.94
99.5 100.5 101.5 102.5 103.5 104.5 105.5	521,494 490,976 490,976 490,976 429,494 429,494	5,000	0.0096 0.0000 0.0000 0.0000 0.0000 0.0000	0.9904 1.0000 1.0000 1.0000 1.0000 1.0000	45.94 45.50 45.50 45.50 45.50 45.50 45.50

ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

PLACEMENT E	BAND 1918-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	20,418,090 18,832,348 17,600,844 16,620,437 15,829,771 14,603,256 13,990,133 12,165,839 9,951,725 9,246,336	25,930 54,794 34,527 17,687 91,402 57,203 37,278 126,610 167,519	0.0000 0.0014 0.0031 0.0021 0.0011 0.0063 0.0041 0.0031 0.0127 0.0181	1.0000 0.9986 0.9969 0.9979 0.9989 0.9937 0.9959 0.9969 0.9873 0.9819	100.00 100.00 99.86 99.55 99.34 99.23 98.61 98.21 97.91 96.66
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	7,272,165 6,336,813 5,865,627 5,545,251 5,446,179 5,135,463 5,085,884 4,865,802 4,566,217 4,359,661	264,835 52,950 107,496 14,137 91,905 7,838 193,265 256,617 40,063 133,859	0.0364 0.0084 0.0183 0.0025 0.0169 0.0015 0.0380 0.0527 0.0088 0.0307	0.9636 0.9916 0.9817 0.9975 0.9831 0.9985 0.9620 0.9473 0.9912 0.9693	94.91 91.46 90.69 89.03 88.80 87.30 87.17 83.86 79.44 78.74
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	4,173,232 3,710,905 3,709,577 3,436,429 3,184,433 2,808,508 2,729,246 2,207,908 2,140,790 1,956,975	437,271 36,043 46,429 7,812 125,700 66,674 285,928 17,483 49,484 4,578	0.1048 0.0097 0.0125 0.0023 0.0395 0.0237 0.1048 0.0079 0.0231 0.0023	0.8952 0.9903 0.9875 0.9977 0.9605 0.9763 0.8952 0.9921 0.9769 0.9977	76.32 68.32 67.66 66.81 66.66 64.03 62.51 55.96 55.52 54.23
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	1,657,623 1,334,940 1,326,332 1,226,681 1,230,498 1,218,979 1,088,709 869,059 847,337 837,412	8,483 31,285 100,475 1,516 1,149 400 24,977 22,715 6,850 38,403	0.0051 0.0234 0.0758 0.0012 0.0009 0.0003 0.0229 0.0261 0.0081 0.0459	0.9949 0.9766 0.9242 0.9988 0.9991 0.9997 0.9771 0.9739 0.9919	54.11 53.83 52.57 48.59 48.53 48.48 48.47 47.35 46.12 45.74



## ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

PLACEMENT	BAND 1918-2013		EXPEF	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	799,393 803,300 668,754 663,184 638,463 633,383 599,710 639,880 615,170 394,130	785 18,884 8,964 14,489 3,960 36,609 600 32,007 205,468 4,350	0.0010 0.0235 0.0134 0.0218 0.0062 0.0578 0.0010 0.0500 0.3340 0.0110	0.9990 0.9765 0.9866 0.9782 0.9938 0.9422 0.9990 0.9500 0.6660 0.9890	43.65 43.60 42.58 42.01 41.09 40.83 38.47 38.44 36.51 24.32
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	386,351 331,432 330,845 326,529 321,729 199,350 164,165 98,216 98,216 98,216	51,539 1,960 3,316 4,800 66,301 34,461 39,870	0.1334 0.0059 0.0100 0.0147 0.2061 0.1729 0.2429 0.0000 0.0000	0.8666 0.9941 0.9900 0.9853 0.7939 0.8271 0.7571 1.0000 1.0000	24.05 20.84 20.72 20.51 20.21 16.04 13.27 10.05 10.05
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	48,311 48,100 48,100 18,324 19,408 18,692 16,608 16,608 7,838	716 8,770	0.0000 0.0000 0.0000 0.0000 0.0369 0.0000 0.0000 0.5281 0.0000	1.0000 1.0000 1.0000 1.0000 0.9631 1.0000 1.0000 0.4719 1.0000	10.05 10.05 10.05 10.05 10.05 9.68 9.68 9.68 9.68
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	7,838 7,838 6,638 6,307 6,307 6,307 6,307 6,307 6,307 1,107	5,200	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.8245 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.1755 1.0000	4.57 4.57 4.57 4.57 4.57 4.57 4.57 4.57

#### ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

PLACEMENT I	EXPER	RIENCE BAN	D 1948-2013		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5	1,107 1,107 1,107		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	0.80 0.80 0.80 0.80

#### ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

PLACEMENT	BAND 1924-2013		EXPE	RIENCE BAN	D 1994-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	16,889,490	18,419 30,569 25,402 14,620 73,029 34,424 34,923 107,938 149,548	0.0000	1.0000	100.00
0.5	15,360,478		0.0012	0.9988	100.00
1.5	14,318,926		0.0021	0.9979	99.88
2.5	12,968,729		0.0020	0.9980	99.67
3.5	11,768,833		0.0012	0.9988	99.47
4.5	10,831,428		0.0067	0.9933	99.35
5.5	10,268,804		0.0034	0.9966	98.68
6.5	9,039,418		0.0039	0.9961	98.35
7.5	7,171,580		0.0151	0.9849	97.97
8.5	6,558,450		0.0228	0.9772	96.49
9.5	4,981,095	248,369	0.0499	0.9501	94.29
10.5	4,667,679	26,864	0.0058	0.9942	89.59
11.5	4,262,815	98,262	0.0231	0.9769	89.08
12.5	3,960,462	12,000	0.0030	0.9970	87.02
13.5	3,988,794	86,948	0.0218	0.9782	86.76
14.5	3,692,378	3,516	0.0010	0.9990	84.87
15.5	3,805,995	188,847	0.0496	0.9504	84.79
16.5	3,929,700	254,728	0.0648	0.9352	80.58
17.5	3,632,004	37,955	0.0105	0.9895	75.36
18.5	3,431,597	133,859	0.0390	0.9610	74.57
19.5	3,224,168	427,168	0.1325	0.8675	71.66
20.5	2,779,263	22,061	0.0079	0.9921	62.17
21.5	2,902,547	43,433	0.0150	0.9850	61.67
22.5	2,635,612	5,238	0.0020	0.9980	60.75
23.5	2,354,253	124,500	0.0529	0.9471	60.63
24.5	1,979,528	36,458	0.0184	0.9816	57.42
25.5	1,930,813	274,161	0.1420	0.8580	56.36
26.5	1,417,242	10,836	0.0076	0.9924	48.36
27.5	1,356,771	36,439	0.0269	0.9731	47.99
28.5	1,199,600	1,329	0.0011	0.9989	46.70
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	903,986 673,692 667,794 595,503 601,779 823,444 687,314 582,684 624,587 614,662	3,826 27,320 73,295 574 1,149	0.0042 0.0406 0.1098 0.0010 0.0019 0.0000 0.0000 0.0000 0.0110 0.0625	0.9958 0.9594 0.8902 0.9990 0.9981 1.0000 1.0000 0.9890 0.9375	46.65 46.45 44.57 39.68 39.64 39.56 39.56 39.56 39.56



## ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT F	EXPERIENCE BAND 1994-2013				
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	689,995 694,113 577,567 617,733 593,278 588,198 549,325 580,725 551,165 337,375	785 884 5,864 14,489 3,960 36,609 600 32,007 198,218 1,000	0.0011 0.0013 0.0102 0.0235 0.0067 0.0622 0.0011 0.0551 0.3596 0.0030	0.9989 0.9987 0.9898 0.9765 0.9933 0.9378 0.9989 0.9449 0.6404 0.9970	36.69 36.64 36.60 36.23 35.38 35.14 32.95 32.92 31.10 19.92
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	332,946 278,027 278,400 278,215 278,215 184,273 149,088 83,139 83,139 83,139	51,539 1,000 3,316 37,864 34,461 39,870	0.1548 0.0036 0.0119 0.0000 0.1361 0.1870 0.2674 0.0000 0.0000	0.8452 0.9964 0.9881 1.0000 0.8639 0.8130 0.7326 1.0000 1.0000	19.86 16.78 16.72 16.52 16.52 14.28 11.61 8.50 8.50 8.50
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	33,234 33,023 33,023 4,354 5,438 4,722 2,638 2,638 2,638 2,638	716	0.0000 0.0000 0.0000 0.0000 0.1317 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.8683 1.0000 1.0000 1.0000	8.50 8.50 8.50 8.50 7.38 7.38 7.38 7.38 7.38
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5	7,838 7,838 6,638 6,307 6,307 6,307 6,307 6,307 6,307	5,200	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.8245	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.1755	7.38 7.38 7.38 7.38 7.38 7.38 7.38 7.38



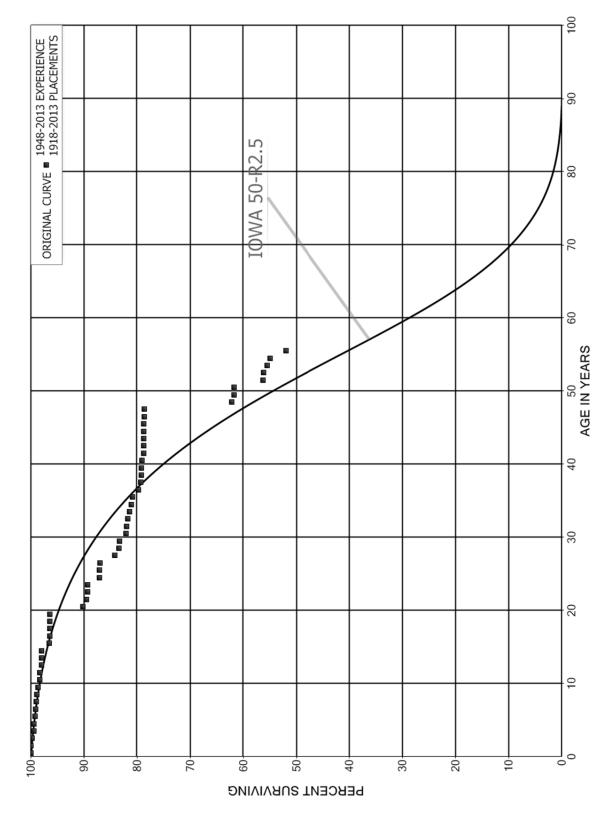
78.5 1,107

0.0000 1.0000 1.30

#### ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

PLACEMENT I	EXPERIENCE BAND 1994-2013				
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5	1,107 1,107 1,107		0.0000 0.0000 0.0000	1.0000 1.0000 1.0000	1.30 1.30 1.30 1.30

NEWFOUNDLAND POWER INC.
ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



## ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT E	BAND 1918-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	1,952,582 2,607,209 2,503,876 2,055,542 2,107,826 1,937,407 1,977,675 1,001,254 759,248 782,925	1,328 832 3,118 6,868 337 5,083 2,245 651 1,492 1,756	0.0007 0.0003 0.0012 0.0033 0.0002 0.0026 0.0011 0.0007 0.0020 0.0022	0.9993 0.9997 0.9988 0.9967 0.9998 0.9974 0.9989 0.9993 0.9980 0.9978	100.00 99.93 99.90 99.78 99.44 99.43 99.17 99.05 98.99 98.79
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	764,442 601,326 601,326 579,687 569,916 557,019 538,169 528,275 507,610 494,952	2,188 2,074 93 7,997 724 229 88	0.0029 0.0000 0.0034 0.0002 0.0000 0.0144 0.0013 0.0004 0.0000	0.9971 1.0000 0.9966 0.9998 1.0000 0.9856 0.9987 0.9996 1.0000 0.9998	98.57 98.29 98.29 97.95 97.94 97.94 96.53 96.40 96.36
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5	507,954 487,450 483,814 486,479 473,524 477,373 514,559 490,227 467,018 458,754	32,701 3,636 960 11,759 551 15,777 4,341 474	0.0644 0.0075 0.0020 0.0000 0.0248 0.0000 0.0011 0.0322 0.0093 0.0010	0.9356 0.9925 0.9980 1.0000 0.9752 1.0000 0.9989 0.9678 0.9907	96.34 90.14 89.47 89.29 89.29 87.07 87.07 86.98 84.18 83.40
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	458,280 356,740 356,440 306,691 272,504 259,410 259,280 239,939 233,045 232,792	7,135 300 919 1,466 1,047 623 3,600 1,376 253	0.0156 0.0008 0.0026 0.0048 0.0038 0.0024 0.0139 0.0057 0.0011 0.0000	0.9844 0.9992 0.9974 0.9952 0.9962 0.9976 0.9861 0.9943 0.9989	83.31 82.01 81.94 81.73 81.34 81.03 80.84 79.71 79.26 79.17



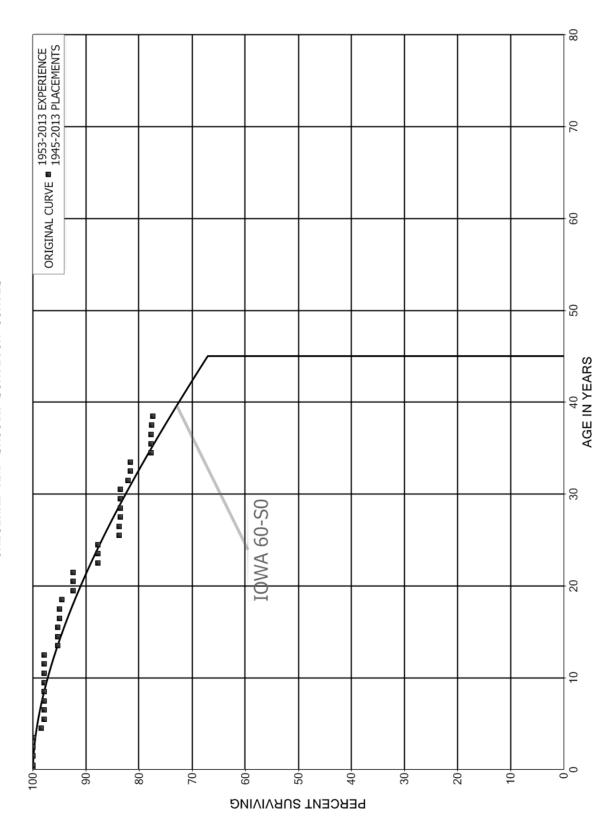
## ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT E	BAND 1918-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	221,336 220,780 219,400 222,617 217,342 215,483 215,483 216,439 197,080 154,052	171 1,074 172 93 41,169 1,159	0.0008 0.0049 0.0000 0.0000 0.0000 0.0000 0.0008 0.0004 0.2089 0.0075	0.9992 0.9951 1.0000 1.0000 1.0000 0.9992 0.9996 0.7911 0.9925	79.17 79.11 78.72 78.72 78.72 78.72 78.72 78.66 78.63 62.20
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	122,648 113,920 100,367 93,631 86,054 47,679 43,542 41,776 44,776 44,039	10,083 119 1,200 750 2,683	0.0000 0.0885 0.0012 0.0128 0.0087 0.0563 0.0000 0.0000	1.0000 0.9115 0.9988 0.9872 0.9913 0.9437 1.0000 1.0000	61.73 61.73 56.27 56.20 55.48 55.00 51.90 51.90 51.90
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	22,789 17,875 17,875 17,875 16,979 15,649 5,960 4,920 4,920	130	0.0000 0.0000 0.0000 0.0000 0.0077 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9923 1.0000 1.0000 1.0000	51.90 51.90 51.90 51.90 51.51 51.51 51.51 51.51
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	4,920 4,920 4,920 4,920 4,920 2,200 2,200 2,200 2,200 2,200	2,000	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.9091 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0909 1.0000	51.51 51.51 51.51 51.51 51.51 51.51 51.51 51.51 4.68

## ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1918-2013	EXPERIENCE BAND 1948-2013			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5 86.5	200 200 200 200 200 200 200 200 200		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	4.68 4.68 4.68 4.68 4.68 4.68 4.68 4.68
88.5 89.5	200		0.0000	1.0000	4.68 4.68

NEWFOUNDLAND POWER INC.
ACCOUNT 331.00 - BUILDING AND STRUCTURES
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 331.00 - BUILDING AND STRUCTURES

PLACEMENT H	BAND 1945-2013		EXPER	RIENCE BAN	D 1953-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	1,684,020 1,615,652 1,695,982 1,747,452 1,727,968 1,633,934 1,623,912 1,608,525 1,608,525	2,795 25,142 10,022	0.0000 0.0000 0.0000 0.0016 0.0145 0.0061 0.0000 0.0000	1.0000 1.0000 1.0000 0.9984 0.9855 0.9939 1.0000 1.0000	100.00 100.00 100.00 100.00 99.84 98.39 97.78 97.78 97.78
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,284,482 1,284,483 1,258,339 1,196,671 1,157,104 1,093,052 997,429 996,718 996,718 937,564	0 30,000 0 3,758 4,526 20,945	0.0000 0.0000 0.0000 0.0251 0.0000 0.0000 0.0038 0.0000 0.0045 0.0223	1.0000 1.0000 1.0000 0.9749 1.0000 1.0000 0.9962 1.0000 0.9955 0.9777	97.78 97.78 97.78 97.78 95.33 95.33 95.33 94.97 94.97
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5	851,381 807,079 804,300 763,365 763,165 763,165 710,184 710,184 703,635 703,635	340 40,935 34,569 2,000	0.0000 0.0004 0.0509 0.0000 0.0000 0.0453 0.0000 0.0028 0.0000	1.0000 0.9996 0.9491 1.0000 1.0000 0.9547 1.0000 0.9972 1.0000	92.43 92.43 92.39 87.69 87.69 83.72 83.72 83.48
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	702,460 699,313 686,726 682,590 682,590 648,445 639,324 638,182 535,014 284,587	11,821 4,136 31,864 1,178 1,500	0.0000 0.0169 0.0060 0.0000 0.0467 0.0000 0.0018 0.0028 0.0000	1.0000 0.9831 0.9940 1.0000 0.9533 1.0000 1.0000 0.9982 0.9972 1.0000	83.48 83.48 82.07 81.58 81.58 77.77 77.77 77.77 77.41

## ACCOUNT 331.00 - BUILDING AND STRUCTURES

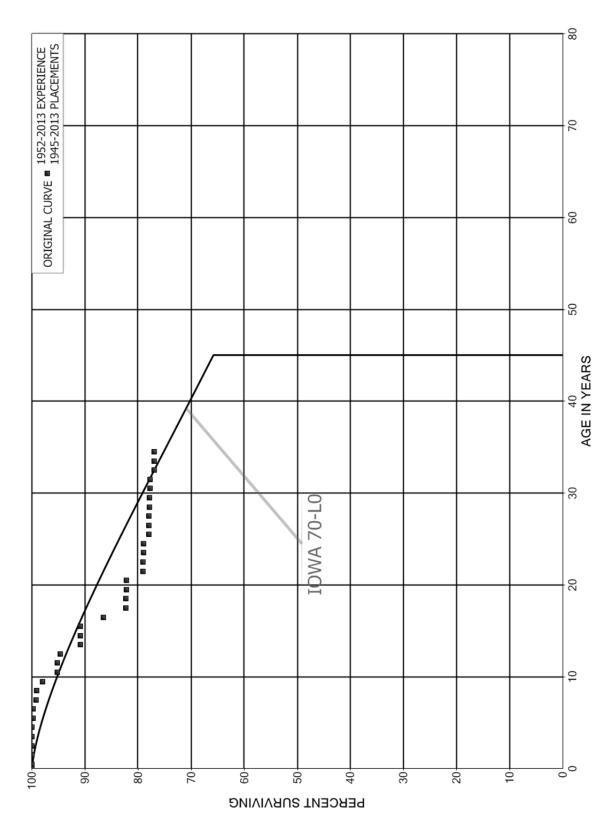
ORIGINAL LIFE TABLE, CONT.

PLACEMENT E	BAND 1945-2013		EXPER	RIENCE BAN	D 1953-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	251,479 251,479 205,146 205,046 205,046 189,002 186,160 186,160 171,050	100 0 15,110 5,000	0.0000 0.0000 0.0005 0.0000 0.0000 0.0000 0.0812 0.0000 0.0292	1.0000 1.0000 0.9995 1.0000 1.0000 1.0000 0.9188 1.0000 0.9708	77.41 77.41 77.41 77.37 77.37 77.37 77.37 77.37 71.09 71.09
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	165,060 165,060 165,060 62,300 62,300 62,300 62,300 62,150 62,150	101,220	0.0000 0.0000 0.6132 0.0000 0.0000 0.0000 0.0024 0.0000 0.0000	1.0000 1.0000 0.3868 1.0000 1.0000 0.9976 1.0000 1.0000	69.01 69.01 69.01 26.69 26.69 26.69 26.63 26.63 26.63
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5	37,170 37,170 37,170 37,170 37,170 37,170 37,170 37,170 35,700		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	26.63 26.63 26.63 26.63 26.63 26.63 26.63 26.63

68.5

26.63

NEWFOUNDLAND POWER INC.
ACCOUNT 332.00 - ELECTRICAL PLANT
ORIGINAL AND SMOOTH SURVIVOR CURVES



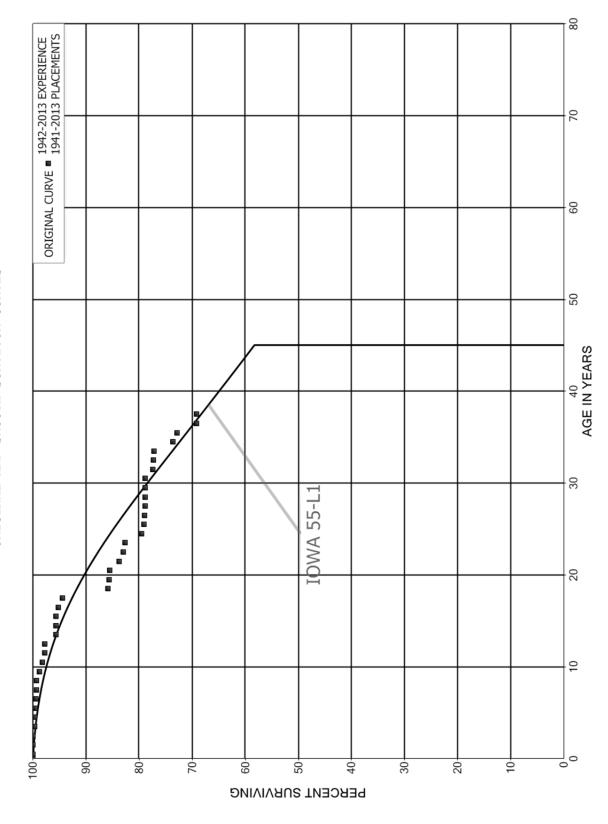
## ACCOUNT 332.00 - ELECTRICAL PLANT

PLACEMENT H	BAND 1945-2013		EXPER	RIENCE BAN	D 1952-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5	3,738,289 2,530,970 2,512,068 2,537,976 2,554,224 2,495,571 2,493,381 2,506,681	1,060 5,200 500 14,376	0.0000 0.0000 0.0004 0.0000 0.0000 0.0021 0.0002 0.0057	1.0000 1.0000 0.9996 1.0000 1.0000 0.9979 0.9998	100.00 100.00 100.00 99.96 99.96 99.75 99.73
7.5 8.5	2,492,305 2,481,537	2,959 26,064	0.0012 0.0105	0.9988 0.9895	99.16 99.04
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	1,010,733 823,317 793,280 457,061 443,356 440,894 432,884 380,536 378,667 380,537	28,740 4,967 18,405 1 20,513 18,669	0.0284 0.0000 0.0063 0.0403 0.0000 0.0000 0.0474 0.0491 0.0000 0.0004	0.9716 1.0000 0.9937 0.9597 1.0000 1.0000 0.9526 0.9509 1.0000 0.9996	98.00 95.21 95.21 94.62 90.81 90.81 90.81 86.50 82.26 82.26
20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	363,754 260,679 254,492 254,052 254,052 251,023 244,153 239,176 238,697	13,891 170 440 3,029	0.0382 0.0007 0.0017 0.0000 0.0119 0.0000 0.0000 0.0020 0.0000	0.9618 0.9993 0.9983 1.0000 0.9881 1.0000 1.0000 0.9980	82.22 79.08 79.03 78.90 78.90 77.96 77.96 77.96 77.80
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	238,697 238,497 234,568 232,028 232,028 217,033 177,097 156,042 156,042 130,482	2,540	0.0008 0.0000 0.0108 0.0000 0.0000 0.0000 0.0000 0.0000	0.9992 1.0000 0.9892 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	77.80 77.73 77.73 76.89 76.89 76.89 76.89 76.89 76.89

## ACCOUNT 332.00 - ELECTRICAL PLANT

PLACEMENT E	EXPEF	RIENCE BAN	D 1952-2013		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	128,472 128,224 128,224 127,157 126,915 107,461 107,461 56,436 54,729 52,809	242 500	0.0000 0.0000 0.0000 0.0019 0.0039 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 0.9981 0.9961 1.0000 1.0000 1.0000	76.89 76.89 76.89 76.75 76.44 76.44 76.44 76.44
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	48,569 48,569 43,550 27,765 27,765 13,965 13,965 13,965 13,965	15,785	0.0000 0.0000 0.3625 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.6375 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	76.44 76.44 76.44 48.74 48.74 48.74 48.74 48.74 48.74
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5	11,370 11,370 11,370 11,370 11,370 11,370 11,370 9,670		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	48.74 48.74 48.74 48.74 48.74 48.74 48.74 48.74

ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES ORIGINAL AND SMOOTH SURVIVOR CURVES



## ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

PLACEMENT 1	BAND 1941-2013		EXPEF	RIENCE BAN	D 1942-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	21,811,860 21,352,072 21,449,912 21,231,644 21,372,554 21,196,199 20,892,702 20,826,897 20,762,528 18,951,593	230 4,442 11,649 54,672 1,043 37,621 15,989 20,083 350 106,332	0.0000 0.0002 0.0005 0.0026 0.0000 0.0018 0.0008 0.0010 0.0000 0.0056	1.0000 0.9998 0.9995 0.9974 1.0000 0.9982 0.9992 0.9990 1.0000 0.9944	100.00 100.00 99.98 99.92 99.67 99.66 99.48 99.41 99.31
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	17,421,649 12,783,614 11,221,541 10,914,581 10,502,944 10,233,037 10,270,333 9,886,625 8,869,175 8,338,488	93,342 62,160 3,000 236,978 1,869 47,181 73,514 806,355 23,997	0.0054 0.0049 0.0003 0.0217 0.0002 0.0000 0.0046 0.0074 0.0909 0.0029	0.9946 0.9951 0.9997 0.9783 0.9998 1.0000 0.9954 0.9926 0.9091	98.75 98.22 97.75 97.72 95.60 95.58 95.58 95.14 94.44 85.85
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	7,664,154 7,501,976 6,748,861 6,695,076 6,483,869 6,361,864 6,238,108 6,228,411 6,133,990 6,133,990	11,000 158,078 55,795 26,713 249,437 34,200 9,697 5,000	0.0014 0.0211 0.0083 0.0040 0.0385 0.0054 0.0016 0.0008 0.0000	0.9986 0.9789 0.9917 0.9960 0.9615 0.9946 0.9984 0.9992 1.0000 0.9997	85.60 85.48 83.68 82.99 82.66 79.48 79.05 78.93 78.86 78.86
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	6,127,840 6,132,979 5,925,905 5,789,551 5,781,657 5,510,313 5,386,019 4,890,408 4,886,408 2,235,140	607 111,462 8,835 4,894 267,100 64,662 266,400 4,000	0.0001 0.0182 0.0015 0.0008 0.0462 0.0117 0.0495 0.0008 0.0000	0.9999 0.9818 0.9985 0.9992 0.9538 0.9883 0.9505 0.9992 1.0000 0.9917	78.84 78.83 77.40 77.28 77.21 73.65 72.78 69.18 69.13



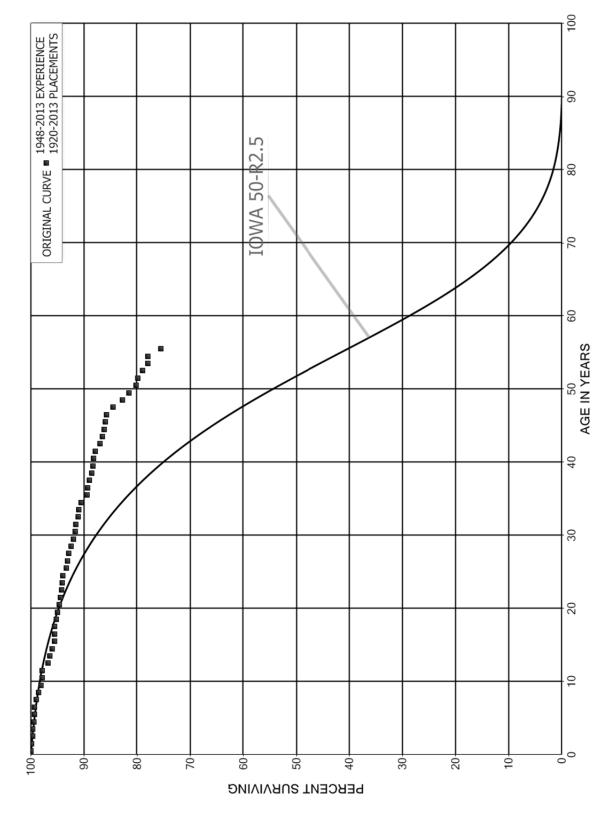
## ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

PLACEMENT BAND 1941-2013				RIENCE BAN	D 1942-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	2,161,603 2,161,603 1,957,359 1,914,174 1,912,731 1,266,647 1,064,808 1,038,858 1,014,037	43,185 0 2,830 25,950 24,120	0.0000 0.0000 0.0221 0.0000 0.0000 0.0022 0.0244 0.0232 0.0000 0.0035	1.0000 1.0000 0.9779 1.0000 1.0000 0.9978 0.9756 0.9768 1.0000 0.9965	68.55 68.55 68.55 67.04 67.04 67.04 66.89 65.26 63.74 63.74
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5	1,014,037 1,010,493 807,484 740,807 202,561 202,561 202,561 202,431 202,431	3,544 16,767 538,246	0.0035 0.0000 0.0208 0.7266 0.0000 0.0000 0.0006 0.0000	1.0000 0.9792 0.2734 1.0000 1.0000 0.9994 1.0000	63.52 63.52 62.20 17.01 17.01 17.01 17.00 17.00

NEWFOUNDLAND POWER INC.

ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

ORIGINAL AND SMOOTH SURVIVOR CURVES



## ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

PLACEMENT I	BAND 1920-2013		EXPEF	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	9,889,578 10,220,993 10,767,234 10,292,858 10,139,976 8,946,732 8,460,192 7,900,699 7,737,048 6,701,812	388 18,472 18,386 27,661 3,268 8,821 23,209 30,185 34,579	0.0000 0.0018 0.0017 0.0000 0.0027 0.0004 0.0010 0.0029 0.0039 0.0052	1.0000 0.9982 0.9983 1.0000 0.9973 0.9996 0.9990 0.9971 0.9961 0.9948	100.00 100.00 99.82 99.64 99.37 99.34 99.23 98.94 98.56
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	5,941,569 5,670,066 5,564,633 5,364,256 4,688,682 4,629,345 4,446,553 4,361,874 4,303,436 4,077,075	10,070 5,725 62,635 15,905 23,676 17,324 3,475	0.0017 0.0010 0.0113 0.0030 0.0050 0.0037 0.0008 0.0000 0.0029 0.0030	0.9983 0.9990 0.9887 0.9970 0.9950 0.9963 0.9992 1.0000 0.9971 0.9970	98.05 97.88 97.78 96.68 96.39 95.91 95.55 95.47 95.47
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	3,500,192 3,535,768 3,399,048 3,369,349 3,230,560 3,103,268 2,735,868 2,487,939 2,467,282 2,483,692	11,080 7,205 8,779 3,810 5,779 20,162 5,538 8,337 10,216 12,118	0.0032 0.0020 0.0026 0.0011 0.0018 0.0065 0.0020 0.0034 0.0041 0.0049	0.9968 0.9980 0.9974 0.9989 0.9982 0.9935 0.9980 0.9966 0.9959	94.91 94.61 94.42 94.18 94.07 93.90 93.29 93.10 92.79 92.41
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	2,523,536 2,520,717 1,591,246 1,706,171 1,649,255 1,526,991 1,433,402 1,316,654 1,007,015 816,346	8,716 2,811 9,018 1,209 8,324 18,422 1,240 6,023 5,049 1,502	0.0035 0.0011 0.0057 0.0007 0.0050 0.0121 0.0009 0.0046 0.0050 0.0018	0.9965 0.9989 0.9943 0.9993 0.9950 0.9879 0.9991 0.9954 0.9950 0.9982	91.96 91.64 91.54 91.02 90.95 90.49 89.40 89.32 88.92 88.47



#### ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

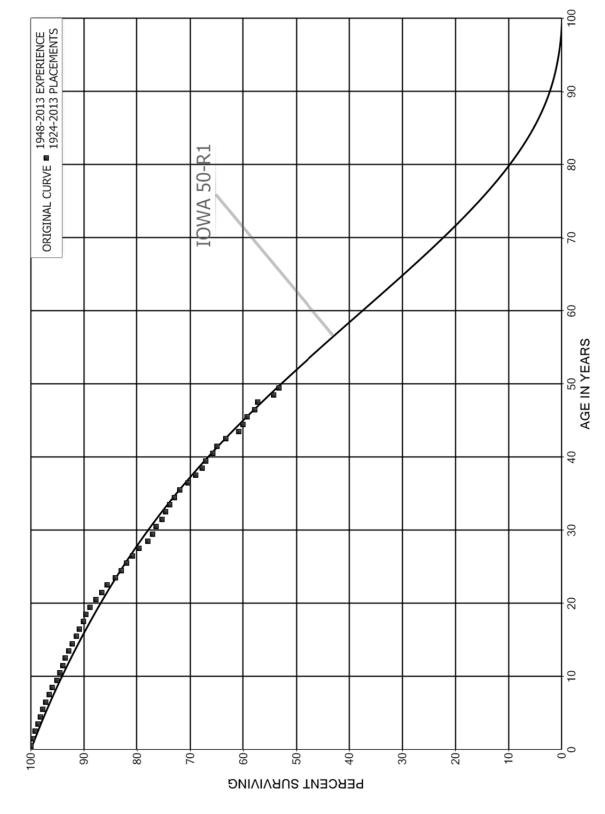
PLACEMENT E	BAND 1920-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	754,794 739,260 595,918 568,773 558,733 500,912 462,817 428,057 382,400 361,513	1,196 2,774 6,000 2,669 2,130 1,724 1,211 6,000 7,944 5,489	0.0016 0.0038 0.0101 0.0047 0.0038 0.0034 0.0026 0.0140 0.0208 0.0152	0.9984 0.9962 0.9899 0.9953 0.9966 0.9974 0.9860 0.9792 0.9848	88.31 88.17 87.84 86.95 86.54 86.21 85.92 85.69 84.49 82.74
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	312,843 265,170 255,195 225,903 204,268 171,461 114,791 114,076 112,421 112,137	4,982 1,001 3,133 2,611 5,476	0.0159 0.0038 0.0123 0.0116 0.0000 0.0319 0.0000 0.0025 0.0000	0.9841 0.9962 0.9877 0.9884 1.0000 0.9681 1.0000 0.9975 1.0000	81.48 80.18 79.88 78.90 77.99 77.99 75.50 75.31
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	96,522 96,522 95,058 93,958 90,052 90,052 87,645 86,895 86,895	750	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0086 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9914 1.0000 1.0000	75.31 75.31 75.31 75.31 75.31 75.31 75.31 75.31 74.66 74.66
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	86,012 86,012 61,602 61,602 61,602 61,137 61,137 61,137	465	0.0000 0.0000 0.0000 0.0000 0.0000 0.0075 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9925 1.0000 1.0000 1.0000	74.66 74.66 74.66 74.66 74.66 74.10 74.10 74.10 74.10



#### ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

PLACEMENT :	BAND 1920-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	58,134		0.0000	1.0000	74.10
80.5	58,134		0.0000	1.0000	74.10
81.5	58,134		0.0000	1.0000	74.10
82.5	50,634		0.0000	1.0000	74.10
83.5	50,634		0.0000	1.0000	74.10
84.5	50,634		0.0000	1.0000	74.10
85.5	885		0.0000	1.0000	74.10
86.5	885		0.0000	1.0000	74.10
87.5					74.10

NEWFOUNDLAND POWER INC.
ACCOUNT 342.00 - SUBSTATION - EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



## ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

PLACEMENT 1	BAND 1924-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	202,377,905 187,045,780 172,336,617 160,140,746 148,361,827 140,049,195 133,946,077 129,065,736 124,382,181	97,236 669,094 688,246 1,014,995 659,992 634,484 686,352 832,611 730,157	0.0005 0.0036 0.0040 0.0063 0.0044 0.0045 0.0051 0.0065 0.0059	0.9995 0.9964 0.9960 0.9937 0.9956 0.9955 0.9949 0.9935	100.00 99.95 99.59 99.20 98.57 98.13 97.68 97.18
8.5	120,620,315	1,116,643 765,832 548,155 505,077 694,002 644,235 784,640 532,997 630,804 425,675 635,220	0.0093	0.9907	95.99
9.5	114,422,047		0.0067	0.9933	95.10
10.5	106,142,112		0.0052	0.9948	94.47
11.5	100,866,411		0.0050	0.9950	93.98
12.5	96,045,654		0.0072	0.9928	93.51
13.5	91,676,394		0.0070	0.9930	92.83
14.5	87,878,091		0.0089	0.9911	92.18
15.5	84,932,381		0.0063	0.9937	91.36
16.5	82,381,218		0.0077	0.9923	90.78
17.5	80,212,595		0.0053	0.9947	90.09
18.5	78,371,381		0.0081	0.9919	89.61
19.5	77,103,363	1,013,831	0.0131	0.9869	88.88
20.5	73,297,820	939,177	0.0128	0.9872	87.71
21.5	69,086,816	804,032	0.0116	0.9884	86.59
22.5	64,377,016	1,118,883	0.0174	0.9826	85.58
23.5	55,588,083	730,968	0.0131	0.9869	84.10
24.5	52,016,588	630,210	0.0121	0.9879	82.99
25.5	49,392,168	665,574	0.0135	0.9865	81.98
26.5	47,744,104	730,504	0.0153	0.9847	80.88
27.5	46,691,662	975,609	0.0209	0.9791	79.64
28.5	44,384,916	524,862	0.0118	0.9882	77.98
29.5	41,765,107	373,588	0.0089	0.9911	77.06
30.5	39,074,871	528,067	0.0135	0.9865	76.37
31.5	37,736,042	386,108	0.0102	0.9898	75.33
32.5	35,231,026	335,816	0.0095	0.9905	74.56
33.5	34,015,862	434,100	0.0128	0.9872	73.85
34.5	32,451,713	410,096	0.0126	0.9874	72.91
35.5	29,849,213	672,465	0.0225	0.9775	71.99
36.5	24,614,725	486,507	0.0198	0.9802	70.37
37.5	15,648,268	274,929	0.0176	0.9824	68.98
38.5	11,492,975	112,725	0.0098	0.9902	67.76

## ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

PLACEMENT	BAND 1924-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	10,025,389 8,473,952 7,518,184 6,324,169 5,631,295 4,576,161 3,947,603 3,252,501 2,649,065	205,696 94,769 194,146 251,115 66,799 61,849 94,253 31,888 136,652	0.0205 0.0112 0.0258 0.0397 0.0119 0.0135 0.0239 0.0098	0.9795 0.9888 0.9742 0.9603 0.9881 0.9865 0.9761 0.9902 0.9484	67.10 65.72 64.99 63.31 60.80 60.07 59.26 57.85 57.28
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	2,262,042 2,141,906 1,720,325 1,473,964 1,173,414 1,024,060 749,139 467,640 471,338 300,468 297,734	43,995 71,642 27,276 24,245 23,709 17,886 152,200 415 37,459 2,251 14,256	0.0194 0.0334 0.0159 0.0164 0.0202 0.0175 0.2032 0.0009 0.0795 0.0075 0.0479	0.9806 0.9666 0.9841 0.9836 0.9798 0.9825 0.7968 0.9991 0.9205 0.9925 0.9521	54.33 53.27 51.49 50.67 49.84 48.83 47.98 38.23 38.20 35.16 34.90
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	139,482 129,982 130,476 89,936 77,197 70,857 67,002 65,588 62,455 45,805	9,500 0 1,278 1,890 3,855 1,414 2,638 16,650	0.0681 0.0000 0.0098 0.0210 0.0000 0.0544 0.0211 0.0402 0.2666 0.0000	0.9319 1.0000 0.9902 0.9790 1.0000 0.9456 0.9789 0.9598 0.7334 1.0000	33.23 30.96 30.96 30.66 30.02 30.02 28.38 27.78 26.67 19.56
69.5 70.5 71.5	45,805 36,640		0.0000	1.0000	19.56 19.56 19.56

ACCOUNT 350 - TRANSMISSION - ROW CLEARING/EASEMENT SURVEY, ROADS, TRAILS AND BRIDGES ORIGINAL AND SMOOTH SURVIVOR CURVES NEWFOUNDLAND POWER INC.

120 1948-2013 EXPERIENCE 1928-2013 PLACEMENTS 100 ORIGINAL CURVE OWA 65-R4 80 AGE IN YEARS 40 20 اره 70 9 80 50 30 20 10 РЕВСЕИТ SURVIVING

# ACCOUNT 350 - TRANSMISSION - ROW CLEARING/EASEMENT SURVEY, ROADS, TRAILS AND BRIDGES

PLACEMENT H	BAND 1928-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	10,764,795 10,157,400 10,975,541 11,498,662 11,354,109 11,125,927 11,038,358 10,853,509 10,271,743 10,283,237	4,970 13,679 25,471 12,265 3,815 13,982 8,080 3,787	0.0000 0.0005 0.0012 0.0022 0.0011 0.0003 0.0013 0.0000 0.0008 0.0004	1.0000 0.9995 0.9988 0.9978 0.9989 0.9997 0.9987 1.0000 0.9992 0.9996	100.00 100.00 99.95 99.83 99.61 99.50 99.46 99.34 99.34
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	10,172,668 10,039,908 9,913,975 9,776,348 9,773,847 9,774,692 9,713,083 9,522,216 9,490,225 9,422,302	3,351 1,434 7,704 2,448 914 3,203	0.0000 0.0003 0.0001 0.0008 0.0000 0.0003 0.0001 0.0003 0.0000 0.0035	1.0000 0.9997 0.9999 0.9992 1.0000 0.9997 0.9999 1.0000 0.9965	99.22 99.22 99.19 99.18 99.10 99.07 99.07 99.06 99.03
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	9,389,757 9,314,908 9,324,631 9,216,191 9,089,132 8,887,594 8,652,124 8,242,746 7,816,570 7,126,466	15,576 5,447 10,012 1,342 17,189 20,924 43,259 1,104 86,728	0.0017 0.0006 0.0011 0.0001 0.0019 0.0024 0.0000 0.0052 0.0001 0.0122	0.9983 0.9994 0.9989 0.9999 0.9981 0.9976 1.0000 0.9948 0.9999 0.9878	98.69 98.52 98.47 98.36 98.35 98.16 97.93 97.93 97.41
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	6,899,476 6,312,538 5,342,517 4,757,060 4,301,312 3,982,402 3,438,086 3,178,244 2,289,470 1,850,746	10,309 23,556 21,830 16,568 6,070 21,141 9,150 16,270	0.0015 0.0037 0.0041 0.0035 0.0014 0.0053 0.0027 0.0051 0.0000 0.0033	0.9985 0.9963 0.9959 0.9965 0.9986 0.9947 0.9973 0.9949 1.0000 0.9967	96.22 96.07 95.71 95.32 94.99 94.86 94.35 94.10 93.62 93.62

# ACCOUNT 350 - TRANSMISSION - ROW CLEARING/EASEMENT SURVEY, ROADS, TRAILS AND BRIDGES

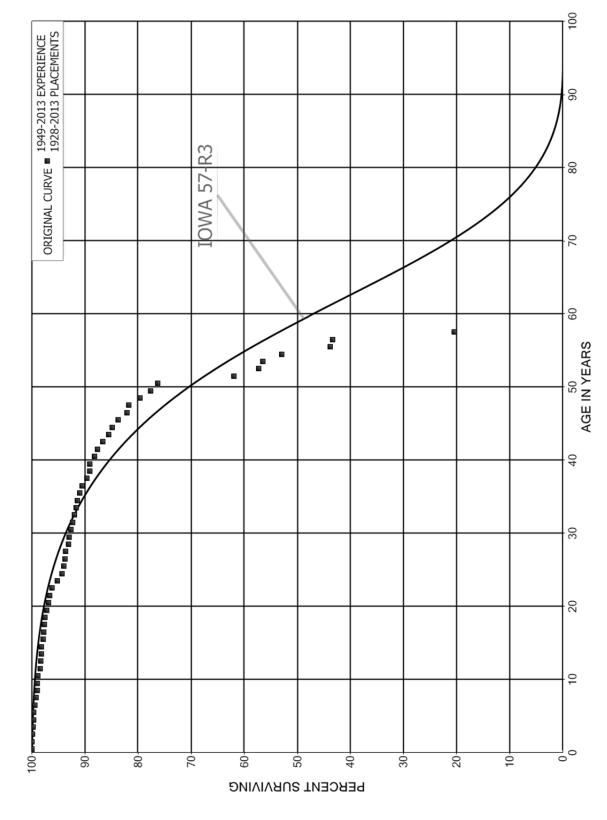
PLACEMENT E	BAND 1928-2013		EXPEF	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	1,573,392 1,413,138 1,250,033 1,156,592 1,108,557 974,440 880,463 866,641 716,143 538,453	22,326 22,624 5,847 4,463 12,638 5,495 40 13,552 1,687	0.0142 0.0160 0.0047 0.0039 0.0114 0.0056 0.0000 0.0156 0.0024 0.0000	0.9858 0.9840 0.9953 0.9961 0.9886 0.9944 1.0000 0.9844 0.9976 1.0000	93.31 91.99 90.52 90.09 89.75 88.72 88.22 88.22 86.84 86.63
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	604,066 463,717 337,932 286,169 273,917 162,049 161,116 161,096 116,305 116,263	8,220 22,448 4,940 2,743 16,282 21 28,846 967	0.0136 0.0484 0.0146 0.0096 0.0594 0.0000 0.0001 0.1791 0.0083 0.0000	0.9864 0.9516 0.9854 0.9904 0.9406 1.0000 0.9999 0.8209 0.9917 1.0000	86.63 85.45 81.32 80.13 79.36 74.64 74.63 61.27 60.76
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5	111,582 111,582 100,575 81,520 39,309 39,309 24,357 24,357 24,357	14,952	0.0000 0.0000 0.0000 0.0000 0.3804 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.6196 1.0000 1.0000 1.0000	60.76 60.76 60.76 60.76 60.76 37.65 37.65 37.65
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	24,357 24,357 24,357 24,357 19,907 19,907 19,907 19,907 545	4,450	0.0000 0.0000 0.0000 0.1827 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.8173 1.0000 1.0000 1.0000 1.0000 1.0000	37.65 37.65 37.65 37.65 30.77 30.77 30.77 30.77 30.77

# ACCOUNT 350 - TRANSMISSION - ROW CLEARING/EASEMENT SURVEY, ROADS, TRAILS AND BRIDGES

PLACEMENT I	EXPE	RIENCE BAN	ID 1948-2013		
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
79.5	545		0.0000	1.0000	30.77
80.5	545		0.0000	1.0000	30.77
81.5	545		0.0000	1.0000	30.77
82.5					30.77

NEWFOUNDLAND POWER INC.

ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS
ORIGINAL AND SMOOTH SURVIVOR CURVES



# ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

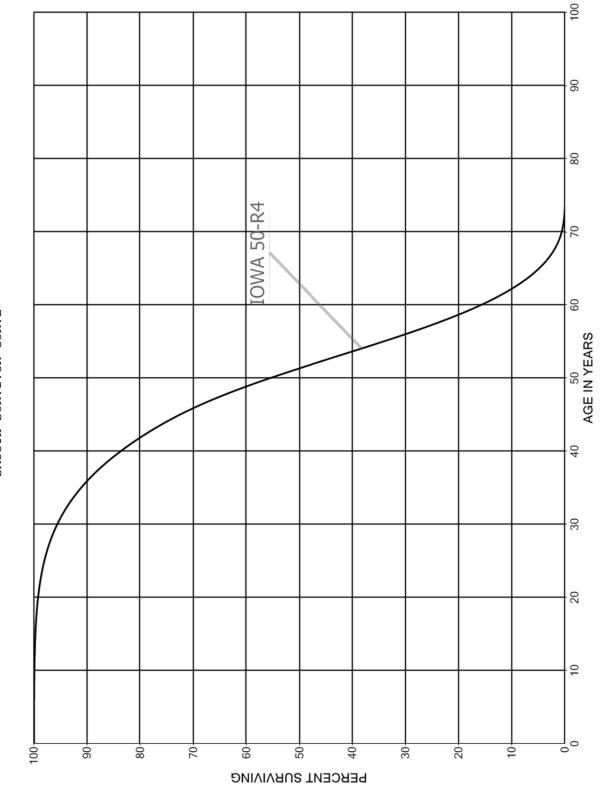
PLACEMENT E	BAND 1928-2013		EXPER	RIENCE BAN	D 1949-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	23,867,422 24,283,771 24,572,457 25,017,350 24,026,187 23,186,506 22,099,846 21,133,826 20,580,459 20,020,539	40 1,781 26,029 36,002 20,108 19,767 46,754 45,009 34,753 13,269	0.0000 0.0001 0.0011 0.0014 0.0008 0.0009 0.0021 0.0021 0.0017 0.0007	1.0000 0.9999 0.9989 0.9986 0.9992 0.9991 0.9979 0.9979 0.9983 0.9993	100.00 100.00 99.99 99.89 99.74 99.66 99.57 99.36 99.15 98.98
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	19,781,873 18,759,713 18,277,464 17,752,419 17,424,336 17,467,742 17,166,774 16,783,858 16,666,214 16,168,853	25,978 75,541 21,819 11,543 6,698 53,812 21,477 31,878 7,726 51,732	0.0013 0.0040 0.0012 0.0007 0.0004 0.0031 0.0013 0.0019 0.0005 0.0032	0.9987 0.9960 0.9988 0.9993 0.9996 0.9969 0.9987 0.9981 0.9995	98.92 98.79 98.39 98.27 98.21 98.17 97.87 97.75 97.56
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	15,838,892 15,361,963 14,726,370 14,245,715 13,537,355 13,025,145 12,710,205 12,479,158 12,158,488 11,496,054	68,769 23,372 72,321 153,469 116,139 43,354 39,679 7,857 74,006 13,402	0.0043 0.0015 0.0049 0.0108 0.0086 0.0033 0.0031 0.0006 0.0061	0.9957 0.9985 0.9951 0.9892 0.9914 0.9967 0.9969 0.9994 0.9939	97.20 96.78 96.64 96.16 95.12 94.31 93.99 93.70 93.64 93.07
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	11,235,917 10,820,423 9,349,099 8,162,098 7,806,736 7,732,221 6,966,844 6,347,694 4,345,787 3,283,374	45,168 37,055 31,699 28,814 21,830 40,630 26,727 62,203 27,326 911	0.0040 0.0034 0.0035 0.0028 0.0053 0.0038 0.0098 0.0063 0.0003	0.9960 0.9966 0.9965 0.9972 0.9947 0.9962 0.9902 0.9937 0.9997	92.96 92.59 92.27 91.96 91.64 91.38 90.90 90.55 89.66 89.10



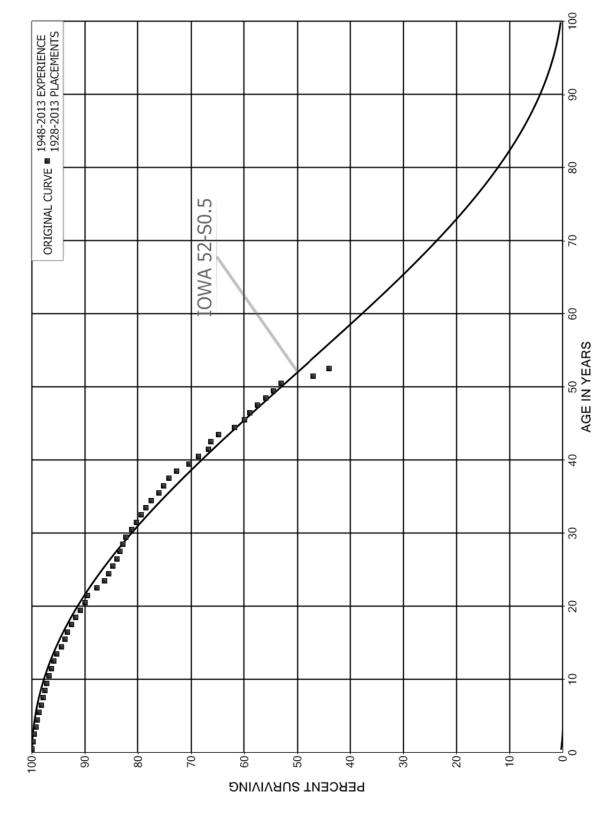
## ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

PLACEMENT BAND 1928-2013		EXPE	RIENCE BAN	ID 1949-2013
AGE AT EXPOSURES AT BEGIN OF BEGINNING OF INTERVAL AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5       3,110,058         40.5       2,801,578         41.5       2,513,728         42.5       2,264,369         43.5       2,180,639         44.5       2,083,358         45.5       1,650,397         46.5       1,548,123         47.5       1,405,414         48.5       843,803	15,207 30,371 27,661 18,626 327,662 4 32,281 6,768 4 36,300	0.0106 0.0054 0.0121 0.0122 0.0085 0.0133 0.0196 0.0044 0.0258 0.0246	0.9894 0.9946 0.9879 0.9878 0.9915 0.9867 0.9804 0.9956 0.9742	89.07 88.13 87.65 86.60 85.54 84.81 83.68 82.04 81.69 79.58
49.5     1,045,660       50.5     863,473       51.5     718,997       52.5     619,127       53.5     596,583       54.5     407,708       55.5     267,013       56.5     242,269       57.5     107,013       58.5     95,408	162,605 53,548 8,346 8,346 37,387 71,290 2,790 128,330 15,675	0.0174 0.1883 0.0745 0.0135 0.0627 0.1749 0.0104 0.5297 0.1465 0.1064	0.9826 0.8117 0.9255 0.9865 0.9373 0.8251 0.9896 0.4703 0.8535 0.8936	77.61 76.27 61.90 57.29 56.52 52.98 43.72 43.26 20.34 17.36
59.5       85,239         60.5       59,521         61.5       39,629         62.5       39,629         63.5       39,629         64.5       39,629         66.5       39,629         67.5       39,629         68.5       39,629         68.5       39,629	1,117 5 10,247 5 5	0.0501 0.0188 0.0000 0.2586 0.0000 0.0000 0.0000 0.0000	0.9499 0.9812 1.0000 0.7414 1.0000 1.0000 1.0000 1.0000 1.0000	15.52 14.74 14.46 14.46 10.72 10.72 10.72 10.72 10.72
69.5       39,625         70.5       39,625         71.5       39,625         72.5       36,875         73.5       36,875         74.5       36,875         75.5       26,628         76.5       26,344         77.5       25,844         78.5       25,844	5 2,750 5 5 5 5 5 5 5 6 5 6 6 6 6 6 6 6 6 6 6 6	0.0000 0.0000 0.0694 0.0000 0.0000 0.0000 0.0190 0.0000 0.0000	1.0000 1.0000 0.9306 1.0000 1.0000 1.0000 0.9810 1.0000 1.0000	10.72 10.72 10.72 9.98 9.98 9.98 9.98 9.98 9.79
79.5 25,844 80.5		1.0000		9.79

NEWFOUNDLAND POWER INC.
ACCOUNT 353.20 - TRANSMISSION - UNDERGROUND CABLE (14L)
SMOOTH SURVIVOR CURVE



ACCOUNTS 355.10 & 355.20 - TRANSMISSION - POLES AND FIXTURES ORIGINAL AND SMOOTH SURVIVOR CURVES



# ACCOUNTS 355.10 & 355.20 - TRANSMISSION - POLES AND FIXTURES

PLACEMENT H	BAND 1928-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	73,162,672 69,418,606 64,066,527 59,046,825 54,962,605 51,583,597 48,686,078 45,784,739 43,482,865 41,804,305	15,731 138,849 206,373 159,831 152,540 133,179 259,880 117,606 148,619 144,843	0.0002 0.0020 0.0032 0.0027 0.0028 0.0026 0.0053 0.0026 0.0034 0.0035	0.9998 0.9980 0.9968 0.9973 0.9972 0.9974 0.9947 0.9966 0.9965	100.00 99.98 99.78 99.46 99.19 98.91 98.66 98.13 97.88
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	40,909,821 38,771,603 36,917,205 35,602,868 35,117,534 34,225,168 33,170,574 32,229,442 31,371,492 30,079,280	192,511 200,628 147,303 210,161 349,489 227,358 144,894 264,955 281,734 293,630	0.0047 0.0052 0.0040 0.0059 0.0100 0.0066 0.0044 0.0082 0.0090 0.0098	0.9953 0.9948 0.9960 0.9941 0.9900 0.9934 0.9956 0.9918 0.9910	97.21 96.75 96.25 95.86 95.30 94.35 93.72 93.31 92.55 91.72
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	29,013,779 27,959,403 26,578,788 25,165,715 23,383,786 22,436,788 21,212,441 20,342,690 20,101,744 18,925,831	277,687 153,681 500,443 440,716 189,727 205,692 208,283 118,785 143,301 133,712	0.0096 0.0055 0.0188 0.0175 0.0081 0.0092 0.0098 0.0058 0.0071	0.9904 0.9945 0.9812 0.9825 0.9919 0.9908 0.9902 0.9942 0.9929	90.82 89.95 89.46 87.77 86.23 85.54 84.75 83.92 83.43 82.83
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	18,229,847 16,119,516 14,302,952 12,092,961 11,457,497 11,341,565 10,448,634 9,647,176 6,269,316 4,282,044	233,059 175,142 160,640 136,848 142,302 210,552 124,782 134,659 119,009 140,549	0.0128 0.0109 0.0112 0.0113 0.0124 0.0186 0.0119 0.0140 0.0190 0.0328	0.9872 0.9891 0.9888 0.9887 0.9876 0.9814 0.9881 0.9860 0.9810	82.25 81.20 80.32 79.41 78.51 77.54 76.10 75.19 74.14 72.73



## ACCOUNTS 355.10 & 355.20 - TRANSMISSION - POLES AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT :	BAND 1928-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	3,718,302	92,713	0.0249	0.9751	70.35
40.5	3,213,541	86,234	0.0268	0.9732	68.59
41.5	2,707,389	18,686	0.0069	0.9931	66.75
42.5	2,502,507	56,974	0.0228	0.9772	66.29
43.5	2,499,007	111,717	0.0447	0.9553	64.78
44.5	2,440,777	77,654	0.0318	0.9682	61.89
45.5	1,737,451	28,811	0.0166	0.9834	59.92
46.5	1,593,012	37,778	0.0237	0.9763	58.92
47.5	1,326,870	37,578	0.0283	0.9717	57.53
48.5	833,749	20,842	0.0250	0.9750	55.90
49.5	1,132,948	28,802	0.0254	0.9746	54.50
50.5	767,354	89,400	0.1165	0.8835	53.11
51.5	768,850	49,276	0.0641	0.9359	46.93
52.5	683,295	30,004	0.0439	0.9561	43.92
53.5	644,018	43,723	0.0679	0.9321	41.99
54.5	478,987	53,867	0.1125	0.8875	39.14
55.5	331,776	2,884	0.0087	0.9913	34.74
56.5	312,964	4,379	0.0140	0.9860	34.44
57.5	302,450	9,709	0.0321	0.9679	33.95
58.5	287,515	2,672	0.0093	0.9907	32.86
59.5	284,128	1,015	0.0036	0.9964	32.56
60.5	281,997	116	0.0004	0.9996	32.44
61.5	277,878	47	0.0002	0.9998	32.43
62.5	296,886	10,679	0.0360	0.9640	32.42
63.5	331,941	20,772	0.0626	0.9374	31.26
64.5	310,868	42,211	0.1358	0.8642	29.30
65.5	268,657		0.0000	1.0000	25.32
66.5	268,657		0.0000	1.0000	25.32
67.5	268,657	48	0.0002	0.9998	25.32
68.5	268,609	546	0.0020	0.9980	25.32
69.5	268,063		0.0000	1.0000	25.27
70.5	271,720	2,977	0.0110	0.9890	25.27
71.5	268,743	62	0.0002	0.9998	24.99
72.5	268,681		0.0000	1.0000	24.98
73.5	268,681		0.0000	1.0000	24.98
74.5	268,681	135	0.0005	0.9995	24.98
75.5	268,546		0.0000	1.0000	24.97
76.5	266,072	464	0.0017	0.9983	24.97
77.5	265,608	14	0.0001	0.9999	24.93

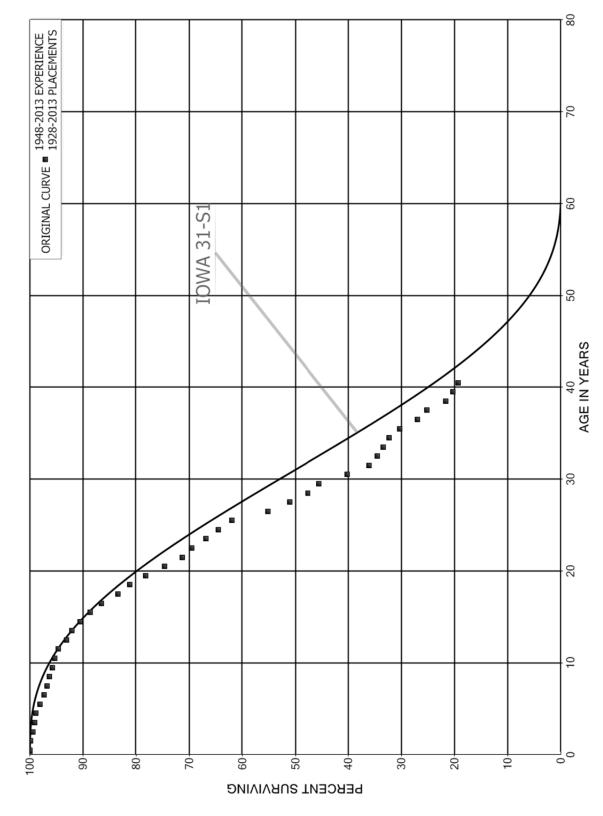


78.5 283,938 15,552 0.0548 0.9452 24.93

## ACCOUNTS 355.10 & 355.20 - TRANSMISSION - POLES AND FIXTURES

PLACEMENT 1	EXPER	RIENCE BAN	D 1948-2013		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5	6,191 355 355	5,836	0.9427 0.0000 0.0000	0.0573 1.0000 1.0000	23.56 1.35 1.35 1.35

NEWFOUNDLAND POWER INC.
ACCOUNT 355.30 - TRANSMISSION - INSULATORS
ORIGINAL AND SMOOTH SURVIVOR CURVES



## ACCOUNT 355.30 - TRANSMISSION - INSULATORS

PLACEMENT :	BAND 1928-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	27,851,236 27,617,098 26,779,736 26,192,482 24,884,820 23,799,857 22,638,111 21,661,759 20,527,177	2,664 32,254 125,337 85,653 73,484 172,151 180,530 127,119 95,759	0.0001 0.0012 0.0047 0.0033 0.0030 0.0072 0.0080 0.0059 0.0047	0.9999 0.9988 0.9953 0.9967 0.9970 0.9928 0.9920 0.9941 0.9953	100.00 99.99 99.87 99.41 99.08 98.79 98.07 97.29 96.72
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	19,818,832 19,131,207 18,175,495 17,023,163 15,930,898 15,175,514 14,144,520 13,006,823 11,522,270 10,233,492 9,018,080	100,829 106,398 123,966 285,594 162,852 253,258 300,378 303,919 416,335 279,701 327,799	0.0051 0.0056 0.0068 0.0168 0.0102 0.0167 0.0212 0.0234 0.0361 0.0273 0.0363	0.9949 0.9944 0.9932 0.9832 0.9898 0.9788 0.9766 0.9639 0.9727 0.9637	96.27 95.78 95.25 94.60 93.01 92.06 90.52 88.60 86.53 83.40 81.12
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	8,099,048 7,308,902 6,386,883 5,486,651 3,948,236 3,145,681 2,834,431 2,373,624 2,037,292 1,649,380	365,511 331,674 156,414 215,192 132,324 124,625 313,284 176,208 136,415 72,444	0.0451 0.0454 0.0245 0.0392 0.0335 0.0396 0.1105 0.0742 0.0670 0.0439	0.9549 0.9546 0.9755 0.9608 0.9665 0.9604 0.8895 0.9258 0.9330 0.9561	78.18 74.65 71.26 69.52 66.79 64.55 61.99 55.14 51.05 47.63
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	1,517,259 1,289,368 1,081,357 781,408 712,135 664,258 569,047 463,183 377,838 318,192	177,882 131,492 47,316 26,451 23,662 39,684 63,333 30,959 52,463 19,827	0.1172 0.1020 0.0438 0.0338 0.0332 0.0597 0.1113 0.0668 0.1388 0.0623	0.8828 0.8980 0.9562 0.9662 0.9668 0.9403 0.8887 0.9332 0.8612 0.9377	45.54 40.20 36.10 34.52 33.35 32.24 30.32 26.94 25.14 21.65



## ACCOUNT 355.30 - TRANSMISSION - INSULATORS

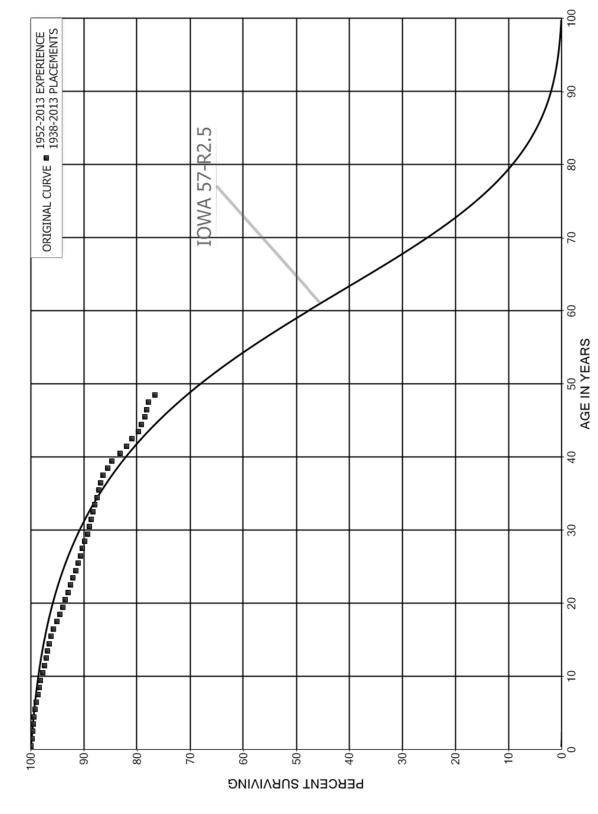
PLACEMENT	BAND 1928-2013		EXPEF	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	292,625 276,377 229,749 272,653 237,244 213,192 173,216 162,669 132,863 89,695	13,978 9,045 11,375 8,293 22,071 5,701 2,068 31,354 4,007 16,493	0.0478 0.0327 0.0495 0.0304 0.0930 0.0267 0.0119 0.1927 0.0302 0.1839	0.9522 0.9673 0.9505 0.9696 0.9070 0.9733 0.9881 0.8073 0.9698	20.30 19.33 18.70 17.77 17.23 15.63 15.21 15.03 12.13 11.77
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	88,238 43,721 32,737 29,408 34,689 24,767 13,337 13,337 6,977 5,296	10,493 12,881 17,172 237 1,414 10,378 9,149 6,106 1,681 693	0.1460 0.3928 0.0072 0.0481 0.2992 0.3694 0.0000 0.4578 0.2410 0.1309	0.8161 0.8540 0.6072 0.9928 0.9519 0.7008 0.6306 1.0000 0.5422 0.7590 0.8691	9.60 8.20 4.98 4.94 4.71 3.30 2.08 2.08 1.13 0.86
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	4,603 4,427 4,384 4,346 4,332 4,197 4,197 4,197 4,197 4,054	176 43 38 607 135	0.0382 0.0097 0.0087 0.1397 0.0312 0.0000 0.0000 0.0000 0.0341 0.8981	0.9618 0.9903 0.9913 0.8603 0.9688 1.0000 1.0000 0.9659 0.1019	0.74 0.72 0.71 0.70 0.60 0.59 0.59 0.59 0.59
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5	413 413 745 698 466 232 24	413 47 234 208	0.0000 1.0000 0.0631 0.0000 0.5031 0.8981 0.0000	1.0000	0.06 0.06

## ACCOUNT 355.30 - TRANSMISSION - INSULATORS

PLACEMENT	BAND 1928-2013	EXPERIENCE BAND 1948-2013			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5	24 0	23	0.9797 0.0000		
81.5 82.5	0	0	1.0000		

NEWFOUNDLAND POWER INC.

ACCOUNT 361.12 - OVERHEAD CONDUCTORS - BARE ALUMINUM
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 361.12 - OVERHEAD CONDUCTORS - BARE ALUMINUM

PLACEMENT H	BAND 1938-2013		EXPER	RIENCE BAN	D 1952-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	126,952,844 120,227,566 113,523,784 109,131,860 103,898,881 100,215,141 95,775,899 92,732,650 87,653,632 83,986,779	126,543 153,232 121,635 137,284 175,469 166,389 283,702 253,422 222,911 230,260	0.0010 0.0013 0.0011 0.0013 0.0017 0.0017 0.0030 0.0027 0.0025 0.0027	0.9990 0.9987 0.9989 0.9987 0.9983 0.9970 0.9973 0.9975 0.9973	100.00 99.90 99.77 99.67 99.54 99.37 99.21 98.91 98.64 98.39
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	80,327,416 76,311,336 73,677,493 70,331,474 67,570,764 64,313,487 61,987,526 59,677,932 57,610,067 55,361,734	281,409 310,562 215,918 198,319 231,341 233,325 284,605 373,367 344,485 313,564	0.0035 0.0041 0.0029 0.0028 0.0034 0.0036 0.0046 0.0063 0.0060 0.0057	0.9965 0.9959 0.9971 0.9972 0.9966 0.9964 0.9954 0.9937 0.9940 0.9943	98.12 97.78 97.38 97.10 96.82 96.49 96.14 95.70 95.10 94.53
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	52,599,328 49,631,354 46,016,787 42,793,574 38,879,786 35,715,438 33,023,897 30,520,913 28,360,326 26,217,448	285,805 274,353 214,432 242,704 191,524 193,481 148,770 122,135 149,962 153,580	0.0054 0.0055 0.0047 0.0057 0.0049 0.0054 0.0045 0.0040 0.0053	0.9946 0.9945 0.9953 0.9943 0.9951 0.9946 0.9955 0.9960 0.9947	94.00 93.49 92.97 92.54 92.01 91.56 91.06 90.65 90.29 89.81
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	23,558,277 21,458,363 19,202,010 16,835,564 14,115,289 12,364,864 10,589,952 8,616,881 7,121,541 5,450,255	83,601 75,459 84,768 65,689 60,194 55,949 40,744 43,293 75,408 43,702	0.0035 0.0035 0.0044 0.0039 0.0043 0.0045 0.0038 0.0050 0.0106 0.0080	0.9965 0.9965 0.9956 0.9961 0.9957 0.9955 0.9962 0.9950 0.9894	89.28 88.97 88.66 88.26 87.92 87.54 87.15 86.81 86.38

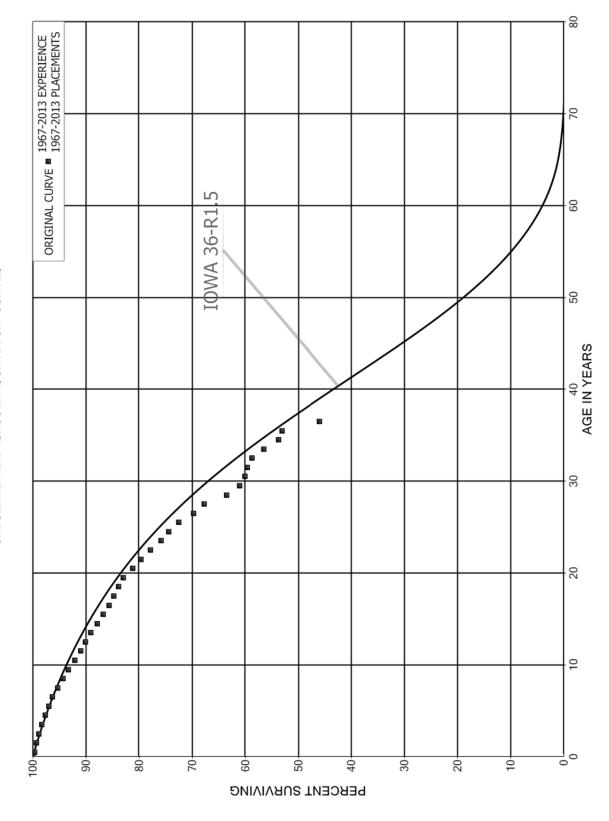


#### ACCOUNT 361.12 - OVERHEAD CONDUCTORS - BARE ALUMINUM

PLACEMENT 1	BAND 1938-2013		EXPER	RIENCE BAN	D 1952-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	4,464,096 3,636,083 3,118,479 2,609,221 2,377,373 2,022,646 1,896,707 1,740,268 1,105,240 204,312	35,441 39,486 17,684 15,679 10,075	0.0193 0.0146 0.0114 0.0151 0.0074 0.0078 0.0053 0.0044 0.0157 0.0661	0.9807 0.9854 0.9886 0.9849 0.9926 0.9922 0.9947 0.9956 0.9843 0.9339	84.78 83.14 81.92 80.99 79.77 79.17 78.56 78.14 77.80 76.58
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	68,509 9,906 12,136 7,574 5,466 4,609 2,132 1,758 1,096 605	17,554 9,906 12,136 7,574 5,466 4,609 2,132 1,758 1,096 605	0.2562 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.7438	71.52 53.19
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	468 1,345 1,198	468 1,345 1,198	1.0000		
69.5 70.5 71.5 72.5	9,818	9,818	1.0000		

NEWFOUNDLAND POWER INC.

ACCOUNT 361.13 - OVERHEAD CONDUCTORS - WEATHER-PROOF ALUMINUM
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 361.13 - OVERHEAD CONDUCTORS - WEATHER-PROOF ALUMINUM

PLACEMENT	BAND 1967-2013		EXPER	RIENCE BAN	D 1967-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	41,477,483 39,564,317 37,372,548 35,534,148 33,641,011 31,849,730 30,004,593 28,245,153 26,716,568 25,410,805	151,735 156,806 157,582 178,494 224,156 215,372 231,494 285,727 290,142 250,168	0.0037 0.0040 0.0042 0.0050 0.0067 0.0068 0.0077 0.0101 0.0109 0.0098	0.9963 0.9960 0.9958 0.9950 0.9933 0.9932 0.9923 0.9899 0.9891 0.9902	100.00 99.63 99.24 98.82 98.32 97.67 97.01 96.26 95.29 94.25
10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	23,019,770 22,138,486 21,313,792 20,723,702 19,924,317 19,107,785 18,323,928 17,529,112 16,748,903	274,193 221,427 248,463 270,818 248,134 245,756 201,602 168,456 198,850	0.0119 0.0100 0.0117 0.0131 0.0125 0.0129 0.0110 0.0096 0.0119	0.9881 0.9900 0.9883 0.9869 0.9875 0.9871 0.9890 0.9904	92.07 90.98 90.07 89.02 87.85 86.76 85.64 84.70 83.89
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	15,749,183 14,541,692 13,225,914 12,148,802 10,806,282 9,831,797 8,993,733 8,221,194 7,515,257 6,554,221	331,317 269,674 301,718 303,991 203,790 262,802 342,839 226,176 472,698 257,846	0.0210 0.0185 0.0228 0.0250 0.0189 0.0267 0.0381 0.0275 0.0629 0.0393	0.9790 0.9815 0.9772 0.9750 0.9811 0.9733 0.9619 0.9725 0.9371 0.9607	82.89 81.15 79.64 77.83 75.88 74.45 72.46 69.70 67.78 63.51
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	5,809,216 5,195,168 4,565,111 3,528,933 2,589,789 1,528,864 870,100 142,365 2,797 1,918	92,409 40,003 66,051 132,470 127,817 17,550 117,608 101,713	0.0159 0.0077 0.0145 0.0375 0.0494 0.0115 0.1352 0.7145 0.0000	0.9841 0.9923 0.9855 0.9625 0.9506 0.9885 0.8648 0.2855 1.0000	61.02 60.05 59.58 58.72 56.52 53.73 53.11 45.93 13.12



### ACCOUNT 361.13 - OVERHEAD CONDUCTORS - WEATHER-PROOF ALUMINUM

PLACEMENT E	EXPER	RIENCE BAN	D 1967-2013		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5	2,839 2,540 1,251 16		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	13.12 13.12 13.12 13.12 13.12

ACCOUNTS 361.14 & 361.30 - AERIAL CABLE AND SPECIAL INSULATED COPPER CABLE ORIGINAL AND SMOOTH SURVIVOR CURVES NEWFOUNDLAND POWER INC.

80 1957-2013 EXPERIENCE 1957-2013 PLACEMENTS 70 ORIGINAL CURVE ■ 9 IOWA 29-R1 50 AGE IN YEARS 30 20 10 اره 70 9 80 50 30 20 10 РЕВСЕИТ SURVIVING

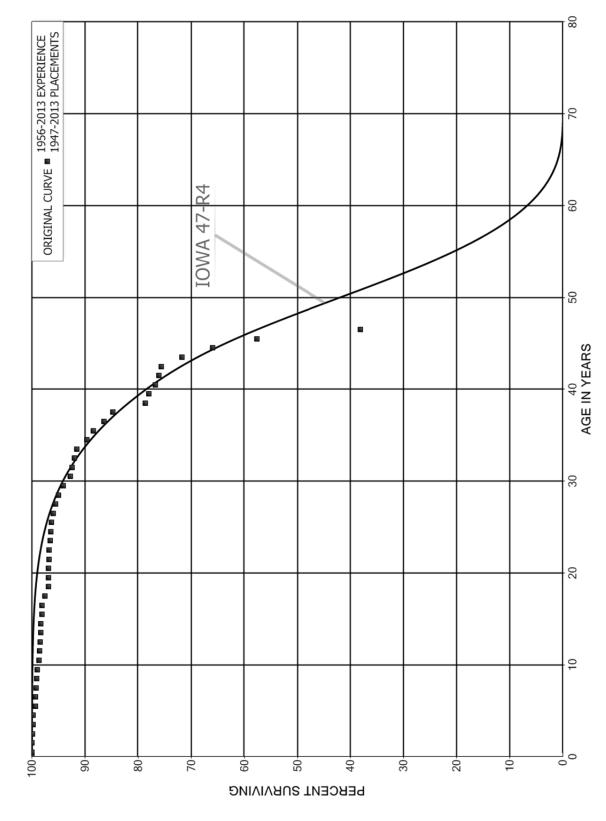
## ACCOUNTS 361.14 & 361.30 - AERIAL CABLE AND SPECIAL INSULATED COPPER CABLE ORIGINAL LIFE TABLE

PLACEMENT 1	BAND 1957-2013		EXPER	RIENCE BAN	D 1957-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	1,750,727 1,326,593 1,291,299 1,289,743 1,289,398 1,276,451 1,268,384 1,252,959 1,230,839 1,215,768	29,118 17,104 345 18,404 8,067 15,425 3,678 20,600 27,042	0.0000 0.0219 0.0132 0.0003 0.0143 0.0063 0.0122 0.0029 0.0167 0.0222	1.0000 0.9781 0.9868 0.9997 0.9857 0.9937 0.9878 0.9971 0.9833 0.9778	100.00 100.00 97.81 96.51 96.48 95.11 94.51 93.36 93.08 91.52
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,188,726 1,106,005 1,117,152 1,076,232 1,010,886 929,411 922,159 920,669 906,186 821,653	83,188 11,778 17,995 10,999 14,527 4,552 20,505 14,483 30,826 3,283	0.0700 0.0106 0.0161 0.0102 0.0144 0.0049 0.0222 0.0157 0.0340 0.0040	0.9300 0.9894 0.9839 0.9856 0.9951 0.9778 0.9843 0.9660 0.9960	89.49 83.23 82.34 81.01 80.19 79.03 78.65 76.90 75.69 73.11
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	818,370 813,692 807,406 756,523 749,007 621,139 618,205 425,513 372,737 349,417	5,265 6,286 33,895 7,516 11,345 452 18,953 52,776 19,327 3,447	0.0064 0.0077 0.0420 0.0099 0.0151 0.0007 0.0307 0.1240 0.0519 0.0099	0.9936 0.9923 0.9580 0.9901 0.9849 0.9993 0.9693 0.8760 0.9481 0.9901	72.82 72.35 71.79 68.78 68.10 67.06 67.02 64.96 56.90 53.95
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	345,817 253,573 192,650 166,161 165,449 163,789 131,794 57,253 11,494 11,096	3,192 21,836 13,402 170 1,433 4,827 40,187 7,362 398 752	0.0092 0.0861 0.0696 0.0010 0.0087 0.0295 0.3049 0.1286 0.0346 0.0678	0.9908 0.9139 0.9304 0.9990 0.9913 0.9705 0.6951 0.8714 0.9654 0.9322	53.42 52.93 48.37 45.01 44.96 44.57 43.26 30.07 26.20 25.29

# ACCOUNTS 361.14 & 361.30 - AERIAL CABLE AND SPECIAL INSULATED COPPER CABLE ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1957-2013		EXPER	RIENCE BAN	ID 1957-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5	6,081 1,463	4,618 1,463	0.7594 1.0000	0.2406	23.58 5.67

NEWFOUNDLAND POWER INC. ACCOUNTS 361.20 & 367.20 - UNDERGROUND CABLE AND SWITCHES ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNTS 361.20 & 367.20 - UNDERGROUND CABLE AND SWITCHES

PLACEMENT 1	BAND 1947-2013		EXPEF	RIENCE BAN	D 1956-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	29,153,541 26,900,698 24,220,868 23,466,924 22,319,701 21,137,850 20,679,565 20,138,763 19,708,543 19,015,404	4,141 25,314 21,695 15,972 8,761 80,304 13,666 14,128 25,787 8,693	0.0001 0.0009 0.0009 0.0007 0.0004 0.0038 0.0007 0.0007	0.9999 0.9991 0.9993 0.9996 0.9962 0.9993 0.9993 0.9987 0.9995	100.00 99.99 99.89 99.80 99.73 99.70 99.32 99.25 99.18 99.05
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	18,258,291 17,143,327 16,505,224 15,876,676 15,390,075 15,033,687 14,693,022 14,414,795 14,031,384 13,485,673	73,688 22,567 21,438 10,026 7,424 22,114 11,640 75,458 93,487 2,504	0.0040 0.0013 0.0013 0.0006 0.0005 0.0015 0.0008 0.0052 0.0067 0.0002	0.9960 0.9987 0.9987 0.9994 0.9995 0.9985 0.9992 0.9948 0.9933	99.01 98.61 98.48 98.35 98.29 98.24 98.09 98.02 97.50 96.85
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	13,054,043 12,869,590 11,862,535 10,394,370 9,624,636 8,428,897 7,594,468 6,943,643 5,588,411 5,162,461	6,324 3,682 2,551 23,979 14,015 10,715 21,405 31,399 32,370 51,973	0.0005 0.0003 0.0002 0.0023 0.0015 0.0013 0.0028 0.0045 0.0058 0.0101	0.9995 0.9997 0.9998 0.9977 0.9985 0.9987 0.9972 0.9955 0.9942 0.9899	96.84 96.79 96.76 96.74 96.52 96.38 96.25 95.98 95.55
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	4,710,703 4,329,554 4,009,340 3,621,244 2,933,640 2,766,319 2,228,390 1,895,433 1,661,203 1,405,080	66,105 15,416 18,271 18,280 60,201 37,592 51,370 36,499 119,493 11,760	0.0140 0.0036 0.0046 0.0050 0.0205 0.0136 0.0231 0.0193 0.0719 0.0084	0.9860 0.9964 0.9954 0.9950 0.9795 0.9864 0.9769 0.9807 0.9281 0.9916	94.04 92.72 92.39 91.97 91.50 89.63 88.41 86.37 84.71 78.61



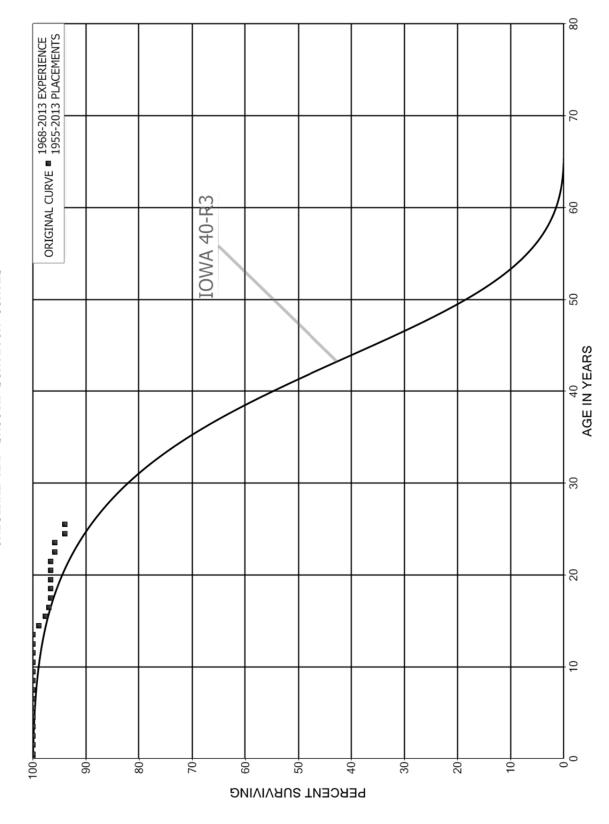
#### ACCOUNTS 361.20 & 367.20 - UNDERGROUND CABLE AND SWITCHES

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1947-2013		EXPE	RIENCE BAN	ID 1956-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1,228,528	19,807	0.0161	0.9839	77.96
40.5	1,109,878	9,660	0.0087	0.9913	76.70
41.5	960,636	5,605	0.0058	0.9942	76.03
42.5	761,519	39,154	0.0514	0.9486	75.59
43.5	610,063	48,757	0.0799	0.9201	71.70
44.5	473,183	60,127	0.1271	0.8729	65.97
45.5	327,014	111,152	0.3399	0.6601	57.59
46.5	76,028	29,830	0.3924	0.6076	38.01
47.5	10,818		0.0000	1.0000	23.10
48.5	10,818		0.0000	1.0000	23.10
49.5	10,818		0.0000	1.0000	23.10
50.5	10,818		0.0000	1.0000	23.10
51.5	10,818	8,465	0.7825	0.2175	23.10
52.5	2,353		0.0000	1.0000	5.03
53.5	825		0.0000	1.0000	5.03
54.5	825		0.0000	1.0000	5.03
55.5	825	825	1.0000		5.03

56.5

NEWFOUNDLAND POWER INC.
ACCOUNT 361.40 - DISTRIBUTION - UNDERWATER CONDUCTORS
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 361.40 - DISTRIBUTION - UNDERWATER CONDUCTORS

PLACEMENT E	BAND 1955-2013		EXPER	RIENCE BAN	D 1968-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	4,456,979 4,432,008 3,499,831 3,502,071 3,628,581 3,671,516 3,618,952 3,650,658 3,650,658 3,566,889		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	3,566,889 3,566,889 3,566,889 3,566,889 3,566,889 3,524,147 3,483,583 3,460,298 3,450,002 3,450,002	42,742 42,935 23,285 10,296	0.0000 0.0000 0.0000 0.0000 0.0120 0.0122 0.0067 0.0030 0.0000	1.0000 1.0000 1.0000 0.9880 0.9878 0.9933 0.9970 1.0000	100.00 100.00 100.00 100.00 100.00 98.80 97.60 96.95 96.66
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	3,450,002 3,450,002 3,453,036 3,422,304 1,980,953 1,943,021 29,055 29,549 29,549 29,549	30,732 37,932 2,371	0.0000 0.0000 0.0089 0.0000 0.0191 0.0000 0.0816 0.0000 0.0000	1.0000 1.0000 0.9911 1.0000 0.9809 1.0000 0.9184 1.0000 1.0000	96.66 96.66 95.80 95.80 93.96 93.96 86.29 86.29
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	29,549 31,363 31,363 28,329 31,066 46,818 336,723 336,723 336,723	2,865	0.0000 0.0000 0.0967 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.9033 1.0000 1.0000 1.0000 1.0000 0.9915 1.0000	86.29 86.29 86.29 77.95 77.95 77.95 77.95 77.95 77.95



#### ACCOUNT 361.40 - DISTRIBUTION - UNDERWATER CONDUCTORS

PLACEMENT	BAND 1955-2013		EXPER	RIENCE BAN	D 1968-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	333,858 333,858 333,858 332,044 332,044 332,044 329,307 313,555 23,650	1,814 2,737 15,752 289,905 21,410	0.0000 0.0000 0.0054 0.0000 0.0000 0.0082 0.0478 0.9246 0.9053	1.0000 1.0000 0.9946 1.0000 1.0000 0.9918 0.9522 0.0754 0.0947	77.28 77.28 77.28 76.86 76.86 76.23 72.58 5.47
48.5					0.52

ACCOUNTS 362.1, 362.2 & 361.10 - WOOD POLES AND OVERHEAD CONDUCTORS - BARE COPPER ORIGINAL AND SMOOTH SURVIVOR CURVES NEWFOUNDLAND POWER INC.

120 ORIGINAL CURVE = 1948-2013 EXPERIENCE 1929-2013 PLACEMENTS 100 80 IOWA 53-R1 AGE IN YEARS 40 20 اره 70 9 80 50 30 20 10 РЕВСЕИТ SURVIVING

### ACCOUNTS 362.1, 362.2 & 361.10 - WOOD POLES AND OVERHEAD CONDUCTORS - BARE COPPER

PLACEMENT 1	BAND 1929-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	433,072,808 416,756,954 401,925,297 387,748,851 373,614,601 361,554,937 351,607,842 342,676,700 330,904,885 322,413,508	745,700 1,318,018 1,306,514 1,332,341 1,491,491 1,421,203 1,883,417 1,900,509 1,576,364 1,505,817	0.0017 0.0032 0.0033 0.0034 0.0040 0.0039 0.0054 0.0055 0.0048	0.9983 0.9968 0.9967 0.9966 0.9961 0.9946 0.9945 0.9952	100.00 99.83 99.51 99.19 98.85 98.45 98.07 97.54 97.00 96.54
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	313,465,046 303,818,251 294,119,838 282,770,647 271,699,415 261,357,744 249,606,792 238,545,728 226,022,544 211,134,113	1,821,555 1,738,658 1,727,386 1,611,328 1,741,031 2,562,082 2,144,897 1,832,287 2,272,620 2,148,437	0.0058 0.0057 0.0059 0.0057 0.0064 0.0098 0.0086 0.0077 0.0101 0.0102	0.9942 0.9943 0.9941 0.9943 0.9936 0.9902 0.9914 0.9923 0.9899 0.9898	96.09 95.53 94.98 94.42 93.89 93.28 92.37 91.58 90.87 89.96
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	196,094,783 180,938,807 165,065,742 150,162,079 134,645,657 122,118,436 111,538,283 101,127,008 91,518,257 82,544,792	1,967,241 1,958,063 1,719,121 1,287,162 1,208,182 1,140,625 1,212,716 1,131,248 1,417,926 1,341,114	0.0100 0.0108 0.0104 0.0086 0.0090 0.0093 0.0109 0.0112 0.0155 0.0162	0.9900 0.9892 0.9896 0.9914 0.9910 0.9907 0.9891 0.9888 0.9845 0.9838	89.04 88.15 87.20 86.29 85.55 84.78 83.99 83.08 82.15
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	73,023,612 65,631,399 58,373,234 51,857,061 45,013,733 39,451,935 34,327,538 29,740,197 25,240,385 20,648,612	1,105,032 1,009,779 626,291 605,810 539,499 556,535 605,581 391,477 344,271 369,372	0.0151 0.0154 0.0107 0.0117 0.0120 0.0141 0.0176 0.0132 0.0136 0.0179	0.9849 0.9846 0.9893 0.9883 0.9880 0.9859 0.9824 0.9868 0.9864 0.9821	79.56 78.36 77.15 76.32 75.43 74.53 73.48 72.18 71.23 70.26



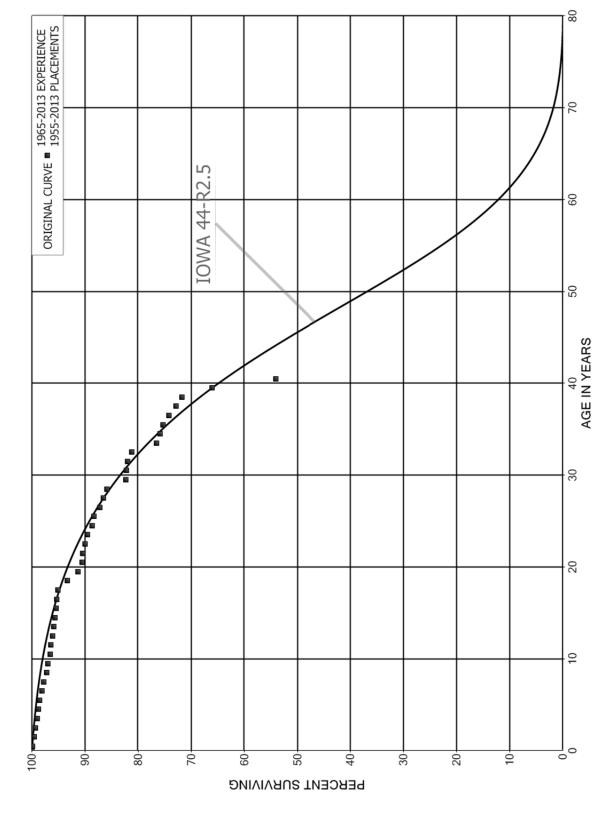
### ACCOUNTS 362.1, 362.2 & 361.10 - WOOD POLES AND OVERHEAD CONDUCTORS - BARE COPPER

#### ORIGINAL LIFE TABLE, CONT.

PLACEMENT 1	BAND 1929-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	17,709,058 15,292,974 13,542,963 11,535,867 10,337,414 8,759,968 7,191,257 5,654,757 3,721,528 1,298,953	233,686 205,908 256,326 155,053 158,544 78,787 155,672 28,703 7,494 30,390	0.0132 0.0135 0.0189 0.0134 0.0153 0.0090 0.0216 0.0051 0.0020 0.0234	0.9868 0.9865 0.9811 0.9866 0.9847 0.9910 0.9784 0.9949 0.9980 0.9766	69.00 68.09 67.17 65.90 65.02 64.02 63.44 62.07 61.76 61.63
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	672,557 333,602 48,543 30,296 21,864 18,436 8,526 7,034 4,386 2,421	33,024 39,625 48,543 30,296 21,864 18,436 8,526 7,034 4,386 2,421	0.0491 0.1188 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	0.9509 0.8812	60.19 57.23 50.44
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	1,873 5,379 4,790	1,873 5,379 4,790	1.0000		
69.5 70.5 71.5	39,272	39,272	1.0000		

72.5

ACCOUNT 362.30 - DISTRIBUTION - POLES (CONCRETE & STEEL)
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 362.30 - DISTRIBUTION - POLES (CONCRETE & STEEL)

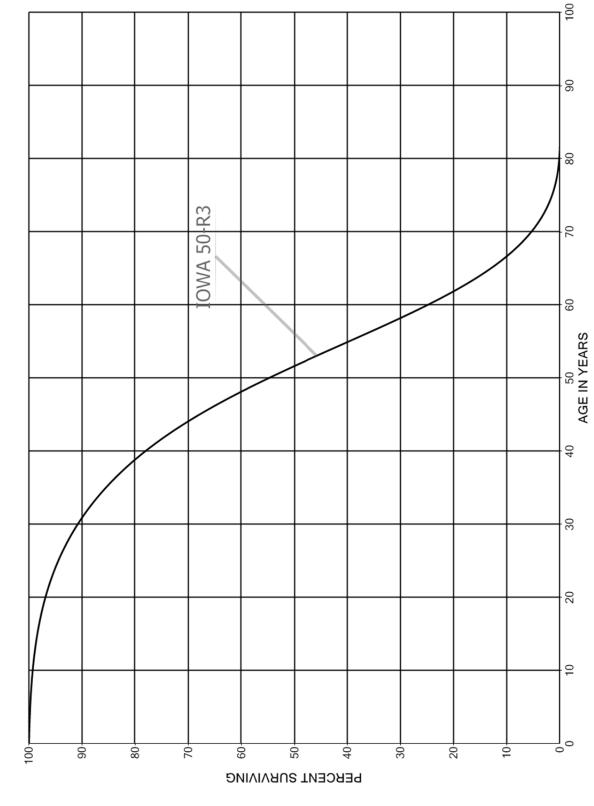
PLACEMENT :	BAND 1955-2013		EXPER	RIENCE BAN	D 1965-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	8,745,206	16,578	0.0019	0.9981	100.00
0.5	8,369,945	25,162	0.0030	0.9970	99.81
1.5	8,137,316	20,947	0.0026	0.9974	99.51
2.5	7,637,752	21,407	0.0028	0.9972	99.25
3.5	7,380,495	15,904	0.0022	0.9978	98.98
4.5	7,025,540	22,228	0.0032	0.9968	98.76
5.5	6,621,088	22,709	0.0034	0.9966	98.45
6.5	6,379,478	24,653	0.0039	0.9961	98.11
7.5	6,189,332	36,257	0.0059	0.9941	97.73
8.5	5,905,569	14,974	0.0025	0.9975	97.16
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	5,661,337 5,505,375 5,363,040 5,278,613 5,175,776 5,075,292 4,953,495 4,795,539 4,578,417 4,306,196	22,796 10,033 17,379 11,357 13,181 10,301 6,908 10,222 87,376 90,505	0.0025 0.0040 0.0018 0.0032 0.0022 0.0025 0.0020 0.0014 0.0021 0.0191 0.0210	0.9960 0.9982 0.9968 0.9978 0.9975 0.9980 0.9986 0.9979 0.9809	96.91 96.52 96.35 96.04 95.83 95.59 95.39 95.26 95.06
19.5	3,983,420	33,138	0.0083	0.9917	91.28
20.5	3,631,315	7,291	0.0020	0.9980	90.52
21.5	3,350,517	13,951	0.0042	0.9958	90.34
22.5	3,124,642	16,912	0.0054	0.9946	89.96
23.5	2,891,491	27,917	0.0097	0.9903	89.48
24.5	2,469,684	9,467	0.0038	0.9962	88.61
25.5	2,267,585	29,111	0.0128	0.9872	88.27
26.5	2,027,817	15,747	0.0078	0.9922	87.14
27.5	1,693,976	12,128	0.0072	0.9928	86.46
28.5	1,545,081	64,317	0.0416	0.9584	85.84
29.5	1,328,726	2,436	0.0018	0.9982	82.27
30.5	1,301,098	3,012	0.0023	0.9977	82.12
31.5	1,174,652	10,298	0.0088	0.9912	81.93
32.5	941,749	54,689	0.0581	0.9419	81.21
33.5	742,669	6,876	0.0093	0.9907	76.50
34.5	670,147	4,374	0.0065	0.9935	75.79
35.5	589,649	8,401	0.0142	0.9858	75.29
36.5	501,126	9,083	0.0181	0.9819	74.22
37.5	387,581	5,917	0.0153	0.9847	72.88
38.5	248,877	19,907	0.0800	0.9200	71.76



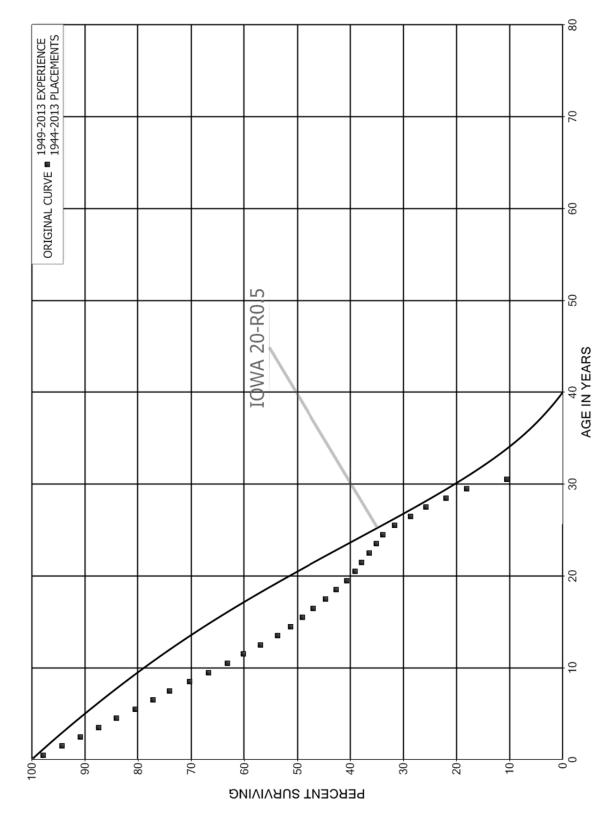
#### ACCOUNT 362.30 - DISTRIBUTION - POLES (CONCRETE & STEEL)

PLACEMENT	BAND 1955-2013		EXPER	RIENCE BAN	D 1965-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
	AGE INTERVAL		RAIIO		INIERVAL
39.5	171,506	30,930	0.1803	0.8197	66.02
40.5	83,877	4,972	0.0593	0.9407	54.12
41.5	26,041	3,189	0.1225	0.8775	50.91
42.5	17,763	5,709	0.3214	0.6786	44.67
43.5	12,054	126	0.0104	0.9896	30.32
44.5	11,928	129	0.0108	0.9892	30.00
45.5	11,799		0.0000	1.0000	29.68
46.5	11,799		0.0000	1.0000	29.68
47.5					29.68

NEWFOUNDLAND POWER INC.
ACCOUNT 362.40 - DISTRIBUTION - STEEL TOWERS
SMOOTH SURVIVOR CURVE



NEWFOUNDLAND POWER INC.
ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS
ORIGINAL AND SMOOTH SURVIVOR CURVES

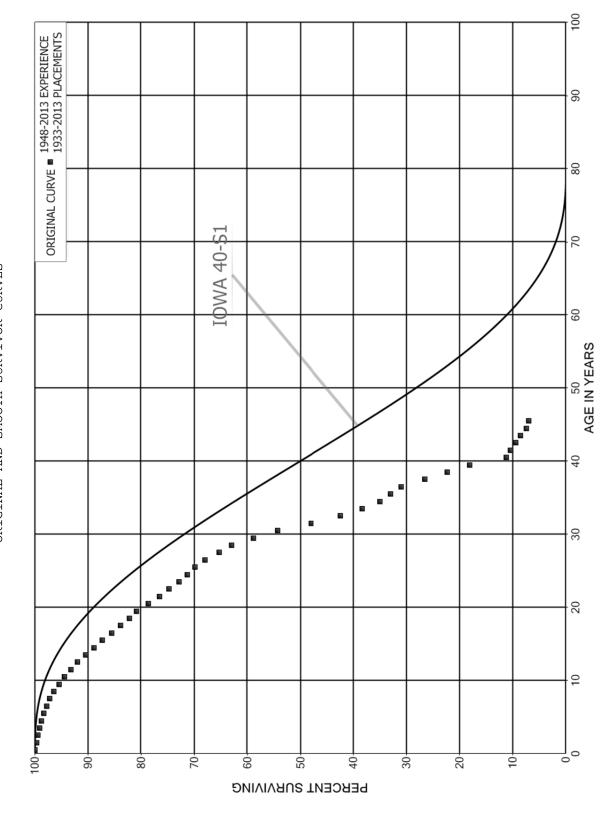


#### ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

PLACEMENT I	BAND 1944-2013		EXPER	RIENCE BAN	D 1949-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	46,490,760	993,973	0.0214	0.9786	100.00
0.5	44,693,168	1,653,390	0.0370	0.9630	97.86
1.5	41,908,297	1,497,404	0.0357	0.9643	94.24
2.5	38,672,423	1,473,465	0.0381	0.9619	90.87
3.5	35,597,458	1,358,073	0.0382	0.9618	87.41
4.5	32,687,605	1,390,153	0.0425	0.9575	84.08
5.5	30,544,719	1,279,787	0.0419	0.9581	80.50
6.5	28,831,376	1,156,257	0.0401	0.9599	77.13
7.5	27,023,574	1,363,958	0.0505	0.9495	74.04
8.5	25,097,687	1,258,931	0.0502	0.9498	70.30
9.5	23,448,946	1,266,836	0.0540	0.9460	66.77
10.5	21,800,248	1,021,379	0.0469	0.9531	63.16
11.5	20,475,167	1,103,917	0.0539	0.9461	60.21
12.5	19,126,400	1,092,908	0.0571	0.9429	56.96
13.5	17,852,872	821,964	0.0460	0.9540	53.70
14.5	16,975,326	735,245	0.0433	0.9567	51.23
15.5	16,112,433	697,408	0.0433	0.9567	49.01
16.5	14,781,132	711,809	0.0482	0.9518	46.89
17.5	13,133,892	597,588	0.0455	0.9545	44.63
18.5	12,334,852	566,570	0.0459	0.9541	42.60
19.5	11,413,149	448,220	0.0393	0.9607	40.65
20.5	10,344,955	326,519	0.0316	0.9684	39.05
21.5	9,397,848	339,918	0.0362	0.9638	37.82
22.5	8,258,768	313,647	0.0380	0.9620	36.45
23.5	7,343,922	259,244	0.0353	0.9647	35.07
24.5	6,626,833	424,085	0.0640	0.9360	33.83
25.5	5,842,739	566,663	0.0970	0.9030	31.66
26.5	4,655,277	470,770	0.1011	0.8989	28.59
27.5	3,347,738	494,609	0.1477	0.8523	25.70
28.5	2,281,751	404,882	0.1774	0.8226	21.90
29.5 30.5 31.5 32.5 33.5 34.5	1,673,479 944,017 292,510 4,856 4,854	698,144 438,684 109,163 932	0.4172 0.4647 0.3732 0.1918 0.0000	0.5828 0.5353 0.6268 0.8082 1.0000	18.02 10.50 5.62 3.52 2.85 2.85



ACCOUNTS 364.10, 364.11, 364.2, 364.3 & 364.4 - LINE TRANSFORMERS ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNTS 364.10, 364.11, 364.2, 364.3 & 364.4 - LINE TRANSFORMERS

PLACEMENT	BAND 1933-2013		EXPEF	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	160,002,059 152,415,730 145,169,511 137,302,340 129,811,661 122,169,184 112,781,023 105,521,429 99,003,206 92,780,921	135,849 498,324 351,302 399,852 483,104 535,876 579,083 635,486 820,745 929,477	0.0008 0.0033 0.0024 0.0029 0.0037 0.0044 0.0051 0.0060 0.0083 0.0100	0.9992 0.9967 0.9976 0.9971 0.9963 0.9956 0.9949 0.9940 0.9917 0.9900	100.00 99.92 99.59 99.35 99.06 98.69 98.26 97.75 97.16 96.36
9.5	86,402,377 79,623,311 73,252,891 67,252,733 61,288,897 56,731,671 52,228,780 49,659,294 47,270,272 44,916,451	933,940	0.0108	0.9892	95.39
10.5		1,024,842	0.0129	0.9871	94.36
11.5		986,965	0.0135	0.9865	93.15
12.5		1,076,057	0.0160	0.9840	91.89
13.5		1,042,698	0.0170	0.9830	90.42
14.5		1,006,936	0.0177	0.9823	88.88
15.5		1,049,511	0.0201	0.9799	87.31
16.5		1,001,372	0.0202	0.9798	85.55
17.5		929,420	0.0197	0.9803	83.83
18.5		763,189	0.0170	0.9830	82.18
19.5	42,901,337	1,174,582	0.0274	0.9726	80.78
20.5	40,747,816	1,049,601	0.0258	0.9742	78.57
21.5	38,283,339	906,156	0.0237	0.9763	76.55
22.5	34,804,440	902,481	0.0259	0.9741	74.73
23.5	30,565,484	645,938	0.0211	0.9789	72.80
24.5	27,557,936	566,126	0.0205	0.9795	71.26
25.5	25,313,761	676,359	0.0267	0.9733	69.79
26.5	22,785,120	868,549	0.0381	0.9619	67.93
27.5	20,100,166	750,454	0.0373	0.9627	65.34
28.5	18,861,625	1,223,421	0.0649	0.9351	62.90
29.5	16,699,687	1,282,858	0.0768	0.9232	58.82
30.5	14,825,644	1,726,771	0.1165	0.8835	54.30
31.5	12,163,621	1,421,921	0.1169	0.8831	47.98
32.5	9,971,333	970,797	0.0974	0.9026	42.37
33.5	8,441,808	717,444	0.0850	0.9150	38.24
34.5	7,645,013	436,599	0.0571	0.9429	34.99
35.5	6,875,192	419,620	0.0610	0.9390	33.00
36.5	6,024,627	868,615	0.1442	0.8558	30.98
37.5	4,044,630	643,900	0.1592	0.8408	26.51
38.5	2,558,077	490,380	0.1917	0.8083	22.29



# ACCOUNTS 364.10, 364.11, 364.2, 364.3 & 364.4 - LINE TRANSFORMERS ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1933-2013 EXPERIENCE				RIENCE BAN	D 1948-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1,748,537	668,156	0.3821	0.6179	18.02
40.5	1,339,303	93,308	0.0697	0.9303	11.13
41.5	915,005	84,338	0.0922	0.9078	10.36
42.5	621,241	59,074	0.0951	0.9049	9.40
43.5	448,253	57,671	0.1287	0.8713	8.51
44.5	303,361	18,519	0.0610	0.9390	7.41
45.5	203,904	19,704	0.0966	0.9034	6.96
46.5	119,016	6,375	0.0536	0.9464	6.29
47.5	112,641	32,479	0.2883	0.7117	5.95
48.5	17,674	600	0.0339	0.9661	4.24
49.5	17,074		0.0000	1.0000	4.09
50.5	17,074		0.0000	1.0000	4.09
51.5	17,074	3,075	0.1801	0.8199	4.09
52.5	12,839	1,860	0.1449	0.8551	3.36
53.5	10,979	7,579	0.6903	0.3097	2.87
54.5	3,400		0.0000	1.0000	0.89
55.5	3,400		0.0000	1.0000	0.89
56.5	3,400	3,400	1.0000		0.89

57.5

ACCOUNTS 365.1, 361.11 & 361.15 - OVERHEAD SERVICES, WEATHER-PROOF COPPER CONDUCTORS, AND DUPLEX CONDUCTORS NEWFOUNDLAND POWER INC.

120 1948-2013 EXPERIENCE 1933-2013 PLACEMENTS 100 ORIGINAL CURVE 80 ORIGINAL AND SMOOTH SURVIVOR CURVES **IOWA 49-R2** AGE IN YEARS 40 20 اره 70 90 80 50 30 20 10 РЕВСЕИТ SURVIVING

ACCOUNTS 365.1, 361.11 & 361.15 - OVERHEAD SERVICES, WEATHER-PROOF COPPER CONDUCTORS, AND DUPLEX CONDUCTORS

	Č	ACTORNAL BILL III			
PLACEMENT 1	BAND 1933-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	100,198,304	177,861	0.0018	0.9982	100.00
0.5	97,388,590	241,029	0.0025	0.9975	99.82
1.5	93,180,959	209,732	0.0023	0.9977	99.58
2.5	89,022,420	180,277	0.0020	0.9980	99.35
3.5	84,045,525	196,763	0.0023	0.9977	99.15
4.5	79,807,306	208,177	0.0026	0.9974	98.92
5.5	76,382,962	225,227	0.0029	0.9971	98.66
6.5	73,850,403	261,635	0.0035	0.9965	98.37
7.5	71,317,042	251,595	0.0035	0.9965	98.02
8.5	69,018,156	220,146	0.0032	0.9968	97.67
9.5	66,943,813	303,922	0.0045	0.9955	97.36
10.5	64,906,126	259,289	0.0040	0.9960	96.92
11.5	62,751,225	245,758	0.0039	0.9961	96.53
12.5	60,624,471	218,362	0.0036	0.9964	96.16
13.5	59,053,584	246,184	0.0042	0.9958	95.81
14.5	57,320,587	225,136	0.0039	0.9961	95.41
15.5	55,679,395	216,529	0.0039	0.9961	95.04
16.5	54,121,535	205,845	0.0038	0.9962	94.67
17.5	52,219,631	197,138	0.0038	0.9962	94.31
18.5	50,083,398	683,286	0.0136	0.9864	93.95
19.5	47,052,434	450,182	0.0096	0.9904	92.67
20.5	43,761,052	522,072	0.0119	0.9881	91.78
21.5	40,298,436	365,021	0.0091	0.9909	90.69
22.5	36,913,950	448,661	0.0122	0.9878	89.87
23.5	33,725,225	353,623	0.0105	0.9895	88.77
24.5	30,405,699	376,056	0.0124	0.9876	87.84
25.5	27,378,172	378,074	0.0138	0.9862	86.76
26.5	24,755,228	178,274	0.0072	0.9928	85.56
27.5	22,297,636	250,662	0.0112	0.9888	84.94
28.5	19,909,030	312,520	0.0157	0.9843	83.99
29.5	17,199,889	255,579	0.0149	0.9851	82.67
30.5	15,042,257	183,013	0.0122	0.9878	81.44
31.5	13,403,680	132,120	0.0099	0.9901	80.45
32.5	11,686,111	144,654	0.0124	0.9876	79.66
33.5	10,161,618	195,307	0.0192	0.9808	78.67
34.5	8,696,589	144,240	0.0166	0.9834	77.16
35.5	7,464,584	64,550	0.0086	0.9914	75.88
36.5	6,454,795	116,004	0.0180	0.9820	75.22
37.5	5,467,293	73,522	0.0134	0.9866	73.87
38.5	4,507,297	99,422	0.0221	0.9779	72.88



ACCOUNTS 365.1, 361.11 & 361.15 - OVERHEAD SERVICES, WEATHER-PROOF COPPER CONDUCTORS, AND DUPLEX CONDUCTORS

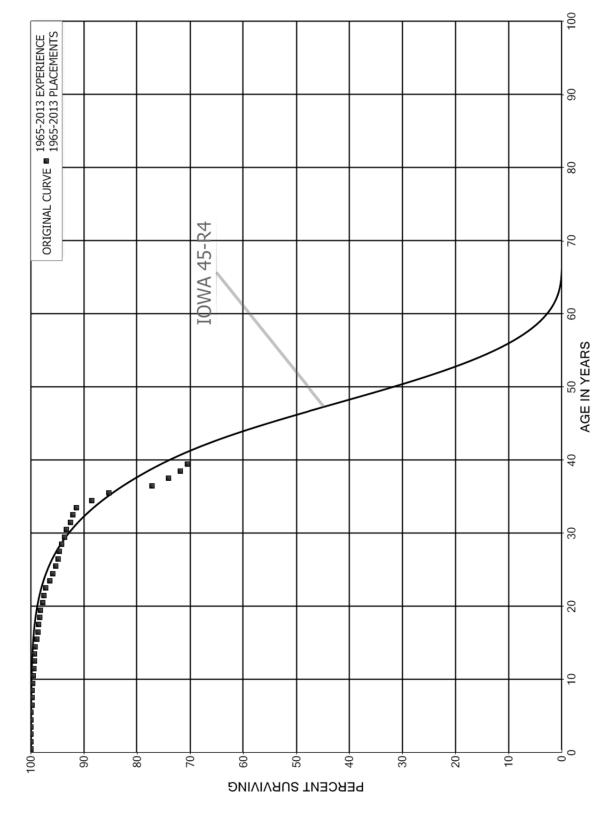
#### ORIGINAL LIFE TABLE, CONT.

#### PLACEMENT BAND 1933-2013 EXPERIENCE BAND 1948-2013 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE SURV BEGIN OF RETMT INTERVAL AGE INTERVAL INTERVAL INTERVAL RATIO RATIO 39.5 3,674,869 53,231 0.0145 0.9855 71.27 40.5 3,073,504 70,786 0.0230 0.9770 70.24 41.5 2,621,252 61,640 0.0235 0.9765 68.62 42.5 2,210,166 28,143 0.0127 0.9873 67.01 43.5 2,035,249 79,902 0.0393 0.9607 66.15 44.5 1,741,390 41,490 0.0238 0.9762 63.56 45.5 1,559,062 46,440 62.04 0.0298 0.9702 46.5 1,383,077 34,383 0.0249 0.9751 60.19 47.5 1,202,269 0.0007 0.9993 58.70 895 48.5 938,093 18,918 0.0202 0.9798 58.65 49.5 761,268 21,961 0.0288 0.9712 57.47 50.5 616,708 1,554 0.0025 0.9975 55.81 51.5 400,695 3,047 0.0076 0.9924 55.67 52.5 296,156 7,191 0.0243 0.9757 55.25 53.5 107,604 9,849 0.0915 0.9085 53.91

54.5

48.97

NEWFOUNDLAND POWER INC.
ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND ORIGINAL AND SMOOTH SURVIVOR CURVES



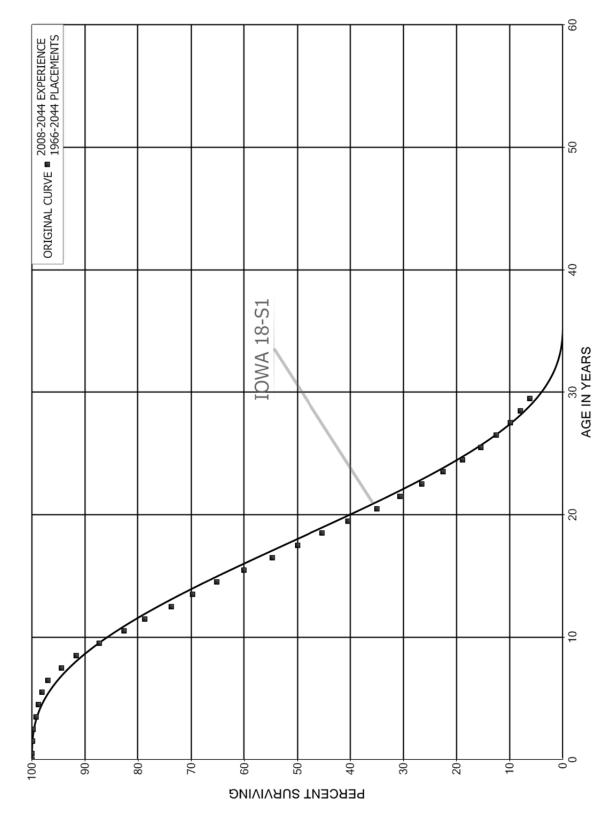
#### ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND

PLACEMENT I	BAND 1965-2013		EXPER	RIENCE BAN	D 1965-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5	9,506,742 7,662,817 7,181,856	3,167	0.0003 0.0000 0.0000	0.9997 1.0000 1.0000	100.00 99.97 99.97
2.5 3.5	6,810,399 6,501,443	1,312	0.0002 0.0000	0.9998 1.0000	99.97 99.95
4.5 5.5 6.5	6,166,446 5,797,568 5,453,403	3,107 7,543	0.0005 0.0013 0.0000	0.9995 0.9987 1.0000	99.95 99.90 99.77
7.5 8.5	5,312,689 5,130,923	1,137 4,565	0.0002	0.9998 0.9991	99.77 99.75
9.5 10.5 11.5 12.5	4,874,907 4,612,109 4,453,592 4,378,095	4,815 8,160 2,838 284	0.0010 0.0018 0.0006 0.0001	0.9990 0.9982 0.9994 0.9999	99.66 99.56 99.38 99.32
13.5 14.5 15.5 16.5	4,215,321 4,220,361 4,197,463 3,951,333 3,572,075	7,128 13,989 10,243 3,490 8,266	0.0017 0.0033 0.0024 0.0009 0.0023	0.9983 0.9967 0.9976 0.9991 0.9977	99.31 99.14 98.82 98.57 98.49
18.5 19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	3,302,732 3,077,720 2,852,958 2,698,621 2,520,003 2,230,980 1,936,351 1,715,305 1,589,928 1,524,880 1,385,623	4,360 12,656 4,975 11,324 19,541 13,267 11,220 7,279 4,333 7,011 8,284	0.0013 0.0041 0.0017 0.0042 0.0078 0.0059 0.0058 0.0042 0.0027 0.0046 0.0060	0.9987 0.9959 0.9983 0.9958 0.9922 0.9941 0.9942 0.9958 0.9973 0.9954	98.26 98.13 97.73 97.56 97.15 96.39 95.82 95.27 94.86 94.60 94.17
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	1,249,954 1,180,542 1,001,400 917,648 783,542 708,494 649,953 505,090 394,829 167,422	3,909 9,861 4,741 7,395 24,581 25,913 61,856 20,067 11,924 3,147	0.0031 0.0084 0.0047 0.0081 0.0314 0.0366 0.0952 0.0397 0.0302 0.0188	0.9969 0.9916 0.9953 0.9919 0.9686 0.9634 0.9048 0.9603 0.9698	93.60 93.31 92.53 92.09 91.35 88.49 85.25 77.14 74.07 71.84

#### ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND

PLACEMENT BAND 1965-2013 EXPERIENCE BAND 1965-201				D 1965-2013	
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	107,506 107,506 107,506 107,506 93,561 80,001 34,186 5,690	820 695 27,215 11,417 5,690	0.0000 0.0000 0.0000 0.0076 0.0074 0.3402 0.3340 1.0000	1.0000 1.0000 1.0000 0.9924 0.9926 0.6598 0.6660	70.48 70.48 70.48 70.48 69.95 69.43 45.81 30.51

NEWFOUNDLAND POWER INC. ACCOUNT 366.10 - DISTRIBUTION - WATT-HOUR METERS ORIGINAL AND SMOOTH SURVIVOR CURVES



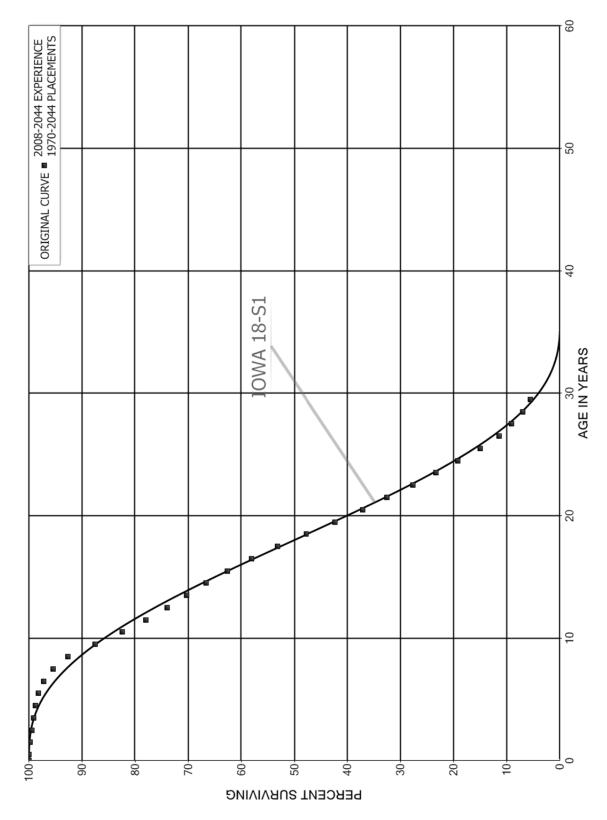
#### ACCOUNT 366.10 - DISTRIBUTION - WATT-HOUR METERS

PLACEMENT	BAND 1966-2044		EXPER	RIENCE BAN	D 2008-2044
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5	58,913,469 57,536,146 56,705,914 55,705,797 54,498,492 52,766,810 50,896,223	13,282 66,585 106,710 254,484 249,604 371,433 591,881	0.0002 0.0012 0.0019 0.0046 0.0046 0.0070	0.9998 0.9988 0.9981 0.9954 0.9954 0.9930	100.00 99.98 99.86 99.67 99.22 98.76 98.07
6.5 7.5 8.5	48,656,489 45,922,560 43,172,077	1,260,677 1,376,828 2,013,491	0.0259 0.0300 0.0466	0.9741 0.9700 0.9534	96.93 94.42 91.59
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5	39,679,193 36,077,705 33,102,532 29,751,848 26,805,521 24,104,728 21,489,632 19,208,009	2,159,768 1,671,603 2,094,469 1,644,636 1,747,362 1,896,867 1,897,717 1,654,746 1,621,112	0.0544 0.0463 0.0633 0.0553 0.0652 0.0787 0.0883 0.0861 0.0934	0.9456 0.9537 0.9367 0.9447 0.9348 0.9213 0.9117 0.9139 0.9066	87.31 82.56 78.74 73.75 69.68 65.14 60.01 54.71 50.00
18.5 19.5	17,354,913 15,532,569 13,751,788	1,674,660 1,873,011	0.1078 0.1362	0.8922 0.8638	45.33 40.44
20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5	11,569,245 10,175,964 9,000,100 7,852,371 6,812,230 5,719,707 4,940,285 3,642,372	1,431,713 1,367,647 1,340,945 1,310,894 1,236,913 1,060,547 1,058,097 684,548	0.1238 0.1344 0.1490 0.1669 0.1816 0.1854 0.2142 0.1879	0.8762 0.8656 0.8510 0.8331 0.8184 0.8146 0.7858 0.8121	34.93 30.61 26.50 22.55 18.78 15.37 12.52 9.84
28.5 29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	2,769,409 2,027,729 1,621,003 1,467,267 1,242,684 1,191,557 904,395 844,260 845,071 775,408	595,018 340,834 387,821 288,742 424,864 174,961 65,277 96,133 446,393	0.2325 0.2934 0.2103 0.2643 0.2324 0.3566 0.1935 0.0773 0.1138 0.5757	0.7675 0.7066 0.7897 0.7357 0.7676 0.6434 0.8065 0.9227 0.8862 0.4243	7.99 6.13 4.33 3.42 2.52 1.93 1.24 1.00 0.93 0.82
32.5 33.5 34.5 35.5 36.5	1,242,684 1,191,557 904,395 844,260 845,071	288,742 424,864 174,961 65,277 96,133	0.2324 0.3566 0.1935 0.0773 0.1138	0.7676 0.6434 0.8065 0.9227 0.8862	2. 1. 1. 0.

#### ACCOUNT 366.10 - DISTRIBUTION - WATT-HOUR METERS

PLACEMENT	BAND 1966-2044		EXPER	RIENCE BAN	D 2008-2044
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5	166,568 225,809 16,928 0	71,039 225,494 16,928	0.4265 0.9986 1.0000 0.0000 1.0000	0.5735 0.0014 0.0000 1.0000	0.09 0.05 0.00 0.00

NEWFOUNDLAND POWER INC.
ACCOUNT 366.20 - DISTRIBUTION - DEMAND METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 366.20 - DISTRIBUTION - DEMAND METERS

PLACEMENT I	BAND 1970-2044		EXPE	RIENCE BAN	D 2008-2044
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5	25,523,628 25,232,403 24,633,971 24,030,508 23,448,070	5,373 68,592 73,883 74,257 88,282	0.0002 0.0027 0.0030 0.0031 0.0038	0.9998 0.9973 0.9970 0.9969 0.9962	100.00 99.98 99.71 99.41 99.10
4.5 5.5 6.5 7.5 8.5	23,004,674 22,218,643 21,427,544 20,406,433 19,111,428	140,593 225,037 381,891 607,003 1,033,462	0.0061 0.0101 0.0178 0.0297 0.0541	0.9939 0.9899 0.9822 0.9703 0.9459	98.73 98.12 97.13 95.40 92.56
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	17,379,030 15,655,111 14,167,464 12,893,505 11,724,222 10,655,936 9,606,544 8,519,490 7,525,256 6,526,610	1,028,658 838,560 723,747 643,630 609,986 648,253 700,453 712,835 771,855 744,074	0.0592 0.0536 0.0511 0.0499 0.0520 0.0608 0.0729 0.0837 0.1026 0.1140	0.9408 0.9464 0.9489 0.9501 0.9480 0.9392 0.9271 0.9163 0.8974 0.8860	87.56 82.37 77.96 73.98 70.29 66.63 62.58 58.01 53.16 47.71
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	5,679,218 5,144,500 4,563,712 3,828,417 3,213,284 2,734,683 2,174,800 1,867,518 1,557,665 1,242,645	693,562 636,594 691,736 591,678 577,320 601,483 513,334 386,406 354,382 259,826	0.1221 0.1237 0.1516 0.1545 0.1797 0.2199 0.2360 0.2069 0.2275 0.2091	0.8779 0.8763 0.8484 0.8455 0.8203 0.7801 0.7640 0.7931 0.7725 0.7909	42.27 37.11 32.51 27.59 23.32 19.13 14.92 11.40 9.04 6.99
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	1,048,541 877,623 697,778 405,898 356,476 213,510 51,657	222,457 272,801 312,398 85,924 153,599 172,581 51,656	0.2122 0.3108 0.4477 0.2117 0.4309 0.8083 1.0000 0.0000 0.3191 0.3229	0.7878 0.6892 0.5523 0.7883 0.5691 0.1917 0.0000 1.0000 0.6809 0.6771	5.52 4.35 3.00 1.66 1.31 0.74 0.14 0.00 0.00

#### ACCOUNT 366.20 - DISTRIBUTION - DEMAND METERS

PLACEMENT E	BAND 1970-2044		EXPER	RIENCE BAN	D 2008-2044
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5	1 0 0	0	0.4615 0.0000 1.0000	0.5385 1.0000	0.00 0.00 0.00

ACCOUNTS 366.30 & 366.40 - INSTRUMENT TRANSFORMERS AND METERING TANKS ORIGINAL AND SMOOTH SURVIVOR CURVES NEWFOUNDLAND POWER INC.

80 1950-2013 EXPERIENCE 1938-2013 PLACEMENTS 70 ORIGINAL CURVE ■ I**\phy**A 36-R2.5 9 50 AGE IN YEARS 30 20 10 70 9 80 70 50 30 20 10 РЕВСЕИТ SURVIVING

#### ACCOUNTS 366.30 & 366.40 - INSTRUMENT TRANSFORMERS AND METERING TANKS

PLACEMENT	BAND 1938-2013		EXPER	RIENCE BAN	D 1950-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	4,939,528 4,628,667 4,426,662 4,169,215 4,097,622 3,999,240 3,889,128 3,631,895 3,555,820 3,436,759	5,774 10,278 13,261 2,091 8,148 11,961 8,741 10,380 17,499 8,380	0.0012 0.0022 0.0030 0.0005 0.0020 0.0030 0.0022 0.0029 0.0049 0.0024	0.9988 0.9978 0.9970 0.9995 0.9980 0.9970 0.9978 0.9971 0.9951	100.00 99.88 99.66 99.36 99.12 98.82 98.60 98.32 97.83
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	3,352,854 3,282,866 3,188,801 3,099,424 3,057,585 3,025,696 2,977,870 2,936,504 2,890,293 2,844,428	12,391 11,231 18,468 13,559 13,053 27,354 23,080 14,909 19,490 29,355	0.0037 0.0034 0.0058 0.0044 0.0043 0.0090 0.0078 0.0051 0.0067 0.0103	0.9963 0.9966 0.9942 0.9956 0.9957 0.9910 0.9922 0.9949 0.9933 0.9897	97.59 97.23 96.90 96.34 95.92 95.51 94.64 93.91 93.43 92.80
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	2,742,558 2,703,635 2,446,327 2,328,167 2,113,714 1,966,156 1,811,775 1,658,427 1,546,658 1,433,879	36,842 55,346 25,446 34,589 46,825 33,026 61,945 53,591 42,135 66,266	0.0134 0.0205 0.0104 0.0149 0.0222 0.0168 0.0342 0.0323 0.0272 0.0462	0.9866 0.9795 0.9896 0.9851 0.9778 0.9832 0.9658 0.9677 0.9728 0.9538	91.85 90.61 88.76 87.83 86.53 84.61 83.19 80.35 77.75 75.63
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	1,229,446 1,139,407 1,097,801 1,002,948 904,440 766,186 678,340 552,850 453,817 320,275	24,341 17,458 20,089 24,228 8,709 11,401 11,268 7,248 6,498 6,782	0.0198 0.0153 0.0183 0.0242 0.0096 0.0149 0.0166 0.0131 0.0143 0.0212	0.9802 0.9847 0.9817 0.9758 0.9904 0.9851 0.9834 0.9869 0.9857	72.14 70.71 69.63 68.35 66.70 66.06 65.07 63.99 63.15 62.25



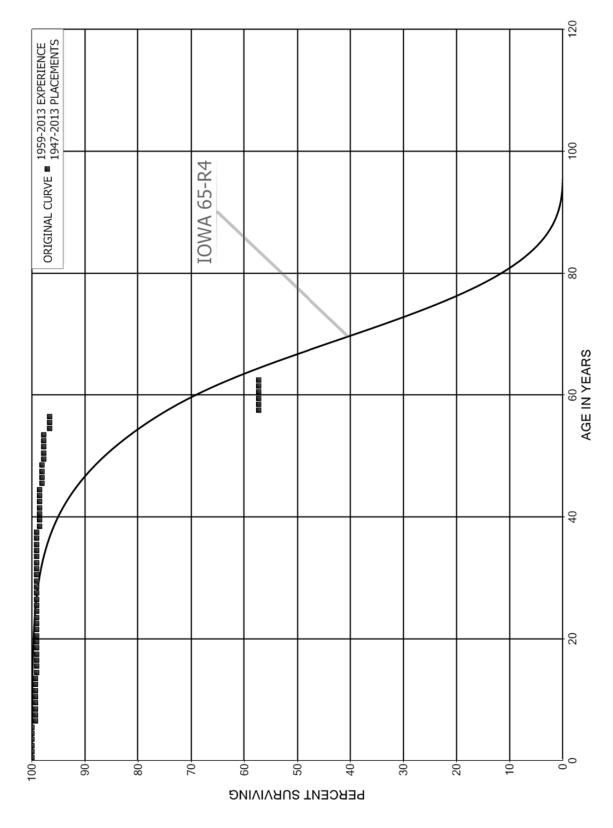
# ACCOUNTS 366.30 & 366.40 - INSTRUMENT TRANSFORMERS AND METERING TANKS ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2013 EXPERIEN				RIENCE BAN	D 1950-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5	282,900 246,719 203,519 181,500 142,078 125,647 103,125 89,543 56,178 42,409	3,693 1,929 3,835 6,002 4,927 2,400 873 453 211 423	0.0131 0.0078 0.0188 0.0331 0.0347 0.0191 0.0085 0.0051 0.0038	0.9869 0.9922 0.9812 0.9669 0.9653 0.9809 0.9915 0.9949 0.9962 0.9900	60.93 60.14 59.67 58.54 56.61 54.64 53.60 53.15 52.88 52.68
49.5 50.5 51.5 52.5 53.5	30,546 19,322 13,688 11,541 6,350	1,208 169 85 212 342	0.0396 0.0088 0.0062 0.0183 0.0538	0.9604 0.9912 0.9938 0.9817 0.9462	52.15 50.09 49.65 49.34 48.44

54.5

45.83

ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCT AND MANHOLES ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCT AND MANHOLES

PLACEMENT	BAND 1947-2013		EXPER	RIENCE BAN	D 1959-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	9,061,101 8,336,864 5,268,175 4,963,301 4,956,477 4,847,413 4,748,826 4,797,259 4,749,174 4,678,827	1,547 31,599	0.0000 0.0000 0.0003 0.0000 0.0000 0.0000 0.0067 0.0000 0.0000	1.0000 1.0000 0.9997 1.0000 1.0000 0.9933 1.0000 1.0000	100.00 100.00 100.00 99.97 99.97 99.97 99.31 99.31
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	4,615,873 4,434,017 4,240,201 4,193,034 4,109,720 4,100,008 4,099,789 4,099,789 4,075,155 4,075,155	2,079 9,712 219	0.0005 0.0000 0.0000 0.0024 0.0001 0.0000 0.0000 0.0000	0.9995 1.0000 1.0000 0.9976 0.9999 1.0000 1.0000 1.0000	99.31 99.26 99.26 99.26 99.03 99.02 99.02 99.02
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	4,057,584 4,092,953 3,831,952 3,230,918 3,187,627 3,156,058 3,156,058 3,101,598 2,669,334 2,634,219		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	99.02 99.02 99.02 99.02 99.02 99.02 99.02 99.02 99.02
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	2,727,627 2,687,532 2,602,420 2,364,636 1,643,930 1,556,436 1,513,291 1,087,891 942,576 828,132	5,340	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0057 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9943 1.0000	99.02 99.02 99.02 99.02 99.02 99.02 99.02 99.02 99.02



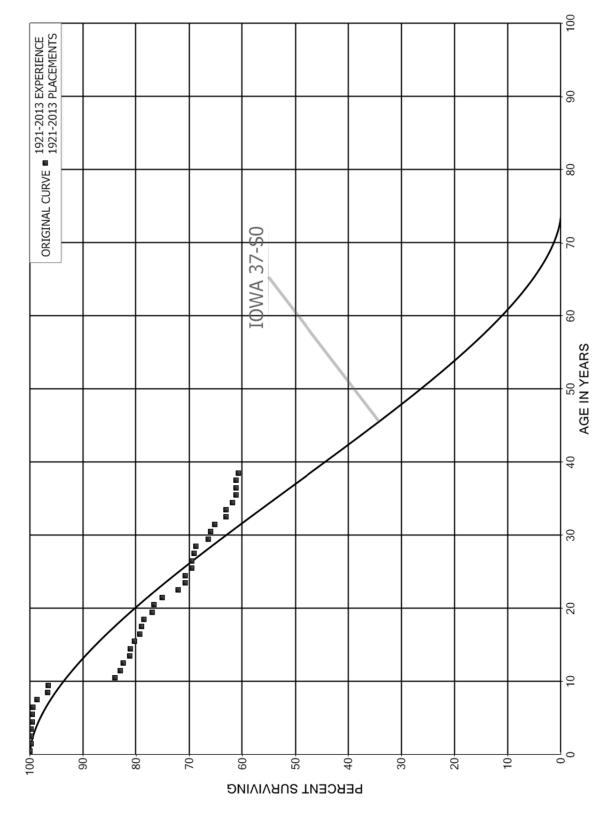
### ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCT AND MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT I	BAND 1947-2013		EXPER	RIENCE BAN	D 1959-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	568,947 568,098 563,769 555,818 552,226 552,226 549,922 465,110 204,492 174,173	2,304	0.0000 0.0000 0.0000 0.0000 0.0000 0.0042 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9958 1.0000 1.0000 1.0000	98.46 98.46 98.46 98.46 98.46 98.05 98.05 98.05 98.05
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	173,635 173,635 173,635 173,635 173,635 167,477 167,477 167,477 99,263	2,050 68,214	0.0000 0.0000 0.0000 0.0000 0.0118 0.0000 0.0000 0.4073 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9882 1.0000 1.0000 0.5927 1.0000	97.75 97.75 97.75 97.75 97.75 96.59 96.59 96.59 57.25
59.5 60.5 61.5 62.5 63.5 64.5 65.5	99,263 99,263 99,263 99,263 99,263 99,263	99,263	0.0000 0.0000 0.0000 0.0000 0.0000 1.0000	1.0000 1.0000 1.0000 1.0000 1.0000	57.25 57.25 57.25 57.25 57.25 57.25 57.25

66.5

NEWFOUNDLAND POWER INC.
ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL ORIGINAL AND SMOOTH SURVIVOR CURVES



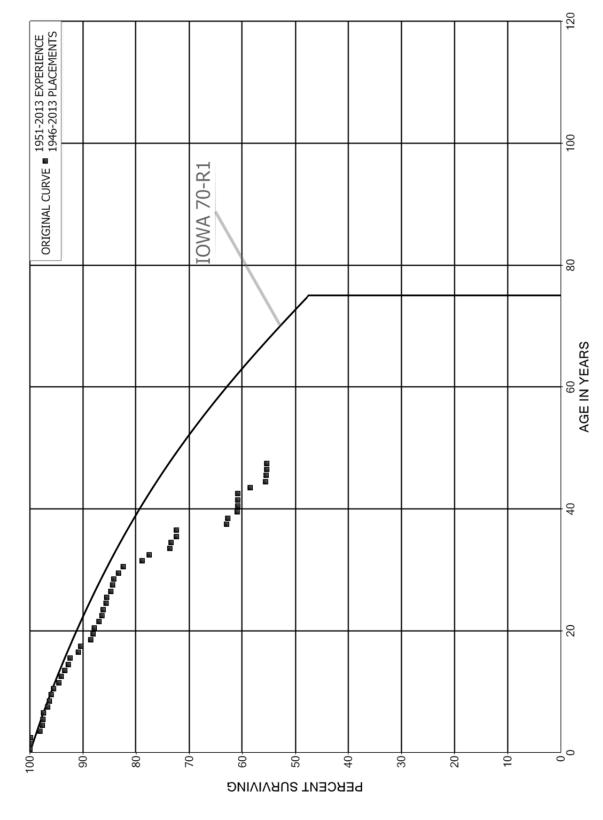
#### ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

PLACEMENT H	BAND 1921-2013		EXPER	RIENCE BAN	D 1921-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	2,327,531 2,318,283 2,171,469 1,983,318 1,911,343 1,926,907 1,868,959 1,887,731 2,054,739 2,027,529	200 6,000 1,100 2,470 873 2,617 13,211 43,530 2,218	0.0001 0.0026 0.0000 0.0006 0.0013 0.0005 0.0014 0.0070 0.0212 0.0011	0.9999 0.9974 1.0000 0.9994 0.9987 0.9995 0.9986 0.9930 0.9788 0.9989	100.00 99.99 99.73 99.73 99.68 99.55 99.50 99.36 98.67 96.58
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	2,370,103 2,076,959 2,048,216 2,018,698 1,949,526 1,939,554 1,909,112 1,860,586 1,848,978 1,853,114	308,532 22,743 14,082 29,534 4,884 17,460 23,659 9,047 8,980 37,559	0.1302 0.0110 0.0069 0.0146 0.0025 0.0090 0.0124 0.0049 0.0049	0.8698 0.9890 0.9931 0.9854 0.9975 0.9910 0.9876 0.9951 0.9951	96.47 83.91 83.00 82.42 81.22 81.02 80.29 79.29 78.91 78.52
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,820,031 1,863,991 1,828,712 1,680,591 1,607,431 1,583,525 1,459,979 1,399,991 1,336,382 935,393	6,319 37,918 74,488 31,505 423 25,930 961 7,483 6,981 31,999	0.0035 0.0203 0.0407 0.0187 0.0003 0.0164 0.0007 0.0053 0.0052 0.0342	0.9965 0.9797 0.9593 0.9813 0.9997 0.9836 0.9993 0.9947 0.9948 0.9658	76.93 76.66 75.10 72.05 70.69 70.68 69.52 69.47 69.10 68.74
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	833,442 678,651 621,048 587,465 586,632 544,672 478,245 430,010 393,247 452,519	5,100 8,717 20,057 11,631 5,467	0.0061 0.0128 0.0323 0.0000 0.0198 0.0100 0.0000 0.0000 0.0072 0.0000	0.9939 0.9872 0.9677 1.0000 0.9802 0.9900 1.0000 1.0000 0.9928 1.0000	66.39 65.98 65.14 63.03 63.03 61.78 61.16 61.16 61.16

#### ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

PLACEMENT BAND 1921-2013			EXPER	RIENCE BAN	D 1921-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5	414,305 385,551 392,259 365,482 313,558 290,970 256,927 247,338 230,309 228,504	7,154 2,250 12,815	0.0000 0.0000 0.0182 0.0062 0.0000 0.0440 0.0000 0.0000 0.0000	1.0000 1.0000 0.9818 0.9938 1.0000 0.9560 1.0000 1.0000	60.72 60.72 59.62 59.25 59.25 56.64 56.64 56.64
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	159,801 65,674 62,345 53,394 53,394 17,629 15,300	500 15,300	0.0000 0.0076 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9924 1.0000 1.0000 1.0000 1.0000	56.64 56.64 56.21 56.21 56.21 56.21 56.21 56.21

NEWFOUNDLAND POWER INC.
ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE
ORIGINAL AND SMOOTH SURVIVOR CURVES



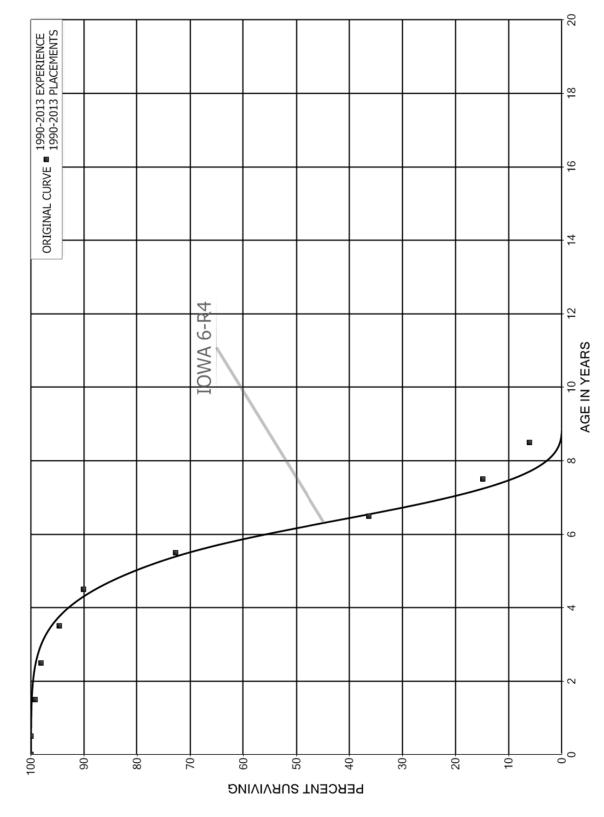
#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

PLACEMENT 1	BAND 1946-2013		EXPER	RIENCE BAN	D 1951-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	46,627,905 44,780,879 43,456,745 40,894,539 39,274,586 38,674,610 37,638,318 36,256,427 34,512,405	75,969 15,713 700,931 196,218 53,692 25,635 276,877 120,387	0.0000 0.0017 0.0004 0.0171 0.0050 0.0014 0.0007 0.0076 0.0035	1.0000 0.9983 0.9996 0.9829 0.9950 0.9986 0.9993 0.9924	100.00 100.00 99.83 99.79 98.08 97.59 97.46 97.39 96.65
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	33,904,011 33,425,151 32,931,924 32,186,517 31,571,146 30,521,114 28,972,034 28,273,551 27,014,497 26,509,269 25,826,183	116,103 149,442 350,547 159,527 214,009 239,902 104,790 455,659 137,851 549,646 152,009	0.0034 0.0045 0.0106 0.0050 0.0068 0.0079 0.0036 0.0161 0.0051 0.0207 0.0059	0.9966 0.9955 0.9894 0.9950 0.9932 0.9921 0.9964 0.9839 0.9949 0.9793	96.31 95.98 95.55 94.53 94.07 93.43 92.69 92.36 90.87 90.41 88.53
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	24,860,729 23,696,504 22,810,382 22,267,132 10,790,403 9,830,300 8,671,744 7,320,035 6,988,950 7,142,651	51,293 250,275 144,365 52,966 60,994 21,327 79,451 25,343 21,663 68,198	0.0021 0.0106 0.0063 0.0024 0.0057 0.0022 0.0092 0.0035 0.0031 0.0095	0.9979 0.9894 0.9937 0.9976 0.9943 0.9978 0.9908 0.9965 0.9969	88.01 87.83 86.90 86.35 86.15 85.66 85.47 84.69 84.40 84.14
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	7,017,479 6,826,120 6,114,974 5,881,739 3,323,712 2,848,093 2,521,513 2,157,876 1,819,198 1,547,645	80,081 289,663 107,567 292,496 8,830 39,107 2,912 279,188 8,494 44,300	0.0114 0.0424 0.0176 0.0497 0.0027 0.0137 0.0012 0.1294 0.0047 0.0286	0.9886 0.9576 0.9824 0.9503 0.9973 0.9863 0.9988 0.8706 0.9953 0.9714	83.33 82.38 78.89 77.50 73.64 73.45 72.44 72.36 62.99 62.70

#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

PLACEMENT	BAND 1946-2013		EXPER	RIENCE BAN	D 1951-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 46.5	1,322,529 1,294,466 1,269,575 1,265,489 1,208,099 483,539 475,753 472,954 362,994	600 1,094 47,593 60,859 425 1,005	0.0005 0.0008 0.0000 0.0376 0.0504 0.0009 0.0021 0.0000 0.0328	0.9995 0.9992 1.0000 0.9624 0.9496 0.9991 0.9979 1.0000 0.9672	60.91 60.88 60.83 60.83 58.54 55.59 55.54 55.42
48.5 49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	348,007 347,035 334,205 330,362 253,530 211,327 209,280 30,675 2,100 2,100 2,100	972 500 117,499	0.0028 0.0000 0.0015 0.3557 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9972 1.0000 0.9985 0.6443 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	53.61 53.46 53.38 34.39 34.39 34.39 34.39 34.39 34.39 34.39
59.5 60.5	2,100		0.0000	1.0000	34.39 34.39

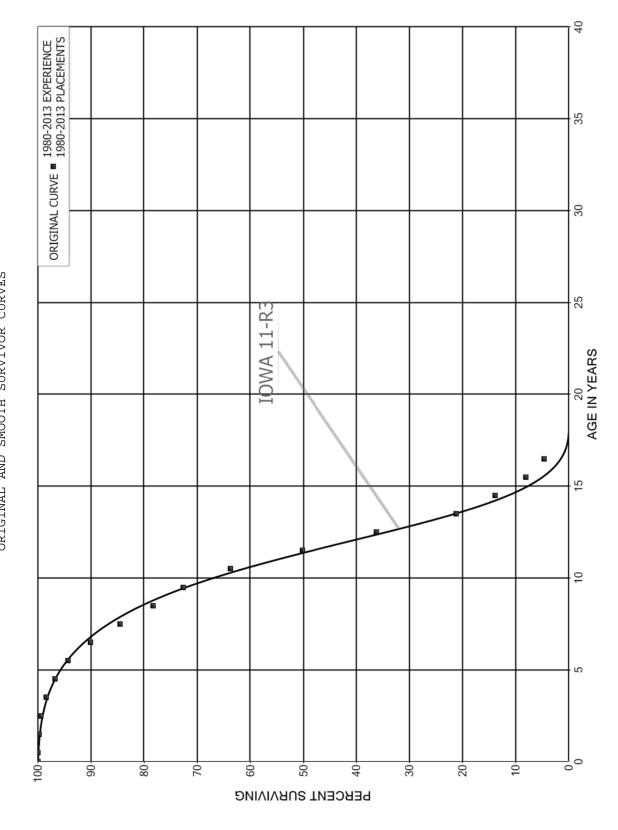
ACCOUNT 378.20 - TRANSPORTATION - PICK-UP TRUCKS AND VANS ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 378.20 - TRANSPORTATION - PICK-UP TRUCKS AND VANS

PLACEMENT	BAND 1990-2013		EXPER	RIENCE BAN	D 1990-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	19,295,394		0.0000	1.0000	100.00
0.5	18,128,703	147,177	0.0081	0.9919	100.00
1.5	17,513,217	206,596	0.0118	0.9882	99.19
2.5	16,925,742	586,965	0.0347	0.9653	98.02
3.5	15,786,874	756,005	0.0479	0.9521	94.62
4.5	13,940,511	2,692,967	0.1932	0.8068	90.09
5.5	10,008,675	5,015,013	0.5011	0.4989	72.69
6.5	4,573,831	2,698,835	0.5901	0.4099	36.26
7.5	1,581,864	941,792	0.5954	0.4046	14.87
8.5	402,055	270,451	0.6727	0.3273	6.02
9.5	19,550	19,546	0.9998	0.0002	1.97
10.5	3	3	0.9564	0.0436	0.00
11.5	0		0.0000	1.0000	0.00
12.5					0.00

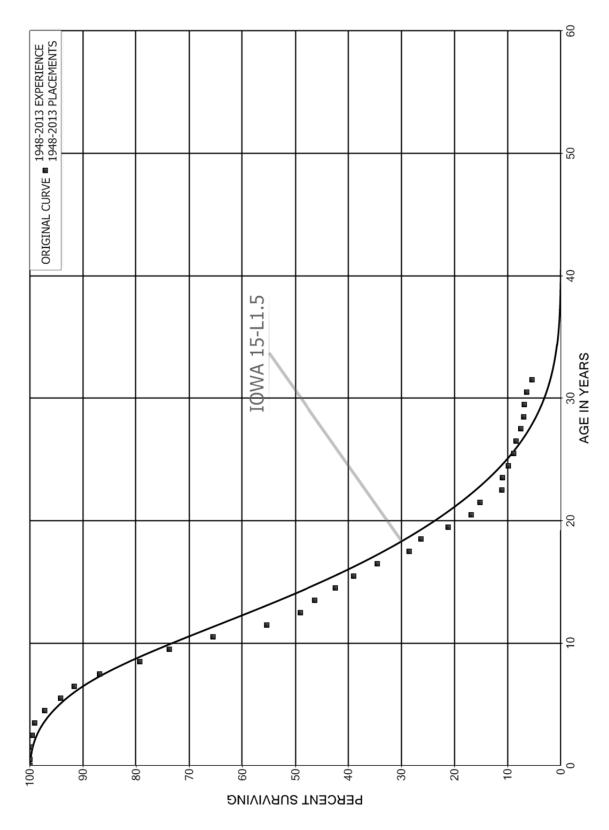
- TRANSPORTATION - TRUCKS WITH DERRICKS AND LINE AND STAKE BODIES ORIGINAL AND SMOOTH SURVIVOR CURVES NEWFOUNDLAND POWER INC. ACCOUNTS 378.30 & 378.40



### ACCOUNTS 378.30 & 378.40 - TRANSPORTATION - TRUCKS WITH DERRICKS AND LINE AND STAKE BODIES

PLACEMENT I	EXPER	RIENCE BAN	D 1980-2013		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5	43,666,465 41,264,568 39,850,384 37,167,546 34,960,998 33,374,973 31,736,362 28,831,012 25,308,724 22,371,596 19,054,235 14,219,879 11,034,170 7,353,236 3,970,451 2,468,960 1,333,155 762,890	118,779 141,377 357,566 613,088 815,349 1,429,793 1,765,046 1,879,119 1,631,180 2,324,787 3,010,044 3,078,944 3,055,785 1,382,164 1,033,914 570,272 297,204	0.0000 0.0029 0.0035 0.0096 0.0175 0.0244 0.0451 0.0612 0.0742 0.0729 0.1220 0.2117 0.2790 0.4156 0.3481 0.4188 0.4278 0.3896	1.0000 0.9971 0.9965 0.9904 0.9825 0.9756 0.9549 0.9388 0.9258 0.9271 0.8780 0.7883 0.7210 0.5844 0.6519 0.5812 0.5722 0.6104	100.00 100.00 99.71 99.36 98.40 96.68 94.32 90.07 84.55 78.27 72.57 63.71 50.23 36.21 21.16 13.80 8.02 4.59
17.5 18.5	423,688 207,183	233,123 23,975	0.5502 0.1157	0.4498 0.8843	2.80 1.26
19.5 20.5 21.5 22.5 23.5 24.5	183,208 58,638 36,568 6,238 6,238	124,571 53,688 30,330	0.6799 0.9156 0.8294 0.0000 0.0000	0.3201 0.0844 0.1706 1.0000	1.11 0.36 0.03 0.01 0.01

NEWFOUNDLAND POWER INC.
ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS
ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

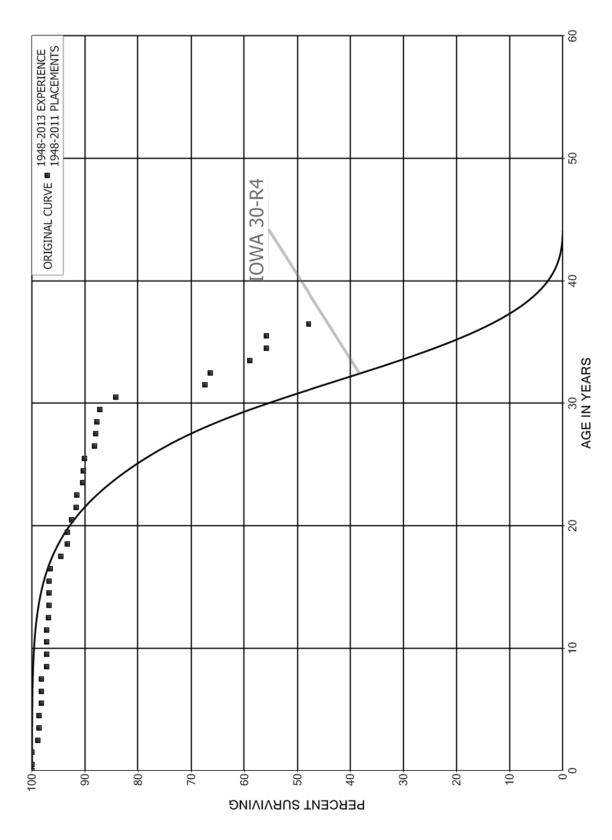
PLACEMENT	BAND 1948-2013		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5	4,457,248 4,302,488 4,185,716 4,173,820 4,144,848 3,922,617 3,537,281 3,450,565 3,151,410	8,107 11,896 17,907 79,965 123,083 94,772 181,171 274,379	0.0000 0.0019 0.0028 0.0043 0.0193 0.0314 0.0268 0.0525 0.0871	1.0000 0.9981 0.9972 0.9957 0.9807 0.9686 0.9732 0.9475 0.9129	100.00 100.00 99.81 99.53 99.10 97.19 94.14 91.62 86.81
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	2,742,737  2,406,081  2,115,738  1,787,719  1,564,448  1,470,306  1,347,829  1,237,230  1,097,907  907,671 814,102	191,105 269,671 324,825 206,576 86,681 125,463 107,864 140,808 191,075 71,470 159,411	0.0697 0.1121 0.1535 0.1156 0.0554 0.0853 0.0800 0.1138 0.1740 0.0787 0.1958	0.9303 0.8879 0.8465 0.8844 0.9446 0.9147 0.9200 0.8862 0.8260 0.9213 0.8042	79.25 73.73 65.46 55.41 49.01 46.29 42.34 38.96 34.52 28.51 26.27
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	603,914 475,452 424,689 305,427 302,588 271,318 239,490 227,987 201,924 188,904	122,380 46,304 114,786 5,250 28,876 28,491 11,503 25,463 13,020 3,545	0.2026 0.0974 0.2703 0.0172 0.0954 0.1050 0.0480 0.1117 0.0645 0.0188	0.7974 0.9026 0.7297 0.9828 0.9046 0.8950 0.9520 0.8883 0.9355 0.9812	21.13 16.84 15.20 11.09 10.90 9.86 8.83 8.40 7.46 6.98
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	185,359 173,126 147,108 147,108 146,526 89,286 80,580 80,580 76,400 43,922	12,233 26,019 332 47,995 8,706 4,181 15,153 0	0.0660 0.1503 0.0000 0.0023 0.3276 0.0975 0.0000 0.0519 0.1983 0.0000	0.9340 0.8497 1.0000 0.9977 0.6724 0.9025 1.0000 0.9481 0.8017 1.0000	6.85 6.40 5.44 5.43 3.65 3.29 3.29 3.12 2.50



#### ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

PLACEMENT :	BAND 1948-2013		EXPE	RIENCE BAN	D 1948-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	43,921		0.0000	1.0000	2.50
40.5	43,921		0.0000	1.0000	2.50
41.5	43,921		0.0000	1.0000	2.50
42.5	43,921	39,739	0.9048	0.0952	2.50
43.5	4,183		0.0000	1.0000	0.24
44.5	4,183	0	0.0001	0.9999	0.24
45.5	4,182		0.0000	1.0000	0.24
46.5	4,182	4,182	1.0000		0.24
47.5					

NEWFOUNDLAND POWER INC.
ACCOUNT 382.00 - RADIO SITES
ORIGINAL AND SMOOTH SURVIVOR CURVES



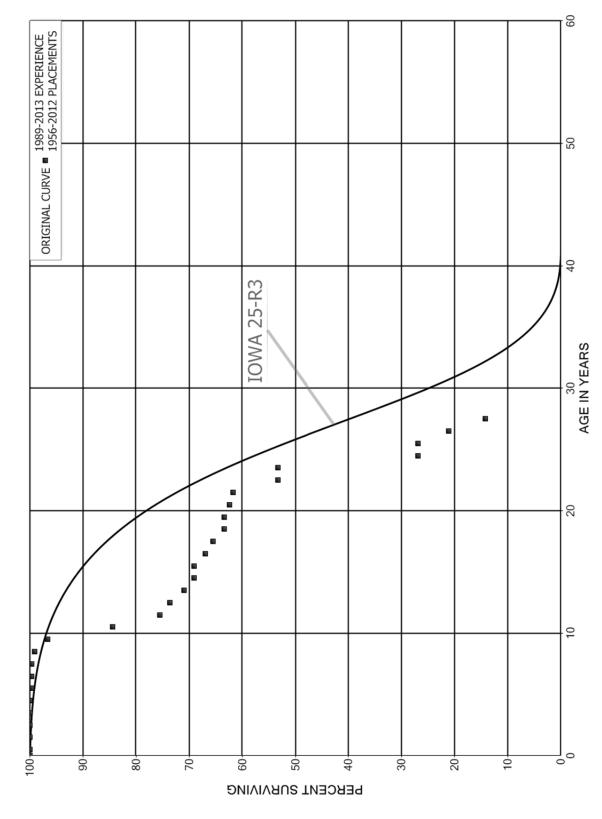
#### ACCOUNT 382.00 - RADIO SITES

PLACEMENT E	BAND 1948-2011		EXPER	RIENCE BAN	D 1948-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	615,904 615,682 615,682 605,686 577,012 593,132 590,317 591,282 617,342 611,932	7,217 1,239 2,815 6,302 93	0.0000 0.0000 0.0117 0.0020 0.0000 0.0047 0.0000 0.0000 0.0102 0.0002	1.0000 1.0000 0.9883 0.9980 1.0000 0.9953 1.0000 1.0000 0.9898 0.9998	100.00 100.00 100.00 98.83 98.63 98.63 98.16 98.16 98.16
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	613,999 614,209 614,209 610,728 601,715 601,715 603,002 602,002 589,375 583,724	1,612 1,250 91 1,000 12,627 7,349 352	0.0000 0.0000 0.0026 0.0020 0.0000 0.0002 0.0017 0.0210 0.0125 0.0006	1.0000 1.0000 0.9974 0.9980 1.0000 0.9998 0.9983 0.9790 0.9875 0.9994	97.14 97.14 97.14 96.89 96.69 96.69 96.67 96.51 94.49 93.31
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	583,372 576,743 569,974 569,362 562,275 561,775 543,013 531,737 458,809 317,000	4,564 5,804 612 7,087 500 1,098 11,276 1,469 1,625 1,648	0.0078 0.0101 0.0011 0.0124 0.0009 0.0020 0.0208 0.0028 0.0035 0.0052	0.9922 0.9899 0.9989 0.9876 0.9991 0.9980 0.9792 0.9972 0.9965 0.9948	93.25 92.52 91.59 91.49 90.36 90.28 90.10 88.23 87.98 87.67
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	254,550 126,118 97,272 95,931 85,134 80,598 80,598 21,075 16,235 10,099	8,941 25,146 1,341 10,797 4,536 11,592 4,840	0.0351 0.1994 0.0138 0.1125 0.0533 0.0000 0.1438 0.2297 0.0000 0.1171	0.9649 0.8006 0.9862 0.8875 0.9467 1.0000 0.8562 0.7703 1.0000 0.8829	87.22 84.15 67.37 66.45 58.97 55.83 55.83 47.80 36.82 36.82

#### ACCOUNT 382.00 - RADIO SITES

PLACEMENT	BAND 1948-2011		EXPER	RIENCE BAN	D 1948-2013
AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	8,916	210	0.0236	0.9764	32.51
40.5	8,706		0.0000	1.0000	31.74
41.5	8,706		0.0000	1.0000	31.74
42.5	8,706	3,945	0.4531	0.5469	31.74
43.5	4,761		0.0000	1.0000	17.36
44.5	4,761	195	0.0410	0.9590	17.36
45.5	4,566		0.0000	1.0000	16.65
46.5	3,097		0.0000	1.0000	16.65
47.5					16.65

ACCOUNT 384.00 - COMMUNICATIONS - CABLES AND PROTECTION ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 384.00 - COMMUNICATIONS - CABLES AND PROTECTION

PLACEMENT	BAND 1956-2012		EXPE	RIENCE BAN	D 1989-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	3,514,025 3,544,100 3,505,982 3,463,088 3,534,898 3,182,124 2,978,406 2,968,166 3,088,760	775 11,537 16,593	0.0000 0.0000 0.0000 0.0002 0.0000 0.0036 0.0000 0.0000 0.0054	1.0000 1.0000 1.0000 0.9998 1.0000 0.9964 1.0000 1.0000	100.00 100.00 100.00 100.00 99.98 99.98 99.62 99.62
8.5 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	3,003,691 3,019,716 2,418,196 2,023,726 1,740,774 1,513,376 1,449,602 1,245,479 1,212,509 1,217,658 1,177,274	75,717 380,346 254,491 50,329 63,643 39,546 39,444 25,283 40,384	0.0252 0.1260 0.1052 0.0249 0.0366 0.0261 0.0000 0.0317 0.0209 0.0332 0.0000	0.9748 0.8740 0.8948 0.9751 0.9634 0.9739 1.0000 0.9683 0.9791 0.9668 1.0000	99.08 96.58 84.42 75.53 73.65 70.96 69.11 69.11 66.92 65.52 63.35
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,177,274 1,177,809 1,164,319 512,760 305,260 154,001 156,689 122,901 82,923 72,994	16,915 13,491 158,975 0 151,259 33,788 39,978	0.0144 0.0115 0.1365 0.0000 0.4955 0.0000 0.2156 0.3253 0.0000 0.2391	0.9856 0.9885 0.8635 1.0000 0.5045 1.0000 0.7844 0.6747 1.0000 0.7609	63.35 62.44 61.73 53.30 53.30 26.89 26.89 21.09 14.23 14.23
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	56,393 19,533 19,494 16,793 16,939 9,728 9,728 9,728 9,728	36,861 39 11,434 379 7,211	0.6536 0.0020 0.5865 0.0226 0.4257 0.0000 0.0000 0.0000 0.0873 0.0000	0.3464 0.9980 0.4135 0.9774 0.5743 1.0000 1.0000 0.9127 1.0000	10.83 3.75 3.74 1.55 1.51 0.87 0.87 0.87 0.87

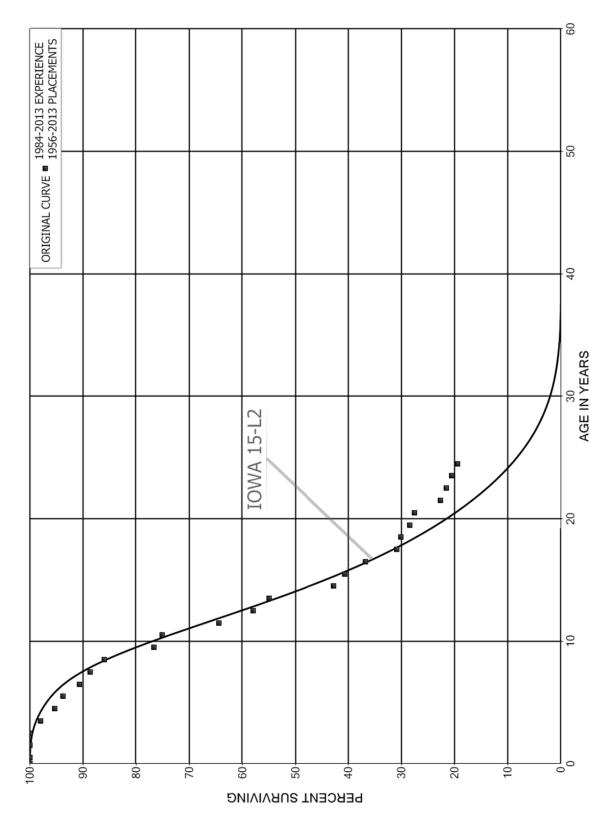


#### ACCOUNT 384.00 - COMMUNICATIONS - CABLES AND PROTECTION

PLACEMENT :	BAND 1956-2012		EXPE	RIENCE BAN	D 1989-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5	8,879 8,879 1,617 1,092 1,092	7,262 525 1,092	0.0000 0.8179 0.3247 0.0000 0.0000 1.0000	1.0000 0.1821 0.6753 1.0000 1.0000	0.79 0.79 0.14 0.10 0.10

NEWFOUNDLAND POWER INC.

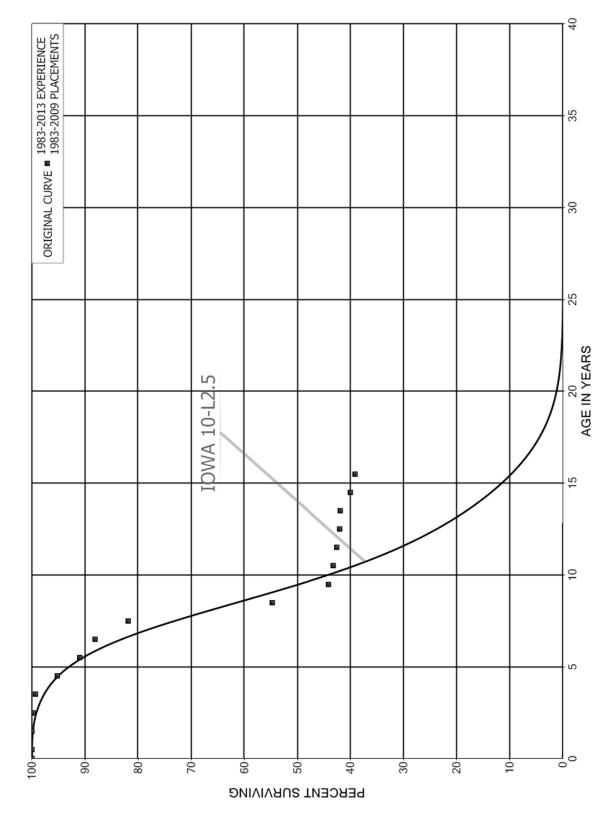
ACCOUNT 386.00 - COMMUNICATIONS - SCADA EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES



#### ACCOUNT 386.00 - COMMUNICATIONS - SCADA EQUIPMENT

PLACEMENT	BAND 1956-2013		EXPE	RIENCE BAN	D 1984-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	10,881,424 12,574,653 12,698,441 12,685,734 13,317,372 13,245,252 12,705,552 12,005,103 11,840,468 11,251,585	1,140 263,736 351,497 223,214 413,854 265,346 368,048 1,213,663	0.0000 0.0000 0.0001 0.0208 0.0264 0.0169 0.0326 0.0221 0.0311 0.1079	1.0000 1.0000 0.9999 0.9792 0.9736 0.9831 0.9674 0.9779 0.9689 0.8921	100.00 100.00 100.00 99.99 97.91 95.33 93.72 90.67 88.66 85.91
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	9,932,512 10,080,271 8,512,409 7,216,318 5,615,024 4,225,403 4,096,880 3,293,895 2,791,967 3,025,192	206,559 1,429,848 849,684 380,875 1,244,305 205,954 397,422 523,773 69,587 172,809	0.0208 0.1418 0.0998 0.0528 0.2216 0.0487 0.0970 0.1590 0.0249 0.0571	0.9792 0.8582 0.9002 0.9472 0.7784 0.9513 0.9030 0.8410 0.9751 0.9429	76.64 75.05 64.40 57.97 54.91 42.75 40.66 36.72 30.88 30.11
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	2,543,135 2,455,220 1,928,048 1,674,366 1,652,690 1,263,324 1,180,143 988,801 625,280 589,811	83,849 432,609 95,309 80,957 89,311 76,095 130,181 40,288 6,993 7,104	0.0330 0.1762 0.0494 0.0484 0.0540 0.0602 0.1103 0.0407 0.0112 0.0120	0.9670 0.8238 0.9506 0.9516 0.9460 0.9398 0.8897 0.9593 0.9888	28.39 27.45 22.62 21.50 20.46 19.35 18.19 16.18 15.52 15.35
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	382,269 31,819 31,819 15,080 8,937 6,602 6,602 5,978 5,464	7,382 2,335 624 514	0.0000 0.0000 0.2320 0.0000 0.0000 0.2613 0.0000 0.0945 0.0860 0.0000	1.0000 1.0000 0.7680 1.0000 1.0000 0.7387 1.0000 0.9055 0.9140 1.0000	15.16 15.16 15.16 11.65 11.65 11.65 8.60 8.60 7.79 7.12
39.5					7.12

ACCOUNT 389.10 - TELEPHONE EQUIPMENT - TELEPHONE AND DATA COLLECTION EQUIPMENT ORIGINAL AND SMOOTH SURVIVOR CURVES NEWFOUNDLAND POWER INC.



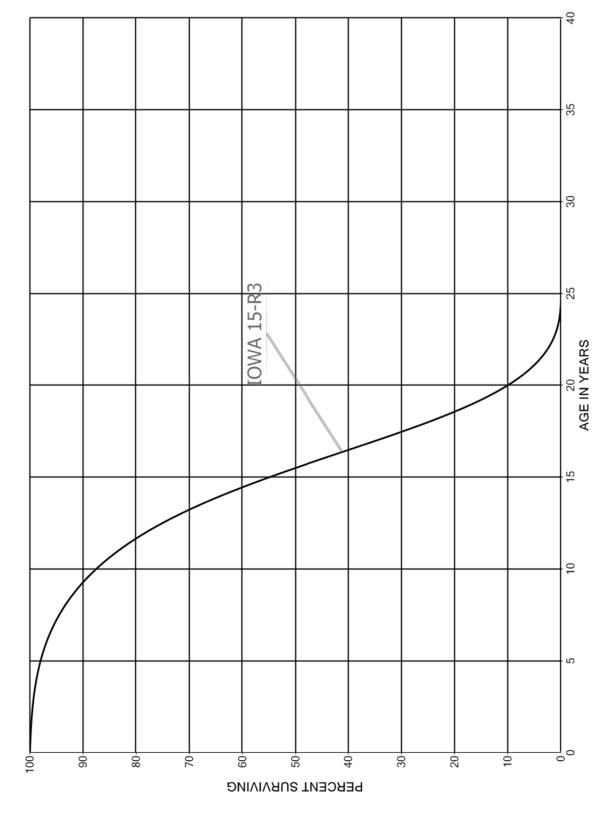
## ACCOUNT 389.10 - TELEPHONE EQUIPMENT - TELEPHONE AND DATA COLLECTION EQUIPMENT

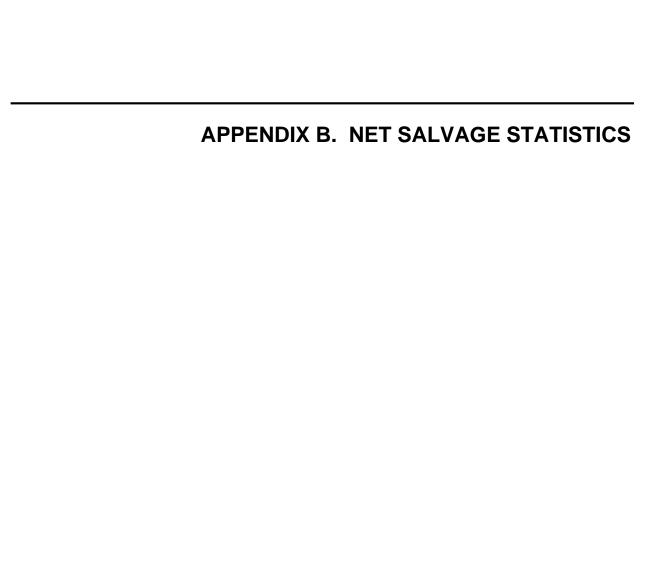
#### ORIGINAL LIFE TABLE

PLACEMENT	BAND 1983-2009		EXPER	RIENCE BAN	D 1983-2013
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	2,445,462 2,445,462 2,981,945 3,015,791 2,946,952 2,811,000 2,659,313 2,574,960 2,208,345 1,473,774	7,202 13,912 122,064 126,640 84,353 181,941 729,893 288,069	0.0000 0.0000 0.0024 0.0046 0.0414 0.0451 0.0317 0.0707 0.3305 0.1955	1.0000 1.0000 0.9976 0.9954 0.9586 0.9549 0.9683 0.9293 0.6695 0.8045	100.00 100.00 100.00 99.76 99.30 95.19 90.90 88.01 81.79 54.76
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	1,185,705 1,192,905 1,173,039 1,156,953 1,130,789 1,049,658 234,933 187,761 36,591 36,591	22,828 19,866 16,086 2,741 49,533 22,735 29,737 29,188 0 5,258	0.0193 0.0167 0.0137 0.0024 0.0438 0.0217 0.1266 0.1555 0.0000 0.1437	0.9807 0.9833 0.9863 0.9976 0.9562 0.9783 0.8734 0.8445 1.0000 0.8563	44.06 43.21 42.49 41.91 41.81 39.98 39.11 34.16 28.85 28.85
19.5 20.5 21.5 22.5	26,592 11,588 11,588 1	15,004 11,587 1	0.5642 0.0000 0.9999 1.0000	0.4358 1.0000 0.0001	24.70 10.77 10.77 0.00

23.5

NEWFOUNDLAND POWER INC.
ACCOUNT 391.00 - COMMUNICATIONS - TEST EQUIPMENT SMOOTH SURVIVOR CURVE





#### HYDRO PRODUCTION PLANT - ALL ACCOUNTS

#### SUMMARY OF BOOK SALVAGE

	REGULAR	COST OI REMOVAI		G R O S REUSE	S S A	ALVAG: FINAL	Е	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT		PCT	AMOUNT	PCT		PCT
1976	13,026	4,263	33		0		0	4,263-	33-
1977	93,651	5,340	6		0	6,172	7	832	1
1978	153,825	11,880	8		0	1,383	1	10,497-	7 –
1979	217,689	42,834	20		0		0	42,834-	20-
1980	58,096	7,434	13		0		0	7,434-	13-
1981	176,662	15,829	9		0	5,000	3	10,829-	6-
1982	112,902	13,606	12		0	291	0	13,315-	12-
1983	622,353	62,201	10		0	706	0	61,495-	10-
1984	214,685	7,248	3		0	2,448	1	4,800-	2-
1985	326,146	40,098	12		0	19,936	6	20,162-	6-
1986	213,292	40,731	19		0	37,679	18	3,052-	1-
1987	418,535	84,545	20		0	229	0	84,316-	20-
1988	122,353	25,334	21		0	83,754	68	58,420	48
1989	374,685	43,992	12		0	8 –	. 0	44,000-	12-
1990	458,300	68,601	15		0	525	0	68,076-	15-
1991	191,896	50,886	27		0		0	50,886-	27-
1992	245,358	14,431	6		0	54,166	22	39,735	16
1993	72,070	19,768	27	3,863-	5-		0	23,631-	33-
1994	181,301	41,612	23		0	182,450	101	140,838	78
1995	406,346	70,341	17		0		0	70,341-	17-
1996	180,927	37,327	21		0		0	37,327-	21-
1997	556,891	27,502	5		0		0	27,502-	5 –
1998	275,574	84,467	31		0		0	84,467-	31-
1999	778,325	270,332	35		0		0	270,332-	35-
2000	840,111	325,162	39		0		0	325,162-	39-
2001	513,250	278,683	54		0		0	278,683-	54-
2002	802,570	174,472	22		0	2,058	0	172,414-	21-
2003	443,979	80,275	18		0		0	80,275-	18-
2004	1,219,396	239,492	20		0		0	239,492-	20-
2005	282,005	107,792	38		0		0	107,792-	38-
2006	742,973	308,439	42		0		0	308,439-	42-
2007	1,280,921	605,551	47		0		0	605,551-	47-
2008	707,755	281,060	40		0		0	281,060-	40-
2009	836,483	518,819	62		0		0	518,819-	62-
2010	618,636	465,897	75		0		0	465,897-	75-
2011	959,332	340,172	35		0		0	340,172-	35-
2012	680,156	368,296	54		0	3,162	0	365,134-	54-
2013	316,073	432,934	137		0	6,853	2	426,081-	135-
TOTAL	16,708,529	5,617,646	34	3,863-	0	406,804	2	5,214,705-	31-

#### HYDRO PRODUCTION PLANT - ALL ACCOUNTS

#### SUMMARY OF BOOK SALVAGE

		COST OF		G R O S S	s s	ALVAG	E	NET	
	REGULAR	REMOVAI		REUSE		FINAL		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT P	CT	AMOUNT	PCT	AMOUNT :	PCT
THREE-	YEAR MOVING AVE	RAGES							
76-78	86,834	7,161	8		0	2,518	3	4,643-	5-
77-79	155,055	20,018	13		0	2,518	2	17,500-	11-
78-80	143,203	20,716	14		0	461	0	20,255-	14-
79-81	150,816	22,032	15		0	1,667	1	20,366-	14-
80-82	115,887	12,290	11		0	1,764	2	10,526-	9-
81-83	303,972	30,545	10		0	1,999	1	28,546-	9 –
82-84	316,647	27,685	9		0	1,148	0	26,537-	8 –
83-85	387,728	36,516	9		0	7,697	2	28,819-	7-
84-86	251,374	29,359	12		0	20,021	8	9,338-	4-
85-87	319,324	55,125	17		0	19,281	6	35,843-	11-
86-88	251,393	50,203	20		0	40,554	16	9,649-	4 –
87-89	305,191	51,290	17		0	27,992	9	23,299-	8-
88-90	318,446	45,976	14		0	28,090	9	17,885-	6-
89-91	341,627	54,493	16		0	172	0	54,321-	16-
90-92	298,518	44,639	15		0	18,230	6	26,409-	9-
91-93	169,775	28,362	17	1,288-	1-	18,055	11	11,594-	7-
92-94	166,243	25,270	15	1,288-	1-	78,872	47	52,314	31
93-95	219,906	43,907	20	1,288-	1-	60,817	28	15,622	7
94-96	256,191	49,760	19		0	60,817	24	11,057	4
95-97	381,388	45,057	12		0		0	45,057-	12-
96-98	337,797	49,765	15		0		0	49,765-	15-
97-99	536,930	127,434	24		0		0	127,434-	24-
98-00	631,337	226,654	36		0		0	226,654-	36-
99-01	710,562	291,392	41		0		0	291,392-	41-
00-02	718,644	259,439	36		0	686	0	258,753-	36-
01-03	586,600	177,810	30		0	686	0	177,124-	30-
02-04	821,982	164,746	20		0	686	0	164,060-	20-
03-05	648,460	142,520	22		0		0	142,520-	22-
04-06	748,125	218,574	29		0		0	218,574-	29-
05-07	768,633	340,594	44		0		0	340,594-	44-
06-08	910,550	398,350	44		0		0	398,350-	44-
07-09	941,720	468,477	50		0		0	468,477-	
08-10	720,958	421,925	59		0		0	421,925-	
09-11	804,817	441,629	55		0		0	441,629-	
10-12	752,708	391,455	52		0	1,054	0	390,401-	
11-13	651,854	380,467	58		0	3,338	1	377,129-	
	·	•				•		·	
FIVE-Y	EAR AVERAGE								
09-13	682,136	425,224	62		0	2,003	0	423,221-	62-
	-	•				•		-	

#### OTHER PRODUCTION PLANT - ALL ACCOUNTS

#### SUMMARY OF BOOK SALVAGE

	REGULAR	COST OF REMOVA	L	G R O S REUSE		ALVAGE FINAL		NET SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1977	14,090		0		0	1,545	11	1,545 11
1978	150		0		0		0	0
1979	333		0		0		0	0
1980								
1981								
1982	38,426	249	1		0		0	249- 1-
1983	27,838	871	3		0	1	0	870- 3-
1984	24,089	500	2		0	338	1	162- 1-
1985	13,345	426	3		0	324	2	102- 1-
1986	10,885	4,510	41		0		0	4,510- 41-
1987	136,510	21,638	16		0		0	21,638- 16-
1988	30,100	7,105	24		0		0	7,105- 24-
1989	3,747	108	3		0		0	108- 3-
1990	28,400	3,657	13		0		0	3,657- 13-
1991	40,689	601	1		0		0	601- 1-
1992	4,000		0		0		0	0
1993	93,144	29,147	31		0		0	29,147- 31-
1994	167,629	15,108	9		0		0	15,108- 9-
1995	44,946	54,018	120		0		0	54,018-120-
1996	138,078	30,328	22		0		0	30,328- 22-
1997	45,630	12,706	28		0		0	12,706- 28-
1998	1,699,761	116,979	7	394	0		0	116,585- 7-
1999	185,402	275,360	149		0	18,400	10	256,960-139-
2000	533,728	56,747	11		0		0	56,747- 11-
2001	18,145	20,026	110		0		0	20,026-110-
2002	261,391	118,715	45		0		0	118,715- 45-
2003	783,624	70,120	9		0	83,609-	11-	153,729- 20-
2004	118,794	21,602	18		0	13,996	12	7,606- 6-
2005	1,663,002	130,859	8		0	423,735	25	292,876 18
2006	26,302	6,858	26		0		0	6,858- 26-
2007	5,636	2,429	43		0		0	2,429- 43-
2008	1,500	3,769	251		0		0	3,769-251-
2009	42,385	11,377	27		0		0	11,377- 27-
2010	3,000	20,128	671		0		0	20,128-671-
2011	15,851	25,493	161		0		0	25,493-161-
2012	114,494	1,118	1		0		0	1,118- 1-
2013	52,473	19,421	37		0		0	19,421- 37-
TOTAL	6,387,517	1,081,973	17	394	0	374,730	6	706,849- 11-

# OTHER PRODUCTION PLANT - ALL ACCOUNTS

	REGULAR	COST OF REMOVAI		G R O REUSE		ALVAGI FINAL	Ξ	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT		PCT
THREE-	YEAR MOVING AVE	RAGES							
77-79	4,858		0		0	515	11	515	11
78-80	161		0		0		0		0
79-81	111		0		0		0		0
80-82	12,809	83	1		0		0	83-	1-
81-83	22,088	373	2		0		0	373-	2-
82-84	30,118	540	2		0	113	0	427-	1-
83-85	21,757	599	3		0	221	1	378-	2-
84-86	16,106	1,812	11		0	221	1	1,591-	10-
85-87	53,580	8,858	17		0	108	0	8,750-	16-
86-88	59,165	11,084	19		0		0	11,084-	19-
87-89	56,786	9,617	17		0		0	9,617-	17-
88-90	20,749	3,623	17		0		0	3,623-	17-
89-91	24,279	1,455	6		0		0	1,455-	6-
90-92	24,363	1,419	6		0		0	1,419-	6-
91-93	45,944	9,916	22		0		0	9,916-	22-
92-94	88,258	14,752	17		0		0	14,752-	17-
93-95	101,906	32,758	32		0		0	32,758-	32-
94-96	116,884	33,151	28		0		0	33,151-	28-
95-97	76,218	32,351	42		0		0	32,351-	42-
96-98	627,823	53,338	8	131	0		0	53,206-	8 –
97-99	643,598	135,015	21	131	0	6,133	1	128,750-	20-
98-00	806,297	149,695	19	131	0	6,133	1	143,431-	18-
99-01	245,758	117,378	48		0	6,133	2	111,244-	45-
00-02	271,088	65,163	24		0		0	65,163-	24-
01-03	354,387	69,620	20		0	27,870-	8-	97,490-	28-
02-04	387,936	70,146	18		0	23,204-	6-	93,350-	24-
03-05	855,140	74,194	9		0	118,041	14	43,847	5
04-06	602,699	53,106	9		0	145,910	24	92,804	15
05-07	564,980	46,715	8		0	141,245	25	94,530	17
06-08	11,146	4,352	39		0		0	4,352-	39-
07-09	16,507	5,858	35		0		0	5,858-	35-
08-10	15,628	11,758	75		0		0	11,758-	75-
09-11	20,412	18,999	93		0		0	18,999-	93-
10-12	44,448	15,580	35		0		0	15,580-	35-
11-13	60,939	15,344	25		0		0	15,344-	25-
FIVE-Y	EAR AVERAGE								
09-13	45,641	15,507	34		0		0	15,507-	34-

# SUBSTATIONS - ALL ACCOUNTS

	REGULAR	COST OF REMOVAL		G R O S REUSE	S S S	ALVAGE FINAL	1	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT		PCT		PCT
1976	209,702	4,114	2		0	6,253	3	2,139	1
1977	715,030	12,172	2		0	24,614	3	12,442	2
1978	324,510	21,609	7		0	84,012	26	62,403	19
1979	122,514	10,227	8		0	17,454	14	7,227	6
1980	108,065	2,436	2		0	45,517	42	43,081	40
1981	238,697	147,479	62		0	61,857	26	85,622-	36-
1982	129,423	3,099	2		0	7,165	6	4,066	3
1983	122,630	11,041	9		0	15,891	13	4,850	4
1984	175,717	13,590	8		0	13,396	8	194-	0
1985	406,932	18,807	5		0	8,078	2	10,729-	3 –
1986	192,045	12,595	7		0	6,350	3	6,245-	3-
1987	321,499	27,183	8		0	7,263	2	19,920-	6-
1988	293,006	44,292	15		0	34,462	12	9,830-	3-
1989	171,633	51,567	30		0	7,769-	5-	59,336-	35-
1990	439,514	61,127	14		0	25,181	6	35,946-	8-
1991	256,468	39,146	15	23,514	9	23,101	0	15,632-	6-
1992	490,044	36,153	7	2,086	0		0	34,067-	7-
1993	124,896	37,515	30	3,426	3		0	34,089-	27-
1994	457,823	83,034	18	3,120	0	101,855	22	18,821	4
1995	220,360	47,975	22	101,135	46	101,033	0	53,160	24
1996	408,816	63,917	16	10,702	3		0	53,215-	13-
1997	462,017	73,776	16	18,898	4		0	54,878-	12-
1998	453,867	57,107	13	20,000	0	17,258	4	39,849-	9-
1999	1,100,914	253,110	23	13,300	1	1,7200	0	239,810-	22-
2000	491,183	186,825	38	25,556	5		0	161,269-	33-
2001	626,831	110,079	18	754	0		0	109,325-	17-
2002	1,908,272	88,133	5		0	2,773	0	85,360-	4-
2003	526,793	113,166	21		0	515,590	98	402,424	76
2004	805,114	434,013	54		0	0_0,000	0	434,013-	54-
2005	1,188,785	386,434	33		0	1,270	0	385,164-	32-
2006	991,971	459,498	46		0	65,682	7	393,816-	40-
2007	435,242	749,064	172		0	44,634	10	704,430-	
2008	980,741	656,368	67		0	2,932	0	653,436-	
2009	1,335,355	926,102	69		0	,	0	926,102-	
2010	2,023,371	872,190	43		0		0	872,190-	
2011	1,817,358	1,034,788	57		0		0	1,034,788-	
2012	2,340,010	1,096,492	47		0		0	1,096,492-	
2013	2,613,572	1,342,356	51		0		0	1,342,356-	51-
TOTAL	26,030,722	9,588,579	37	199,371	1	1,101,718	4	8,287,490-	32-

# SUBSTATIONS - ALL ACCOUNTS

		COST O	F	G R O S	S S S	SALVAG	E	NET	
	REGULAR	REMOVA	L	REUSE		FINAL		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-Y	YEAR MOVING AV	ERAGES							
76-78	416,414	12,632	3		0	38,293	9	25,661	6
77-79	387,351	14,669	4		0	42,027	11	27,357	7
78-80	185,030	11,424	6		0	48,994	26	37,570	20
79-81	156,425	53,381	34		0	41,609	27	11,771-	8 –
80-82	158,728	51,005	32		0	38,180	24	12,825-	8 –
81-83	163,583	53,873	33		0	28,304	17	25,569-	16-
82-84	142,590	9,243	6		0	12,151	9	2,907	2
83-85	235,093	14,479	6		0	12,455	5	2,024-	1-
84-86	258,231	14,997	6		0	9,275	4	5,723-	2-
85-87	306,825	19,528	6		0	7,230	2	12,298-	4 –
86-88	268,850	28,023	10		0	16,025	6	11,998-	4-
87-89	262,046	41,014	16		0	11,319	4	29,695-	11-
88-90	301,384	52,329	17		0	17,291	6	35,037-	12-
89-91	289,205	50,613	18	7,838	3	5,804	2	36,971-	13-
90-92	395,342	45,475	12	8,533	2	8,394	2	28,548-	7 –
91-93	290,469	37,605	13	9,675	3		0	27,929-	10-
92-94	357,588	52,234	15	1,837	1	33,952	9	16,445-	5 –
93-95	267,693	56,175	21	34,854	13	33,952	13	12,631	5
94-96	362,333	64,975	18	37,279	10	33,952	9	6,255	2
95-97	363,731	61,889	17	43,578	12		0	18,311-	5 –
96-98	441,567	64,933	15	9,867	2	5,753	1	49,314-	11-
97-99	672,266	127,998	19	10,733	2	5,753	1	111,512-	17-
98-00	681,988	165,681	24	12,952	2	5,753	1	146,976-	22-
99-01	739,643	183,338	25	13,203	2		0	170,135-	23-
00-02	1,008,762	128,346	13	8,770	1	924	0	118,651-	12-
01-03	1,020,632	103,793	10	251	0	172,788	17	69,246	7
02-04	1,080,060	211,771	20		0	172,788	16	38,983-	4 –
03-05	840,231	311,204	37		0	172,287	21	138,918-	17-
04-06	995,290	426,648	43		0	22,317	2	404,331-	41-
05-07	871,999	531,665	61		0	37,195	4	494,470-	57-
06-08	802,651	621,643	77		0	37,749	5	583,894-	73-
07-09	917,113	777,178	85		0	15,855	2	761,323-	83-
08-10	1,446,489	818,220	57		0	977	0	817,243-	56-
09-11	1,725,362	944,360	55		0		0	944,360-	55-
10-12	2,060,246	1,001,157	49		0		0	1,001,157-	49-
11-13	2,256,980	1,157,879	51		0		0	1,157,879-	51-
FIVE-YE	EAR AVERAGE								
09-13	2,025,933	1,054,386	52		0		0	1,054,386-	52-

# TRANSMISSION - ALL ACCOUNTS

	REGULAR	COST O		G R O S REUSE	S S S	ALVAG:	E	NET SALVAGE
YEAR	REGULAR	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1976	74,518	27,005	36		0	22,953	31	4,052- 5-
1977	170,350	89,070	52		0	103,137	61	14,067 8
1978	166,933	20,255	12		0	26,050	16	5,795 3
1979	53,320	9,423	18		0	27,253	51	17,830 33
1980	192,641	14,937	8		0	29,762	15	14,825 8
1981	443,094	18,798	4		0	16,820	4	1,978- 0
1982	533,077	23,296	4		0	68,325	13	45,029 8
1983	26,333	8,388	32		0	8,175	31	213- 1-
1984	152,266	24,524	16		0	8,112	5	16,412- 11-
1985	780,922	16,683	2		0	15,442	2	1,241- 0
1986	68,915	19,596	28		0	19,343	28	253- 0
1987	393,705	43,333	11		0	18,684	5	24,649- 6-
1988	103,626	145,293	140		0	235,666	227	90,373 87
1989	215,507	112,599	52		0	48,771	23	63,828- 30-
1990	271,586	145,621	54		0	11,387	4	134,234- 49-
1991	340,676	103,835	30	16,558	5		0	87,277- 26-
1992	531,746	192,372	36	91,746	17		0	100,626- 19-
1993	245,646	77,899	32	51,560	21		0	26,339- 11-
1994	187,115	210,310	112	140,666	75		0	69,644- 37-
1995	243,439	126,204	52	72,160	30		0	54,044- 22-
1996	213,953	140,234	66	23,602	11		0	116,632- 55-
1997	189,030	152,957	81	4,219	2		0	148,738- 79-
1998	547,844	191,336	35	21,566	4		0	169,770- 31-
1999	316,943	163,447	52	16,998	5	107	0	146,342- 46-
2000	188,434	135,200	72	27,175	14		0	108,025- 57-
2001	340,710	361,072	106		0	2,224	1	358,848-105-
2002	484,166	274,226	57		0	52,038	11	222,188- 46-
2003	1,658,925	286,028	17	94,658	6		0	191,370- 12-
2004	642,536	257,876	40		0		0	257,876- 40-
2005	500,799	312,005	62		0		0	312,005- 62-
2006	853,649	686,175	80		0	31,240	4	654,935- 77-
2007	990,546	586,391	59		0	35,423	4	550,968- 56-
2008	1,182,885	825,047	70		0	17,044	1	808,003- 68-
2009	678,845	793,743	117		0	300	0	793,443-117-
2010	520,909	366,267	70		0		0	366,267- 70-
2011	1,690,825	758,646	45		0		0	758,646- 45-
2012	605,863	799,180	132		0		0	799,180-132-
2013	1,164,450	933,171	80		0		0	933,171- 80-
TOTAL	17,966,726	9,452,442	53	560,908	3	798,256	4	8,093,278- 45-

# TRANSMISSION - ALL ACCOUNTS

		COST O		G R O S		SALVAG	E	NET	
	REGULAR	REMOVA	L	REUSE		FINAL		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-	YEAR MOVING AVE	RAGES							
76-78	137,267	45,443	33		0	50,713	37	5,270	4
77-79	130,201	39,583	30		0	52,147	40	12,564	10
78-80	137,631	14,872	11		0	27,688	20	12,817	9
79-81	229,685	14,386	6		0	24,612	11	10,226	4
80-82	389,604	19,010	5		0	38,302	10	19,292	5
81-83	334,168	16,827	5		0	31,107	9	14,279	4
82-84	237,225	18,736	8		0	28,204	12	9,468	4
83-85	319,840	16,532	5		0	10,576	3	5,955-	2-
84-86	334,034	20,268	6		0	14,299	4	5,969-	2-
85-87	414,514	26,537	6		0	17,823	4	8,714-	2-
86-88	188,749	69,407	37		0	91,231	48	21,824	12
87-89	237,613	100,408	42		0	101,040	43	632	0
88-90	196,906	134,504	68		0	98,608	50	35,896-	18-
89-91	275,923	120,685	44	5,519	2	20,053	7	95,113-	34-
90-92	381,336	147,276	39	36,101	9	3,796	1	107,379-	28-
91-93	372,689	124,702	33	53,288	14		0	71,414-	19-
92-94	321,502	160,194	50	94,657	29		0	65,536-	20-
93-95	225,400	138,138	61	88,129	39		0	50,009-	22-
94-96	214,836	158,916	74	78,809	37		0	80,107-	37-
95-97	215,474	139,798	65	33,327	15		0	106,471-	49-
96-98	316,943	161,509	51	16,462	5		0	145,047-	46-
97-99	351,273	169,247	48	14,261	4	36	0	154,950-	44-
98-00	351,074	163,328	47	21,913	6	36	0	141,379-	40-
99-01	282,029	219,906	78	14,724	5	777	0	204,405-	72-
00-02	337,770	256,833	76	9,058	3	18,087	5	229,687-	68-
01-03	827,934	307,109	37	31,553	4	18,087	2	257,469-	31-
02-04	928,542	272,710	29	31,553	3	17,346	2	223,811-	24-
03-05	934,087	285,303	31	31,553	3		0	253,750-	27-
04-06	665,661	418,685	63		0	10,413	2	408,272-	61-
05-07	781,665	528,190	68		0	22,221	3	505,969-	65-
06-08	1,009,027	699,204	69		0	27,902	3	671,302-	67-
07-09	950,759	735,060	77		0	17,589	2	717,471-	75-
08-10	794,213	661,686	83		0	5,781	1	655,904-	83-
09-11	963,526	639,552	66		0	100	0	639,452-	66-
10-12	939,199	641,364	68		0		0	641,364-	68-
11-13	1,153,713	830,332	72		0		0	830,332-	72-
FIVE-YI	EAR AVERAGE								
09-13	932,178	730,201	78		0	60	0	730,141-	78-

# ACCOUNTS 361.10, 361.11, 361.14 & 361.30 - OVERHEAD CONDUCTOR - COPPER

		COST OF	י	GROSS	S	A L V A G	E	NET
	REGULAR	REMOVAL	1	REUSE		FINAL		SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PC	Г	AMOUNT	PCT	AMOUNT PCT
1976	132,517	41,769	32	(	C	79,253	60	37,484 28
1977	95,956	40,152	42	(	)	46,300	48	6,148 6
1978	173,991	39,827	23	(	C	88,533	51	48,706 28
1979	123,830	36,705	30	(	)	79,504	64	42,799 35
1980	109,738	28,428	26	(	)	80,899	74	52,471 48
1981	126,244	41,099	33	(	)	85,428	68	44,329 35
1982	71,496	58,670	82	(	)	43,990	62	14,680- 21-
1983	58,006	29,082	50	(	)	50,786	88	21,704 37
1984	91,364	75,982	83	(	C	41,804	46	34,178- 37-
1985	146,796	80,316	55	(	C	74,289	51	6,027- 4-
1986	52,591	17,995	34	(	C	27,795	53	9,800 19
1987	45,990	46,400	101	(	)	24,076	52	22,324- 49-
1988	77,981	33,166	43	(	)	23,741	30	9,425- 12-
1989	75,814	44,423	59	(	)	52,127	69	7,704 10
1990	115,821	47,204	41	(	)	17,431-	- 15-	64,635- 56-
1991	114,894	48,610	42	54,402- 4	7 –		0	103,012- 90-
1992	48,525	47,798	99	13,431- 28	3 –		0	61,229-126-
1993	54,537	42,373	78	59,488-109	9 –		0	101,861-187-
1994	45,980	12,785	28	18,934- 43	1-		0	31,719- 69-
1995	38,539	35,154	91	(	)	8,124	21	27,030- 70-
1996	66,072	53,514	81	1,423	2	39,457	60	12,634- 19-
1997	37,599	41,250	110	1,021	3	28,171	75	12,058- 32-
1998	23,966	23,437	98	3,246 14	4	31,903	133	11,712 49
1999	481,168	129,222	27	293 (	)	28,056	6	100,873- 21-
2000	120,936	48,795	40	(	)	44,605	37	4,190- 3-
2001	145,784	43,823	30	(	C	20,761	14	23,062- 16-
2002	351,591	54,677	16	(	C	52,793	15	1,884- 1-
2003	211,296	109,607	52	(	C	38,175	18	71,432- 34-
2004	190,156	180,276	95	(	C	47,795	25	132,481- 70-
2005	232,783	171,438	74	(	C	69,537	30	101,901- 44-
2006	141,697	148,556	105	(	C	121,925	86	26,631- 19-
2007	20,977	29,594	141	(	C	32,212	154	2,618 12
2008	51,812	70,486	136	(	)	28,917	56	41,569- 80-
2009	136,118	137,351	101	(	C	72,261	53	65,090- 48-
2010	16,778	29,358	175	(	C	17,279	103	12,079- 72-
2011	159,841	84,513	53	(	C	224,091	140	139,578 87
2012	34,058	92,735	272	(	C	44,838	132	47,897-141-
2013	110,346	211,310	191	(	)	85,935	78	125,375-114-
TOTAL	4,333,588	2,507,880	58	140,272-	3 –	1,817,929	42	830,223- 19-

# ACCOUNTS 361.10, 361.11, 361.14 & 361.30 - OVERHEAD CONDUCTOR - COPPER

		COST O	Ŧ	GROSS	SALVAG	E	NET
	REGULAR	REMOVA	L	REUSE	FINAL		SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT	AMOUNT PCT
THREE-	YEAR MOVING AVE	RAGES					
76-78	134,155	40,583	30	0	71,362	53	30,779 23
77-79	131,259	38,895	30	0	71,446	54	32,551 25
78-80	135,853	34,987	26	0	82,979	61	47,992 35
79-81	119,937	35,411	30	0	81,944	68	46,533 39
80-82	102,493	42,732	42	0	70,106	68	27,373 27
81-83	85,249	42,950	50	0	60,068	70	17,118 20
82-84	73,622	54,578	74	0	45,527	62	9,051- 12-
83-85	98,722	61,793	63	0	55,626	56	6,167- 6-
84-86	96,917	58,098	60	0	47,963	49	10,135- 10-
85-87	81,792	48,237	59	0	42,053	51	6,184- 8-
86-88	58,854	32,520	55	0	25,204	43	7,316- 12-
87-89	66,595	41,330	62	0	33,315	50	8,015- 12-
88-90	89,872	41,598	46	0	19,479	22	22,119- 25-
89-91	102,176	46,746	46	18,134- 18-	11,565	11	53,314- 52-
90-92	93,080	47,871	51	22,611- 24-		6-	76,292- 82-
91-93	72,652	46,260	64	42,440- 58-	-	0	88,701-122-
92-94	49,681	34,319	69	30,618- 62-	-	0	64,936-131-
93-95	46,352	30,104	65	26,141- 56-	2,708	6	53,537-116-
94-96	50,197	33,818	67	5,837- 12-		32	23,794- 47-
95-97	47,403	43,306	91	815 2	25,251	53	17,241- 36-
96-98	42,546	39,400	93	1,897 4	33,177	78	4,327- 10-
97-99	180,911	64,636	36	1,520 1	29,377	16	33,740- 19-
98-00	208,690	67,151	32	1,180 1	34,855	17	31,117- 15-
99-01	249,296	73,947	30	98 0	31,141	12	42,708- 17-
00-02	206,104	49,098	24	0	39,386	19	9,712- 5-
01-03	236,224	69,369	29	0	37,243	16	32,126- 14-
02-04	251,014	114,853	46	0	46,254	18	68,599- 27-
03-05	211,412	153,774	73	0	51,836	25	101,938- 48-
04-06	188,212	166,757	89	0	79,752	42	87,004- 46-
05-07	131,819	116,529	88	0	74,558	57	41,971- 32-
06-08	71,495	82,879	116	0	61,018	85	21,861- 31-
07-09	69,636	79,144	114	0	44,463	64	34,680- 50-
08-10	68,236	79,065	116	0	39,486	58	39,579- 58-
09-11	104,246	83,741	80	0	104,544	100	20,803 20
10-12	70,226	68,869	98	0	95,403	136	26,534 38
11-13	101,415	129,519	128	0	118,288	117	11,231- 11-
FIVE-Y	EAR AVERAGE						
09-13	91,428	111,053	121	0	88,881	97	22,173- 24-

# ACCOUNTS 361.12, 361.13 & 361.15 - OVERHEAD CONDUCTOR - ALUMINUM

	REGULAR	COST OI REMOVAI		G R O S REUSE	S S S	ALVAG: FINAL	E	NET SALVAGE
YEAR	REGULAR	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1976	114,352	32,493 41,355	28		0	10,057	9	22,436- 20- 36,573- 34-
1977 1978	108,780		38		0	4,782	4	36,573- 34- 4,545 3
	140,791	33,261	24 24		0	37,806	27	
1979	154,624	37,692 34,710			0	36,061	23 26	1,631- 1- 7,505 5
1980	164,657 174,862		21 21		0	42,215		
1981		37,541				32,471	19	5,070- 3-
1982	218,786	112,179	51		0	56,834	26 27	55,345- 25-
1983	160,455	49,844	31 43		0	43,408		6,436- 4- 31,199- 20-
1984	153,914	66,712			0	35,513	23	
1985	249,623	113,757	46		0	34,204	14	79,553- 32-
1986	186,915	108,955	58 37		0 0	24,317	13	84,638- 45- 47,032- 24-
1987	198,281	73,590				26,558	13	
1988	217,376	139,050	64		0	32,336	15	106,714- 49-
1989	317,420	217,138	68	1 017	0	75,674	24	141,464- 45-
1990	332,374	103,431	31	1,217	0	33,020	10	69,194- 21-
1991	325,342	106,513	33	2,489	1	67,513	21	36,511- 11-
1992	232,436	104,733	45	2,467	1	66,917	29	35,349- 15-
1993	253,834	92,848	37	898	0	24,371	10	67,579- 27-
1994	254,897	28,014	11	1,230	0	33,360	13	6,576 3
1995	318,265	124,635	39	2,410	1	65,365	21	56,860- 18-
1996	186,416	73,900	40	1,072	1	29,601	16	43,227- 23-
1997	169,004	87,657	52	1,738	1	33,161	20	52,758- 31-
1998	197,011	77,707	39	2,765	1	26,431	13	48,511- 25-
1999	545,297	204,262	37	247	0	24,536	4	179,479- 33-
2000	799,899	195,815	24		0	95,580	12	100,235- 13-
2001	409,966	397,785	97	10,895	3	36,357	9	350,533- 86-
2002	1,612,240	334,441	21		0	57,755	4	276,686- 17-
2003	1,164,739	261,955	22		0	43,582	4	218,373- 19-
2004	973,070	530,818	55		0	24,888	3	505,930- 52-
2005	450,036	528,030	117		0	30,930	7	497,100-110-
2006	385,721	788,369	204		0	41,339	11	747,030-194-
2007	887,464	469,180	53		0	32,094	4	437,086- 49-
2008	381,307	647,537	170		0	24,787	7	622,750-163-
2009	605,754		120		0	28,894	5	698,102-115-
2010	622,967	616,879	99		0	26,212	4	590,667- 95-
2011	1,006,345	415,650	41		0	73,097	7	342,553- 34-
2012	601,982	858,691	143		0	22,555	4	836,136-139-
2013	758,724	1,067,805	141		0	29,307	4	1,038,498-137-
TOTAL	16,035,928	9,941,928	62	27,428	0	1,463,888	9	8,450,612- 53-

# ACCOUNTS 361.12, 361.13 & 361.15 - OVERHEAD CONDUCTOR - ALUMINUM

		COST O	Ŧ	G R O S	S S	A L V A G	E	NET
	REGULAR	REMOVA		REUSE		FINAL		SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
THREE-	YEAR MOVING AVE	RAGES						
76-78	121,308	35,703	29		0	17,548	14	18,155- 15-
77-79	134,732	37,436	28		0	26,216	19	11,220- 8-
78-80	153,357	35,221	23		0	38,694	25	3,473 2
79-81	164,714	36,648	22		0	36,916	22	268 0
80-82	186,102	61,477	33		0	43,840	24	17,637- 9-
81-83	184,701	66,521	36		0	44,238	24	22,284- 12-
82-84	177,718	76,245	43		0	45,252	25	30,993- 17-
83-85	187,997	76,771	41		0	37,708	20	39,063- 21-
84-86	196,817	96,475	49		0	31,345	16	65,130- 33-
85-87	211,606	98,767	47		0	28,360	13	70,408- 33-
86-88	200,857	107,198	53		0	27,737	14	79,461- 40-
87-89	244,359	143,259	59		0	44,856	18	98,403- 40-
88-90	289,057	153,206	53	406	0	47,010	16	105,791- 37-
89-91	325,045	142,361	44	1,235	0	58,736	18	82,390- 25-
90-92	296,717	104,892	35	2,058	1	55,817	19	47,018- 16-
91-93	270,537	101,365	37	1,951	1	52,934	20	46,480- 17-
92-94	247,056	75,198	30	1,532	1	41,549	17	32,117- 13-
93-95	275,665	81,832	30	1,513	1	41,032	15	39,288- 14-
94-96	253,193	75,516	30	1,571	1	42,775	17	31,170- 12-
95-97	224,562	95,397	42	1,740	1	42,709	19	50,948- 23-
96-98	184,144	79,755	43	1,858	1	29,731	16	48,165- 26-
97-99	303,771	123,209	41	1,583	1	28,043	9	93,583- 31-
98-00	514,069	159,261	31	1,004	0	48,849	10	109,408- 21-
99-01	585,054	265,954	45	3,714	1	52,158	9	210,082- 36-
00-02	940,702	309,347	33	3,632	0	63,231	7	242,485- 26-
01-03	1,062,315	331,394	31	3,632	0	45,898	4	281,864- 27-
02-04	1,250,017	375,738	30		0	42,075	3	333,663- 27-
03-05	862,615	440,268	51		0	33,133	4	407,134- 47-
04-06	602,942	615,739	102		0	32,386	5	583,353- 97-
05-07	574,407	595,193	104		0	34,788	6	560,405- 98-
06-08	551,497	635,029	115		0	32,740	6	602,289-109-
07-09	624,842	614,571	98		0	28,592	5	585,979- 94-
08-10	536,676	663,804	124		0	26,631	5	637,173-119-
09-11	745,022	586,508	79		0	42,734	6	543,774- 73-
10-12	743,765	630,407	85		0	40,621	5	589,785- 79-
11-13	789,017	780,715	99		0	41,653	5	739,062- 94-
FIVE-YI	EAR AVERAGE							
09-13	719,155	737,204	103		0	36,013	5	701,191- 98-

## ACCOUNTS 361.20 & 361.40 - DISTRIBUTION - UNDERGROUND CABLES

	REGULAR	COST OI REMOVAI		GROSS SA REUSE	LVAG FINAL	E	NET SALVAGE
YEAR	REGULAR RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT	AMOUNT PCT
1976	15,435	5,850	38	0	2,499	16	3,351- 22-
1977	29,672	6,820	23	0	1,945	7	4,875- 16-
1978	10,173	3,903	38	0	7,184	71	3,281 32
1979	18,146	5,758	32	0	5,122	28	636- 4-
1980	7,019	1,035	15	0	413	6	622- 9-
1981	18,462	1,033	0	0	113	0	0 2 2 9
1982	13,029		0	0		0	0
1983	5,425		0	0		0	0
1984	9,668		0	0		0	0
1985	136,329		0	0		0	0
1986	42,361		0	0		0	0
1987	27,747		0	0		0	0
1988	27,914		0	0		0	0
1989	33,138		0	0		0	0
1990	63,650		0	0	80,445	126	80,445 126
1991	62,058		0	6,110 10	00,110	0	6,110 10
1992	12,570		0	1,212- 10-		0	1,212- 10-
1993	21,230		0	0		0	0
1994	61,710		0	333- 1-		0	333- 1-
1995	28,002		0	0	494	2	494 2
1996	50,538	2,165	4	98 0	9,684	19	7,617 15
1997	2,251	,	0	2,807-125-		0	2,807-125-
1998	4,980	37	1	0	950	19	913 18
1999	·						
2000		8,179			1,786		6,393-
2001	27,112	1,867	7	0		0	1,867- 7-
2002	473,080		0	0		0	0
2003	30,144	44,602	148	0		0	44,602-148-
2004	23,810	48,977	206	0		0	48,977-206-
2005	19,476		0	0		0	0
2006	12,298	15,391	125	0		0	15,391-125-
2007	16,681	17,422	104	0		0	17,422-104-
2008	11,523	19,854	172	0		0	19,854-172-
2009	22,105	44,473	201	0		0	44,473-201-
2010	38,680	5,864	15	0		0	5,864- 15-
2011	18,663		0	0		0	0
2012	247,007		0	0		0	0
2013	202,087	75,055	37	0		0	75,055- 37-
TOTAL	1,844,173	307,252	17	1,856 0	110,522	6	194,874- 11-

# ACCOUNTS 361.20 & 361.40 - DISTRIBUTION - UNDERGROUND CABLES

		COST 0		G R O S	S S	ALVAG	E	NET	
	REGULAR	REMOVA		REUSE	D.CIII	FINAL	D. G. III	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-Y	YEAR MOVING AVE	RAGES							
76-78	18,427	5,524	30		0	3,876	21	1,648-	9 –
77-79	19,330	5,494	28		0	4,750	25	743-	4 –
78-80	11,779	3,565	30		0	4,240	36	674	6
79-81	14,542	2,264	16		0	1,845	13	419-	3 –
80-82	12,837	345	3		0	138	1	207-	2-
81-83	12,305		0		0		0		0
82-84	9,374		0		0		0		0
83-85	50,474		0		0		0		0
84-86	62,786		0		0		0		0
85-87	68,812		0		0		0		0
86-88	32,674		0		0		0		0
87-89	29,600		0		0		0		0
88-90	41,567		0		0	26,815	65	26,815	65
89-91	52,949		0	2,037	4	26,815	51	28,852	54
90-92	46,093		0	1,633	4	26,815	58	28,448	62
91-93	31,953		0	1,633	5		0	1,633	5
92-94	31,837		0	515-	2-		0	515-	2-
93-95	36,981		0	111-	0	165	0	54	0
94-96	46,750	722	2	78-	0	3,393	7	2,593	6
95-97	26,930	722	3	903-	3-	3,393	13	1,768	7
96-98	19,256	734	4	903-	5-	3,545	18	1,908	10
97-99	2,410	12	1	936-	39-	317	13	631-	26-
98-00	1,660	2,739	165		0	912	55	1,827-	110-
99-01	9,037	3,349	37		0	595	7	2,753-	30-
00-02	166,731	3,349	2		0	595	0	2,753-	2-
01-03	176,779	15,490	9		0		0	15,490-	9 –
02-04	175,678	31,193	18		0		0	31,193-	18-
03-05	24,477	31,193	127		0		0	31,193-	127-
04-06	18,528	21,456	116		0		0	21,456-	116-
05-07	16,152	10,938	68		0		0	10,938-	68-
06-08	13,501	17,556	130		0		0	17,556-	130-
07-09	16,770	27,250	162		0		0	27,250-	
08-10	24,103	23,397	97		0		0	23,397-	97-
09-11	26,483	16,779	63		0		0	16,779-	63-
10-12	101,450	1,955	2		0		0	1,955-	2-
11-13	155,919	25,018	16		0		0	25,018-	16-
ETVE VI									
	EAR AVERAGE								
09-13	105,708	25,078	24		0		0	25,078-	24-

# ACCOUNTS 362.10 & 362.20 - DISTRIBUTION - POLES AND FIXTURES - WOOD

	REGULAR	COST OF REMOVAL		G R O S REUSE	S S S	ALVAGI FINAL	Ε	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT		PCT
2000	1,527,165	587,498	38	90,426	6		0	497,072-	33-
2001	2,759,061	534,374	19	136,453	5		0	397,921-	14-
2002	2,048,803	727,652	36		0	55,979	3	671,673-	33-
2003	848,567	474,873	56		0	238	0	474,635-	56-
2004	837,695	479,745	57		0		0	479,745-	57-
2005	1,254,719	503,125	40		0	32,119	3	471,006-	38-
2006	1,401,597	734,953	52		0	5,042	0	729,911-	52-
2007	2,055,461	805,702	39		0		0	805,702-	39-
2008	1,578,668	1,000,432	63		0		0	1,000,432-	63-
2009	1,233,368	571,716	46		0		0	571,716-	46-
2010	1,760,816	649,029	37		0		0	649,029-	37-
2011	1,222,195	940,872	77		0		0	940,872-	77-
2012	654,824	457,979	70	3,881	1		0	454,098-	69-
2013	958,365	583,178	61		0		0	583,178-	61-
TOTAL	20,141,305	9,051,128	45	230,760	1	93,378	0	8,726,990-	43-
THREE-Y	YEAR MOVING AV	ERAGES							
00-02	2,111,677	616,508	29	75,626	4	18,660	1	522,222-	25-
01-03	1,885,477	578,966	31	45,484	2	18,739	1	514,743-	27-
02-04	1,245,022	560,757	45	10 / 10 1	0	18,739	2	542,018-	44-
03-05	980,327	485,914	50		0	10,786	1	475,129-	48-
04-06	1,164,671	572,608	49		0	12,387	1	560,221-	48-
05-07	1,570,592	681,260	43		0	12,387	1	668,873-	43-
06-08	1,678,575	847,029	50		0	1,681	0	845,348-	50-
07-09	1,622,499	792,617	49		0		0	792,617-	49-
08-10	1,524,284	740,392	49		0		0	740,392-	49-
09-11	1,405,460	720,539	51		0		0	720,539-	51-
10-12	1,212,611	682,627	56	1,294	0		0	681,333-	56-
11-13	945,128	660,676	70	1,294	0		0	659,383-	70-
FTVF_V	EAR AVERAGE								
					_		_		
09-13	1,165,914	640,555	55	776	0		0	639,779-	55-

# ACCOUNT 362.30 - DISTRIBUTION - POLES AND FIXTURES - CONCRETE / STEEL

	COST OF REGULAR REMOVAL		G R O S S REUSE	S A L V A G E FINAL			
YEAR	RETIREMENTS	AMOUNT PCI		AMOUNT PCT	AMOUNT PCT		
2001	4,945	2,358 48	0	0	2,358- 48-		
2002	240,169	C	0	0	0		
2003	11,840	C	0	0	0		
2004	14,393	C	0	0	0		
2005	14,582	C	0	0	0		
2006	14,262	C	0	0	0		
2007	14,172	C	0	0	0		
2008	2,857	C	0	0	0		
2009	12,527	C	0	0	0		
2010	28,592	C	0	0	0		
2011	69,723	C	0	0	0		
2012	27,356	C	0	0	0		
2013	83,897	C	0	0	0		
TOTAL	539,314	2,358 0	0	0	2,358- 0		
THREE-Y	EAR MOVING AVE	RAGES					
01-03	85,651	786 1	. 0	0	786- 1-		
02-04	88,801	C	0	0	0		
03-05	13,605	C	0	0	0		
04-06	14,412	C	0	0	0		
05-07	14,338	C	0	0	0		
06-08	10,430	C	0	0	0		
07-09	9,852	C	0	0	0		
08-10	14,659	C	0	0	0		
09-11	36,947	C	0	0	0		
10-12	41,890	C	0	0	0		
11-13	60,325	C	0	0	0		
12.17.12. 34.12.							
	CAR AVERAGE						
09-13	44,419	C	0	0	0		

## ACCOUNT 362.40 - DISTRIBUTION - STEEL TOWERS

	REGULAR	COST O	L	REUSE		A L V A G FINAL		NET SALVAG	E
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1977	38,068		0		0		0		0
1978									
1979									
1980									
1981									
1982									
1983									
1984									
1985									
1986									
1987									
1988									
1989									
1990									
1991									
1992									
1993									
1994									
1995									
1996									
1997									
1998									
1999									
2000									
2001									
2002									
2003									
2004									
2005									
2006									
2007									
2008									
2009									
2010									
2011									
2012									
2013									
TOTAL	38,068		0		0		0		0

## ACCOUNT 362.40 - DISTRIBUTION - STEEL TOWERS

## SUMMARY OF BOOK SALVAGE

	REGULAR	COST O REMOVA	.L	REUSE		A L V A G FINAL		NET SALVAG	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-Y	EAR MOVING AV	ERAGES							
77-79	12,689		0		0		0		0
78-80									
79-81									
80-82									
81-83									
82-84									
83-85									
84-86									
85-87									
86-88									
87-89									
88-90									
89-91 90-92									
91-93									
91-93									
93-95									
94-96									
95-97									
96-98									
97-99									
98-00									
99-01									
00-02									
01-03									
02-04									
03-05									
04-06									
05-07									
06-08									
07-09									
08-10									
09-11									
10-12									
11-13									

FIVE-YEAR AVERAGE

09-13



## ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

		COST OF		G R O S	S S S	ALVAG	E	NET	
WE VD	REGULAR	REMOVAL		REUSE	DOT	FINAL	Dam	SALVAGE	Dam
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	339,322	22,029	6		0	125,561	37	103,532	31
1977	292,908	28,558	10		0	118,441	40	89,883	31
1978	320,116	22,212	7		0	45,087	14	22,875	7
1979	276,629	28,957	10		0	50,176	18	21,219	8
1980	652,796	24,086	4		0	57,568	9	33,482	5
1981	287,170	22,230	8		0	58,125	20	35,895	12
1982	386,991	25,909	7		0	64,306	17	38,397	10
1983	266,347	20,962	8		0	60,854	23	39,892	15
1984	324,804	26,377	8		0	66,612	21	40,235	12
1985	298,090	30,373	10		0	74,415	25	44,042	15
1986	320,832	39,069	12		0	102,154	32	63,085	20
1987	353,116	63,166	18		0	86,793	25	23,627	7
1988	320,397	60,541	19		0	85,322	27	24,781	8
1989	440,693	62,442	14		0	105,334	24	42,892	10
1990	434,043	93,205	21		0	131,171	30	37,966	9
1991	570,055	94,194	17	119,048	21		0	24,854	4
1992	553,001	75,827	14	139,543	25		0	63,716	12
1993	539,127	67,992	13	138,012	26		0	70,020	13
1994	624,544	94,884	15	151,019	24		0	56,135	9
1995	651,946	78,266	12	137,761	21	2,493	0	61,988	10
1996	821,347	91,578	11	104,264	13	85,107	10	97,793	12
1997	473,302	78,014	16	73,658	16	83,379	18	79,023	17
1998	286,015	67,032	23	64,895	23	62,611	22	60,474	21
1999	755,062	54,548	7	32,768	4	27,155	4	5,375	1
2000	790,310	71,692	9	59,204	7	2,619	0	9,869-	1-
2001	848,141	80,975	10	48,197	6	5,576	1	27,202-	3 –
2002	2,029,708	59,282	3		0	24,392	1	34,890-	2-
2003	808,150	81,887	10		0	5,824	1	76,063-	9 –
2004	792,759	87,414	11		0	3,850	0	83,564-	11-
2005	868,981	107,588	12		0	9,024	1	98,564-	11-
2006	1,003,349	97,400	10		0	5,399	1	92,001-	9 –
2007	1,018,473	151,112	15		0	6,546	1	144,566-	14-
2008	1,005,172	195,116	19		0	5,043	1	190,073-	19-
2009	960,513	207,752	22		0	620	0	207,132-	22-
2010	1,214,894	227,978	19		0	6,856	1	221,122-	18-
2011	1,518,432	278,254	18		0	8,123	1	270,131-	18-
2012	904,416	192,955	21		0	5,353	1	187,602-	21-
2013	1,740,272	215,543	12		0	4,303	0	211,240-	12-
TOTAL	26,092,222	3,327,399	13	1,068,369	4	1,586,192	6	672,838-	3-

## ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

		COST OF	Ţ.	G R O	SS S	SALVAG	E	NET	
	REGULAR	REMOVAI		REUSE	i	FINAL		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-	YEAR MOVING AVE	RAGES							
76-78	317,449	24,266	8		0	96,363	30	72,097	23
77-79	296,551	26,576	9		0	71,235	24	44,659	15
78-80	416,514	25,085	6		0	50,944	12	25,859	6
79-81	405,532	25,091	6		0	55,290	14	30,199	7
80-82	442,319	24,075	5		0	60,000	14	35,925	8
81-83	313,503	23,034	7		0	61,095	19	38,061	12
82-84	326,047	24,416	7		0	63,924	20	39,508	12
83-85	296,414	25,904	9		0	67,294	23	41,390	14
84-86	314,575	31,940	10		0	81,060	26	49,121	16
85-87	324,013	44,203	14		0	87,787	27	43,585	13
86-88	331,448	54,259	16		0	91,423	28	37,164	11
87-89	371,402	62,050	17		0	92,483	25	30,433	8
88-90	398,378	72,063	18		0	107,276	27	35,213	9
89-91	481,597	83,280	17	39,683	8	78,835	16	35,237	7
90-92	519,033	87,742	17	86,197	17	43,724	8	42,179	8
91-93	554,061	79,338	14	132,201	24		0	52,863	10
92-94	572,224	79,568	14	142,858	25		0	63,290	11
93-95	605,206	80,381	13	142,264	24	831	0	62,714	10
94-96	699,279	88,243	13	131,015	19	29,200	4	71,972	10
95-97	648,865	82,619	13	105,228	16	56,993	9	79,601	12
96-98	526,888	78,875	15	80,939	15	77,032	15	79,097	15
97-99	504,793	66,531	13	57,107	11	57,715	11	48,291	10
98-00	610,462	64,424	11	52,289	9	30,795	5	18,660	3
99-01	797,838	69,072	9	46,723	6	11,783	1	10,565-	1-
00-02	1,222,720	70,650	6	35,800	3	10,862	1	23,987-	2-
01-03	1,228,666	74,048	6	16,066	1	11,931	1	46,052-	4 –
02-04	1,210,206	76,194	6		0	11,355	1	64,839-	5-
03-05	823,297	92,296	11		0	6,233	1	86,064-	10-
04-06	888,363	97,467	11		0	6,091	1	91,376-	10-
05-07	963,601	118,700	12		0	6,990	1	111,710-	12-
06-08	1,008,998	147,876	15		0	5,663	1	142,213-	14-
07-09	994,719	184,660	19		0	4,070	0	180,590-	18-
08-10	1,060,193	210,282	20		0	4,173	0	206,109-	19-
09-11	1,231,280	237,995	19		0	5,200	0	232,795-	19-
10-12	1,212,581	233,062	19		0	6,777	1	226,285-	19-
11-13	1,387,707	228,917	16		0	5,926	0	222,991-	16-
	EAR AVERAGE								
09-13	1,267,705	224,496	18		0	5,051	0	219,445-	17-

## ACCOUNT 364.00 - DISTRIBUTION - TRANSFORMERS

		COST OF		G R O S	S S	ALVAG	E	NET	
YEAR	REGULAR RETIREMENTS	REMOVAL AMOUNT	PCT	REUSE AMOUNT	PCT	FINAL AMOUNT	PCT	SALVAGE AMOUNT	PCT
		AMOUNT	101	AMOUNT					
1976	209,142		0		0	20,950	10	20,950	10
1977	301,115		0		0	11,869	4	11,869	4
1978	370,766		0		0	30,646	8	30,646	8
1979	324,223	277	0		0	22,112	7	21,835	7
1980	243,756	352	0		0	45,495	19	45,143	19
1981	343,984	2,209	1		0	9,958	3	7,749	2
1982	300,512		0		0	9,111	3	9,111	3
1983	345,070	203	0		0	30,557	9	30,354	9
1984	429,292	585	0		0	18,444	4	17,859	4
1985	202,997	294	0		0	5,596	3	5,302	3
1986	259,030	892	0		0	11,023	4	10,131	4
1987	235,686	601	0		0	6,422	3	5,821	2
1988	330,575	1,658	1		0	29,257	9	27,599	8
1989	371,252	5,113	1		0	14,079	4	8,966	2
1990	470,448	4,905	1		0	16,675	4	11,770	3
1991	339,804	4,659	1	26,611	8		0	21,952	6
1992	191,717	5,687	3	19,686	10		0	13,999	7
1993	230,692	7,268	3	28,350	12		0	21,082	9
1994	197,274	2,670	1	10,681	5		0	8,011	4
1995	227,683	211,488	93	30,731	13	27,410	12	153,347-	67-
1996	155,826	10,408	7	19,440	12	13,940	9	22,972	15
1997	845,887	4,487	1	640-	0	7,000	1	1,873	0
1998	1,789,961	88,001	5	269,189	15	95,274	5	276,462	15
1999	1,419,119	78,045	5	414,515	29	14,427	1	350,897	25
2000	1,226,597	80,581	7	325,960	27	13,712	1	259,091	21
2001	912,446	80,007	9	118,967	13	3,950	0	42,910	5
2002	1,483,059	36,016	2		0	2,340	0	33,676-	2-
2003	1,242,622	326,589	26		0	387,620	31	61,031	5
2004	752,442	85,395	11		0		0	85,395-	11-
2005	1,600,527	346,248	22		0	68,693	4	277,555-	17-
2006	5,837,714	253,498	4		0	161,989	3	91,509-	2-
2007	2,825,162	345,826	12		0	90,402	3	255,424-	9 –
2008	1,089,869	384,841	35		0	90,343	8	294,498-	27-
2009	1,218,308	375,460	31		0	75,444	6	300,016-	25-
2010	615,001	290,602	47		0	56,965	9	233,637-	38-
2011	1,502,281	563,461	38		0	36,605	2	526,856-	35-
2012	1,261,387	712,170	56		0	42,023	3	670,147-	53-
2013	1,405,235	510,958	36		0	35,225	3	475,733-	34-
TOTAL	33,108,460	4,821,454	15	1,263,490	4	1,505,556	5	2,052,408-	6-

## ACCOUNT 364.00 - DISTRIBUTION - TRANSFORMERS

		COST OF		G R O S	S S	SALVAG	E	NET	
WE VD	REGULAR	REMOVAL		REUSE	DOT	FINAL	D/J/m	SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-	YEAR MOVING AVE	RAGES							
76-78	293,674		0		0	21,155	7	21,155	7
77-79	332,035	92	0		0	21,542	6	21,450	6
78-80	312,915	210	0		0	32,751	10	32,541	10
79-81	303,988	946	0		0	25,855	9	24,909	8
80-82	296,084	854	0		0	21,521	7	20,668	7
81-83	329,855	804	0		0	16,542	5	15,738	5
82-84	358,291	263	0		0	19,371	5	19,108	5
83-85	325,786	361	0		0	18,199	6	17,838	5
84-86	297,106	590	0		0	11,688	4	11,097	4
85-87	232,571	596	0		0	7,680	3	7,085	3
86-88	275,097	1,050	0		0	15,567	6	14,517	5
87-89	312,504	2,457	1		0	16,586	5	14,129	5
88-90	390,758	3,892	1		0	20,004	5	16,112	4
89-91	393,835	4,892	1	8,870	2	10,251	3	14,229	4
90-92	333,990	5,084	2	15,432	5	5,558	2	15,907	5
91-93	254,071	5,871	2	24,882	10		0	19,011	7
92-94	206,561	5,208	3	19,572	9		0	14,364	7
93-95	218,550	73,809	34	23,254	11	9,137	4	41,418-	19-
94-96	193,594	74,855	39	20,284	10	13,783	7	40,788-	21-
95-97	409,799	75,461	18	16,510	4	16,117	4	42,834-	10-
96-98	930,558	34,299	4	95,996	10	38,738	4	100,436	11
97-99	1,351,656	56,844	4	227,688	17	38,900	3	209,744	16
98-00	1,478,559	82,209	6	336,555	23	41,138	3	295,483	20
99-01	1,186,054	79,544	7	286,481	24	10,696	1	217,633	18
00-02	1,207,367	65,535	5	148,309	12	6,667	1	89,442	7
01-03	1,212,709	147,537	12	39,656	3	131,303	11	23,422	2
02-04	1,159,374	149,333	13		0	129,987	11	19,347-	2-
03-05	1,198,530	252,744	21		0	152,104	13	100,640-	8-
04-06	2,730,228	228,380	8		0	76,894	3	151,486-	6-
05-07	3,421,134	315,191	9		0	107,028	3	208,163-	6-
06-08	3,250,915	328,055	10		0	114,245	4	213,810-	7 –
07-09	1,711,113	368,709	22		0	85,396	5	283,313-	17-
08-10	974,393	350,301	36		0	74,251	8		28-
09-11	1,111,863	409,841	37		0	56,338	5	353,503-	32-
10-12	1,126,223	522,078	46		0	45,198	4	476,880-	42-
11-13	1,389,634	595,530	43		0	37,951	3	557,579-	40-
FIVE-Y	EAR AVERAGE								
09-13	1,200,442	490,530	41		0	49,252	4	441,278-	37-

## ACCOUNT 365.00 - DISTRIBUTION - SERVICES

		COST OF	i	GROS	S S	ALVAG	E	NET
	REGULAR	REMOVAL	ı	REUSE		FINAL		SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1976	116,831	47,923	41		0	4,701	4	43,222- 37-
1977	123,300	58,412	47		0	6,263	5	52,149- 42-
1978	126,631	60,500	48		0	15,116	12	45,384- 36-
1979	138,960	63,186	45		0	17,372	13	45,814- 33-
1980	118,572	62,500	53		0	10,391	9	52,109- 44-
1981	146,271	76,388	52		0	14,830	10	61,558- 42-
1982	161,068	72,978	45		0	11,232	7	61,746- 38-
1983	165,847	81,841	49		0	15,508	9	66,333- 40-
1984	227,839	83,655	37		0	15,558	7	68,097- 30-
1985	166,496	86,937	52		0	18,404	11	68,533- 41-
1986	143,362	93,190	65		0	19,515	14	73,675- 51-
1987	121,573	113,175	93		0	13,435	11	99,740- 82-
1988	150,491	102,958	68		0	53,716	36	49,242- 33-
1989	166,620	130,934	79		0	24,406	15	106,528- 64-
1990	182,441	163,221	89		0	69,679	38	93,542- 51-
1991	149,716	161,073	108	63,727	43		0	97,346- 65-
1992	164,570	150,230	91	43,847	27		0	106,383- 65-
1993	158,154	121,755	77	40,719	26		0	81,036- 51-
1994	104,640	115,175	110	42,048	40		0	73,127- 70-
1995	87,789	104,798	119	35,449	40		0	69,349- 79-
1996	94,690	99,313	105	300	0	20,917	22	78,096- 82-
1997	61,501	91,488	149		0	16,317	27	75,171-122-
1998	27,057	73,289	271		0	14,685	54	58,604-217-
1999	176,631	108,307	61		0	21,903	12	86,404- 49-
2000	188,122	127,528	68		0		0	127,528- 68-
2001	226,430	149,407	66		0	26,471	12	122,936- 54-
2002	209,907	174,746	83		0	33,015	16	141,731- 68-
2003	503,249	174,526	35		0	27,862	6	146,664- 29-
2004	449,745	158,542	35		0	19,516	4	139,026- 31-
2005	253,823	191,208	75		0	24,450	10	166,758- 66-
2006	291,904	177,395	61		0	23,250	8	154,145- 53-
2007	289,498	159,345	55		0	18,364	6	140,981- 49-
2008	234,159	227,578	97		0	14,156	6	213,422- 91-
2009	209,258	238,443	114		0	13,683	7	224,760-107-
2010	389,228	302,495	78		0	17,300	4	285,195- 73-
2011	410,664	371,667	91		0	19,885	5	351,782- 86-
2012	311,430	346,758	111		0	16,962	5	329,796-106-
2013	593,957	428,878	72		0	14,490	2	414,388- 70-
TOTAL	7,842,423	5,551,742	71	226,090	3	653,352	8	4,672,300- 60-

# ACCOUNT 365.00 - DISTRIBUTION - SERVICES

		COST OF		G R O S	S S	B A L V A G	E	NET	
VE VD	REGULAR	REMOVAL		REUSE	Dam	FINAL	Dam	SALVAGE	ОП
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT F	PCT
THREE-	YEAR MOVING AVE	RAGES							
76-78	122,254	55,612	45		0	8,693	7	46,918-	38-
77-79	129,630	60,699	47		0	12,917	10	47,782-	37-
78-80	128,054	62,062	48		0	14,293	11	47,769-	37-
79-81	134,601	67,358	50		0	14,198	11	53,160-	39-
80-82	141,970	70,622	50		0	12,151	9	58,471-	41-
81-83	157,729	77,069	49		0	13,857	9	63,212-	40-
82-84	184,918	79,491	43		0	14,099	8	65,392-	35-
83-85	186,727	84,144	45		0	16,490	9	67,654-	36-
84-86	179,232	87,927	49		0	17,826	10	70,102-	39-
85-87	143,810	97,767	68		0	17,118	12	80,649-	56-
86-88	138,475	103,108	74		0	28,889	21	74,219-	54-
87-89	146,228	115,689	79		0	30,519	21	85,170-	58-
88-90	166,517	132,371	79		0	49,267	30	83,104-	50-
89-91	166,259	151,743	91	21,242	13	31,362	19	99,139-	60-
90-92	165,576	158,175	96	35,858	22	23,226	14	99,090-	60-
91-93	157,480	144,353	92	49,431	31		0	94,922-	60-
92-94	142,455	129,053	91	42,205	30		0	86,849-	61-
93-95	116,861	113,909	97	39,405	34		0	74,504-	64-
94-96	95,706	106,429	111	25,932	27	6,972	7	73,524-	77-
95-97	81,327	98,533	121	11,916	15	12,411	15	74,205-	91-
96-98	61,083	88,030	144	100	0	17,306	28	70,624-1	L16-
97-99	88,396	91,028	103		0	17,635	20	73,393-	83-
98-00	130,603	103,041	79		0	12,196	9	90,845-	70-
99-01	197,061	128,414	65		0	16,125	8	112,289-	57-
00-02	208,153	150,560	72		0	19,829	10	130,732-	63-
01-03	313,195	166,226	53		0	29,116	9	137,110-	44-
02-04	387,634	169,271	44		0	26,798	7	142,474-	37-
03-05	402,272	174,759	43		0	23,943	6	150,816-	37-
04-06	331,824	175,715	53		0	22,405	7	153,310-	46-
05-07	278,408	175,983	63		0	22,021	8		55-
06-08	271,854	188,106	69		0	18,590	7		62-
07-09	244,305	208,455	85		0	15,401	6	193,054-	79-
08-10	277,548	256,172	92		0	15,046	5		87-
09-11	336,383	304,202	90		0	16,956	5		85-
10-12	370,441	340,307	92		0	18,049	5		87-
11-13	438,683	382,434	87		0	17,112	4	365,322-	83-
FIVE-Y	EAR AVERAGE								
09-13	382,907	337,648	88		0	16,464	4	321,184-	84-

## ACCOUNT 366.00 - DISTRIBUTION - METERS

	REGULAR	COST OF REMOVAL		G R O S REUSE	S S	ALVAG: FINAL	Ε	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT		PCT	AMOUNT	PCT		PCT
1976	267,479		0		0		0		0
1977	230,387		0		0		0		0
1978	118,924	44	0		0	38	0	6-	0
1979	119,222	27	0		0	2,599	2	2,572	2
1980	132,578		0		0	893	1	893	1
1981	157,254		0		0	303	0	303	0
1982	153,822		0		0	236	0	236	0
1983	139,459		0		0	503	0	503	0
1984	129,968		0		0		0		0
1985	107,970		0		0		0		0
1986	137,434	52	0		0		0	52-	0
1987	173,229		0		0		0		0
1988	178,275		0		0		0		0
1989	140,116		0		0	750	1	750	1
1990	123,401		0		0		0		0
1991	259,750		0		0		0		0
1992	148,500	211	0		0		0	211-	0
1993	240,308	130	0	337-	0		0	467-	0
1994	293,024		0	30	0		0	30	0
1995	267,494		0		0		0		0
1996	270,217		0		0		0		0
1997	258,728		0		0		0		0
1998	188,284		0		0		0		0
1999	463,615	10,421	2		0		0	10,421-	2-
2000	491,727	5,578	1		0		0	5,578-	1-
2001	348,826	9,202	3		0		0	9,202-	3-
2002	367,726	8,903	2		0	88	0	8,815-	2-
2003	384,661	8,840	2		0	928	0	7,912-	2-
2004	587,863	48,439	8		0	1,082	0	47,357-	8 –
2005	1,562,397	67,588	4		0	2,041	0	65,547-	4 –
2006	611,499	70,404	12		0	3,931	1	66,473-	11-
2007	1,244,564	55,815	4		0	4,882	0	50,933-	4 –
2008	1,395,748	112,233	8		0	1,355	0	110,878-	8 –
2009	1,418,534	161,882	11		0		0	161,882-	11-
2010	1,875,662	127,516	7		0		0	127,516-	7 –
2011	1,806,466	87,621	5		0		0	87,621-	5 –
2012	2,485,595	114,533	5		0		0	114,533-	5-
2013	2,109,025	141,244	7		0		0	141,244-	7 –
TOTAL	21,389,731	1,030,683	5	307-	0	19,629	0	1,011,361-	5-

# ACCOUNT 366.00 - DISTRIBUTION - METERS

		COST O	COST OF		GROSS SALVAG			E NET		
	REGULAR	REMOVA:	L	REUSE		FINAL		SALVAGE	<u>C</u>	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	
THREE-	YEAR MOVING AVE	RAGES								
76-78	205,597	15	0		0	13	0	2-	. 0	
77-79	156,178	24	0		0	879	1	855	1	
78-80	123,575	24	0		0	1,177	1	1,153	1	
79-81	136,351	9	0		0	1,265	1	1,256	1	
80-82	147,885		0		0	477	0	477	0	
81-83	150,178		0		0	347	0	347	0	
82-84	141,083		0		0	246	0	246	0	
83-85	125,799		0		0	168	0	168	0	
84-86	125,124	17	0		0		0	17-	. 0	
85-87	139,544	17	0		0		0	17-	. 0	
86-88	162,979	17	0		0		0	17-	. 0	
87-89	163,873		0		0	250	0	250	0	
88-90	147,264		0		0	250	0	250	0	
89-91	174,422		0		0	250	0	250	0	
90-92	177,217	70	0		0		0	70-	. 0	
91-93	216,186	114	0	112-	- 0		0	226-	. 0	
92-94	227,277	114	0	102-	- 0		0	216-	. 0	
93-95	266,942	43	0	102-	- 0		0	146-	. 0	
94-96	276,912		0	10	0		0	10	0	
95-97	265,480		0		0		0		0	
96-98	239,076		0		0		0		0	
97-99	303,542	3,474	1		0		0	3,474-	1-	
98-00	381,209	5,333	1		0		0	5,333-	1-	
99-01	434,723	8,400	2		0		0	8,400-	2-	
00-02	402,760	7,894	2		0	29	0	7,865-	2-	
01-03	367,071	8,982	2		0	339	0	8,643-	2-	
02-04	446,750	22,061	5		0	699	0	21,361-		
03-05	844,974	41,622	5		0	1,350	0	40,272-		
04-06	920,586	62,144	7		0	2,351	0	59,792-		
05-07	1,139,487	64,602	6		0	3,618	0	60,984-		
06-08	1,083,937	79,484	7		0	3,389	0	76,095-		
07-09	1,352,949	109,977	8		0	2,079	0	107,898-		
08-10	1,563,315	133,877	9		0	452	0	133,425-		
09-11	1,700,221	125,673	7		0		0	125,673-		
10-12	2,055,908	109,890	5		0		0	109,890-		
11-13	2,133,695	114,466	5		0		0	114,466-	5-	
FIVE-Y	EAR AVERAGE									
09-13	1,939,056	126,559	7		0		0	126,559-	. 7-	
0, 13	±,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	120,000	,		U		U	140,339	, -	

# ACCOUNT 367.00 - DISTRIBUTION - UNDERGROUND DUCTS, MANHOLES AND SWITCHES

	REGULAR	COST OF REMOVAL		G R O S REUSE	S S	A L V A G FINAL	E	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1977	18,627		0		0		0		0
1978	1,527		0		0		0		0
1979									
1980	20		0		0		0		0
1981									
1982									
1983									
1984									
1985	37,480		0		0		0		0
1986									
1987									
1988									
1989									
1990	0 021		0		0		0		^
1991	9,931		0		0		0		0
1992	254		0		0		0		0
1993 1994									
1994									
1996	538		0		0		0		0
1997	550		O	1,688-			O	1,688-	U
1998				1,000				1,000	
1999									
2000									
2001	2,050	21,665			0		0	21,665-	
2002		59,701				1,037		58,664-	
2003		101,237				354		100,883-	
2004		36,433						36,433-	
2005									
2006									
2007									
2008									
2009									
2010	31,599		0		0		0		0
2011	5,706	3,868	68		0		0	3,868-	68-
2012	89,799	23,243	26		0		0	23,243-	26-
2013	169,527	8,011	5		0		0	8,011-	5-
TOTAL	367,057	254,158	69	1,688-	0	1,391	0	254,455-	69-

# ACCOUNT 367.00 - DISTRIBUTION - UNDERGROUND DUCTS, MANHOLES AND SWITCHES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT		GROSS SA REUSE AMOUNT PCT	LVAGE FINAL AMOUNT	PCT	NET SALVAGE AMOUNT PCT
	YEAR MOVING AVE		- 01	11100111 101	11100111	101	11100111 101
77-79	6,718		0	0		0	0
78-80	516		0	0		0	0
79-81	7		0	0		0	0
80-82	7		0	0		0	0
81-83							
82-84							
83-85	12,493		0	0		0	0
84-86	12,493		0	0		0	0
85-87	12,493		0	0		0	0
86-88							
87-89							
88-90							
89-91	3,310		0	0		0	0
90-92	3,395		0	0		0	0
91-93	3,395		0	0		0	0
92-94	85		0	0		0	0
93-95							
94-96	179		0	0		0	0
95-97	179		0	563- 314-		0	563-314-
96-98	179		0	563- 314-		0	563-314-
97-99				563-			563-
98-00							
99-01	683	7,222		0		0	7,222-
00-02	683	27,122		0	346	51	26,776-
01-03	683	60,868		0	464	68	60,404-
02-04		65,790			464		65,327-
03-05		45,890			118		45,772-
04-06		12,144					12,144-
05-07							
06-08							
07-09	10 500					•	•
08-10	10,533	1 000	0	0		0	0
09-11	12,435	1,289	10	0		0	1,289- 10-
10-12	42,368	9,037	21	0		0	9,037- 21-
11-13	88,344	11,707	13	0		0	11,707- 13-
FIVE-Y	EAR AVERAGE						
09-13	59,326	7,024	12	0		0	7,024- 12-

# ACCOUNT 371.00 - GENERAL - BUILDINGS AND STRUCTURES

	REGULAR	COST OI REMOVAI		GROSS SA REUSE	ALVAG: FINAL	E	NET SALVAGE
YEAR	REGULAR	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT	AMOUNT PCT
1976	4,843	163	3	0	8,659	179	8,496 175
1977	300		0	0	1,650	550	1,650 550
1978	79,242	637	1	0	11,980	15	11,343 14
1979	5,552	520	9	0	26,283	473	25,763 464
1980	57,403	6,451	11	0	18,648	32	12,197 21
1981	35,733	1,746	5	0	25,401	71	23,655 66
1982	43,455	10,346	24	0	375	1	9,971- 23-
1983	160,675	5,884	4	0	1,228	1	4,656- 3-
1984	37,007	516	1	0	48,478	131	47,962 130
1985	78,642	939	1	0	1,837	2	898 1
1986	50,404	1,886	4	0	2,879	6	993 2
1987	39,555	7,433	19	0	700	2	6,733- 17-
1988	68,927	39,213	57	0	45,121	65	5,908 9
1989	248,470	48,248	19	0	12,616	5	35,632- 14-
1990	16,329	2,622	16	0		0	2,622- 16-
1991	23,928	9,157	38	0	12,049	50	2,892 12
1992	859,831	11,658	1	0	86,852	10	75,194 9
1993	29,875	7,811	26	0		0	7,811- 26-
1994	235,688	47,807	20	0	50,341	21	2,534 1
1995	84,430	26,455	31	0		0	26,455- 31-
1996	23,201	5,802	25	0		0	5,802- 25-
1997	404,294	38,948	10	0	9,826	2	29,122- 7-
1998	190,691	37,368	20	0		0	37,368- 20-
1999	176,260	11,040	6	0		0	11,040- 6-
2000	26,000	12,896	50	0	5,245	20	7,651- 29-
2001	22,301	13,475	60	0		0	13,475- 60-
2002	753,173	42,714	6	0	3,218	0	39,496- 5-
2003	5,000	7,180	144	0	3,896	78	3,284- 66-
2004	548,906	22,445	4	0	•	0	22,445- 4-
2005	442,464	8,384	2	0	10,028	2	1,644 0
2006	604,572	58,326	10	0	·	0	58,326- 10-
2007	168,484	57,130	34	0		0	57,130- 34-
2008	60,600	65,497	108	0		0	65,497-108-
2009	207,927	17,374	8	0		0	17,374- 8-
2010	156,992	138,488	88	0	990	1	137,498- 88-
2011	174,778	81,629	47	0		0	81,629- 47-
2012	287,583	185,182	64	0		0	185,182- 64-
2013	653,776	347,260	53	0	2,646	0	344,614- 53-
2015							
TOTAL	7,067,293	1,380,630	20	0	390,946	6	989,684- 14-

# ACCOUNT 371.00 - GENERAL - BUILDINGS AND STRUCTURES

		COST OF		G R O	SSS.	ALVAG	E	NET	
	REGULAR	REMOVAI		REUSE		FINAL		SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-Y	YEAR MOVING AVE	RAGES							
76-78	28,128	267	1		0	7,430	26	7,163	25
77-79	28,365	386	1		0	13,304	47	12,919	46
78-80	47,399	2,536	5		0	18,970	40	16,434	35
79-81	32,896	2,906	9		0	23,444	71	20,538	62
80-82	45,530	6,181	14		0	14,808	33	8,627	19
81-83	79,954	5,992	7		0	9,001	11	3,009	4
82-84	80,379	5,582	7		0	16,694	21	11,112	14
83-85	92,108	2,446	3		0	17,181	19	14,735	16
84-86	55,351	1,114	2		0	17,731	32	16,618	30
85-87	56,200	3,419	6		0	1,805	3	1,614-	3 –
86-88	52,962	16,177	31		0	16,233	31	56	0
87-89	118,984	31,631	27		0	19,479	16	12,152-	10-
88-90	111,242	30,028	27		0	19,246	17	10,782-	10-
89-91	96,242	20,009	21		0	8,222	9	11,787-	12-
90-92	300,029	7,812	3		0	32,967	11	25,155	8
91-93	304,545	9,542	3		0	32,967	11	23,425	8
92-94	375,131	22,425	6		0	45,731	12	23,306	6
93-95	116,664	27,358	23		0	16,780	14	10,577-	9 –
94-96	114,440	26,688	23		0	16,780	15	9,908-	9 –
95-97	170,642	23,735	14		0	3,275	2	20,460-	12-
96-98	206,062	27,373	13		0	3,275	2	24,097-	12-
97-99	257,082	29,119	11		0	3,275	1	25,843-	10-
98-00	130,984	20,435	16		0	1,748	1	18,686-	14-
99-01	74,854	12,470	17		0	1,748	2	10,722-	14-
00-02	267,158	23,028	9		0	2,821	1	20,207-	8-
01-03	260,158	21,123	8		0	2,371	1	18,752-	7 –
02-04	435,693	24,113	6		0	2,371	1	21,742-	5 –
03-05	332,123	12,670	4		0	4,641	1	8,028-	2-
04-06	531,981	29,718	6		0	3,343	1	26,376-	5-
05-07	405,173	41,280	10		0	3,343	1	37,937-	9 –
06-08	277,885	60,318	22		0		0	60,318-	22-
07-09	145,670	46,667	32		0		0	46,667-	32-
08-10	141,840	73,786	52		0	330	0	73,456-	52-
09-11	179,899	79,164	44		0	330	0	78,834-	44-
10-12	206,451	135,100	65		0	330	0	134,770-	65-
11-13	372,046	204,690	55		0	882	0	203,808-	55-
F.T A F. – A F	EAR AVERAGE								
09-13	296,211	153,987	52		0	727	0	153,259-	52-

## ACCOUNT 378.20 - TRANSPORTATION - PICK-UP TRUCKS AND VANS

	REGULAR	COST OF REMOVAL		GROSS S REUSE	ALVAGI FINAL	E	NET SALVAGE	C
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT	AMOUNT	PCT
1976	76,935		0	0	14,419	19	14,419	19
1977	194,411		0	0	27,272	14	27,272	14
1978	117,670		0	0	20,360	17	20,360	17
1979	140,956		0	0	30,262	21	30,262	21
1980	189,104		0	0	37,925	20	37,925	20
1981	234,687	167	0	0	48,049	20	47,882	20
1982	192,122	446	0	0	34,468	18	34,022	18
1983	152,371	420	0	0	23,322	15	22,902	15
1984	253,637	559	0	0	46,893	18	46,334	18
1985	296,407	1,825	1	0	41,565	14	39,740	13
1986	411,189		0	0	53,406	13	53,406	13
1987	291,609		0	0	44,965	15	44,965	15
1988	485,410		0	0	91,137	19	91,137	19
1989	350,708		0	0	81,021	23	81,021	23
1990	225,867		0	0	37,234	16	37,234	16
1991	505,246		0	0	65,950	13	65,950	13
1992	455,597	61	0	0	65,336	14	65,275	14
1993	496,798	52	0	0	81,279	16	81,227	16
1994	592,278	141	0	0	75,541	13	75,400	13
1995	645,586	242	0	0	99,820	15	99,578	15
1996	342,615		0	0	54,438	16	54,438	16
1997	810,668	3,015	0	0	126,979	16	123,964	15
1998	399,694		0	0	61,392	15	61,392	15
1999	745,007		0	0	147,720	20	147,720	20
2000	655,463	336	0	0	104,561	16	104,225	16
2001	456,416		0	0	67,984	15	67,984	15
2002	1,042,188		0	0	143,096	14	143,096	14
2003	707,749		0	0	244,822	35	244,822	35
2004	558,682		0	0	112,179	20	112,179	20
2005	1,315,354		0	0	175,840	13	175,840	13
2006	723,512		0	0	67,772	9	67,772	9
2007	813,637		0	0	116,614	14	116,614	14
2008	1,131,192		0	0	141,281	12	141,281	12
2009	858,160		0	0	122,252	14	122,252	14
2010	545,514		0	0	70,148	13	70,148	13
2011	549,703		0	0	50,011	9	50,011	9
2012	875,990		0	0	87,084	10	87,084	10
2013	602,458		0	0	81,221	13	81,221	13
TOTAL	19,442,590	7,264	0	0	2,995,618	15	2,988,354	15

## ACCOUNT 378.20 - TRANSPORTATION - PICK-UP TRUCKS AND VANS

		COST O	F	G R O	S S S	A L V A G	E	NET	
	REGULAR	REMOVA	L	REUSE	]	FINAL		SALVAGI	£
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-	YEAR MOVING AVE	RAGES							
76-78	129,672		0		0	20,684	16	20,684	16
77-79	151,012		0		0	25,965	17	25,965	17
78-80	149,243		0		0	29,516	20	29,516	20
79-81	188,249	56	0		0	38,745	21	38,690	21
80-82	205,304	204	0		0	40,147	20	39,943	19
81-83	193,060	344	0		0	35,280	18	34,935	18
82-84	199,377	475	0		0	34,894	18	34,419	17
83-85	234,138	935	0		0	37,260	16	36,325	16
84-86	320,411	795	0		0	47,288	15	46,493	15
85-87	333,068	608	0		0	46,645	14	46,037	14
86-88	396,069		0		0	63,169	16	63,169	16
87-89	375,909		0		0	72,374	19	72,374	19
88-90	353,995		0		0	69,797	20	69,797	20
89-91	360,607		0		0	61,402	17	61,402	17
90-92	395,570	20	0		0	56,173	14	56,153	14
91-93	485,880	38	0		0	70,855	15	70,817	15
92-94	514,891	85	0		0	74,052	14	73,967	14
93-95	578,221	145	0		0	85,547	15	85,402	15
94-96	526,826	128	0		0	76,600	15	76,472	15
95-97	599,623	1,086	0		0	93,746	16	92,660	15
96-98	517,659	1,005	0		0	80,936	16	79,931	15
97-99	651,790	1,005	0		0	112,030	17	111,025	17
98-00	600,055	112	0		0	104,558	17	104,446	17
99-01	618,962	112	0		0	106,755	17	106,643	17
00-02	718,022	112	0		0	105,214	15	105,102	15
01-03	735,451		0		0	151,967	21	151,967	21
02-04	769,540		0		0	166,699	22	166,699	22
03-05	860,595		0		0	177,614	21	177,614	21
04-06	865,849		0		0	118,597	14	118,597	14
05-07	950,834		0		0	120,075	13	120,075	13
06-08	889,447		0		0	108,556	12	108,556	12
07-09	934,330		0		0	126,716	14	126,716	14
08-10	844,955		0		0	111,227	13	111,227	13
09-11	651,125		0		0	80,804	12	80,804	12
10-12	657,069		0		0	69,081	11	69,081	11
11-13	676,050		0		0	72,772	11	72,772	11
FIVE-Y	EAR AVERAGE								
09-13	686,365		0		0	82,143	12	82,143	12

# ACCOUNTS 378.30 & 378.40 - TRANSPORTATION - TRUCKS WITH DERRICKS AND LINE AND STAKE BODIES

	REGULAR	COST OF REMOVAI		GROSS S REUSE	SALVAG: FINAL	E	NET SALVAGI	C
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT	AMOUNT	PCT
1976	182,763		0	0	29,724	16	29,724	16
1977	150,531		0	0	14,801	10	14,801	10
1978	119,256		0	0	19,504	16	19,504	16
1979	206,036		0	0	39,929	19	39,929	19
1980	239,577		0	0	35,616	15	35,616	15
1981	382,950	118	0	0	46,910	12	46,792	12
1982	255,790	418	0	0	32,547	13	32,129	13
1983	205,939	394	0	0	23,481	11	23,087	11
1984	296,989	416	0	0	34,328	12	33,912	11
1985	548,699	1,691	0	0	48,376	9	46,685	9
1986	617,886		0	0	83,827	14	83,827	14
1987	334,810		0	0	34,245	10	34,245	10
1988	607,527		0	0	60,253	10	60,253	10
1989	503,408	702	0	0	72,535	14	71,833	14
1990	177,752	390	0	0	23,040	13	22,650	13
1991	753,999	12,953	2	0	70,266	9	57,313	8
1992	666,166		0	0	30,464	5	30,464	5
1993	887,092		0	0	45,489	5	45,489	5
1994	768,402		0	0	50,740	7	50,740	7
1995	695,099		0	0	45,436	7	45,436	7
1996	1,049,280	2,362	0	0	69,031	7	66,669	6
1997	584,835		0	0	44,824	8	44,824	8
1998	437,847		0	0	21,756	5	21,756	5
1999	312,192		0	0	30,964	10	30,964	10
2000	1,478,164		0	0	171,607	12	171,607	12
2001	1,187,211		0	0	106,928	9	106,928	9
2002	1,560,774		0	0	55,690	4	55,690	4
2003	1,419,218	2,457	0	0	117,642	8	115,185	8
2004	1,538,748		0	0	64,335	4	64,335	4
2005	2,176,168		0	0	82,452	4	82,452	4
2006	913,874		0	0	38,268	4	38,268	4
2007	953,121		0	0	50,488	5	50,488	5
2008	747,614		0	0	21,977	3	21,977	3
2009	997,544	137	0	0	19,919	2	19,782	2
2010	298,431		0	0	8,302	3	8,302	3
2011	1,546,933		0	0	54,259	4	54,259	4
2012	552,582	3,349	1	0	20,980	4	17,631	3
2013	1,342,211	2,305	0	0	53,352	4	51,047	4
TOTAL	27,697,417	27,692	0	0	1,874,285	7	1,846,593	7

# ACCOUNTS 378.30 & 378.40 - TRANSPORTATION - TRUCKS WITH DERRICKS AND LINE AND STAKE BODIES

		COST O	F	G R O	S S S	ALVAG	E	NET	
	REGULAR	REMOVA	L	REUSE		FINAL		SALVAGE	£
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-	YEAR MOVING AVE	RAGES							
76-78	150,850		0		0	21,343	14	21,343	14
77-79	158,608		0		0	24,745	16	24,745	16
78-80	188,290		0		0	31,683	17	31,683	17
79-81	276,188	39	0		0	40,818	15	40,779	15
80-82	292,772	179	0		0	38,358	13	38,179	13
81-83	281,560	310	0		0	34,313	12	34,003	12
82-84	252,906	409	0		0	30,119	12	29,709	12
83-85	350,542	834	0		0	35,395	10	34,561	10
84-86	487,858	702	0		0	55,510	11	54,808	11
85-87	500,465	564	0		0	55,483	11	54,919	11
86-88	520,074		0		0	59,442	11	59,442	11
87-89	481,915	234	0		0	55,678	12	55,444	12
88-90	429,562	364	0		0	51,943	12	51,579	12
89-91	478,386	4,682	1		0	55,280	12	50,599	11
90-92	532,639	4,448	1		0	41,257	8	36,809	7
91-93	769,086	4,318	1		0	48,740	6	44,422	6
92-94	773,887		0		0	42,231	5	42,231	5
93-95	783,531		0		0	47,222	6	47,222	6
94-96	837,594	787	0		0	55,069	7	54,282	6
95-97	776,405	787	0		0	53,097	7	52,310	7
96-98	690,654	787	0		0	45,204	7	44,416	6
97-99	444,958		0		0	32,515	7	32,515	7
98-00	742,734		0		0	74,776	10	74,776	10
99-01	992,522		0		0	103,166	10	103,166	10
00-02	1,408,716		0		0	111,408	8	111,408	8
01-03	1,389,068	819	0		0	93,420	7	92,601	7
02-04	1,506,246	819	0		0	79,222	5	78,403	5
03-05	1,711,378	819	0		0	88,143	5	87,324	5
04-06	1,542,930		0		0	61,685	4	61,685	4
05-07	1,347,721		0		0	57,069	4	57,069	4
06-08	871,536		0		0	36,911	4	36,911	4
07-09	899,426	46	0		0	30,795	3	30,749	3
08-10	681,196	46	0		0	16,733	2	16,687	2
09-11	947,636	46	0		0	27,493	3	27,448	3
10-12	799,315	1,116	0		0	27,847	3	26,731	3
11-13	1,147,242	1,885	0		0	42,864	4	40,979	4
FTVE-Y	EAR AVERAGE								
09-13	947,540	1,158	0		0	31,362	າ	30,204	າ
05-13	941,34U	1,100	U		U	JI, JUZ	3	30,204	3

# ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

	REGULAR	COST OF REMOVAL		GROSS S REUSE	ALVAG: FINAL	Ε	NET SALVAGE	1
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT	AMOUNT	PCT
1976	6,055		0	0	4,743	78	4,743	78
1977	7,555		0	0	652	9	652	9
1978	10,730		0	0		0		0
1979	5,596		0	0	1,670	30	1,670	30
1980	9,742		0	0	3,364	35	3,364	35
1981	10,912	18	0	0	1,851	17	1,833	17
1982	20,328	80	0	0	6,505	32	6,425	32
1983	5,165	35	1	0	2,240	43	2,205	43
1984	34,387	1,180	3	0	10,802	31	9,622	28
1985	12,169	62	1	0	3,184	26	3,122	26
1986	40,742		0	0	6,576	16	6,576	16
1987	51,976		0	0	8,499	16	8,499	16
1988	47,006		0	0	4,375	9	4,375	9
1989	127,685		0	0	16,403	13	16,403	13
1990	37,743		0	0	9,560	25	9,560	25
1991					584		584	
1992	109,454		0	0	9,069	8	9,069	8
1993	21,690		0	0	4,557	21	4,557	21
1994	117,038		0	0	26,435	23	26,435	23
1995	47,593	48	0	0	4,513	9	4,465	9
1996	114,131		0	0	9,103	8	9,103	8
1997	150,730		0	0	20,605	14	20,605	14
1998	123,183		0	0	51,349	42	51,349	42
1999	45,848		0	0	21,811	48	21,811	48
2000	313,095		0	0	37,477	12	37,477	12
2001	63,382		0	0	10,698	17	10,698	17
2002	112,182		0	0	6,939	6	6,939	6
2003	223,072		0	0	53,327	24	53,327	24
2004	59,431		0	0	10,228	17	10,228	17
2005	212,146		0	0	46,314	22	46,314	22
2006	366,663		0	0	21,041	6	21,041	6
2007	10,430-		0	0	4,422	42-	4,422	42-
2008	179,897		0	0	8,670	5	8,670	5
2009	69,318		0	0	11,457	17	11,457	17
2010	28,370		0	0	3,182	11	3,182	11
2011	149,019		0	0	12,906	9	12,906	9
2012	126,425		0	0	25,102	20	25,102	20
2013	98,210		0	0	4,190	4	4,190	4
TOTAL	3,148,239	1,423	0	0	484,403	15	482,980	15

# ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

	REGULAR	COST OF REMOVAL		REUSE	L V A G I		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-	YEAR MOVING AVE	RAGES						
76-78	8,113		0	0	1,798	22	1,798	22
77-79	7,960		0	0	774	10	774	10
78-80	8,689		0	0	1,678	19	1,678	19
79-81	8,750	6	0	0	2,295	26	2,289	26
80-82	13,661	33	0	0	3,907	29	3,874	28
81-83	12,135	44	0	0	3,532	29	3,488	29
82-84	19,960	432	2	0	6,516	33	6,084	30
83-85	17,240	426	2	0	5,409	31	4,983	29
84-86	29,099	414	1	0	6,854	24	6,440	22
85-87	34,962	21	0	0	6,086	17	6,066	17
86-88	46,575		0	0	6,483	14	6,483	14
87-89	75,556		0	0	9,759	13	9,759	13
88-90	70,811		0	0	10,113	14	10,113	14
89-91	55,143		0	0	8,849	16	8,849	16
90-92	49,066		0	0	6,404	13	6,404	13
91-93	43,715		0	0	4,737	11	4,737	11
92-94	82,727		0	0	13,354	16	13,354	16
93-95	62,107	16	0	0	11,835	19	11,819	19
94-96	92,921	16	0	0	13,350	14	13,334	14
95-97	104,151	16	0	0	11,407	11	11,391	11
96-98	129,348		0	0	27,019	21	27,019	21
97-99	106,587		0	0	31,255	29	31,255	29
98-00	160,709		0	0	36,879	23	36,879	23
99-01	140,775		0	0	23,329	17	23,329	17
00-02	162,886		0	0	18,371	11	18,371	11
01-03	132,879		0	0	23,655	18	23,655	18
02-04	131,562		0	0	23,498	18	23,498	18
03-05	164,883		0	0	36,623	22	36,623	22
04-06	212,747		0	0	25,861	12	25,861	12
05-07	189,460		0	0	23,926	13	23,926	13
06-08	178,710		0	0	11,378	6	11,378	6
07-09	79,595		0	0	8,183	10	8,183	10
08-10	92,529		0	0	7,770	8	7,770	8
09-11	82,236		0	0	9,182	11	9,182	11
10-12	101,272		0	0	13,730	14	13,730	14
11-13	124,551		0	0	14,066	11	14,066	11
FIVE-YI	EAR AVERAGE							
09-13	94,268		0	0	11,367	12	11,367	12

# ACCOUNT 382.00 - RADIO SITES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT F	CT	GROSS REUSE AMOUNT PCT	S A L V A G FINAL AMOUNT		NET SALVAGE AMOUNT	: PCT
						0		
1977 1978	4,562		0	0		U		0
1978								
1980								
1981								
1982								
1983								
1984	53,582		0	0		0		0
1985	33,332		Ū	J		· ·		ŭ
1986		916					916-	
1987		2,761			2,712		49-	
1988		•			•			
1989	42,807		0	0	232	1	232	1
1990								
1991								
1992		2,520		1,850			670-	
1993		445			634		189	
1994								
1995	8,982		0	0		0		0
1996								
1997								
1998								
1999								
2000		222					222-	
2001	4,699		0	0		0		0
2002	10,286		0	0		0		0
2003								
2004								
2005								
2006								
2007								
2008								
2009	2 402		0	0		0		0
2010 2011	2,493		0	0		U		0
2011								
2012								
2013								
TOTAL	127,411	6,864	5	1,850 1	3,578	3	1,436-	1-

# ACCOUNT 382.00 - RADIO SITES

	REGULAR	COST OF		G R O S REUSE		A L V A G FINAL		NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-	YEAR MOVING AVE	RAGES							
77-79	1,521		0		0		0		0
78-80									
79-81									
80-82									
81-83									
82-84	17,861		0		0		0		0
83-85	17,861		0		0		0		0
84-86	17,861	305	2		0		0	305-	2-
85-87		1,226				904		322-	
86-88		1,226				904		322-	
87-89	14,269	920	6		0	981	7	61	0
88-90	14,269		0		0	77	1	77	1
89-91	14,269		0		0	77	1	77	1
90-92		840		617				223-	
91-93		988		617		211		160-	
92-94		988		617		211		160-	
93-95	2,994	148	5		0	211	7	63	2
94-96	2,994		0		0		0		0
95-97	2,994		0		0		0		0
96-98									
97-99									
98-00		74						74-	
99-01	1,566	74	5		0		0	74-	5-
00-02	4,995	74	1		0		0	74-	1-
01-03	4,995		0		0		0		0
02-04	3,429		0		0		0		0
03-05									
04-06									
05-07									
06-08									
07-09									
08-10	831		0		0		0		0
09-11	831		0		0		0		0
10-12	831		0		0		0		0
11-13									
FIVE-Y	EAR AVERAGE								
09-13	499		0		0		0		0
0, 13	ュノノ		U		J		U		J

# ACCOUNT 384.00 - COMMUNICATION CABLES

	REGULAR	COST OF		G R O S REUSE	S S S	A L V A G FINAL		NET SALVAGE	]
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1990	379		0		0		0		0
1991									
1992									
1993									
1994									
1995		629						629-	
1996		5,398		220				5,178-	
1997									
1998	95,974		0		0		0		0
1999	24,573	11,599	47		0		0	11,599-	47-
2000									
2001	200 614	40 400			0		0	40 400	
2002	398,614	42,493	11		0		0	42,493-	
2003	336,135	104	0		0		0	104	0
2004	13,313	184	1		0		0	184-	
2005	5,964	0.700	0		0		0	0 700	0
2006	201,741	8,790	4		0		0	8,790-	
2007	86,139	2,305	3		0		0	2,305-	
2008	29,559 159,316	9,632	33		0 0		0	9,632- 583-	
2009 2010	66,138	583 317	0 0		0		0 0	317-	
2010	11,537	200	2		0		0	200-	
2011	66,213	200	0		0		0	200-	0
2012	1		0		0		0		0
2013	_		O		U		O		U
TOTAL	1,495,596	82,130	5	220	0		0	81,910-	5-
THREE-	YEAR MOVING AVE	RAGES							
90-92	126		0		0		0		0
91-93									
92-94									
93-95		210						210-	
94-96		2,009		73				1,936-	
95-97		2,009		73				1,936-	
96-98	31,991	1,799	6	73	0		0	1,726-	
97-99	40,182	3,866	10		0		0	3,866-	
98-00	40,182	3,866	10		0		0	3,866-	
99-01	8,191	3,866	47		0		0	3,866-	
00-02	132,871	14,164	11		0		0	14,164-	
01-03	244,916	14,164	6		0		0	14,164-	
02-04	249,354	14,226	6		0		0	14,226-	6-

# ACCOUNT 384.00 - COMMUNICATION CABLES

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SA REUSE AMOUNT PCT	LVAGE FINAL AMOUNT PCT	NET SALVAGE AMOUNT	PCT
THREE-Y	YEAR MOVING AVE	RAGES					
03-05	118,471	61	0	0	0	61-	0
04-06	73,673	2,991	4	0	0	2,991-	4-
05-07	97,948	3,698	4	0	0	3,698-	4-
06-08	105,813	6,909	7	0	0	6,909-	7-
07-09	91,671	4,173	5	0	0	4,173-	5-
08-10	85,004	3,511	4	0	0	3,511-	4-
09-11	78,997	367	0	0	0	367-	0
10-12	47,963	172	0	0	0	172-	0
11-13	25,917	67	0	0	0	67-	0
FIVE-YE	EAR AVERAGE						
09-13	60,641	220	0	0	0	220-	0

# ACCOUNT 386.00 - SCADA EQUIPMENT

	REGULAR	COST OF REMOVAL		REUSE	A L V A G E FINAL	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT PCT	AMOUNT PCT	AMOUNT F	PCT
1994	168,116	5,156	3	0	0	5,156-	3 –
1995	131,945		0	0	0		0
1996	624		0	0	0		0
1997	1,858,202		0	0	0		0
1998	41,691		0	0	0		0
1999	390,626	15,843	4	0	0	15,843-	4-
2000	3,852,189	35,852	1	0	0	35,852-	1-
2001		7,580				7,580-	
2002	693,798	403	0	0	0	403-	0
2003							
2004	53,493		0	0	0		0
2005	2,681		0	0	0		0
2006	413,312		0	0	0		0
2007	66,885		0	0	0		0
2008							
2009	40,368		0	0	0		0
2010	147,746	5,006	3	0	0	5,006-	3-
2011	49,896	3,314	7	0	0	3,314-	7-
2012	407,223	1,012	0	0	0	1,012-	0
2013							
				_			
TOTAL	8,318,795	74,166	1	0	0	74,166-	1-
THREE-Y	YEAR MOVING AV	ERAGES					
94-96	100,228	1,719	2	0	0	1,719-	2-
95-97	663,590		0	0	0		0
96-98	633,506		0	0	0		0
97-99	763,506	5,281	1	0	0	5,281-	1-
98-00	1,428,169	17,232	1	0	0	17,232-	1-
99-01	1,414,272	19,758	1	0	0	19,758-	1-
00-02	1,515,329	14,612	1	0	0	14,612-	1-
01-03	231,266	2,661	1	0	0	2,661-	1-
02-04	249,097	134	0	0	0	134-	0
03-05	18,725		0	0	0		0
04-06	156,495		0	0	0		0
05-07	160,959		0	0	0		0
06-08	160,066		0	0	0		0
07-09	35,751		0	0	0		0
08-10	62,705	1,669	3	0	0	1,669-	3 –
09-11	79,337	2,773	3	0	0	2,773-	3-

# ACCOUNT 386.00 - SCADA EQUIPMENT

		COST OF	7	GRO	SSS.	ALVAG	E	NET	
	REGULAR	REMOVAI		REUSE		FINAL	1	SALVAGE	;
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-Y	YEAR MOVING AVE	RAGES							
10-12	201,622	3,111	2		0		0	3,111-	2-
11-13	152,373	1,442	1		0		0	1,442-	1-
FIVE-Y	EAR AVERAGE								
09-13	129,047	1,866	1		0		0	1,866-	1-

# ACCOUNT 389.10 - TELEPHONE AND DATA COLLECTION EQUIPMENT

REGULAR REMOVAL REUSE	V A G E NET SALVAGE
YEAR RETIREMENTS AMOUNT PCT AMOUNT PCT AMO	MOUNT PCT AMOUNT PCT
1998 124,292 3,520 3 0	0 3,520- 3-
1999 137	137-
2000 533,547 12,538 2 0 2	23,402 4 10,864 2
2001 12,511 138 1 0	0 138- 1-
2002 48,074 0	0 0
2003	
2004 593,526 0 0	0 0
2005 93,477 22,263 24 0	0 22,263- 24-
2006 303,110 0	0 0
2007	
2008	
2009	
2010	
2011	
2012 70,099 0 0	0 0
2013 1 0 0	0 0
TOTAL 1,778,637 38,596 2 0 2	23,402 1 15,194- 1-
THREE-YEAR MOVING AVERAGES	
98-00 219,280 5,398 2 0	7,801 4 2,402 1
99-01 182,019 4,271 2 0	7,801 4 3,530 2
00-02 198,044 4,225 2 0	7,801 4 3,575 2
01-03 20,195 46 0 0	0 46- 0
02-04 213,867 0 0	0 0
03-05 229,001 7,421 3 0	0 7,421- 3-
04-06 330,038 7,421 2 0	0 7,421- 2-
05-07 132,196 7,421 6 0	0 7,421- 6-
06-08 101,037 0 0	0 0
07-09	
08-10	
09-11	
10-12 23,366 0	0 0
11-13 23,367 0 0	0 0
FIVE-YEAR AVERAGE	
09-13 14,020 0 0	

# ACCOUNT 391.00 - COMMUNICATIONS - TEST EQUIPMENT

	REGULAR	COST OF REMOVAL	GROSS SAL REUSE	V A G E FINAL	NET SALVAGE
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT AM	MOUNT PCT	AMOUNT PCT
1995	8,355	0	0	0	0
1996	1,625	0	0	0	0
1997					
1998	36,301	0	0	0	0
1999					
2000					
2001					
2002	9,826	0	0	0	0
2003					
2004					
2005					
2006	84,890	0	0	0	0
2007					
2008					
2009					
2010					
2011	38,739	0	0	0	0
2012	73,689	0	0	0	0
2013					
TOTAL	253,425	0	0	0	0
THREE-	YEAR MOVING AVE	RAGES			
95-97	3,327	0	0	0	0
96-98	12,642	0	0	0	0
97-99	12,100	0	0	0	0
98-00	12,100	0	0	0	0
99-01					
00-02	3,275	0	0	0	0
01-03	3,275	0	0	0	0
02-04	3,275	0	0	0	0
03-05					
04-06	28,297	0	0	0	0
05-07	28,297	0	0	0	0
06-08	28,297	0	0	0	0
07-09					
08-10					
09-11	12,913	0	0	0	0

# ACCOUNT 391.00 - COMMUNICATIONS - TEST EQUIPMENT

YEAR	REGULAR RETIREMENTS	COST C REMOVA AMOUNT		G R O : REUSE AMOUNT		A L V A G FINAL AMOUNT		NET SALVAG AMOUNT	E PCT
	YEAR MOVING AVE		101	11100111	101	11100111	101	11100111	101
10-12	37,476		0		0		0		0
11-13	37,476		0		0		0		0
FIVE-Y	EAR AVERAGE								
09-13	22,486		0		0		0		0

**NET SALVAGE STATISTICS - ADJUSTED** 



#### SUBSTATIONS - ALL ACCOUNTS

	REGULAR	COST OI REMOVAI		G R O S REUSE	S S S	S A L V A G E FINAL	1	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT		PCT		PCT
1976	209,702	4,114	2		0	6,253	3	2,139	1
1977	715,030	12,172	2		0	24,614	3	12,442	2
1978	324,510	21,609	7		0	84,012	26	62,403	19
1979	122,514	10,227	8		0	17,454	14	7,227	6
1980	108,065	2,436	2		0	45,517	42	43,081	40
1981	238,697	147,479	62		0	61,857	26	85,622-	36-
1982	129,423	3,099	2		0	7,165	6	4,066	3
1983	122,630	11,041	9		0	15,891	13	4,850	4
1984	175,717	13,590	8		0	13,396	8	194-	0
1985	406,932	18,807	5		0	8,078	2	10,729-	3 –
1986	192,045	12,595	7		0	6,350	3	6,245-	3 –
1987	321,499	27,183	8		0	7,263	2	19,920-	6-
1988	293,006	44,292	15		0	34,462	12	9,830-	3 –
1989	171,633	51,567	30		0	7,769-	5-	59,336-	35-
1990	439,514	61,127	14		0	25,181	6	35,946-	8 –
1991	256,468	39,146	15	23,514	9		0	15,632-	6-
1992	490,044	36,153	7	2,086	0		0	34,067-	7 –
1993	124,896	37,515	30	3,426	3		0	34,089-	27-
1994	457,823	83,034	18		0	101,855	22	18,821	4
1995	220,360	47,975	22	101,135	46		0	53,160	24
1996	408,816	63,917	16	10,702	3		0	53,215-	13-
1997	462,017	73,776	16	18,898	4		0	54,878-	12-
1998	453,867	57,107	13		0	17,258	4	39,849-	9 –
1999	1,100,914	253,110	23	13,300	1		0	239,810-	22-
2000	491,183	186,825	38	25,556	5		0	161,269-	33-
2001	626,831	110,079	18	754	0		0	109,325-	17-
2002	1,908,272	88,133	5		0	2,773	0	85,360-	4 –
2003	526,793	113,166	21		0	515,590	98	402,424	76
2004	805,114	434,013	54		0		0	434,013-	54-
2005	1,188,785	360,286	30		0	1,270	0	359,016-	30-
2006	991,971	426,925	43		0	65,682	7	361,243-	36-
2007	435,242	697,365	160		0	44,634	10	652,731-	150-
2008	980,741	610,079	62		0	2,932	0	607,147-	62-
2009	1,335,355	865,770	65		0		0	865,770-	65-
2010	2,023,371	812,190	40		0		0	812,190-	40-
2011	1,817,358	1,034,788	57		0		0	1,034,788-	57-
2012	2,340,010	1,096,492	47		0		0	1,096,492-	47-
2013	2,613,572	1,342,356	51		0		0	1,342,356-	51-
TOTAL	26,030,722	9,311,538	36	199,371	1	1,101,718	4	8,010,449-	31-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### SUBSTATIONS - ALL ACCOUNTS

	REGULAR	COST OF REMOVAL		G R O S REUSE	S S	S A L V A G FINAL	E	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT		PCT
THREE-	YEAR MOVING AV	ERAGES							
76-78	416,414	12,632	3		0	38,293	9	25,661	6
77-79	387,351	14,669	4		0	42,027	11	27,357	7
78-80	185,030	11,424	6		0	48,994	26	37,570	20
79-81	156,425	53,381	34		0	41,609	27	11,771-	8-
80-82	158,728	51,005	32		0	38,180	24	12,825-	8-
81-83	163,583	53,873	33		0	28,304	17	25,569-	16-
82-84	142,590	9,243	6		0	12,151	9	2,907	2
83-85	235,093	14,479	6		0	12,455	5	2,024-	1-
84-86	258,231	14,997	6		0	9,275	4	5,723-	2-
85-87	306,825	19,528	6		0	7,230	2	12,298-	4 –
86-88	268,850	28,023	10		0	16,025	6	11,998-	4-
87-89	262,046	41,014	16		0	11,319	4	29,695-	11-
88-90	301,384	52,329	17		0	17,291	6	35,037-	12-
89-91	289,205	50,613	18	7,838	3	5,804	2	36,971-	13-
90-92	395,342	45,475	12	8,533	2	8,394	2	28,548-	7-
91-93	290,469	37,605	13	9,675	3		0	27,929-	10-
92-94	357,588	52,234	15	1,837	1	33,952	9	16,445-	5-
93-95	267,693	56,175	21	34,854	13	33,952	13	12,631	5
94-96	362,333	64,975	18	37,279	10	33,952	9	6,255	2
95-97	363,731	61,889	17	43,578	12		0	18,311-	5-
96-98	441,567	64,933	15	9,867	2	5,753	1	49,314-	11-
97-99	672,266	127,998	19	10,733	2	5,753	1	111,512-	17-
98-00	681,988	165,681	24	12,952	2	5,753	1	146,976-	22-
99-01	739,643	183,338	25	13,203	2		0	170,135-	23-
00-02	1,008,762	128,346	13	8,770	1	924	0	118,651-	12-
01-03	1,020,632	103,793	10	251	0	172,788	17	69,246	7
02-04	1,080,060	211,771	20		0	172,788	16	38,983-	4 –
03-05	840,231	302,488	36		0	172,287	21	130,202-	15-
04-06	995,290	407,075	41		0	22,317	2	384,757-	39-
05-07	871,999	494,859	57		0	37,195	4	457,663-	52-
06-08	802,651	578,123	72		0	37,749	5	540,374-	67-
07-09	917,113	724,405	79		0	15,855	2	708,549-	77-
08-10	1,446,489	762,680	53		0	977	0	761,702-	53-
09-11	1,725,362	904,249	52		0		0	904,249-	52-
10-12	2,060,246	981,157	48		0		0	981,157-	48-
11-13	2,256,980	1,157,879	51		0		0	1,157,879-	51-
FIVE-Y	EAR AVERAGE								
09-13	2,025,933	1,030,319	51		0		0	1,030,319-	51-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### TRANSMISSION - ALL ACCOUNTS

	REGULAR	COST O		G R O S REUSE	S S S	ALVAG:	E	NET SALVAGE
YEAR	REGULAR	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1976	74,518	27,005	36		0	22,953	31	4,052- 5-
1977	170,350	89,070	52		0	103,137	61	14,067 8
1978	166,933	20,255	12		0	26,050	16	5,795 3
1979	53,320	9,423	18		0	27,253	51	17,830 33
1980	192,641	14,937	8		0	29,762	15	14,825 8
1981	443,094	18,798	4		0	16,820	4	1,978- 0
1982	533,077	23,296	4		0	68,325	13	45,029 8
1983	26,333	8,388	32		0	8,175	31	213- 1-
1984	152,266	24,524	16		0	8,112	5	16,412- 11-
1985	780,922	16,683	2		0	15,442	2	1,241- 0
1986	68,915	19,596	28		0	19,343	28	253- 0
1987	393,705	43,333	11		0	18,684	5	24,649- 6-
1988	103,626	145,293	140		0	235,666	227	90,373 87
1989	215,507	112,599	52		0	48,771	23	63,828- 30-
1990	271,586	145,621	54		0	11,387	4	134,234- 49-
1991	340,676	103,835	30	16,558	5		0	87,277- 26-
1992	531,746	192,372	36	91,746	17		0	100,626- 19-
1993	245,646	77,899	32	51,560	21		0	26,339- 11-
1994	187,115	210,310	112	140,666	75		0	69,644- 37-
1995	243,439	126,204	52	72,160	30		0	54,044- 22-
1996	213,953	140,234	66	23,602	11		0	116,632- 55-
1997	189,030	152,957	81	4,219	2		0	148,738- 79-
1998	547,844	191,336	35	21,566	4		0	169,770- 31-
1999	316,943	163,447	52	16,998	5	107	0	146,342- 46-
2000	188,434	135,200	72	27,175	14	107	0	108,025- 57-
2001	340,710	361,072	106	27,173	0	2,224	1	358,848-105-
2002	484,166	274,226	57		0	52,038	11	222,188- 46-
2002	1,658,925	286,028	17	94,658	6	32,030	0	191,370- 12-
2003	642,536	257,876	40	74,030	0		0	257,876- 40-
2004			58					
	500,799	289,917			0	21 240	0	
2006	853,649	646,584	76		0	31,240	4	615,344- 72-
2007	990,546	548,664	55		0	35,423	4	513,241- 52-
2008	1,182,885	766,438	65		0	17,044	1	749,394- 63-
2009	678,845	747,788	110		0	300	0	747,488-110-
2010	520,909	366,267	70		0		0	366,267- 70-
2011	1,690,825	758,646	45		0		0	758,646- 45-
2012	605,863	799,180	132		0		0	799,180-132-
2013	1,164,450	933,171	80		0		0	933,171- 80-
TOTAL	17,966,726	9,248,472	51	560,908	3	798,256	4	7,889,308- 44-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### TRANSMISSION - ALL ACCOUNTS

		COST OF		G R O S	S S	SALVAG	E	NET	
YEAR	REGULAR RETIREMENTS	REMOVAI AMOUNT	PCT	REUSE AMOUNT	PCT	FINAL AMOUNT	PCT	SALVAGE AMOUNT	PCT
ILAK	KETIKEMENIS	AMOUNT	PCI	AMOONT	PCI	AMOUNT	PCI	AMOUNT	PCI
THREE-	YEAR MOVING AVE	ERAGES							
76-78	137,267	45,443	33		0	50,713	37	5,270	4
77-79	130,201	39,583	30		0	52,147	40	12,564	10
78-80	137,631	14,872	11		0	27,688	20	12,817	9
79-81	229,685	14,386	6		0	24,612	11	10,226	4
80-82	389,604	19,010	5		0	38,302	10	19,292	5
81-83	334,168	16,827	5		0	31,107	9	14,279	4
82-84	237,225	18,736	8		0	28,204	12	9,468	4
83-85	319,840	16,532	5		0	10,576	3	5,955-	2-
84-86	334,034	20,268	6		0	14,299	4	5,969-	2-
85-87	414,514	26,537	6		0	17,823	4	8,714-	2-
86-88	188,749	69,407	37		0	91,231	48	21,824	12
87-89	237,613	100,408	42		0	101,040	43	632	0
88-90	196,906	134,504	68		0	98,608	50	35,896-	18-
89-91	275,923	120,685	44	5,519	2	20,053	7	95,113-	34-
90-92	381,336	147,276	39	36,101	9	3,796	1	107,379-	28-
91-93	372,689	124,702	33	53,288	14		0	71,414-	19-
92-94	321,502	160,194	50	94,657	29		0	65,536-	20-
93-95	225,400	138,138	61	88,129	39		0	50,009-	22-
94-96	214,836	158,916	74	78,809	37		0	80,107-	37-
95-97	215,474	139,798	65	33,327	15		0	106,471-	49-
96-98	316,943	161,509	51	16,462	5		0	145,047-	46-
97-99	351,273	169,247	48	14,261	4	36	0	154,950-	44-
98-00	351,074	163,328	47	21,913	6	36	0	141,379-	40-
99-01	282,029	219,906	78	14,724	5	777	0	204,405-	72-
00-02	337,770	256,833	76	9,058	3	18,087	5	229,687-	68-
01-03	827,934	307,109	37	31,553	4	18,087	2	257,469-	31-
02-04	928,542	272,710	29	31,553	3	17,346	2	223,811-	24-
03-05	934,087	277,940	30	31,553	3		0	246,388-	26-
04-06	665,661	398,126	60		0	10,413	2	387,712-	58-
05-07	781,665	495,055	63		0	22,221	3	472,834-	60-
06-08	1,009,027	653,896	65		0	27,902	3	625,993-	62-
07-09	950,759	687,630	72		0	17,589	2	670,041-	70-
08-10	794,213	626,831	79		0	5,781	1	621,050-	78-
09-11	963,526	624,234	65		0	100	0	624,134-	65-
10-12	939,199	641,364	68		0		0	641,364-	68-
11-13	1,153,713	830,332	72		0		0	830,332-	72-
FIVE-Y	EAR AVERAGE								
09-13	932,178	721,010	77		0	60	0	720,950-	77-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### ACCOUNTS 361.12, 361.13 & 361.15 - OVERHEAD CONDUCTOR - ALUMINUM

		COST OF		G R O S	S S S	ALVAG	E	NET
	REGULAR	REMOVAI		REUSE	D. G.E.	FINAL	D.G.	SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1976	114,352	32,493	28		0	10,057	9	22,436- 20-
1977	108,780	41,355	38		0	4,782	4	36,573- 34-
1978	140,791	33,261	24		0	37,806	27	4,545 3
1979	154,624	37,692	24		0	36,061	23	1,631- 1-
1980	164,657	34,710	21		0	42,215	26	7,505 5
1981	174,862	37,541	21		0	32,471	19	5,070- 3-
1982	218,786	112,179	51		0	56,834	26	55,345- 25-
1983	160,455	49,844	31		0	43,408	27	6,436- 4-
1984	153,914	66,712	43		0	35,513	23	31,199- 20-
1985	249,623	113,757	46		0	34,204	14	79,553- 32-
1986	186,915	108,955	58		0	24,317	13	84,638- 45-
1987	198,281	73,590	37		0	26,558	13	47,032- 24-
1988	217,376	139,050	64		0	32,336	15	106,714- 49-
1989	317,420	217,138	68		0	75,674	24	141,464- 45-
1990	332,374	103,431	31	1,217	0	33,020	10	69,194- 21-
1991	325,342	106,513	33	2,489	1	67,513	21	36,511- 11-
1992	232,436	104,733	45	2,467	1	66,917	29	35,349- 15-
1993	253,834	92,848	37	898	0	24,371	10	67,579- 27-
1994	254,897	28,014	11	1,230	0	33,360	13	6,576 3
1995	318,265	124,635	39	2,410	1	65,365	21	56,860- 18-
1996	186,416	73,900	40	1,072	1	29,601	16	43,227- 23-
1997	169,004	87,657	52	1,738	1	33,161	20	52,758- 31-
1998	197,011	77,707	39	2,765	1	26,431	13	48,511- 25-
1999	545,297	204,262	37	247	0	24,536	4	179,479- 33-
2000	799,899	195,815	24		0	95,580	12	100,235- 13-
2001	409,966	397,785	97	10,895	3	36,357	9	350,533- 86-
2002	1,612,240	334,441	21		0	57,755	4	276,686- 17-
2003	1,164,739	261,955	22		0	43,582	4	218,373- 19-
2004	973,070	530,818	55		0	24,888	3	505,930- 52-
2005	450,036	373,623	83		0	30,930	7	342,693- 76-
2006	385,721	557,828	145		0	41,339	11	516,489-134-
2007	887,464	332,029	37		0	32,094	4	299,935- 34-
2008	381,307	458,138	120		0	24,787	7	433,351-114-
2009	605,754	636,458	105		0	28,894	5	607,564-100-
2010	622,967	436,879	70		0	26,212	4	410,667- 66-
2011	1,006,345	415,650	41		0	73,097	7	342,553- 34-
2012	601,982	858,691	143		0	22,555	4	836,136-139-
2013	758,724	1,067,805	141		0	29,307	4	1,038,498-137-
TOTAL	16,035,928	8,959,893	56	27,428	0	1,463,888	9	7,468,577- 47-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### ACCOUNTS 361.12, 361.13 & 361.15 - OVERHEAD CONDUCTOR - ALUMINUM

		COST OF		G R O S	s s	ALVAG	E	NET	
YEAR	REGULAR RETIREMENTS	REMOVAL AMOUNT	PCT	REUSE AMOUNT	PCT	FINAL AMOUNT	PCT	SALVAGE AMOUNT	PCT
ILAN	KETIKEMENIS	AMOUNT	PCI	AMOUNT	PCI	AMOUNT	PCI	AMOUNT	PCI
THREE-	YEAR MOVING AVE	ERAGES							
76-78	121,308	35,703	29		0	17,548	14	18,155-	15-
77-79	134,732	37,436	28		0	26,216	19	11,220-	8-
78-80	153,357	35,221	23		0	38,694	25	3,473	2
79-81	164,714	36,648	22		0	36,916	22	268	0
80-82	186,102	61,477	33		0	43,840	24	17,637-	9 –
81-83	184,701	66,521	36		0	44,238	24	22,284-	12-
82-84	177,718	76,245	43		0	45,252	25	30,993-	17-
83-85	187,997	76,771	41		0	37,708	20	39,063-	21-
84-86	196,817	96,475	49		0	31,345	16	65,130-	33-
85-87	211,606	98,767	47		0	28,360	13	70,408-	33-
86-88	200,857	107,198	53		0	27,737	14	79,461-	40-
87-89	244,359	143,259	59		0	44,856	18	98,403-	40-
88-90	289,057	153,206	53	406	0	47,010	16	105,791-	37-
89-91	325,045	142,361	44	1,235	0	58,736	18	82,390-	25-
90-92	296,717	104,892	35	2,058	1	55,817	19	47,018-	16-
91-93	270,537	101,365	37	1,951	1	52,934	20	46,480-	17-
92-94	247,056	75,198	30	1,532	1	41,549	17	32,117-	13-
93-95	275,665	81,832	30	1,513	1	41,032	15	39,288-	14-
94-96	253,193	75,516	30	1,571	1	42,775	17	31,170-	12-
95-97	224,562	95,397	42	1,740	1	42,709	19	50,948-	23-
96-98	184,144	79,755	43	1,858	1	29,731	16	48,165-	26-
97-99	303,771	123,209	41	1,583	1	28,043	9	93,583-	31-
98-00	514,069	159,261	31	1,004	0	48,849	10	109,408-	21-
99-01	585,054	265,954	45	3,714	1	52,158	9	210,082-	36-
00-02	940,702	309,347	33	3,632	0	63,231	7	242,485-	26-
01-03	1,062,315	331,394	31	3,632	0	45,898	4	281,864-	27-
02-04	1,250,017	375,738	30		0	42,075	3	333,663-	27-
03-05	862,615	388,799	45		0	33,133	4	355,665-	41-
04-06	602,942	487,423	81		0	32,386	5	455,038-	75-
05-07	574,407	421,160	73		0	34,788	6	386,373-	67-
06-08	551,497	449,332	81		0	32,740	6	416,592-	76-
07-09	624,842	475,542	76		0	28,592	5	446,950-	72-
08-10	536,676	510,492	95		0	26,631	5	483,861-	90-
09-11	745,022	496,329	67		0	42,734	6	453,594-	61-
10-12	743,765	570,407	77		0	40,621	5	529,785-	71-
11-13	789,017	780,715	99		0	41,653	5	739,062-	94-
FTVE-VI	EAR AVERAGE								
09-13	719,155	683,096	95		0	36,013	5	647,084-	90-
0, 10	, 17, 133	003,070	75		U	50,013	5	01/,004-	J 0

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### ACCOUNTS 362.10 & 362.20 - DISTRIBUTION - POLES AND FIXTURES - WOOD

	REGULAR	COST OF REMOVAI		G R O S REUSE	S S S	A L V A G	E	NET SALVAGE	
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT		PCT
2000	1,527,165	587,498	38	90,426	6		0	497,072-	33-
2001	2,759,061	534,374	19	136,453	5		0	397,921-	14-
2002	2,048,803	727,652	36		0	55,979	3	671,673-	33-
2003	848,567	474,873	56		0	238	0	474,635-	56-
2004	837,695	479,745	57		0		0	479,745-	57-
2005	1,254,719	386,994	31		0	32,119	3	354,875-	28-
2006	1,401,597	565,256	40		0	5,042	0	560,214-	40-
2007	2,055,461	619,670	30		0		0	619,670-	30-
2008	1,578,668	769,431	49		0		0	769,431-	49-
2009	1,233,368	325,141	26		0		0	325,141-	26-
2010	1,760,816	499,029	28		0		0	499,029-	28-
2011	1,222,195	940,872	77		0		0	940,872-	77-
2012	654,824	457,979	70	3,881	1		0	454,098-	69-
2013	958,365	583,178	61		0		0	583,178-	61-
TOTAL	20,141,305	7,951,692	39	230,760	1	93,378	0	7,627,554-	38-
THREE-Y	YEAR MOVING AV	ERAGES							
00-02	2,111,677	616,508	29	75,626	4	18,660	1	522,222-	25-
01-03	1,885,477	578,966	31	45,484	2	18,739	1	514,743-	27-
02-04	1,245,022	560,757	45	15,101	0	18,739	2	542,018-	44-
03-05	980,327	447,204	46		0	10,786	1	436,418-	45-
04-06	1,164,671	477,332	41		0	12,387	1	464,945-	40-
05-07	1,570,592	523,973	33		0	12,387	1	511,586-	33-
06-08	1,678,575	651,452	39		0	1,681	0	649,771-	39-
07-09	1,622,499	571,414	35		0	,	0	571,414-	35-
08-10	1,524,284	531,200	35		0		0	531,200-	35-
09-11	1,405,460	588,347	42		0		0	588,347-	42-
10-12	1,212,611	632,627	52	1,294	0		0	631,333-	52-
11-13	945,128	660,676	70	1,294	0		0	659,383-	70-
FIVE-YE	EAR AVERAGE								
09-13	1,165,914	561,240	48	776	0		0	560,464-	48-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### ACCOUNT 364.00 - DISTRIBUTION - TRANSFORMERS

		COST OF		G R O S	S S	SALVAG	E	NET	
YEAR	REGULAR RETIREMENTS	REMOVAL AMOUNT	PCT	REUSE AMOUNT	PCT	FINAL AMOUNT	PCT	SALVAGE AMOUNT	PCT
		11100111		11100111					
1976	209,142		0		0	20,950	10	20,950	10
1977	301,115		0		0	11,869	4	11,869	4
1978	370,766		0		0	30,646	8	30,646	8
1979	324,223	277	0		0	22,112	7	21,835	7
1980	243,756	352	0		0	45,495	19	45,143	19
1981	343,984	2,209	1		0	9,958	3	7,749	2
1982	300,512		0		0	9,111	3	9,111	3
1983	345,070	203	0		0	30,557	9	30,354	9
1984	429,292	585	0		0	18,444	4	17,859	4
1985	202,997	294	0		0	5,596	3	5,302	3
1986	259,030	892	0		0	11,023	4	10,131	4
1987	235,686	601	0		0	6,422	3	5,821	2
1988	330,575	1,658	1		0	29,257	9	27,599	8
1989	371,252	5,113	1		0	14,079	4	8,966	2
1990	470,448	4,905	1		0	16,675	4	11,770	3
1991	339,804	4,659	1	26,611	8		0	21,952	6
1992	191,717	5,687	3	19,686	10		0	13,999	7
1993	230,692	7,268	3	28,350	12		0	21,082	9
1994	197,274	2,670	1	10,681	5		0	8,011	4
1995	227,683	211,488	93	30,731	13	27,410	12	153,347-	67-
1996	155,826	10,408	7	19,440	12	13,940	9	22,972	15
1997	845,887	4,487	1	640-	0	7,000	1	1,873	0
1998	1,789,961	88,001	5	269,189	15	95,274	5	276,462	15
1999	1,419,119	78,045	5	414,515	29	14,427	1	350,897	25
2000	1,226,597	80,581	7	325,960	27	13,712	1	259,091	21
2001	912,446	80,007	9	118,967	13	3,950	0	42,910	5
2002	1,483,059	36,016	2		0	2,340	0	33,676-	2-
2003	1,242,622	326,589	26		0	387,620	31	61,031	5
2004	752,442	85,395	11		0		0	85,395-	11-
2005	1,600,527	291,062	18		0	68,693	4	222,369-	14-
2006	5,837,714	220,804	4		0	161,989	3	58,815-	1-
2007	2,825,162	287,746	10		0	90,402	3	197,344-	7-
2008	1,089,869	314,263	29		0	90,343	8	223,920-	21-
2009	1,218,308	301,660	25		0	75,444	6	226,216-	19-
2010	615,001	240,602	39		0	56,965	9	183,637-	30-
2011	1,502,281	563,461	38		0	36,605	2	526,856-	35-
2012	1,261,387	712,170	56		0	42,023	3	670,147-	53-
2013	1,405,235	510,958	36		0	35,225	3	475,733-	34-
TOTAL	33,108,460	4,481,116	14	1,263,490	4	1,505,556	5	1,712,070-	5-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



#### ACCOUNT 364.00 - DISTRIBUTION - TRANSFORMERS

		COST OF		G R O S	S S	SALVAG	E	NET	
YEAR	REGULAR RETIREMENTS	REMOVAI AMOUNT	PCT	REUSE AMOUNT	PCT	FINAL AMOUNT	PCT	SALVAGE AMOUNT	PCT
			101	71100111	101	11100111	101	11100111	101
THREE-	YEAR MOVING AVE	RAGES							
76-78	293,674		0		0	21,155	7	21,155	7
77-79	332,035	92	0		0	21,542	6	21,450	6
78-80	312,915	210	0		0	32,751	10	32,541	10
79-81	303,988	946	0		0	25,855	9	24,909	8
80-82	296,084	854	0		0	21,521	7	20,668	7
81-83	329,855	804	0		0	16,542	5	15,738	5
82-84	358,291	263	0		0	19,371	5	19,108	5
83-85	325,786	361	0		0	18,199	6	17,838	5
84-86	297,106	590	0		0	11,688	4	11,097	4
85-87	232,571	596	0		0	7,680	3	7,085	3
86-88	275,097	1,050	0		0	15,567	6	14,517	5
87-89	312,504	2,457	1		0	16,586	5	14,129	5
88-90	390,758	3,892	1		0	20,004	5	16,112	4
89-91	393,835	4,892	1	8,870	2	10,251	3	14,229	4
90-92	333,990	5,084	2	15,432	5	5,558	2	15,907	5
91-93	254,071	5,871	2	24,882	10		0	19,011	7
92-94	206,561	5,208	3	19,572	9		0	14,364	7
93-95	218,550	73,809	34	23,254	11	9,137	4	41,418-	19-
94-96	193,594	74,855	39	20,284	10	13,783	7	40,788-	21-
95-97	409,799	75,461	18	16,510	4	16,117	4	42,834-	10-
96-98	930,558	34,299	4	95,996	10	38,738	4	100,436	11
97-99	1,351,656	56,844	4	227,688	17	38,900	3	209,744	16
98-00	1,478,559	82,209	6	336,555	23	41,138	3	295,483	20
99-01	1,186,054	79,544	7	286,481	24	10,696	1	217,633	18
00-02	1,207,367	65,535	5	148,309	12	6,667	1	89,442	7
01-03	1,212,709	147,537	12	39,656	3	131,303	11	23,422	2
02-04	1,159,374	149,333	13		0	129,987	11	19,347-	2-
03-05	1,198,530	234,349	20		0	152,104	13	82,244-	7-
04-06	2,730,228	199,087	7		0	76,894	3	122,193-	4 –
05-07	3,421,134	266,537	8		0	107,028	3	159,509-	5-
06-08	3,250,915	274,271	8		0	114,245	4	160,026-	5-
07-09	1,711,113	301,223	18		0	85,396	5	215,826-	13-
08-10	974,393	285,508	29		0	74,251	8	211,258-	22-
09-11	1,111,863	368,574	33		0	56,338	5	312,236-	28-
10-12	1,126,223	505,411	45		0	45,198	4	460,213-	41-
11-13	1,389,634	595,530	43		0	37,951	3	557,579-	40-
FIVE-Y	EAR AVERAGE								
09-13	1,200,442	465,770	39		0	49,252	4	416,518-	35-

<sup>\*2005-2010</sup> COR amounts were adjusted to be consistent with new 2011 company guidelines regarding the allocation of cost for capital projects.



# APPENDIX C. DETAILED DEPRECIATION CALCULATIONS

#### ACCOUNT 320.00 - LAND AND LAND CLEARING

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVI	OR CURVE IOWA	75-R2.5			
	ALVAGE PERCENT				
1924	12,170.00	0.98	119.27	0.8869	10,794
1928	154.00	1.01	1.56	0.8736	135
1930	250.00	1.03	2.58	0.8704	218
1931	1,087.00	1.03	11.20	0.8600	935
1932	3,626.00	1.04	37.71	0.8580	3,111
1941	15,399.00	1.11	170.93	0.8158	12,563
1943	9,075.00	1.12	101.64	0.8008	7,267
1944	201.00	1.13	2.27	0.7966	160
1946	140.00	1.14	1.60	0.7809	109
1949	3,200.00	1.16	37.12	0.7598	2,431
1951	11,452.00	1.18	135.13	0.7493	8,581
1952	378.00	1.18	4.46	0.7375	279
1953	70.00	1.19	0.83	0.7318	51
1954	55,986.00	1.20	671.83	0.7260	40,646
1955	1,000.00	1.20	12.00	0.7140	714
1956	2,920.00	1.21	35.33	0.7078	2,067
1957	3,055.00	1.22	37.27	0.7015	2,143
1959	21,557.00	1.23	265.15	0.6826	14,715
1960	400.00	1.24	4.96	0.6758	270
1963	74,052.00	1.26	933.06	0.6489	48,052
1981	142.00	1.38	1.96	0.4623	66
1982	3,200.00	1.38	44.16	0.4485	1,435
1983	112,607.00	1.39	1,565.24	0.4378	49,299
1984	132,423.00	1.40	1,853.92	0.4270	56,545
1985	66,452.00	1.40	930.33	0.4130	27,445
1986	49,101.00	1.41	692.32	0.4018	19,729
1987	4,580.00	1.42	65.04	0.3905	1,788
1997	217,657.62	1.49	3,243.10	0.2608	56,765
1999	109,120.00	1.51	1,647.71	0.2340	25,534
2001	6,436.42	1.52	97.83	0.2052	1,321
2002	4,806.01	1.53	73.53	0.1912	919
2003	34,601.78	1.54	532.87	0.1771	6,128
2007	1,815.00	1.59	28.86	0.1192	216
2008	13,970.71	1.60	223.53	0.1040	1,453
2014	81,241.67	1.82	1,478.60	0.0091	739
	1,054,326.21		15,064.90		404,623

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.43



# ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 60-R3				
	LVAGE PERCENT10				
1924	4,370.00	1.07	51.43	0.9684	4,655
1928	18,327.00	1.11	223.77	0.9602	19,357
1931	33,287.00	1.14	417.42	0.9519	34,854
1935	2,300.00	1.18	29.85	0.9381	2,373
1941	27,250.00	1.25	374.69	0.9188	27,541
1942	10,431.00	1.26	144.57	0.9135	10,482
1943	40,620.00	1.27	567.46	0.9080	40,571
1946	20,310.00	1.30	290.43	0.8905	19,895
1948	7,587.00	1.33	111.00	0.8844	7,381
1951	6,542.00	1.36	97.87	0.8636	6,215
1952	33,656.00	1.38	510.90	0.8625	31,931
1953	35,883.00	1.39	548.65	0.8548	33,740
1954	111,427.00	1.40	1,715.98	0.8470	103,817
1955	33,328.00	1.41	516.92	0.8390	30,758
1956	20,400.00	1.42	318.65	0.8307	18,641
1957	11,282.00	1.43	177.47	0.8222	10,204
1958	40,980.00	1.44	649.12	0.8136	36,675
1959	89,346.00	1.45	1,425.07	0.8048	79,096
1960	1,647.00	1.47	26.63	0.8012	1,452
1963	86,012.08	1.50	1,419.20	0.7725	73,089
1964	2,611.00	1.51	43.37	0.7626	2,190
1966	741.00	1.53	12.47	0.7420	605
1971	1,905.00	1.58	33.11	0.6873	1,440
1973	54,816.00	1.60	964.76	0.6640	40,038
1980	12,075.00	1.66	220.49	0.5727	7,607
1982	3,208.00	1.68	59.28	0.5460	1,927
1983	77,923.00	1.69	1,448.59	0.5324	45,635
1985	5,610.00	1.71	105.52	0.5044	3,113
1986	16,513.00	1.72	312.43	0.4902	8,904
1987	48,731.00	1.73	927.35	0.4758	25,505
1989	42,002.00	1.74	803.92	0.4437	20,500
1991	3,865.00	1.74	74.83	0.4437	1,758
1991	264,500.00	1.77	5,149.82	0.4130	
	-				115,856
1993	11,715.00	1.77	228.09	0.3806	4,905
1994	68,471.14	1.78	1,340.66	0.3649	27,484
1997	500,242.38	1.80	9,904.80	0.3150	173,334
1998	804,952.24	1.81	16,026.60	0.2986	264,395
2000	45,978.84	1.83	925.55	0.2654	13,423
2002	31,053.63	1.84	628.53	0.2300	7,857
2003	192,895.38	1.85	3,925.42	0.2128	45,153
2004	45,419.90	1.85	924.29	0.1942	9,703
2005	40,659.00	1.86	831.88	0.1767	7,903

#### ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	AL ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	OR CURVE IOWA 60-R3 ALVAGE PERCENT10				
2007	103,836.68	1.88	2,147.34	0.1410	16,105
2008	51,685.55	1.88	1,068.86	0.1222	6,948
2009	327,892.04	1.89	6,816.88	0.1040	37,511
2010	185,948.19	1.90	3,886.32	0.0855	17,488
2011	139,038.04	1.91	2,921.19	0.0668	10,217
2012	110,997.55	1.92	2,344.27	0.0480	5,861
2013	205,973.58	1.94	4,395.48	0.0291	6,593
2014	275,592.36	1.97	5,972.09	0.0098	2,971
	4,311,836.58		84,061.27		1,525,656

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.95

# ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDITII		75 70 5			
	OR CURVE IOWA				
NET SA	LVAGE PERCENT	-25			
1904	15,500.00	0.85	164.69	0.9392	18,197
1917	17,450.00	0.93	202.86	0.9068	19,780
1921	6,011.00	0.96	72.13	0.8976	6,744
1923	44,920.00	0.97	544.66	0.8876	49,839
1924	186,313.00	0.98	2,282.33	0.8869	206,551
1929	16,500.00	1.02	210.38	0.8721	17,987
1931	77,422.00	1.03	996.81	0.8600	83,229
1932	14,220.00	1.03	184.86	0.8580	15,251
1937	666.00	1.04	8.99	0.8370	697
1941	177,462.00	1.11	2,462.29	0.8158	180,967
1942	9,750.00	1.11	135.28	0.8048	9,808
1942	11,700.00	1.12	163.80	0.8008	11,712
1945	414.00	1.12	5.85	0.7854	406
1945	58,310.00	1.13	830.92	0.7809	56,918
1951	99,332.00	1.14	1,465.15	0.7493	93,037
1951	302,232.00	1.20	4,533.48	0.7260	274,276
1954	89,200.00			0.7078	78,920
1950		1.21 1.22	1,349.15		
1957	144,023.00 86,373.00		2,196.35	0.7015	126,290
		1.22	1,317.19	0.6893	74,421
1959	468,594.98	1.23	7,204.65	0.6826	399,829
1960	2,430.00	1.24	37.66	0.6758	2,053
1961	432.00	1.24	6.70	0.6634	358
1962	1,420.79	1.25	22.20	0.6562	1,165
1963	112,727.25	1.26	1,775.45	0.6489	91,436
1964	59,451.00	1.26	936.35	0.6363	47,286
1965	2,841.00	1.27	45.10	0.6286	2,232
1966	125.00	1.28	2.00	0.6208	97
1968	591.00	1.29	9.53	0.5998	443
1970	895.00	1.30	14.54	0.5785	647
1972	3,248.00	1.32	53.59	0.5610	2,278
1974	3,529.00	1.33	58.67	0.5386	2,376
1975	7,490.00	1.34	125.46	0.5293	4,956
1976	2,591.00	1.34	43.40	0.5159	1,671
1977	24,475.00	1.35	413.02	0.5062	15,487
1978	35,786.00	1.36	608.36	0.4964	22,205
1979	31,324.00	1.36	532.51	0.4828	18,904
1980	245,704.45	1.37	4,207.69	0.4726	145,150
1981	76,614.82	1.38	1,321.61	0.4623	44,274
1982	24,102.00	1.38	415.76	0.4485	13,512
1983	698,015.00	1.39	12,128.01	0.4378	381,989
1984	234,186.42	1.40	4,098.26	0.4270	124,997
1985	48,285.00	1.40	844.99	0.4130	24,927

#### ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL		ACCRUAL		DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 7	75-R2.5			
	ALVAGE PERCENT				
1986	58,401.00	1.41	1,029.32	0.4018	29,332
1987	35,305.82	1.42	626.68	0.3905	17,234
1988	374,461.80	1.42	6,646.70	0.3763	176,137
1989	16,476.00	1.43	294.51	0.3646	7,509
1990	28,900.00	1.44	520.20	0.3528	12,745
1991	21,447.60	1.44	386.06	0.3384	9,072
1992	77,307.00	1.45	1,401.19	0.3262	31,522
1993	6,224.00	1.46	113.59	0.3139	2,442
1994	36,766.00	1.47	675.58	0.3014	13,852
1995	43,836.00	1.47	805.49	0.2866	15,704
1996	77,128.00	1.48	1,426.87	0.2738	26,397
1998	1,725,266.83	1.50	32,348.75	0.2475	533,754
1999	74,193.00	1.51	1,400.39	0.2340	21,701
2000	386,966.90	1.51	7,304.00	0.2190	105,932
2001	153,269.13	1.52	2,912.11	0.2052	39,314
2002	179,495.26	1.53	3,432.85	0.1912	42,899
2003	285,670.79	1.54	5,499.16	0.1771	63,240
2004	127,953.41	1.55	2,479.10	0.1628	26,039
2005	87,073.46	1.56	1,697.93	0.1482	16,130
2006	245,216.48	1.57	4,812.37	0.1334	40,890
2007	399,351.19	1.59	7,937.10	0.1192	59,503
2008	333,115.04	1.60	6,662.30	0.1040	43,305
2009	252,541.65	1.61	5,082.40	0.0886	27,969
2010	515,583.96	1.63	10,505.02	0.0734	47,305
2011	219,534.94	1.65	4,527.91	0.0578	15,861
2012	503,642.60	1.68	10,576.49	0.0420	26,441
2013	217,972.63	1.72	4,686.41	0.0258	7,030
2014	109,583.86	1.82	2,493.03	0.0091	1,247
	10,035,341.06		182,316.19		4,133,808

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.82

# ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS AND TAILRACES

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIID1/T1	OR CURVE IOWA 6	N_T.3			
	ALVAGE PERCENT				
NEI DE	MUVAGE FERCENT	23			
1913	33,500.00	0.91	381.06	0.9236	38,676
1917	29,076.00	0.94	341.64	0.9165	33,310
1920	2,400.00	0.96	28.80	0.9072	2,722
1924	60,525.00	0.99	749.00	0.8960	67,788
1930	6,922.00	1.04	89.99	0.8788	7,604
1931	89,020.00	1.05	1,168.39	0.8768	97,566
1932	6,504.00	1.06	86.18	0.8745	7,110
1933	1,270.00	1.06	16.83	0.8639	1,371
1934	8,434.00	1.07	112.80	0.8614	9,081
1937	384.00	1.10	5.28	0.8525	409
1941	102,386.50	1.14	1,459.01	0.8379	107,237
1942	89,090.00	1.15	1,280.67	0.8338	92,854
1943	285,318.00	1.17	4,172.78	0.8366	298,371
1948	182,823.00	1.23	2,810.90	0.8180	186,937
1950	13,840.00	1.25	216.25	0.8062	13,947
1951	440,882.00	1.27	6,999.00	0.8064	444,409
1952	55,977.00	1.28	895.63	0.8000	55,977
1953	50,499.00	1.30	820.61	0.7995	50,467
1954	858,366.00	1.31	14,055.74	0.7926	850,426
1956	375,851.00	1.35	6,342.49	0.7898	371,059
1957	6,861.00	1.36	116.64	0.7820	6,707
1958	143,625.00	1.38	2,477.53	0.7797	139,981
1959	883,873.00	1.40	15,467.78	0.7770	858,462
1960	907.00	1.41	15.99	0.7684	871
1961	500.00	1.43	8.94	0.7650	478
1963	500,390.00	1.47	9,194.67	0.7570	473,494
1964	3,977.00	1.49	74.07	0.7524	3,740
1965	685,769.00	1.50	12,858.17	0.7425	636,479
1970	942.00	1.59	18.72	0.7076	833
1978	9,317.00	1.71	199.15	0.6242	7,270
1979	518,042.00	1.72	11,137.90	0.6106	395,396
1980	107,100.00	1.73	2,316.04	0.5968	79,897
1981	2,302,405.15	1.74	50,077.31	0.5829	1,677,590
1983	885,250.99	1.76	19,475.52	0.5544	613,479
1983	576,127.00	1.77	12,746.81	0.5398	388,742
1985	1,989,658.00	1.78	44,269.89	0.5251	1,305,962
1986	93,462.00	1.79	2,091.21	0.5102	59,605
1987	934,890.00	1.80	21,035.02	0.4950	578,463
1987	1,841,429.00		41,662.33	0.4930	1,062,505
1909	3,109,126.00	1.81 1.82	70,732.62	0.4459	1,732,949
1990	636,862.00	1.83	14,568.22	0.439	342,313
1991	410,297.00		9,385.54		
エララム	410,49/.00	1.83	9,305.54	0.4118	211,200

# ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS AND TAILRACES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANN	JAL ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 60-L3 BALVAGE PERCENT25				
1993	286,917.86	1.84	6,599.11	0.3956	141,881
1995	60,173.00	1.85	1,391.50	0.3608	27,138
1996	202,472.62	1.85	4,682.18	0.3422	86,608
1997	14,872.21	1.86	345.78	0.3255	6,051
1998	3,242,951.60	1.86	75,398.62	0.3069	1,244,077
1999	4,610,997.73	1.87	107,782.07	0.2898	1,670,334
2000	3,395,024.39	1.87	79,358.70	0.2712	1,150,913
2001	1,652,328.79	1.87	38,623.19	0.2524	521,310
2002	2,598,135.75	1.88	61,056.19	0.2350	763,202
2003	1,534,989.18	1.88	36,072.25	0.2162	414,831
2004	2,463,678.09	1.88	57,896.44	0.1974	607,913
2005	83,330.91	1.88	1,958.28	0.1786	18,604
2006	844,772.79	1.88	19,852.16	0.1598	168,743
2007	13,629,599.00	1.88	320,295.58	0.1410	2,402,217
2008	168,461.46	1.89	3,979.90	0.1228	25,859
2009	3,398,598.68	1.89	80,291.89	0.1040	441,818
2010	652,388.18	1.89	15,412.67	0.0850	69,316
2011	86,968.11	1.89	2,054.62	0.0662	7,197
2012	811,063.81	1.89	19,161.38	0.0472	47,853
2013	71,119.13	1.89	1,680.19	0.0284	2,525
2014	4,283,770.00	1.89	101,204.07	0.0094	50,334
	62,426,490.93		1,417,059.89		23,182,461

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.27

#### ACCOUNT 324.00 - DAMS AND RESERVOIRS

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 70-S0	. 5			
	LVAGE PERCENT25				
_					
1904	22,000.00	0.83	228.25	0.9172	25,223
1917	7,356.00	0.90	82.76	0.8775	8,069
1920	13,548.00	0.92	155.80	0.8694	14,723
1921	2,640.00	0.92	30.36	0.8602	2,839
1924	156,190.00	0.94	1,835.23	0.8507	166,089
1928	65,645.00	0.97	795.95	0.8390	68,845
1929	85,347.00	0.97	1,034.83	0.8294	88,484
1931	284,981.00	0.98	3,491.02	0.8183	291,500
1937	77,472.00	1.03	997.45	0.7982	77,298
1939	1,500.00	1.04	19.50	0.7852	1,472
1940	1,880.00	1.05	24.68	0.7822	1,838
1941	204,927.01	1.06	2,715.28	0.7791	199,573
1942	42,500.00	1.06	563.12	0.7685	40,827
1943	228,462.00	1.07	3,055.68	0.7650	218,467
1944	156,700.00	1.08	2,115.45	0.7614	149,139
1946	43,326.00	1.09	590.32	0.7466	40,434
1948	52,109.00	1.11	723.01	0.7382	48,084
1950	919.00	1.13	12.98	0.7288	837
1951	87,591.00	1.14	1,248.17	0.7239	79,259
1952	47,583.00	1.15	684.01	0.7188	42,753
1953	263,272.00	1.15	3,784.54	0.7072	232,732
1954	788,620.66	1.16	11,435.00	0.7018	691,817
1955	7,906.00	1.17	115.63	0.6962	6,880
1956	397,412.00	1.18	5,861.83	0.6903	342,917
1957	986,230.00	1.19	14,670.17	0.6842	843,473
1959	732,931.00	1.21	11,085.58	0.6716	615,296
1960	2,603.00	1.22	39.70	0.6649	2,163
1961	5,120.00	1.23	78.72	0.6580	4,211
1962	70,586.63	1.24	1,094.09	0.6510	57,440
1963	487,698.93	1.25	7,620.30	0.6438	392,476
1964	50,224.21	1.26	791.03	0.6363	39,947
1965	33,954.38	1.27	539.03	0.6286	26,680
1966	591.00	1.28	9.46	0.6208	459
1970	13.00	1.32	0.21	0.5874	10
1971	6,854.01	1.34	114.80	0.5829	4,994
1972	15,832.00	1.35	267.16	0.5738	11,356
1973	8,965.00	1.36	152.40	0.5644	6,325
1975	4,625.00	1.38	79.78	0.5451	3,151
1978	123,887.00	1.42	2,198.99	0.5183	80,263
1979	71,835.99	1.43	1,284.07	0.5163	45,580
1980	280,280.00	1.45	5,080.08	0.5002	175,245
1981	267,514.00	1.46	4,882.13	0.4891	163,551
T 2 O T	201,J14.UU	1.40	7,004.13	0.4071	103,331

#### ACCOUNT 324.00 - DAMS AND RESERVOIRS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUAL RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
			(1)	(3)	(0)
	VOR CURVE IOWA 70-S0	. 5			
NET S	SALVAGE PERCENT25				
1000	1 026 120 02	1 45	00 514 05	0 4550	F20 004
1982 1983	1,236,138.83 593,265.81	1.47 1.49	22,714.05 11,049.58	0.4778 0.4694	738,284 348,099
1983	334,122.92	1.49	6,264.80	0.4575	191,077
1985	281,597.62	1.51	5,315.16	0.4575	156,779
1986	499,890.84	1.53	9,560.41	0.4354	272,441
1987	446,465.07	1.54	8,594.45	0.4235	236,347
1988	544,842.99	1.56	10,624.44	0.4233	281,548
1989	664,448.00	1.57	13,039.79	0.4134	332,556
1990	448,548.59	1.59	8,914.90	0.3896	218,443
1991	44,657.00	1.60	893.14	0.3760	20,989
1992	1,654,957.20	1.62	33,512.88	0.3645	754,040
1993	562,691.00	1.63	11,464.83	0.3504	246,459
1994	491,830.28	1.65	10,144.00	0.3382	207,921
1995	1,410,478.13	1.67	29,443.73	0.3256	574,065
1996	583,127.38	1.68	12,245.67	0.3108	226,545
1997	332,675.00	1.70	7,069.34	0.2975	123,714
1998	4,537,056.77	1.72	97,546.72	0.2838	1,609,521
1999	1,436,740.00	1.73	31,069.50	0.2682	481,667
2000	585,182.39	1.75	12,800.86	0.2538	185,649
2001	417,754.00	1.77	9,242.81	0.2390	124,804
2002	122,280.50	1.79	2,736.03	0.2238	34,208
2003	514,611.26	1.81	11,643.08	0.2082	133,928
2004	278,038.14	1.83	6,360.12	0.1922	66,799
2005	778,233.45	1.85	17,996.65	0.1758	171,017
2006	1,070,117.11	1.87	25,013.99	0.1590	212,686
2007	446,548.82	1.89	10,549.72	0.1418	79,151
2008	1,299,786.71	1.91	31,032.41	0.1242	201,792
2009	1,385,818.25	1.93	33,432.87	0.1062	183,967
2010	1,150,355.24	1.96	28,183.70	0.0882	126,827
2011	4,755,665.23	1.98	117,702.71	0.0693	411,960
2012	3,490,533.57	2.01	87,699.66	0.0502	219,031
2013	904,442.75	2.04	23,063.29	0.0306	34,595
2014	2,053,993.54	2.08	53,403.83	0.0104	26,702
	41,546,526.21		891,917.67		14,546,330
	11,510,520.21		0,1,,1,0,		11,010,000

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.15



# ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 65	-R2 5			
	ALVAGE PERCENT2				
NEI D		5			
1907	11,910.00	0.90	133.99	0.9675	14,404
1910	61,482.00	0.92	707.04	0.9614	73,886
1913	25,518.00	0.94	299.84	0.9541	30,433
1917	53,930.00	0.97	653.90	0.9458	63,759
1924	151,518.00	1.03	1,950.79	0.9322	176,556
1931	87,781.00	1.09	1,196.02	0.9102	99,873
1939	32,032.00	1.16	464.46	0.8758	35,067
1941	276,035.00	1.18	4,071.52	0.8673	299,256
1942	42,090.00	1.19	626.09	0.8628	45,394
1951	276,887.00	1.28	4,430.19	0.8128	281,317
1952	193.00	1.29	3.11	0.8062	194
1954	387,276.86	1.31	6,341.66	0.7926	383,695
1956	45,410.00	1.32	749.26	0.7722	43,832
1957	103,051.50	1.33	1,713.23	0.7648	98,517
1958	88,685.00	1.34	1,485.47	0.7571	83,929
1959	805,124.20	1.35	13,586.47	0.7492	753,999
1960	8,277.06	1.36	140.71	0.7412	7,669
1961	3,145.00	1.37	53.86	0.7330	2,882
1962	100,421.98	1.38	1,732.28	0.7245	90,945
1963	395,619.63	1.39	6,873.89	0.7158	353,981
1964	1,376.00	1.40	24.08	0.7070	1,216
1965	8,057.47	1.41	142.01	0.6980	7,030
1966	74.00	1.42	1.31	0.6887	64
1967	29,136.98	1.42	517.18	0.6745	24,566
1968	118.00	1.43	2.11	0.6650	98
1969	20,454.00	1.44	368.17	0.6552	16,752
1970	110,233.00	1.45	1,997.97	0.6452	88,903
1971	8,764.00	1.46	159.94	0.6351	6,958
1972	20,215.00	1.47	371.45	0.6248	15,788
1977	30,071.00	1.51	567.59	0.5662	21,283
1978	4,856.00	1.52	92.26	0.5548	3,368
1979	77,067.48	1.53	1,473.92	0.5432	52,329
1980	237,963.56	1.54	4,580.80	0.5313	158,038
1982	96,016.00	1.56	1,872.31	0.5070	60,850
1983	2,596,469.00	1.57	50,955.70	0.4946	1,605,267
1983	1,162,211.18	1.57	22,808.39	0.4788	695,583
1985	482,637.20	1.58	9,532.08	0.4661	281,196
1986	2,067,136.00	1.59	41,084.33	0.4532	1,171,033
1986	319,239.92	1.60	6,384.80	0.4400	175,582
			3,221.55		
1988	160,077.00	1.61		0.4266	85,361
1989	11,575.60	1.62	234.41	0.4131	5,977
1990	842,107.00	1.63	17,157.93	0.3994	420,422

# ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDVIT	VOR CURVE IOWA 65-1	22 E			
	ALVAGE PERCENT25				
NET D	ALVAGE LERCENT 25				
1991	170,619.00	1.64	3,497.69	0.3854	82,196
1992	195,803.00	1.65	4,038.44	0.3712	90,853
1993	127,699.00	1.66	2,649.75	0.3569	56,970
1994	719,710.00	1.67	15,023.95	0.3424	308,036
1995	179,089.00	1.68	3,760.87	0.3276	73,337
1996	832,900.78	1.69	17,595.03	0.3126	325,456
1997	887,032.04	1.70	18,849.43	0.2975	329,865
1998	3,210,009.23	1.71	68,613.95	0.2822	1,132,331
1999	918,287.04	1.72	19,743.17	0.2666	306,019
2000	427,045.46	1.73	9,234.86	0.2508	133,879
2001	995,467.55	1.74	21,651.42	0.2349	292,294
2002	884,488.32	1.75	19,348.18	0.2188	241,908
2003	1,522,855.82	1.76	33,502.83	0.2024	385,283
2004	1,686,826.17	1.77	37,321.03	0.1858	391,765
2005	903,155.74	1.78	20,095.22	0.1691	190,905
2006	797,669.29	1.80	17,947.56	0.1530	152,554
2007	2,140,568.60	1.81	48,430.36	0.1358	363,362
2008	1,236,232.09	1.83	28,278.81	0.1190	183,890
2009	2,548,005.46	1.85	58,922.63	0.1018	324,234
2010	1,489,257.40	1.87	34,811.39	0.0842	156,744
2011	1,211,198.83	1.89	28,614.57	0.0662	100,227
2012	2,265,933.42	1.93	54,665.64	0.0482	136,522
2013	2,431,791.69	1.97	59,882.87	0.0296	89,976
2014	1,164,309.90	2.09	30,417.60	0.0104	15,136
	40,188,197.45		867,661.32		13,700,994

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.16

# ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

ORIGINAL		ANNU	AL ACCRUAL	ACCRU	ACCRUED DEPREC	
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT	
(1)	(2)	(3)	(4)	(5)	(6)	
CIIDITI	OD CIIDIIE TOWN 2	Г дО				
	OR CURVE IOWA 3 LVAGE PERCENT					
NEI SA	LVAGE PERCENT	25				
1931	1,107.00			1.0000	1,384	
1941	331.00			1.0000	414	
1942	1,200.00			1.0000	1,500	
1950	116.00	1.50	2.18	0.9675	140	
1951	29,776.00	1.52	565.74	0.9652	35,925	
1953	211.00	1.55	4.09	0.9532	251	
1954	49,904.63	1.56	973.14	0.9438	58,875	
1957	26,079.84	1.61	524.86	0.9258	30,181	
1958	723.00	1.63	14.73	0.9210	832	
1959	14,341.85	1.65	295.80	0.9158	16,418	
1963	3,333.25	1.72	71.66	0.8858	3,691	
1964	2,939.89	1.72	63.94	0.8787	3,229	
1965		1.74	350.61			
1966	15,937.00	1.78		0.8712	17,355	
1970	385.00	1.78	8.57 21.52	0.8633	415 958	
	920.55			0.8322		
1972	118,761.00	1.91	2,835.42	0.8118	120,513	
1973	537.56	1.94	13.04	0.8051	541	
1977	194,640.14	2.04	4,963.32	0.7650	186,125	
1978	135,834.00	2.07	3,514.70	0.7556	128,295	
1979	9,343.00	2.10	245.25	0.7455	8,707	
1980	5,334.74	2.13	142.04	0.7348	4,900	
1982	4,596.93	2.19	125.84	0.7118	4,090	
1983	310,806.36	2.22	8,624.88	0.6993	271,684	
1984	251,724.44	2.26	7,111.22	0.6893	216,892	
1985	28,657.69	2.29	820.33	0.6756	24,201	
1986	47,993.65	2.33	1,397.82	0.6640	39,835	
1987	190,512.82	2.36	5,620.13	0.6490	154,554	
1988	4,631.64	2.40	138.95	0.6360	3,682	
1989	243,763.27	2.44	7,434.78	0.6222	189,587	
1991	201,608.78	2.53	6,375.88	0.5946	149,846	
1992	217,215.68	2.57	6,978.05	0.5782	156,993	
1993	27,435.65	2.62	898.52	0.5633	19,318	
1994	55,999.27	2.66	1,861.98	0.5453	38,171	
1995	99,437.00	2.71	3,368.43	0.5284	65,678	
1996	25,664.10	2.77	888.62	0.5124	16,438	
1997	59,571.00	2.82	2,099.88	0.4935	36,748	
1998	30,568.15	2.88	1,100.45	0.4752	18,157	
1999	218,026.35	2.94	8,012.47	0.4557	124,193	
2000	90,311.35	3.00	3,386.68	0.4350	49,107	
2001	159,595.09	3.07	6,124.46	0.4144	82,670	
2002	470,887.34	3.14	18,482.33	0.3925	231,029	
2003	619,583.95	3.21	24,860.81	0.3692	285,938	

# ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

ORIGINAL		ANNUA	ANNUAL ACCRUAL		DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 35-S0 ALVAGE PERCENT25				
2004	1,846,705.95	3.29	75,945.78	0.3454	797,315
2005	642,766.41	3.38	27,156.88	0.3211	257,990
2006	2,365,234.59	3.46	102,296.40	0.2941	869,519
2007	1,904,999.72	3.56	84,772.49	0.2670	635,794
2008	688,519.47	3.66	31,499.77	0.2379	204,748
2009	1,203,692.42	3.77	56,724.01	0.2074	312,057
2010	1,605,038.92	3.90	78,245.65	0.1755	352,105
2011	1,719,739.21	4.03	86,631.86	0.1410	303,104
2012	1,561,044.14	4.18	81,564.56	0.1045	203,911
2013	828,921.39	4.36	45,176.22	0.0654	67,764
2014	1,125,215.71	4.59	64,559.25	0.0230	32,350
	19,462,224.89		864,895.99		6,836,117

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 4.44

# ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

	ORIGINAL	ANNUAI	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	OR CURVE IOWA	50-R2.5			
	LVAGE PERCENT				
1924	200.00	1.10	2.75	0.9955	249
1946	1,040.00	1.35	17.55	0.9248	1,202
1948	9,689.00	1.38	167.14	0.9177	11,114
1950	896.00	1.41	15.79	0.9094	1,019
1953	514.00	1.45	9.32	0.8918	573
1954	21,250.14	1.47	390.47	0.8894	23,625
1955	736.60	1.49	13.72	0.8866	816
1957	1,766.47	1.52	33.56	0.8740	1,930
1958	2,350.00	1.54	45.24	0.8701	2,556
1959	27,624.00	1.55	535.22	0.8602	29,703
1960	3,035.00	1.57	59.56	0.8556	3,246
1961	299.05	1.58	5.91	0.8453	316
1962	2,687.00	1.60	53.74	0.8400	2,821
1963	9,913.08	1.62	200.74	0.8343	10,338
1964	476.00	1.63	9.70	0.8232	490
1965	962.28	1.65	19.85	0.8168	982
1969	2,039.00	1.71	43.58	0.7780	1,983
1970	1,245.00	1.73	26.92	0.7698	1,198
1971	1,938.00	1.75	42.39	0.7612	1,844
1972	2,427.00	1.76	53.39	0.7480	2,269
1974	11,456.00	1.79	256.33	0.7250	10,382
1976	5,518.00	1.82	125.53	0.7007	4,833
1977	15,741.00	1.84	362.04	0.6900	13,577
1978	707.00	1.85	16.35	0.6752	597
1979	12,047.00	1.87	281.60	0.6638	9,996
1980	37,868.46	1.88	889.91	0.6486	30,702
1981	47,984.00	1.90	1,139.62	0.6365	38,177
1983	94,404.76	1.93	2,277.51	0.6080	71,748
1985	12,197.00	1.96	298.83	0.5782	8,815
1986	7,431.77	1.97	183.01	0.5614	5,215
1987	24,481.00	1.99	608.96	0.5472	16,745
1988	4,307.00	2.00	107.68	0.5300	2,853
1990	5,655.00	2.03	143.50	0.4974	3,516
1998	10,853.00	2.15	291.67	0.3548	4,813
1999	12,897.23	2.17	349.84	0.3364	5,423
2000	9,677.46	2.19	264.92	0.3176	3,842
2001	19,565.00	2.20	538.04	0.2970	7,264
2001	158,350.00	2.24	4,433.80	0.2576	50,989
2003	16,727.75	2.24	472.56	0.2378	4,962
2004	723.00	2.29	20.70	0.2373	176
2008	318,998.00	2.29	9,250.94	0.1740	69,382
2007					
∠∪∪8	1,925.09	2.34	56.31	0.1521	366

# ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	DR CURVE IOWA 50-I LVAGE PERCENT25	R2.5			
2009	133,612.71	2.36	3,941.57	0.1298	21,679
2010	429.38	2.39	12.83	0.1076	58
2012	90,678.42	2.47	2,799.70	0.0618	7,005
2013	60,934.98	2.54	1,934.69	0.0381	2,902
2014	168,077.81	2.69	5,651.62	0.0134	2,815
	1,374,335.44		38,456.60		497,106

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.80

# ACCOUNT 331.00 - BUILDINGS AND STRUCTURES

	ORIGINAL	ANNUAI	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
PORT A	UX BASQUES DIESEL				
	M SURVIVOR CURVE.				
	LE RETIREMENT YEA				
	LVAGE PERCENT				
1.21 511					
1945	35,700.00	1.34	574.06	0.9313	39,897
1946	1,470.00	1.36	23.99	0.9316	1,643
1954	26,520.00	1.52	483.72	0.9196	29,265
1964	990.00	1.80	21.38	0.9090	1,080
1968	2,842.00	1.93	65.82	0.8974	3,060
1969	16,044.00	1.97	379.28	0.8964	17,258
1982	766.15	2.65	24.36	0.8612	792
1983	12,428.00	2.72	405.65	0.8568	12,778
1984	1,175.00	2.79	39.34	0.8510	1,200
1986	4,549.00	2.96	161.58	0.8436	4,605
1988	18,412.00	3.14	693.76	0.8321	18,385
1994	24,685.00	3.87	1,146.37	0.7934	23,502
1995	43,929.00	4.02	2,119.13	0.7839	41,323
2001	61,667.95	5.30	3,922.08	0.7155	52,948
2002	1,476.00	5.59	99.01	0.6988	1,238
2004	7,393.15	6.29	558.03	0.6604	5,859
2009	47,898.68	9.16	5,265.02	0.5038	28,958
2013	105,449.87	14.43	18,259.70	0.2164	27,383
	412 205 00		24 040 00		211 154
	413,395.80		34,242.28		311,174
	HILL GAS TURBINE				
	M SURVIVOR CURVE.				
	LE RETIREMENT YEA				
NET SA	LVAGE PERCENT	.3			
1975	183,252.38	2.19	4,133.62	0.8650	163,269
1983	17,719.00	2.65	483.64	0.8348	15,236
1998	56,659.00	4.39	2,561.95	0.7244	42,275
1999	14,223.00	4.59	672.42	0.7244	10,422
2000	6,275.00	4.80	310.24	0.6960	4,498
2002	52,728.00	5.31	2,883.85	0.6638	36,051
2002	4,770.15	5.94	291.85	0.6237	3,064
2004	15,387.36	7.22	1,144.30	0.5415	8,582
2007	18,597.26	8.43	1,614.78	0.4636	8,880
2010	103,008.43	9.20	9,761.08	0.4140	43,925
2014	11,917.47	14.51	1,781.10	0.0726	891
	/>-/-	11.01	1,,01.10	0.0720	371
	484,537.05		25,638.83		337,093
	_3_,3000		=0,000.00		22.,000

#### ACCOUNT 331.00 - BUILDINGS AND STRUCTURES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACC FACTOR (5)	
PROBABI	VILLE 1 SURVIVOR CURVE. LE RETIREMENT YEA LVAGE PERCENT	R 6-2024			
1994	66,463.00	3.39	2,320.69	0.6950	47,578
2000	3,292.00	4.24	143.77	0.6148	2,085
2004	3,970.00	5.10	208.54	0.5355	2,190
2011	20,930.68	7.89	1,700.97	0.2762	5,954
2014	43,658.13	10.32	4,640.68	0.0516	2,320
	138,313.81		9,014.65		60,127
	1,036,246.66		68,895.76		708,394

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 6.65

#### ACCOUNT 332.00 - ELECTRICAL PLANT

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
PORT UN	NION DIESEL				
	I SURVIVOR CURVE.	. IOWA 70-L0			
	E RETIREMENT YEA				
NET SAL	VAGE PERCENT	-65			
1962	5,019.00			1.0000	8,281
1966	160.00			1.0000	264
	5,179.00				8,545
	JX BASQUES DIESEI				
	I SURVIVOR CURVE.				
	E RETIREMENT YEA				
NET SAL	VAGE PERCENT	-20			
1946	9,670.00	1.36	157.81	0.9316	10,810
1947	1,700.00	1.37	27.95	0.9310	1,887
1954	2,595.00	1.52	47.33	0.9196	2,864
1959	13,800.00	1.65	273.24	0.9158	15,166
1964	4,240.00	1.79	91.08	0.9040	4,600
1965	1,920.00	1.83	42.16	0.9058	2,087
1966	1,547.00	1.86	34.53	0.9021	1,675
1969	18,954.00	1.97	448.07	0.8964	20,388
1971	1,067.00	2.05	26.25	0.8918	1,142
1973	248.00	2.14	6.37	0.8881	264
1982	3,929.00	2.65	124.94	0.8612	4,060
1992	23,555.00	3.59	1,014.75	0.8078	22,833
2011	5,649.93	11.28	764.77	0.3948	2,677
2012	1,420.13	12.72	216.77	0.3180	542
2013	15,830.90	14.59	2,771.67	0.2188	4,157
	106,125.96		6,047.69		95,152
CDFFN L	IILL GAS TURBINE				
	I SURVIVOR CURVE.	TOWA 70-T.0			
	E RETIREMENT YEA				
	VAGE PERCENT				
1975	25,560.00	2.19	576.56	0.8650	22,773
1986	4,977.00	2.88	147.64	0.8208	4,208
1987	6,870.00	2.96	209.45	0.8140	5,760
1992	65,629.00	3.48	2,352.41	0.7830	52,929
1997	31,835.00	4.21	1,380.46	0.7368	24,160
2001	281,644.00	5.06	14,678.72	0.6831	198,163

#### ACCOUNT 332.00 - ELECTRICAL PLANT

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUEI	DEPREC		
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT		
(1)	(2)	(3)	(4)	(5)	(6)		
GREEN	HILL GAS TURBINE						
	IM SURVIVOR CURVE	IOWA 70-L0					
	BLE RETIREMENT YEAR						
NET S	ALVAGE PERCENT3						
2002	32,632.00	5.32	1,788.10	0.6650	22,351		
2003	158,676.00	5.62	9,185.12	0.6463	105,629		
2004	4,158.00	5.96	255.25	0.6258	2,680		
2009	37,809.47	8.48	3,302.43	0.4664	18,163		
2014	8,118.99	14.87	1,243.51	0.0744	622		
	657,909.46		35,119.65		457,438		
WEST.E	YVILLE						
	IN SURVIVOR CURVE	TOWA 70-T.0					
	BLE RETIREMENT YEAR						
	ALVAGE PERCENT3	0 2021					
1993	29,602.00	3.28	1,000.07	0.7052	21,502		
1998	8,010.00	3.93	324.24	0.6484	5,349		
1999	2,461.00	4.09	103.67	0.6340	1,607		
2001	48,225.00	4.45	2,210.39	0.6008	29,843		
2004	105,665.50	5.13	5,583.26	0.5386	58,619		
2012	24,797.63	8.72	2,227.22	0.2180	5,568		
2013	13,096.59	9.58	1,292.29	0.1437	1,938		
2014	21,787.65	10.74	2,410.19	0.0537	1,205		
	253,645.37		15,151.33		125,631		
MODIT	D DIDODI   2						
	E DIESEL #3 IM SURVIVOR CURVE	TOMA 70 TO					
	BLE RETIREMENT YEAR						
	ALVAGE PERCENT 0	0-2030					
INET OF	ALVAGE FERCENT 0						
2004	1,349,488.17	3.48	46,962.19	0.3654	493,103		
2009	11,001.61	4.24	466.47	0.2332	2,566		
2010	2,676.74	4.44	118.85	0.1998	535		
2013	1,924.02	5.24	100.82	0.0786	151		
	1,365,090.54		47,648.33		496,355		
	2,387,950.33		103,967.00		1,183,121		
	COMPOSITE ANNUAL ACCRUAL RATE, PERCENT 4.35						

## ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

INTERI	ORIGINAL COST (2) UNION DIESEL EM SURVIVOR CURVE	RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	BLE RETIREMENT YEAF ALVAGE PERCENT6				
1962	49,910.00			1.0000	82,352
1966 1998	700.00 1,984.00			1.0000 1.0000	1,155 3,274
	52,594.00				86,781
	AUX BASQUES DIESEL				
PROBAE	M SURVIVOR CURVE BLE RETIREMENT YEAF ALVAGE PERCENT2	6-2020			
1969	295,188.00	1.97	6,978.24	0.8964	317,528
2000	64,192.00	5.04	3,882.33	0.7308	56,294
2001	32,651.05	5.30	2,076.61	0.7155	28,034
2004	2,276.00	6.30	172.07	0.6615	1,807
2013	8,696.71	14.42	1,504.88	0.2163	2,257
2014	218,373.35	16.91	44,312.32	0.0846	22,169
	621,377.11		58,926.45		428,089
PORTAE	BLE GAS TURBINE				
	M SURVIVOR CURVE				
	BLE RETIREMENT YEAR ALVAGE PERCENT 0	2 6-2020			
1974	54,662.00	2.19	1,197.10	0.8870	48,485
1986	89,421.78	2.97	2,655.83	0.8464	75,687
1990	182,301.84	3.36	6,125.34	0.8232	150,071
1994	23,650.00	3.88	917.62	0.7954	18,811
1995	40,004.00	4.03	1,612.16	0.7858	31,435
1998	2,279.00	4.58	104.38	0.7557	1,722
1999	383.00	4.80	18.38	0.7440	285
2000	88,772.00	5.04	4,474.11	0.7308	64,875
2001	28,300.00	5.30	1,499.90	0.7155	20,249
2002	32,823.00	5.60	1,838.09	0.7000	22,976
2003	1,496,428.19	5.93	88,738.19	0.6820	1,020,564
2004	254,602.30	6.30	16,039.94	0.6615	168,419
2007	16,143.00	7.75	1,251.08	0.5812	9,382
2008	10,340.63	8.39	867.58	0.5454	5,640



## ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

	ORIGINAL	ANNUA	AL ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
DODELL					
	BLE GAS TURBINE	T0:			
	IM SURVIVOR CURVE.				
	BLE RETIREMENT YEAD	R 6-2020			
NET S	ALVAGE PERCENT 0				
2000	27,024.77	0 16	2 475 47	0 5020	12 615
2009		9.16	2,475.47	0.5038	13,615
2010	83,732.35	10.07	8,431.85	0.4532	37,948
2012	9,027.19	12.60	1,137.43	0.3150	2,844
2013	6,268.02	14.42	903.85	0.2163	1,356
2014	25,448.68	16.91	4,303.37	0.0846	2,153
	2,471,611.75		144,591.67		1,696,517
GREEN	HILL GAS TURBINE				
INTER	IM SURVIVOR CURVE.	. IOWA 55-L1			
PROBA:	BLE RETIREMENT YEA	R 6-2021			
NET S	ALVAGE PERCENT:	3			
1975	2,651,268.00	2.20	60,077.73	0.8690	2,373,070
1983	1,832.00	2.66	50.19	0.8379	1,581
1984	4,087.00	2.73	114.92	0.8326	3,505
1988	83,490.00	3.07	2,640.04	0.8136	69,965
1990	2,192.00	3.26	73.60	0.7987	1,803
1992	670,037.00	3.49	24,085.82	0.7852	541,896
1994	56,775.00	3.75	2,192.93	0.7688	44,958
1995	21,882.00	3.89	876.75	0.7586	17,098
1996	943,936.00	4.05	39,376.29	0.7492	728,413
1997	59,496.00	4.21	2,579.93	0.7368	45,152
1999	215,943.00	4.60	10,231.38	0.7130	158,586
2000	14,117.00	4.81	699.40	0.6974	10,141
2001	267,129.00	5.05	13,894.71	0.6818	187,592
2002	360,414.00	5.32	19,749.25	0.6650	246,866
2003	458,780.27	5.61	26,509.70	0.6452	304,885
2005	35,481.00	6.31	2,306.02	0.5994	21,905
2006	10,215.00	6.73	708.09	0.5720	6,018
2008	1,446.87	7.77	115.79	0.5050	753
2009	23,723.26	8.42	2,057.42	0.4631	11,316
2011	9,730.86	10.10	1,012.30	0.3535	3,543
2012	104,048.45	11.23	12,035.18	0.2808	30,093
2014	137,876.56	14.56	20,677.07	0.0728	10,339
2011	15.,5.0.50	11.50	20,011.01	0.0720	10,333
	6,133,900.27		242,064.51		4,819,478

## ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
MECT E	YVILLE				
	IN SURVIVOR CURVE.	TOWN 55-T.1			
	BLE RETIREMENT YEA				
	ALVAGE PERCENT				
NET D	ADVAOD I BROBNI	5			
1969	350,896.00	1.86	6,722.47	0.8463	305,872
1970	1,443.00	1.89	28.09	0.8410	1,250
1982	65,612.00	2.44	1,648.96	0.7930	53,591
1994	582,752.70	3.41	20,468.02	0.6990	419,564
1997	39,940.00	3.79	1,559.14	0.6632	27,283
1998	39,594.28	3.94	1,606.82	0.6501	26,512
1999	16,392.00	4.09	690.55	0.6340	10,704
2002	1,241,553.00	4.65	59,464.18	0.5812	743,238
2003	2,591,284.68	4.87	129,981.43	0.5600	1,494,653
2004	594,443.67	5.11	31,287.35	0.5366	328,548
2005	1,732,347.00	5.38	95,996.28	0.5111	911,965
2006	70,619.69	5.67	4,124.26	0.4820	35,060
2008	297,676.84	6.38	19,561.54	0.4147	127,150
2009	128,079.04	6.81	8,983.85	0.3746	49,418
2011	136,252.52	7.86	11,030.73	0.2751	38,608
2013	7,925.58	9.32	760.82	0.1398	1,141
2014	1,328,955.32	10.35	141,673.28	0.0518	70,905
	9,225,767.32		535,587.77		4,645,462
	E DIESEL #3				
	IM SURVIVOR CURVE.				
	BLE RETIREMENT YEAR	R 6-2036			
NET S	ALVAGE PERCENT 0				
1997	5,000.00	2.86	143.00	0.5005	2,502
1998	6,500.00	2.94	191.10	0.4851	3,153
2004	597,294.87	3.48	20,785.86	0.3654	218,252
2005	36,721.05	3.59	1,318.29	0.3410	12,522
2005	13,311.31	3.70	492.52	0.3145	4,186
2007	2,332.64	3.83	89.34	0.2872	670
2010	6,806.27	4.27	290.63	0.1922	1,308
2010	69,325.47	4.44	3,078.05	0.1554	10,773
2011	07,525.17	1.11	3,070.03	0.1331	10,,,5



## ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
INTERI PROBAB	DIESEL #3 M SURVIVOR CURVE. LE RETIREMENT YEA LVAGE PERCENT 0				
2012	19,607.81	4.63	907.84	0.1158	2,271
2013	5,435.84	4.86	264.18	0.0729	396
2014	77,576.53	5.19	4,026.22	0.0260	2,017
	839,911.79		31,587.03		258,050
-	19,345,162.24	1,	012,757.43		11,934,377

### ACCOUNT 334.00 - FUEL HOLDERS

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
INTERIM PROBABL	ION DIESEL SURVIVOR CURVE SQUA E RETIREMENT YEAR 1 VAGE PERCENT65	RE 2-2010			
1993	17,545.00			1.0000	28,949
	17,545.00				28,949
INTERIM PROBABL	X BASQUES DIESEL SURVIVOR CURVE SQUA E RETIREMENT YEAR 6 VAGE PERCENT20	RE -2020			
2000 2006	1,211.00 94,145.79	5.00 7.14	72.66 8,066.41	0.7250 0.6071	1,054 68,592
	95,356.79		8,139.07		69,646
INTERIM PROBABL	ILL GAS TURBINE SURVIVOR CURVE SQUA E RETIREMENT YEAR 6 VAGE PERCENT3	RE -2021			
1975 1994 1998 1999 2000 2002 2006 2007 2009 2010 2011 2014	36,755.00 85,285.00 8,444.00 47,951.00 65,210.00 198,000.00 66,769.21 9,454.64 12,856.79 8,659.53 3,275.99 250,226.86	2.17 3.70 4.35 4.55 4.76 5.26 6.67 7.14 8.33 9.09 10.00 14.29	821.51 3,250.21 378.33 2,247.22 3,197.12 10,727.24 4,587.11 695.31 1,103.10 810.77 337.43 36,830.14	0.8587 0.7593 0.7174 0.7046 0.6905 0.6579 0.5667 0.5357 0.4583 0.4091 0.3500 0.0714	32,508 66,696 6,239 34,797 46,377 134,170 38,971 5,217 6,069 3,649 1,181 18,410
	792,888.02		64,985.49		394,284

### ACCOUNT 334.00 - FUEL HOLDERS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAI RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUED DEPREC FACTOR AMOUNT (5) (6)	
PROBABI		SQUARE . 6-2024			
1986	19,774.00	2.63	535.66	0.7500 15,275	
2000 2004	143,088.00 38,548.00	4.17 5.00	6,145.77 1,985.22	0.6042       89,043         0.5250       20,845	
	201,410.00		8,666.65	125,163	3
	1,107,199.81		81,791.21	618,042	2

## ACCOUNT 335.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
INTERIM PROBABL	X BASQUES DIESEL SURVIVOR CURVE E RETIREMENT YEAR. VAGE PERCENT20				
1046	1 570 00	1 25	25 42	0 0257	1 744
1946 1952	1,570.00 495.00	1.35 1.47	25.43 8.73	0.9257 0.9191	1,744 546
1955	1,910.00	1.54	35.30	0.9154	2,098
1956	910.00	1.56	17.04	0.9141	998
1958	280.00	1.61	5.41	0.9113	306
1962	410.00	1.72	8.46	0.9052	445
1965	130.00	1.82	2.84	0.9000	140
1974	1,193.00	2.17	31.07	0.8804	1,260
	6,898.00		134.28		7,537

### ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

	ORIGINAL	ANNUAI	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 50-R2.	5			
	LVAGE PERCENT15				
1928	49,749.00	1.14	652.21	0.9861	56,416
1931	7,500.00	1.16	100.05	0.9686	8,354
1942	24,410.00	1.29	362.12	0.9352	26,252
1944	883.00	1.32	13.40	0.9306	945
1950	3,061.00	1.41	49.63	0.9094	3,201
1951	1,100.00	1.42	17.96	0.9017	1,141
1952	1,464.00	1.44	24.24	0.9000	1,515
1954	15,615.47	1.47	263.98	0.8894	15,972
1956	1,371.00	1.50	23.65	0.8775	1,384
1958	51,194.00	1.54	906.65	0.8701	51,225
1959	32,806.67	1.55	584.78	0.8602	32,453
1960	21,151.53	1.57	381.89	0.8556	20,812
1961	26,158.00	1.58	475.29	0.8453	25,428
1962	10,345.00	1.60	190.35	0.8400	9,993
1963	31,548.02	1.62	587.74	0.8343	30,269
1964	26,518.34	1.63	497.09	0.8232	25,104
1965	10,244.00	1.65	194.38	0.8168	9,622
1966	41,084.00	1.67	789.02	0.8100	38,270
1967	51,562.44	1.68	996.19	0.7980	47,319
1968	37,973.29	1.70	742.38	0.7905	34,521
1969	72,216.29	1.71	1,420.13	0.7780	64,612
1970	7,720.78	1.73	153.60	0.7698	6,835
1971	28,208.63	1.75	567.70	0.7612	24,693
1972	140,803.00	1.76	2,849.85	0.7480	121,119
1973	50,216.93	1.78	1,027.94	0.7387	42,660
1974	19,402.50	1.79	399.40	0.7250	16,177
1975	203,877.61	1.81	4,243.71	0.7150	167,638
1976	281,061.51	1.82	5,882.62	0.7007	226,481
1977	137,662.49	1.84	2,912.94	0.6900	109,235
1978	108,868.26	1.85	2,316.17	0.6752	84,534
1979	107,797.28	1.87	2,318.18	0.6638	82,289
1980	53,027.00	1.88	1,146.44	0.6486	39,552
1981	68,264.29	1.90	1,491.57	0.6365	49,968
1982	149,336.00	1.91	3,280.17	0.6208	106,614
1983	130,200.36	1.93	2,889.80	0.6080	91,036
1984	56,469.99	1.94	1,259.85	0.5917	38,425
1985	90,106.35	1.96	2,031.00	0.5782	59,914
1986	38,293.33	1.97	867.54	0.5614	24,723
1987	68,331.00	1.99	1,563.75	0.5472	42,999
1988	306,269.00	2.00	7,044.19	0.5300	186,671
1989	157,928.00	2.02	3,668.67	0.5151	93,551
1990	152,448.07	2.03	3,558.90	0.4974	87,202
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## ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUAI	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDVIT	VOR CURVE IOWA 50	N D2 E			
	ALVAGE PERCENT1				
MEI S	ALVAGE PERCENT1	. J			
1991	29,354.00	2.05	692.02	0.4818	16,264
1992	48,819.00	2.06	1,156.52	0.4635	26,022
1993	7,014.00	2.08	167.77	0.4472	3,607
1994	194,686.36	2.09	4,679.29	0.4284	95,914
1995	122,420.00	2.11	2,970.52	0.4114	57,918
1996	67,930.81	2.12	1,656.15	0.3922	30,639
1997	94,655.00	2.14	2,329.46	0.3745	40,766
1998	172,384.00	2.15	4,262.19	0.3548	70,336
1999	50,611.00	2.17	1,263.00	0.3364	19,579
2000	586,309.75	2.19	14,766.21	0.3176	214,144
2001	195,498.13	2.20	4,946.10	0.2970	66,772
2002	95,042.07	2.22	2,426.42	0.2775	30,330
2003	275,085.86	2.24	7,086.21	0.2576	81,491
2004	254,022.02	2.26	6,602.03	0.2373	69,321
2005	445,645.08	2.27	11,633.56	0.2156	110,493
2006	214,565.00	2.29	5,650.57	0.1946	48,018
2007	459,461.74	2.32	12,258.44	0.1740	91,938
2008	443,427.17	2.34	11,932.63	0.1521	77,562
2009	1,199,964.11	2.36	32,567.03	0.1298	179,119
2010	636,650.87	2.39	17,498.35	0.1076	78,779
2011	1,243,645.38	2.43	34,753.67	0.0850	121,566
2012	393,538.36	2.47	11,178.46	0.0618	27,969
2013	553,206.85	2.54	16,159.17	0.0381	24,239
2014	728,759.82	2.69	22,544.19	0.0134	11,230
	11,386,943.81		291,927.08		3,801,140

## ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 50-R1				
	ALVAGE PERCENT15				
1942	7,240.00	1.23	102.41	0.8918	7,425
1943	9,165.00	1.24	130.69	0.8866	9,345
1946	495.00	1.28	7.29	0.8768	499
1949	423.00	1.31	6.37	0.8580	417
1951	38,686.73	1.33	591.71	0.8446	37,576
1954	142,595.86	1.37	2,246.60	0.8288	135,911
1956	133,411.65	1.39	2,132.59	0.8132	124,764
1958	126,484.65	1.42	2,065.49	0.8023	116,700
1959	245,660.62	1.43	4,039.89	0.7936	224,200
1960	96,423.86	1.44	1,596.78	0.7848	87,024
1961	243,628.96	1.46	4,090.53	0.7811	218,843
1962	219,577.11	1.47	3,711.95	0.7718	194,890
1963	347,806.01	1.48	5,919.66	0.7622	304,862
1964	27,581.47	1.50	475.78	0.7575	24,027
1965	101,003.29	1.51	1,753.92	0.7474	86,813
1966	619,012.44	1.53	10,891.52	0.7420	528,203
1967	513,750.58	1.54	9,098.52	0.7315	432,180
1968	505,255.95	1.55	9,006.19	0.7208	418,817
1969	805,505.36	1.57	14,543.40	0.7144	661,771
1970	363,031.40	1.58	6,596.28	0.7031	293,534
1971	917,866.34	1.60	16,888.74	0.6960	734,660
1972	1,086,305.12	1.61	20,112.94	0.6842	854,737
1973	1,062,499.54	1.63	19,916.55	0.6764	826,476
1974	1,400,522.72	1.65	26,574.92	0.6682	1,076,204
1975	3,734,995.79	1.66	71,301.07	0.6557	2,816,392
1976	8,321,406.36	1.68	160,769.57	0.6468	6,189,628
1977	4,318,576.41	1.69	83,931.53	0.6338	3,147,681
1978	1,857,544.52	1.71	36,528.61	0.6242	1,333,401
1979	1,285,522.05	1.73	25,575.46	0.6142	908,003
1980	889,827.56	1.75	17,907.78	0.6038	617,870
1981	1,424,270.41	1.76	28,827.23	0.5896	965,712
1982	2,276,682.93	1.78	46,603.70	0.5785	1,514,620
1983	2,212,415.16	1.80	45,796.99	0.5670	1,442,605
1984	1,072,544.58	1.82	22,448.36	0.5551	684,675
1985	1,274,135.37	1.84	26,960.70	0.5428	795,341
1986	811,937.63	1.86	17,367.35	0.5301	494,969
1987	1,616,242.35	1.88	34,943.16	0.5170	960,937
1988	2,289,117.38	1.90	50,017.21	0.5035	1,325,456
1989	2,490,017.97	1.92	54,979.60	0.4896	1,401,980
1990	7,457,368.68	1.94	166,373.90	0.4753	4,076,160
1991	3,882,049.36	1.97	87,947.83	0.4630	2,066,997
1992	3,387,183.29	1.99	77,515.69	0.4478	1,744,298
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## ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNU	JAL ACCRUAL	ACCRU	ED DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDIII	IVOR CURVE IOWA 50-R	1			
	SALVAGE PERCENT15	1			
1411 /	ALVAGE FERCENT 15				
1993	2,708,315.96	2.02	62,914.18	0.4343	1,352,655
1994	809,324.62	2.04	18,986.76	0.4182	389,228
1995	1,346,055.27	2.07	32,042.85	0.4036	624,758
1996	1,487,608.22	2.10	35,925.74	0.3885	664,626
1997	1,955,424.30	2.13	47,898.12	0.3728	838,330
1998	2,358,220.22	2.16	58,578.19	0.3564	966,540
1999	3,159,855.66	2.19	79,580.96	0.3394	1,233,323
2000	3,589,130.96	2.23	92,043.26	0.3234	1,334,834
2001	4,189,953.14	2.27	109,378.73	0.3064	1,476,372
2002	4,688,856.48	2.31	124,559.47	0.2888	1,557,263
2003	7,483,260.90	2.35	202,235.13	0.2702	2,325,274
2004	5,253,362.94	2.40	144,992.82	0.2520	1,522,425
2005	3,278,038.44	2.45	92,358.73	0.2328	877,596
2006	3,833,872.65	2.51	110,664.73	0.2134	940,871
2007	4,365,102.33	2.58	129,512.59	0.1935	971,344
2008	5,743,463.69	2.65	175,032.06	0.1722	1,137,378
2009	7,826,003.60	2.74	246,597.37	0.1507	1,356,286
2010	9,363,189.67	2.84	305,801.77	0.1278	1,376,108
2011	10,466,821.71	2.97	357,494.30	0.1040	1,251,832
2012	12,085,592.08	3.15	437,800.57	0.0788	1,095,196
2013	13,947,474.95	3.42	548,554.19	0.0513	822,831
2014	22,554,835.39	4.11	1,066,054.29	0.0206	534,324
	192,109,533.64		5,697,303.27		64,535,997

## ACCOUNT 350.01 - TRANSMISSION - ROW - CLEARING AND EASEMENT SURVEY

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 65-	R4			
NET SA	LVAGE PERCENT 0				
1952	3,790.58	1.38	52.31	0.8625	3,269
1954	4,681.02	1.40	65.53	0.8470	3,965
1955	40.00	1.41	0.56	0.8390	34
1956	11,977.84	1.41	168.89	0.8248	9,879
1958	30.00	1.43	0.43	0.8080	24
1959	82,399.35	1.44	1,186.55	0.7992	65,854
1960	5,182.05	1.45	75.14	0.7902	4,095
1961	30,786.00	1.45	446.40	0.7758	23,884
1962	2,007.00	1.46	29.30	0.7665	1,538
1963	48,873.48	1.47	718.44	0.7570	36,997
1965	175,715.76	1.49	2,618.16	0.7376	129,608
1966	87,759.05	1.49	1,307.61	0.7226	63,415
1967	4,064.61	1.50	60.97	0.7125	2,896
1968	81,030.65	1.51	1,223.56	0.7022	56,900
1969	94,118.29	1.51	1,421.19	0.6870	64,659
1970	35,008.00	1.52	532.12	0.6764	23,679
1971	55,936.80	1.53	855.83	0.6656	37,232
1972	135,685.66	1.53	2,075.99	0.6502	88,223
1973	69,787.02	1.54	1,074.72	0.6391	44,601
1974	189,230.78	1.54	2,914.15	0.6237	118,023
1975	398,422.88	1.55	6,175.55	0.6122	243,914
1976	800,971.20	1.56	12,495.15	0.6006	481,063
1977	176,516.16	1.56	2,753.65	0.5850	103,262
1978	204,648.37	1.57	3,212.98	0.5730	117,264
1979	147,122.65	1.57	2,309.83	0.5574	82,006
1980	223,325.60	1.58	3,528.54	0.5451	121,735
1981	610,069.61	1.58	9,639.10	0.5293	322,910
1982	625,731.48	1.58	9,886.56	0.5135	321,313
1983	433,112.94	1.59	6,886.50	0.5008	216,903
1984	110,984.76	1.59	1,764.66	0.4850	53,828
1985	205,935.34	1.59	3,274.37	0.4690	96,584
1986	107,440.83	1.60	1,719.05	0.4560	48,993
1987	53,401.43	1.60	854.42	0.4400	23,497
1988	81,736.16	1.60	1,307.78	0.4240	34,656
1989	64,425.92	1.61	1,037.26	0.4106	26,453
1990	63,138.82	1.61	1,016.54	0.3944	24,902
1991	96,817.89	1.61	1,558.77	0.3784	36,636
1992	59,244.49	1.61	953.84	0.3622	21,458
1993	7,839.03	1.62	126.99	0.3483	2,730
1994	8,027.36	1.62	130.04	0.3321	2,666
1995	31,379.62	1.62	508.35	0.3159	9,913
1996	3,732.46	1.62	60.47	0.2997	1,119

### ACCOUNT 350.01 - TRANSMISSION - ROW - CLEARING AND EASEMENT SURVEY

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	R CURVE IOWA 65-R4 VAGE PERCENT 0				
1997	161,489.36	1.62	2,616.13	0.2835	45,782
1999	10,727.12	1.62	173.78	0.2511	2,694
2001	28,836.50	1.63	470.03	0.2200	6,344
2002	170,496.09	1.63	2,779.09	0.2038	34,747
2003	220,877.79	1.63	3,600.31	0.1874	41,392
2004	87,200.45	1.63	1,421.37	0.1712	14,929
2006	209,183.94	1.63	3,409.70	0.1386	28,993
2007	215,195.19	1.63	3,507.68	0.1222	26,297
2008	122,872.82	1.63	2,002.83	0.1060	13,025
2009	185,545.67	1.63	3,024.39	0.0896	16,625
2010	87,875.98	1.63	1,432.38	0.0734	6,450
2011	284,712.05	1.63	4,640.81	0.0570	16,229
2012	356,753.73	1.64	5,850.76	0.0410	14,627
2013	317,533.14	1.64	5,207.54	0.0246	7,811
2014	199,923.12	1.64	3,278.74	0.0082	1,639
:	8,291,351.89		131,443.79		3,450,164

## ACCOUNT 350.02 - TRANSMISSION - ROW - ROADS, TRAILS AND BRIDGES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	R CURVE IOWA 65-R4 VAGE PERCENT 0				
1931	544.87	1.15	6.27	0.9602	523
1959	700.60	1.44	10.09	0.7992	560
1962	3,050.41	1.46	44.54	0.7665	2,338
1963	1,937.34	1.47	28.48	0.7570	1,467
1982	44,901.44	1.58	709.44	0.5135	23,057
1985	4,858.24	1.59	77.25	0.4690	2,279
1993	7,643.80	1.62	123.83	0.3483	2,662
2004	12,563.42	1.63	204.78	0.1712	2,151
2011	2,065.87	1.63	33.67	0.0570	118
	78,265.99		1,238.35		35,155

### ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDIATI	TOD CUDITE TOWN 57 F	. 2			
	VOR CURVE IOWA 57-F	(3			
NEI SA	ALVAGE PERCENT35				
1953	26.38	1.42	0.51	0.8733	31
1954	16.55	1.43	0.32	0.8652	19
1956	10,781.58	1.46	212.50	0.8541	12,432
1957	21,954.00	1.47	435.68	0.8452	25,050
1958	68,681.16	1.48	1,372.25	0.8362	77,532
1959	136,417.65	1.50	2,762.46	0.8325	153,316
1960	7,478.41	1.51	152.45	0.8230	8,309
1961	39,999.59	1.52	820.79	0.8132	43,912
1962	4,220.01	1.53	87.16	0.8032	4,576
1963	194,603.66	1.55	4,072.08	0.7982	209,699
1964	1,870.69	1.56	39.40	0.7878	1,990
1965			11,767.98		
1966	555,224.44	1.57	·	0.7772 0.7663	582,553
	66,904.67	1.58	1,427.08		69,213
1967	107,292.80	1.59	2,303.04	0.7552	109,387
1968	350,551.78	1.61	7,619.24	0.7486	354,271
1969	78,048.13	1.62	1,706.91	0.7371	77,665
1970	55,292.38	1.63	1,216.71	0.7254	54,147
1971	227,228.56	1.64	5,030.84	0.7134	218,842
1972	245,929.30	1.65	5,478.08	0.7012	232,802
1973	276,938.42	1.66	6,206.19	0.6889	257,557
1974	378,880.09	1.67	8,541.85	0.6764	345,971
1975	833,280.35	1.68	18,898.80	0.6636	746,503
1976	1,934,811.44	1.69	44,142.72	0.6506	1,699,364
1977	741,040.13	1.70	17,006.87	0.6375	637,758
1978	567,697.15	1.71	13,105.29	0.6242	478,381
1979	8,248.00	1.72	191.52	0.6106	6,799
1980	318,343.00	1.73	7,434.90	0.5968	256,483
1981	1,541,205.00	1.74	36,202.91	0.5829	1,212,797
1982	715,442.20	1.75	16,902.32	0.5688	549,374
1983	591,203.51	1.76	14,047.00	0.5544	442,480
1984	280,806.00	1.77	6,709.86	0.5398	204,632
1985	426,232.00	1.78	10,242.35	0.5251	302,149
1986	372,919.04	1.79	9,011.59	0.5102	256,855
1987	69,916.55	1.80	1,698.97	0.4950	46,722
1988	233,573.00	1.81	5,707.36	0.4796	151,229
1989	388,051.34	1.82	9,534.42	0.4641	243,128
1990	506,883.11	1.83	12,522.55	0.4484	306,837
1991	418,333.21	1.84	10,391.40	0.4324	244,198
1992	610,915.31	1.85	15,257.61	0.4162	343,255
1993	403,340.00	1.86	10,127.87	0.3999	217,749
1994	305,962.32	1.87	7,724.02	0.3834	158,363
1995	440,389.00	1.87	11,117.62	0.3646	216,764
	•		•		•

#### ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
QTTD1/T	VOR CURVE IOWA 57-R	2			
	SALVAGE PERCENT35				
INE I	ALVAGE PERCENT33				
1996	245,094.30	1.88	6,220.49	0.3478	115,079
1997	361,131.00	1.89	9,214.26	0.3308	161,274
1998	271,367.69	1.90	6,960.58	0.3135	114,850
1999	158,974.21	1.91	4,099.15	0.2960	63,526
2000	155,999.88	1.92	4,043.52	0.2784	58,631
2001	518,507.12	1.92	13,439.70	0.2592	181,436
2002	510,786.00	1.93	13,308.53	0.2412	166,322
2003	1,057,374.00	1.94	27,692.63	0.2231	318,465
2004	369,376.60	1.95	9,723.84	0.2048	102,125
2005	596,400.58	1.95	15,700.25	0.1852	149,112
2006	847,001.00	1.96	22,411.65	0.1666	190,499
2007	1,127,191.00	1.97	29,977.64	0.1478	224,908
2008	1,167,438.59	1.98	31,205.63	0.1287	202,837
2009	901,381.29	1.99	24,215.61	0.1094	133,125
2010	1,169,621.77	2.00	31,579.79	0.0900	142,109
2011	1,112,544.66	2.01	30,188.90	0.0704	105,736
2012	1,051,861.49	2.02	28,684.26	0.0505	71,711
2013	881,831.51	2.04	24,285.64	0.0306	36,428
2014	603,828.73	2.08	16,955.51	0.0104	8,478
	27,644,643.33		689,139.05		14,107,745

### ACCOUNT 353.20 - TRANSMISSION - UNDERGROUND CABLES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	DR CURVE IOWA 50-R4 LVAGE PERCENT25				
1967	168,788.00	1.80	3,797.73	0.8550	180,392
1979	1,676.00	1.96	41.06	0.6958	1,458
1980	776,120.00	1.97	19,111.96	0.6796	659,314
1984	18,099.00	2.01	454.74	0.6130	13,868
1997	6,161.00	2.10	161.73	0.3675	2,830
2009	63,799.53	2.12	1,690.69	0.1166	9,299
2011	409,899.68	2.12	10,862.34	0.0742	38,018
2012	67,427.14	2.13	1,795.25	0.0532	4,484
2013	133,984.47	2.13	3,567.34	0.0320	5,359
	1,645,954.82		41,482.84		915,022

## ACCOUNT 355.10 - TRANSMISSION - POLES

	ORIGINAL	ANNUAI	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SIIRVII	VOR CURVE IOWA 52	-80 5			
	ALVAGE PERCENT3!				
1111 01					
1931	320.47	1.11	4.80	0.9268	401
1952	121.73	1.32	2.17	0.8250	136
1953	1,083.24	1.33	19.45	0.8180	1,196
1955	4,559.66	1.36	83.72	0.8092	4,981
1956	5,888.94	1.37	108.92	0.8014	6,371
1957	14,483.19	1.38	269.82	0.7935	15,515
1958	72,354.28	1.40	1,367.50	0.7910	77,264
1959	119,818.26	1.41	2,280.74	0.7826	126,589
1960	4,091.48	1.42	78.43	0.7739	4,275
1961	39,274.63	1.44	763.50	0.7704	40,847
1962	12,561.00	1.45	245.88	0.7612	12,908
1963	272,311.62	1.47	5,404.02	0.7570	278,289
1964	3,034.40	1.48	60.63	0.7474	3,062
1965	338,021.19	1.49	6,799.30	0.7376	336,588
1966	58,565.17	1.51	1,193.85	0.7324	57,906
1967	73,407.20	1.53	1,516.23	0.7268	72,026
1968	463,258.32	1.54	9,631.14	0.7161	447,848
1969	123,268.86	1.56	2,596.04	0.7098	118,120
1970	85,257.27	1.57	1,807.03	0.6986	80,407
1971	154,676.95	1.59	3,320.14	0.6916	144,416
1972	312,983.59	1.61	6,802.70	0.6842	289,094
1973	267,141.73	1.62	5,842.39	0.6723	242,459
1974	486,442.47	1.64	10,769.84	0.6642	436,178
1975	1,137,789.66	1.66	25,497.87	0.6557	1,007,166
1976	2,204,615.53	1.68	50,000.68	0.6468	1,925,026
1977	416,697.87	1.70	9,563.22	0.6375	358,621
1977	418,380.18	1.71	9,658.31	0.6242	352,556
1978	85,775.80	1.73	2,003.29	0.6142	71,123
1980	362,456.21	1.75	8,563.03	0.6038	295,449
1981		1.77	39,522.75	0.5930	
1981	1,654,017.59 901,003.93				1,324,124
		1.79	21,772.76	0.5818	707,676 926,857
1983	1,197,558.83	1.82	29,424.02	0.5733	
1984	255,753.29	1.84	6,352.91	0.5612	193,764
1985	650,856.98	1.86	16,343.02	0.5487	482,119
1986	367,193.16	1.88	9,319.36	0.5358	265,602
1987	252,377.78	1.90	6,473.49	0.5225	178,021
1988	374,987.17	1.93	9,770.29	0.5114	258,887
1989	520,776.32	1.95	13,709.44	0.4972	349,555
1990	703,229.53	1.97	18,702.39	0.4826	458,161
1991	526,491.57	2.00	14,215.27	0.4700	334,059
1992	536,353.27	2.02	14,626.35	0.4545	329,093
1993	463,905.21	2.05	12,838.58	0.4408	276,061

### ACCOUNT 355.10 - TRANSMISSION - POLES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUAL RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 52	2-S0.5			
NET S	SALVAGE PERCENT3	35			
1994	378,225.15	2.07	10,569.50	0.4244	216,700
1995	501,790.42	2.10	14,225.76	0.4095	277,402
1996	314,825.55	2.13	9,052.81	0.3940	167,456
1997	554,179.64	2.16	16,159.88	0.3780	282,798
1998	451,844.96	2.18	13,297.80	0.3597	219,414
1999	456,007.04	2.21	13,604.97	0.3426	210,908
2000	216,260.83	2.24	6,539.73	0.3248	94,826
2001	540,288.55	2.27	16,557.14	0.3064	223,485
2002	999,338.06	2.30	31,029.45	0.2875	387,868
2003	1,143,666.41	2.34	36,128.42	0.2691	415,477
2004	445,350.68	2.37	14,249.00	0.2488	149,584
2005	862,316.13	2.40	27,939.04	0.2280	265,421
2006	1,341,853.33	2.44	44,200.65	0.2074	375,706
2007	1,294,293.71	2.47	43,158.22	0.1852	323,599
2008	1,555,664.02	2.51	52,713.68	0.1632	342,744
2009	1,489,244.38	2.55	51,267.24	0.1402	281,869
2010	1,664,013.91	2.59	58,182.25	0.1166	261,932
2011	1,828,796.99	2.63	64,931.44	0.0920	227,137
2012	1,359,897.44	2.67	49,017.50	0.0668	122,636
2013	2,048,692.21	2.72	75,227.98	0.0408	112,842
2014	1,649,076.52	2.78	61,889.84	0.0139	30,945
	37,038,771.46	1	,089,267.57		17,881,545

#### ACCOUNT 355.20 - TRANSMISSION - POLE FIXTURES

YEAR	ORIGINAL COST	RATE	ACCRUAL AMOUNT	FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 52-S0 ALVAGE PERCENT35	. 5			
1931	34.36	1.11	0.51	0.9268	43
1949	301.00	1.29	5.24	0.8450	343
1952	1,798.20	1.32	32.04	0.8250	2,003
1953	33.11	1.33	0.59	0.8180	37
1956	1,561.03	1.37	28.87	0.8014	1,689
1958	2,229.20	1.40	42.13	0.7910	2,380
1959	18,359.03	1.41	349.46	0.7826	19,396
1960	6,070.99	1.42	116.38	0.7739	6,343
1961	4,162.90	1.44	80.93	0.7704	4,330
1962	3,252.83	1.45	63.67	0.7612	3,343
1963	72,064.71	1.47	1,430.12	0.7570	73,647
1964	1,041.77	1.48	20.81	0.7474	1,051
1965	139,715.97	1.49	2,810.39	0.7376	139,124
1966	10,195.28	1.51	207.83	0.7324	10,080
1967	23,038.85	1.53	475.87	0.7268	22,605
1968	127,167.27	1.54	2,643.81	0.7161	122,937
1969	37,260.86	1.56	784.71	0.7098	35,704
1970	26,411.17	1.57	559.78	0.6986	24,909
1971	74,937.32	1.59	1,608.53	0.6916	69,966
1972	110,033.61	1.61	2,391.58	0.6842	101,635
1973	152,287.84	1.62	3,330.54	0.6723	138,217
1974	201,044.14	1.64	4,451.12	0.6642	180,270
1975	522,710.33	1.66	11,713.94	0.6557	462,701
1976	1,089,557.02	1.68	24,711.15	0.6468	951,379
1977	385,196.72	1.70	8,840.26	0.6375	331,510
1978	271,042.46	1.71	6,257.02	0.6242	228,399
1979	24,057.02	1.73	561.85	0.6142	19,947
1980	297,537.50	1.75 1.77	7,029.32	0.6038	242,532
1981	979,820.71		23,412.82	0.5930	784,395
1982	632,930.16	1.79	15,294.76	0.5818	497,122
1983	606,649.27 196,917.07	1.82 1.84	14,905.37 4,891.42	0.5733	469,519
1984 1985	326,370.40	1.86	8,195.16	0.5612 0.5487	149,188 241,757
1986	227,144.31		5,764.92	0.5358	164,300
1987	585,589.20	1.88 1.90	15,020.36	0.5225	413,060
1988	320,295.66	1.93	8,345.30	0.5114	221,129
1989				0.4972	231,300
1999	344,595.93 689,198.22	1.95 1.97	9,071.49 18,329.23	0.4826	449,020
1990	422,281.60	2.00	10,329.23	0.4700	267,938
1991	586,410.00	2.02	15,991.40	0.4545	359,807
1992	341,747.82	2.05	9,457.87	0.4408	203,367
1994	448,675.02	2.03	12,538.22	0.4244	257,064
	110,0,0.02	2.07	12,000.22	0.1211	23,,001

## ACCOUNT 355.20 - TRANSMISSION - POLE FIXTURES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	OR CURVE IOWA 5 LVAGE PERCENT				
1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013	358,454.81 283,355.64 335,852.84 375,324.62 609,177.39 228,123.46 675,139.14 555,425.53 808,026.96 517,327.05 693,932.55 957,759.10 1,069,448.63 1,550,187.79 1,097,351.50 2,054,664.73 1,645,111.79 1,357,133.41 1,517,723.67	2.10 2.13 2.16 2.18 2.21 2.24 2.27 2.30 2.34 2.37 2.40 2.44 2.47 2.51 2.55 2.59 2.63 2.67 2.72	10,162.19 8,147.89 9,793.47 11,045.80 18,174.81 6,898.45 20,689.64 17,245.96 25,525.57 16,551.88 22,483.41 31,548.58 35,660.76 52,528.11 37,776.33 71,841.35 58,409.69 48,917.87 55,730.81	0.4095 0.3940 0.3780 0.3597 0.3426 0.3248 0.3064 0.2875 0.2691 0.2488 0.2280 0.2074 0.1852 0.1632 0.1402 0.1166 0.0920 0.0668 0.0408	198,163 150,717 171,386 182,256 281,751 100,028 279,265 215,575 293,544 173,760 213,592 268,163 267,384 341,537 207,696 323,425 204,323 122,386 83,596
2014	1,766,432.57 28,767,681.04	2.78	66,294.21 878,595.15	0.0139	33,147

### ACCOUNT 355.30 - TRANSMISSION - INSULATORS

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 31	I = S1			
	ALVAGE PERCENT3				
1956	253.05	1.68	5.74	0.9828	336
1958	2,281.81	1.73	53.29	0.9774	3,011
1959	2,127.54	1.75	50.26	0.9712	2,789
1961	214.32	1.79	5.18	0.9576	277
1963	31,651.87	1.84	786.23	0.9476	40,491
1964	210.31	1.87	5.31	0.9444	268
1965	16,856.27	1.89	430.09	0.9356	21,290
1966	2,718.97	1.92	70.48	0.9312	3,418
1967	8,409.51	1.95	221.38	0.9262	10,515
1968	27,647.58	1.97	735.29	0.9160	34,189
1969	1,981.46	2.00	53.50	0.9100	2,434
1970	610.16	2.03	16.72	0.9034	744
1971	1,596.09	2.06	44.39	0.8961	1,931
1972	2,140.71	2.09	60.40	0.8882	2,567
1973	869.12	2.12	24.87	0.8798	1,032
1974	8,843.66	2.15	256.69	0.8708	10,396
1975	4,608.05	2.19	136.24	0.8650	5,381
1976	51,360.94	2.22	1,539.29	0.8547	59,263
1977	49,519.19	2.26	1,510.83	0.8475	56,656
1978	14,488.68	2.29	447.92	0.8358	16,348
1979	2,648.13	2.33	83.30	0.8272	2,957
1980	52,920.07	2.37			
			1,693.18	0.8176	58,411
1981	89,469.54	2.40	2,898.81	0.8040	97,110
1982	53,099.09	2.44	1,749.08	0.7930	56,845
1983	78,163.71	2.49	2,627.47	0.7844	82,771
1984	44,843.65	2.53	1,531.63	0.7716	46,712
1985	222,283.32	2.57	7,712.12	0.7582	227,523
1986	155,385.93	2.62	5,496.00	0.7467	156,636
1987	166,201.65	2.66	5,968.30	0.7315	164,128
1988	134,984.35	2.71	4,938.40	0.7182	130,877
1989	647,504.11	2.76	24,126.00	0.7038	615,213
1990	1,293,858.20	2.81	49,082.51	0.6884	1,202,434
1991	783,400.28	2.86	30,247.08	0.6721	710,806
1992	583,798.66	2.91	22,934.53	0.6548	516,066
1993	420,315.61	2.96	16,795.81	0.6364	361,110
1994	569,444.84	3.02	23,216.27	0.6191	475,933
1995	856,921.88	3.07	35,515.13	0.5986	692,487
1996	851,601.99	3.13	35,984.44	0.5790	665,655
1997	1,198,829.01	3.19	51,627.57	0.5582	903,402
1998	801,792.27	3.25	35,178.64	0.5362	580,393
1999	847,479.43	3.31	37,869.62	0.5130	586,922
2000	484,335.90	3.37	22,034.86	0.4886	319,473

### ACCOUNT 355.30 - TRANSMISSION - INSULATORS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUEI FACTOR (5)	DEPREC AMOUNT (6)
	CVOR CURVE IOWA 31-S1 EALVAGE PERCENT35				
2001	842,330.96	3.43	39,004.14	0.4630	526,499
2002	991,925.77	3.50	46,868.49	0.4375	585,856
2003	832,682.91	3.56	40,018.74	0.4094	460,216
2004	643,892.26	3.62	31,467.01	0.3801	330,404
2005	520,286.62	3.69	25,918.08	0.3506	246,257
2006	1,096,932.25	3.75	55,532.20	0.3188	472,098
2007	766,971.90	3.81	39,449.20	0.2858	295,921
2008	1,043,115.51	3.87	54,497.57	0.2516	354,305
2009	837,550.92	3.92	44,323.19	0.2156	243,778
2010	890,967.87	3.97	47,751.42	0.1786	214,821
2011	689,333.96	4.02	37,410.15	0.1407	130,936
2012	1,511,364.67	4.06	82,837.90	0.1015	207,095
2013	832,751.62	4.09	45,980.38	0.0614	69,027
2014	796,725.08	4.11	44,206.29	0.0206	22,157
	22,864,503.21		1,061,029.61		13,086,570

#### ACCOUNT 361.10 - OVERHEAD CONDUCTORS - BARE COPPER

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAI RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	R CURVE IOWA 53-R VAGE PERCENT25	1.5			
1964	2,766.86	1.50	51.88	0.7575	2,620
1965	137,417.00	1.51	2,593.75	0.7474	128,382
1966	84,498.00	1.52	1,605.46	0.7372	77,865
1967	92,696.74	1.54	1,784.41	0.7315	84,760
1968	62,195.75	1.55	1,205.04	0.7208	56,038
1969	11,406.75	1.57	223.86	0.7144	10,186
1970	4,985.33	1.58	98.46	0.7031	4,381
1971	10,421.56	1.59	207.13	0.6916	9,009
1975	47,815.71	1.65	986.20	0.6518	38,958
1976	37,424.42	1.67	781.23	0.6430	30,080
1983	1,671.61	1.77	36.98	0.5576	1,165
1984	1,002.97	1.79	22.44	0.5460	685
	494,302.70		9,596.84		444,129

## ACCOUNT 361.11 - OVERHEAD CONDUCTORS - WEATHER-PROOF COPPER

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	_	AL ACCRUAL	ACCRUED	
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 49-R2				
NET S	ALVAGE PERCENT25				
1959	85,058.82	1.53	1,626.75	0.8492	90,290
1960	181,362.00	1.54	3,491.22	0.8393	190,271
1961	101,492.00	1.56	1,979.09	0.8346	105,882
1962	214,459.00	1.58	4,235.57	0.8295	222,367
1963	122,599.00	1.59	2,436.66	0.8188	125,480
1964	157,907.00	1.61	3,177.88	0.8130	160,473
1965	232,729.00	1.62	4,712.76	0.8019	233,282
1966	109,964.00	1.64	2,254.26	0.7954	109,332
1967	115,148.51	1.65	2,374.94	0.7838	112,817
1968	82,677.87	1.67	1,725.90	0.7766	80,260
1969	28,449.95	1.69	601.01	0.7690	27,348
1971	33,857.80	1.72	727.94	0.7482	31,666
1972	12,118.09	1.73	262.05	0.7352	11,137
1973	33,194.12	1.75	726.12	0.7262	30,132
1974	6,914.78	1.77	152.99	0.7168	6,196
1975	34,401.79	1.78	765.44	0.7031	30,235
1976	19,008.41	1.80	427.69	0.6930	16,466
1978	35,891.98	1.83	821.03	0.6680	29,970
1981	0.65	1.88	0.02	0.6298	1
	1,607,234.77		32,499.32		1,613,605

## ACCOUNT 361.12 - OVERHEAD CONDUCTORS - BARE ALUMINUM

	ORIGINAL	ANNUAI	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SIIBVIV	OR CURVE IOWA 57-R	2 5			
	LVAGE PERCENT35	.2.5			
1111 01					
1963	40,995.09	1.51	835.68	0.7776	43,035
1964	130,957.72	1.52	2,687.25	0.7676	135,706
1965	890,676.36	1.53	18,396.92	0.7574	910,708
1966	629,099.84	1.54	13,078.99	0.7469	634,331
1967	149,199.28	1.56	3,142.14	0.7410	149,251
1968	111,491.89	1.57	2,363.07	0.7300	109,875
1969	331,656.06	1.58	7,074.22	0.7189	321,877
1970	189,222.62	1.59	4,061.66	0.7076	180,757
1971	471,799.51	1.60	10,190.87	0.6960	443,303
1972	462,749.63	1.61	10,057.86	0.6842	427,428
1973	738,740.09	1.63	16,255.98	0.6764	674,573
1974	942,776.29	1.64	20,873.07	0.6642	845,359
1975	1,598,170.65	1.65	35,599.25	0.6518	1,406,278
1976	1,448,491.84	1.66	32,460.70	0.6391	1,249,737
1977	1,952,549.10	1.67	44,020.22	0.6262	1,650,626
1978	1,719,466.40	1.68	38,997.50	0.6132	1,423,409
1979	1,686,223.42	1.70	38,698.83	0.6035	1,373,808
1980	2,649,788.36	1.71	61,170.36	0.5900	2,110,556
1981	2,279,660.81	1.72	52,933.72	0.5762	1,773,280
1982	2,142,019.52	1.73	50,026.87	0.5622	1,625,729
1983	2,023,717.34	1.74	47,537.12	0.5481	1,497,419
1984	2,534,131.37	1.75	59,868.85	0.5338	1,826,171
1985	2,050,487.33	1.76	48,719.58	0.5192	1,437,228
1986	2,107,015.23	1.78	50,631.58	0.5073	1,443,000
1987	2,347,318.99	1.79	56,722.96	0.4922	1,559,723
1988	2,636,422.20	1.80	64,065.06	0.4770	1,697,724
1989	2,926,092.88	1.81	71,499.08	0.4616	1,823,424
1990	3,643,938.86	1.82	89,531.58	0.4459	2,193,524
1991	2,976,339.65	1.83	73,530.47	0.4300	1,727,765
1992	3,301,454.66	1.85	82,453.83	0.4162	1,854,988
1993	2,668,486.54	1.86	67,005.70	0.3999	1,440,622
1994	2,428,524.47	1.87	61,308.10	0.3834	1,256,980
1995	1,894,109.54	1.88	48,072.50	0.3666	937,414
1996	1,680,734.02	1.89	42,883.93	0.3496	793,239
1997	2,059,450.33	1.91	53,102.93	0.3342	929,162
1998	2,079,197.01	1.92	53,892.79	0.3168	889,231
1999	3,066,517.88	1.93	79,898.12	0.2992	1,238,628
2000	2,849,151.60	1.94	74,619.28	0.2813	1,081,980
2001	3,236,106.76	1.96	85,627.38	0.2646	1,155,970
2002	2,381,358.27	1.97	63,332.22	0.2462	791,492
2003	3,745,096.52	1.99	100,612.02	0.2288	1,156,785
2004	3,541,221.46	2.00	95,612.98	0.2100	1,003,936



#### ACCOUNT 361.12 - OVERHEAD CONDUCTORS - BARE ALUMINUM

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST (2)	ANNUAI RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURV	IVOR CURVE IOWA 57	-R2.5			
NET S	SALVAGE PERCENT3	5			
2005	3,622,974.46	2.02	98,798.51	0.1919	938,586
2006	4,973,321.02	2.03	136,293.86	0.1726	1,158,834
2007	3,177,726.50	2.05	87,943.58	0.1538	659,791
2008	4,569,230.75	2.07	127,687.15	0.1346	830,275
2009	3,626,737.15	2.09	102,328.39	0.1150	563,051
2010	5,253,323.34	2.12	150,350.11	0.0954	676,576
2011	4,526,899.58	2.14	130,782.13	0.0749	457,737
2012	6,785,084.40	2.18	199,685.03	0.0545	499,213
2013	6,764,093.78	2.24	204,546.20	0.0336	306,819
2014	7,611,262.26	2.37	243,522.34	0.0118	121,247
	129,653,260.63	3	3,415,390.52		53,438,160

## ACCOUNT 361.13 - OVERHEAD CONDUCTORS - WATER-PROOF ALUMINUM

	ORIGINAL	ANNUAI	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDIII	NOD CUDITE TOWN 26 D1 F	-			
	VOR CURVE IOWA 36-R1.5 ALVAGE PERCENT35	)			
NEI S	ALVAGE PERCENI35				
1976	1.15	2.09	0.03	0.8046	1
1977	544,508.39	2.11	15,510.32	0.7912	581,600
1978	638,408.06	2.14	18,443.61	0.7811	673,192
1979	930,864.10	2.17	27,269.66	0.7704	968,136
1980	801,507.74	2.20	23,804.78	0.7590	821,265
1981	966,459.96	2.23	29,095.28	0.7470	974,627
1982	589,931.43	2.26	17,998.81	0.7345	584,961
1983	517,436.44	2.29	15,996.55	0.7214	503,926
1984	491,675.49	2.32	15,399.28	0.7076	469,678
1985	484,848.21	2.35	15,381.81	0.6932	453,731
1986	476,801.45	2.38	15,319.63	0.6783	436,609
1987	423,691.44	2.41	13,784.80	0.6628	379,111
1988	572,125.22	2.44	18,845.80	0.6466	499,414
1989	761,179.94	2.47	25,381.55	0.6298	647,178
1990	1,032,952.73	2.51	35,001.60	0.6150	857,609
1991	765,699.88	2.54	26,255.85	0.5969	617,012
1992	1,039,678.34	2.57	36,071.64	0.5782	811,542
1993	867,907.10	2.61	30,580.71	0.5612	657,544
1994	796,221.43	2.64	28,377.33	0.5412	581,735
1995	600,809.41	2.68	21,737.28	0.5226	423,877
1996	587,908.48	2.72	21,588.00	0.5032	399,378
1997	525,280.08	2.75	19,501.02	0.4812	341,232
1998	562,738.01	2.79	21,195.53	0.4604	349,764
1999	524,949.43	2.83	20,055.69	0.4386	310,828
2000	339,065.82	2.88	13,182.88	0.4176	191,152
2001	600,422.00	2.92	23,668.64	0.3942	319,527
2002	604,688.36	2.97	24,244.98	0.3712	303,021
2003	871,007.01	3.02	35,510.96	0.3473	408,376
2004	938,059.36	3.08	39,004.51	0.3234	409,547
2005	1,009,949.58	3.14	42,811.76	0.2983	406,712
2006	1,239,471.43	3.20	53,545.17	0.2720	455,134
2007	1,545,699.31	3.27	68,234.90	0.2452	511,657
2008	1,628,018.73	3.35	73,627.15	0.2178	478,686
2009	1,565,205.75	3.44	72,688.16	0.1892	399,785
2010	1,714,643.21	3.55	82,174.28	0.1598	369,900
2011	1,649,169.08	3.68	81,930.72	0.1288	286,758



### ACCOUNT 361.13 - OVERHEAD CONDUCTORS - WATER-PROOF ALUMINUM

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 36-R1.5 ALVAGE PERCENT35				
2012	2,039,150.85	3.86	106,260.15	0.0965	265,650
2013	1,763,921.67	4.13	98,347.45	0.0620	147,640
2014	2,202,137.49	4.78	142,103.93	0.0239	71,052
	35,214,193.56		1,469,932.20		18,368,547

## ACCOUNT 361.14 - OVERHEAD CONDUCTORS - AERIAL CABLE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 29-	R1			
	VAGE PERCENT25				
1977	5,437.00	2.28	154.95	0.8550	5,811
1978	7,905.21	2.31	228.26	0.8432	8,332
1979	194.18	2.35	5.70	0.8342	202
1981	13,075.60	2.42	395.54	0.8107	13,250
1982	6,588.95	2.46	202.61	0.7995	6,585
1983	52,102.06	2.50	1,628.19	0.7875	51,288
1985	3,993.39	2.57	128.29	0.7582	3,785
1987	173,738.98	2.66	5,776.82	0.7315	158,863
1988	2,482.19	2.70	83.77	0.7155	2,220
1989	116,522.97	2.75	4,005.48	0.7012	102,132
1991	21,244.74	2.84	754.19	0.6674	17,723
1995	59,959.40	3.04	2,278.46	0.5928	44,430
1998	5,382.75	3.21	215.98	0.5296	3,563
1999	80,695.04	3.27	3,298.41	0.5068	51,120
2000	54,347.43	3.33	2,262.21	0.4828	32,799
2006	11,806.00	3.83	565.21	0.3256	4,805
2013	425,701.56	5.42	28,841.28	0.0813	43,262
2014	35,080.18	6.60	2,894.11	0.0330	1,447
	1,076,257.63		53,719.46		551,617

### ACCOUNT 361.15 - OVERHEAD CONDUCTORS - DUPLEX

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SIIRVIVO	R CURVE IOWA 49	-R2			
	VAGE PERCENT3				
1111 0111					
1966	17,576.08	1.64	389.13	0.7954	18,873
1967	14,083.02	1.65	313.70	0.7838	14,902
1968	18,429.76	1.67	415.50	0.7766	19,322
1969	15,229.53	1.69	347.46	0.7690	15,811
1970	18,473.17	1.70	423.96	0.7565	18,866
1971	14,205.11	1.72	329.84	0.7482	14,348
1972	25,998.10	1.73	607.19	0.7352	25,804
1973	25,738.02	1.75	608.06	0.7262	25,233
1974	21,682.81	1.77	518.11	0.7168	20,982
1975	29,620.13	1.78	711.77	0.7031	28,115
1976	28,298.39	1.80	687.65	0.6930	26,475
1977	25,978.64	1.82	638.30	0.6825	23,936
1978	42,256.86	1.83	1,043.96	0.6680	38,107
1979	45,213.53	1.85	1,129.21	0.6568	40,090
1980	39,360.46	1.87	993.65	0.6452	34,284
1981	51,999.75	1.88	1,319.75	0.6298	44,212
1982	58,676.85	1.90	1,505.06	0.6175	48,914
1983	64,109.65	1.92	1,661.72	0.6048	52,344
1984	78,336.67	1.94	2,051.64	0.5917	62,575
1985	58,260.09	1.95	1,533.70	0.5752	45,240
1986	97,163.19	1.97	2,584.06	0.5614	73,639
1987	101,093.21	1.99	2,715.87	0.5472	74,680
1988	73,446.65	2.01	1,992.97	0.5326	52,809
1989	87,034.83	2.02	2,373.44	0.5151	60,523
1990	67,034.63	2.02	1,845.86	0.4998	45,224
1991	79,619.14	2.04	2,214.21	0.4841	52,034
1992	67,265.23	2.08	1,888.81	0.4680	42,498
1993	92,424.68	2.10	2,620.24	0.4515	56,335
1993	63,907.59	2.10	1,829.04	0.4315	37,495
1995	68,334.71	2.12	1,974.19	0.4173	38,497
1996	30,593.10	2.14	892.09	0.4173	16,504
1997			1,864.53		
	63,354.90	2.18 2.20		0.3815 0.3630	32,629
1998	57,758.74		1,715.43		28,305
1999	90,238.97	2.22	2,704.46	0.3441	41,919
2000	130,691.51	2.25	3,969.75	0.3262	57,553
2001	156,655.07	2.27	4,800.69	0.3064	64,799
2002	181,682.74	2.29	5,616.72	0.2862	70,197
2003	149,233.70	2.32	4,674.00	0.2668	53,751
2004	167,316.31	2.35	5,308.11	0.2468	55,746
2005	210,825.74	2.38	6,773.83	0.2261	64,351
2006	260,637.56	2.41	8,479.84	0.2048	72,061
2007	224,852.24	2.44	7,406.63	0.1830	55,550

#### ACCOUNT 361.15 - OVERHEAD CONDUCTORS - DUPLEX

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	CURVE IOWA 49-R2 AGE PERCENT35				
2008 2009 2010 2011 2012 2013	325,298.42 504,278.04 586,142.43 290,417.98 315,979.56 290,747.34	2.48 2.52 2.56 2.62 2.70 2.81	10,890.99 17,155.54 20,257.08 10,272.08 11,517.45 11,029.50	0.1612 0.1386 0.1152 0.0917 0.0675	70,791 94,355 91,157 35,952 28,794 16,564
2013	234,766.89	3.07	9,729.91	0.0422	4,881
5	,762,311.71		184,326.68		2,108,026

## ACCOUNT 361.20 - DISTRIBUTION - UNDERGROUND CABLE

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDITI	TOD CUDITE TOWN 47 F	. 4			
	VOR CURVE IOWA 47-R	(4			
NEI SA	ALVAGE PERCENT10				
1967	81,441.17	1.86	1,666.29	0.8835	79,149
1968	52,923.33	1.88	1,094.45	0.8742	50,892
1969	21,252.03	1.90	444.17	0.8645	20,210
1970	90,323.14	1.92	1,907.62	0.8544	84,889
1971	51,442.26	1.93	1,092.12	0.8396	47,510
1972	80,322.34	1.95	1,722.91	0.8288	73,228
1973	58,735.36	1.97	1,272.80	0.8176	52,824
1974	131,375.92	1.98	2,861.37	0.8019	115,885
1975	118,043.40	2.00	2,596.95	0.7900	102,580
1976	144,359.08	2.01	3,191.78	0.7738	122,876
1977	218,045.84	2.03	4,868.96	0.7612	182,574
1978	456,824.08	2.04	10,251.13	0.7446	374,166
1979	95,379.09	2.04	2,161.29	0.7440	76,726
1980	619,779.34	2.07	14,112.38	0.7313	486,911
1981	432,220.57	2.09	9,936.75	0.7142	332,905
1982	305,061.46	2.10	7,046.92	0.7002	229,025
1983	308,268.23	2.10	7,040.92	0.6646	225,363
1983		2.11	9,691.26		
1985	415,577.38 389,299.40		9,691.28	0.6466	295,584
	-	2.13		0.6284	269,099
1986	1,264,602.74	2.15	29,907.85	0.6128	852,443
1987	698,280.16	2.16	16,591.14	0.5940	456,256
1988	814,635.90	2.16	19,355.75	0.5724	512,927
1989	1,161,651.09	2.17	27,728.61	0.5534	707,143
1990	741,893.10	2.18	17,790.60	0.5341	435,870
1991	1,052,181.00	2.19	25,347.04	0.5146	595,598
1992	852,907.28	2.20	20,640.36	0.4950	464,408
1993	609,181.00	2.20	14,742.18	0.4730	316,957
1994	410,062.00	2.21	9,968.61	0.4530	204,334
1995	489,128.00	2.22	11,944.51	0.4329	232,918
1996	307,501.00	2.22	7,509.17	0.4107	138,920
1997	291,813.00	2.23	7,158.17	0.3902	125,252
1998	261,543.00	2.23	6,415.65	0.3680	105,873
1999	233,208.00	2.23	5,720.59	0.3456	88,656
2000	242,855.00	2.24	5,983.95	0.3248	86,767
2001	344,594.00	2.24	8,490.80	0.3024	114,626
2002	481,256.00	2.24	11,858.15	0.2800	148,227
2003	624,851.00	2.25	15,465.06	0.2588	177,883
2004	607,036.26	2.25	15,024.15	0.2362	157,720
2005	667,352.00	2.25	16,516.96	0.2138	156,948
2006	404,149.00	2.25	10,002.69	0.1912	85,001
2007	466,960.00	2.25	11,557.26	0.1688	86,705
2008	387,589.07	2.26	9,635.46	0.1469	62,631

### ACCOUNT 361.20 - DISTRIBUTION - UNDERGROUND CABLE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	VOR CURVE IOWA 47-R4 ALVAGE PERCENT10				
2009 2010 2011 2012 2013 2014	1,098,064.16 985,388.95 740,515.49 2,315,337.11 2,072,394.47 1,457,964.57	2.26 2.26 2.26 2.26 2.26 2.27	27,297.88 24,496.77 18,409.22 57,559.28 51,519.73 36,405.38	0.1243 0.1017 0.0791 0.0565 0.0339 0.0114	150,138 110,235 64,432 143,898 77,280 18,283
	26,155,567.77		633,238.31		10,100,725

## ACCOUNT 361.30 - DISTRIBUTION - SPECIAL INSULATED COPPER CABLE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	RATE	ACCRUAL AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	R CURVE IOWA 29-R1 VAGE PERCENT25				
1977	11,698.00	2.28	333.39	0.8550	12,502
1978	9,008.00	2.31	260.11	0.8432	9,494
1982	44,266.00	2.46	1,361.18	0.7995	44,238
1983	36,950.00	2.50	1,154.69	0.7875	36,373
1984	154.00	2.53	4.87	0.7716	149
	102,076.00		3,114.24		102,756

## ACCOUNT 361.40 - DISTRIBUTION - SUBMARINE CABLE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	AL ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	VOR CURVE IOWA 40-R3 EALVAGE PERCENT5				
1965	2,240.00	1.86	43.75	0.9207	2,165
1988	1,913,965.77	2.42	48,633.87	0.6413	1,288,798
1990	1,441,350.58	2.47	37,381.43	0.6052	915,921
2005	83,769.33	2.74	2,410.04	0.2603	22,895
2008	75,849.14	2.79	2,222.00	0.1814	14,447
2012	932,177.04	2.86	27,993.28	0.0715	69,983
2013	24,970.92	2.89	757.74	0.0434	1,138
2014	13,952,448.16	2.95	432,177.08	0.0148	216,821
	18,426,770.94		551,619.19		2,532,168

### ACCOUNT 362.10 - DISTRIBUTION - POLES (UNDER 35'')

	ORIGINAL	ANNUA	AL ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDVIIV	OR CURVE IOWA 53-R1				
	ALVAGE PERCENT35				
NEI SF	ALVAGE PERCENT35				
1962	293,977.00	1.43	5,675.23	0.7508	297,969
1963	345,556.67	1.44	6,717.62	0.7416	345,958
1964	354,600.33	1.45	6,941.30	0.7322	350,512
1965	634,031.40	1.46	12,496.76	0.7227	618,590
1966	314,006.31	1.48	6,273.85	0.7178	304,282
1967	176,617.27	1.49	3,552.66	0.7078	168,763
1968	114,564.85	1.50	2,319.94	0.6975	107,877
1969	271,713.01	1.52	5,575.55	0.6916	253,688
1970	205,746.92	1.53	4,249.70	0.6808	189,098
1971	414,796.50	1.54	8,623.62	0.6699	375,127
1972	335,867.72	1.56	7,073.37	0.6630	300,618
1973	562,464.00	1.57	11,921.42	0.6516	494,777
1974	653,805.62	1.59	14,033.94	0.6440	568,419
1975	780,926.14	1.60	16,868.00	0.6320	666,286
1976	1,699,600.07	1.62	37,170.25	0.6237	1,431,055
1977	923,354.71	1.63	20,318.42	0.6112	761,878
1978	864,905.90	1.65	19,265.78	0.6022	703,143
1979	1,116,866.59	1.66	25,028.98	0.5893	888,529
1980	828,583.61	1.68	18,792.28	0.5796	648,334
1981	1,660,853.12	1.70	38,116.58	0.5695	1,276,905
1982	1,135,516.31	1.70	26,213.39	0.5558	852,012
1983	1,357,588.84	1.73	31,706.49	0.5450	998,846
1984	1,552,461.43	1.75	36,676.90	0.5338	1,118,750
1985	1,379,875.13	1.77	32,972.12	0.5222	972,771
1986	1,579,354.46	1.78	37,951.89	0.5073	1,081,629
1987	1,682,965.08	1.80	40,896.05	0.4950	1,124,641
1988	1,758,524.06	1.82	43,206.94	0.4823	1,124,041
1989	1,730,324.00	1.84	47,500.86	0.4692	1,211,272
1990	2,357,604.35	1.86	59,199.45	0.4557	1,450,386
1991	2,082,030.78	1.89	53,123.02	0.4442	1,248,531
1991	2,457,462.20	1.09	63,365.66	0.4298	1,425,893
1992	2,725,158.16	1.91	71,004.00	0.4150	1,425,893
1993			48,533.76	0.4130	
	1,834,231.17	1.96 1.98			994,942
1995	2,613,906.41 1,961,735.14		69,869.72	0.3861	1,362,460
1996		2.01	53,231.68	0.3718	984,654
1997	1,222,342.31 1,195,201.77	2.04	33,663.31	0.3570	589,108
1998		2.07	33,399.91	0.3416	551,179
1999	1,697,542.71	2.10	48,125.34	0.3255	745,943
2000	1,649,486.93	2.13	47,431.00	0.3088	687,638
2001	1,871,294.28	2.17	54,819.57	0.2930	740,190
2002	1,371,383.54	2.21	40,915.23	0.2762	511,348
2003	1,743,107.44	2.25	52,946.89	0.2588	609,007

### ACCOUNT 362.10 - DISTRIBUTION - POLES (UNDER 35'')

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST (2)	ANNU RATE (3)	JAL ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	VOR CURVE IOWA 53-R1 ALVAGE PERCENT35				
2004	2,031,918.48	2.29	62,816.76	0.2404	659,439
2005	1,482,602.38	2.34	46,835.41	0.2223	444,936
2006	2,027,937.97	2.40	65,705.19	0.2040	558,494
2007	1,564,972.60	2.46	51,972.74	0.1845	389,796
2008	1,490,183.55	2.53	50,897.22	0.1644	330,731
2009	2,311,269.86	2.61	81,437.59	0.1436	448,063
2010	387,111.03	2.71	14,162.46	0.1220	63,757
2011	2,574,560.54	2.83	98,361.09	0.0990	344,090
2012	2,680,468.92	3.00	108,558.99	0.0750	271,397
2013	3,338,977.58	3.26	146,948.40	0.0489	220,423
2014	2,669,441.88	3.90	140,546.11	0.0195	70,273
	74,253,327.92		2,166,010.39		36,486,161

### ACCOUNT 362.20 - DISTRIBUTION - POLES (35'' & OVER)

	ORIGINAL	ANNUA	AL ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CHENT	G				
	VOR CURVE IOWA 53-R1				
NET S	ALVAGE PERCENT35				
1964	268,596.65	1.45	5,257.78	0.7322	265,500
1965	1,574,389.20	1.46	31,031.21	0.7227	1,536,045
1966	1,255,944.98	1.48	25,093.78	0.7178	1,217,048
1967	440,386.44	1.49	8,858.37	0.7078	420,802
1968	354,763.72	1.50	7,183.97	0.6975	334,054
1969	852,001.56	1.52	17,483.07	0.6916	795,480
1970	583,053.64	1.52	12,042.97	0.6808	535,873
1971	1,011,749.27	1.54	21,034.27	0.6699	914,991
1971	878,198.16	1.56	18,494.85	0.6630	786,031
1972	1,156,952.65	1.57	24,521.61	0.6516	1,017,725
1974	1,676,547.02	1.59	35,987.08	0.6440	1,457,590
1975	2,901,784.41	1.60	62,678.54	0.6320	2,475,802
1976	1,753,152.23	1.62	38,341.44	0.6237	1,476,145
1977	2,883,123.38	1.63	63,443.13	0.6112	2,378,923
1978	3,068,052.98	1.65	68,340.88	0.6022	2,494,235
1979	3,194,839.05	1.66	71,596.34	0.5893	2,541,670
1980	4,671,036.26	1.68	105,939.10	0.5796	3,654,899
1981	3,515,129.99	1.70	80,672.23	0.5695	2,702,520
1982	4,034,576.90	1.71	93,138.21	0.5558	3,027,264
1983	4,069,961.33	1.73	95,053.95	0.5450	2,994,474
1984	5,790,569.66	1.75	136,802.21	0.5338	4,172,858
1985	5,078,979.01	1.77	121,362.20	0.5222	3,580,528
1986	5,672,483.49	1.78	136,309.78	0.5073	3,884,829
1987	6,678,450.96	1.80	162,286.36	0.4950	4,462,875
1988	6,535,746.82	1.82	160,583.30	0.4823	4,255,457
1989	7,644,191.51	1.84	189,881.72	0.4692	4,841,984
1990	10,147,313.37	1.86	254,799.04	0.4557	6,242,576
1991	8,948,718.35	1.89	228,326.55	0.4442	5,366,278
1992	8,972,862.15	1.91	231,365.25	0.4298	5,206,324
1993	8,272,942.79	1.93	215,551.52	0.4150	4,634,916
1994	8,448,805.61	1.96	223,555.40	0.4018	4,582,886
1995	7,915,275.34	1.98	211,575.31	0.3861	4,125,719
1996	7,250,290.42	2.01	196,736.63	0.3718	3,639,138
1997	5,663,834.62	2.04	155,982.01	0.3570	2,729,685
1998	6,705,857.90	2.07	187,395.20	0.3416	3,092,473
1999	6,122,092.54	2.10	173,561.32	0.3255	2,690,201
2000	8,201,827.49	2.13	235,843.55	0.3088	3,419,178
2001	8,133,142.95	2.17	238,260.42	0.2930	3,217,065
2002	7,696,789.15	2.21	229,633.70	0.2762	2,869,902
2003	7,656,181.90	2.25	232,556.53	0.2588	2,674,917
2004	8,388,013.90	2.29	259,315.45	0.2404	2,722,246
2005	8,980,938.24	2.34	283,707.84	0.2223	2,695,224

## ACCOUNT 362.20 - DISTRIBUTION - POLES (35'' & OVER)

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA		ACCRUEI	
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	CVOR CURVE IOWA 53-R1 SALVAGE PERCENT35				
2006	11,718,288.85	2.40	379,672.56	0.2040	3,227,217
2007	9,818,113.29	2.46	326,059.54	0.1845	2,445,447
2008	10,743,532.42	2.53	366,945.35	0.1644	2,384,420
2009	11,247,968.80	2.61	396,322.18	0.1436	2,180,531
2010	15,014,974.52	2.71	549,322.84	0.1220	2,472,966
2011	12,335,431.99	2.83	471,275.18	0.0990	1,648,630
2012	11,773,055.97	3.00	476,808.77	0.0750	1,192,022
2013	14,645,118.18	3.26	644,531.65	0.0489	966,797
2014	17,055,719.28	3.90	897,983.62	0.0195	448,992
	319,401,751.29		9,860,505.76		135,101,352

### ACCOUNT 362.30 - DISTRIBUTION - POLES - CONCRETE & STEEL

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDIIII	OD CUDUE TOWN	11 DO E			
	OR CURVE IOWA 4				
NEI SA	LVAGE PERCENT	-35			
1966	11,799.00	1.77	281.94	0.8584	13,673
1971	1,273.08	1.88	32.31	0.8178	1,406
1972	52,863.41	1.90	1,355.95	0.8075	57,628
1973	53,448.80	1.92	1,385.39	0.7968	57,494
1974	57,464.37	1.94	1,504.99	0.7857	60,952
1975	132,506.70	1.96	3,506.13	0.7742	138,492
1976	104,122.44	1.98	2,783.19	0.7623	107,153
1977	79,729.07	2.00	2,152.68	0.7500	80,726
1978	76,124.00	2.02	2,075.90	0.7373	75 <b>,</b> 770
1979	62,875.83	2.04	1,731.60	0.7242	61,472
1980	144,424.43	2.06	4,016.44	0.7107	138,567
1981	222,808.07	2.08	6,256.45	0.6968	209,591
1982	123,437.00	2.10	3,499.44	0.6825	113,732
1983	19,227.00	2.12	550.28	0.6678	17,334
1984	156,657.36	2.14	4,525.83	0.6527	138,038
1985	135,317.44	2.16	3,945.86	0.6372	116,403
1986	315,519.80	2.18	9,285.75	0.6213	264,644
1987	206,777.00	2.19	6,113.36	0.6022	168,103
1988	254,251.00	2.21	7,585.58	0.5856	201,001
1989	332,270.00	2.23	10,002.99	0.5686	255,054
1990	224,937.00	2.25	6,832.46	0.5512	167,380
1991	211,928.34	2.27	6,494.54	0.5334	152,607
1992	267,332.32	2.29	8,264.58	0.5152	185,935
1993	315,850.41	2.31	9,849.80	0.4966	211,749
1994	230,822.18	2.33	7,260.51	0.4776	148,825
1995	181,535.84	2.35	5,759.22	0.4582	112,293
1996	206,899.70	2.37	6,619.76	0.4384	122,452
1997	151,047.79	2.39	4,873.56	0.4182	85,277
1998	111,497.00	2.41	3,627.55	0.3976	59,847
1999	87,304.80	2.43	2,864.03	0.3766	44,387
2000	90,967.00	2.45	3,008.73	0.3552	43,620
2001	67,047.49	2.47	2,235.70	0.3334	30,177
2002	132,302.00	2.49	4,447.33	0.3112	55,583
2003	133,167.02	2.51	4,512.36	0.2886	51,883
2004	229,257.63	2.53	7,830.29	0.2656	82,203
2005	247,506.38	2.56	8,553.82	0.2432	81,261
2006	160,846.01	2.58	5,602.27	0.2193	47,619
2007	220,366.65	2.61	7,764.62	0.1958	58,250
2008	304,905.56	2.63	10,825.67	0.1710	70,387
2009	339,051.46	2.67	12,221.11	0.1468	67,193
2010	235,850.69	2.70	8,596.76	0.1215	38,685
2011	478,617.01	2.74	17,704.04	0.0959	61,964

## ACCOUNT 362.30 - DISTRIBUTION - POLES - CONCRETE & STEEL

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	R CURVE IOWA 44-R2.5  VAGE PERCENT35				
2012	214,118.81	2.79	8,064.78	0.0698	20,176
2013	366,934.15	2.86	14,167.33	0.0429	21,251
2014	413,635.99	3.04	16,975.62	0.0152	8,488
8	3,166,625.03		267,548.50		4,306,725

### ACCOUNT 362.40 - DISTRIBUTION - STEEL TOWERS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	R CURVE IOWA 50-R3 VAGE PERCENT35				
1980 2011	184,774.00 10,563.17	1.92 2.28	4,789.34 325.13	0.6624 0.0798	165,232 1,138
	195,337.17		5,114.47		166,370

## ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNU	AL ACCRUAL	ACCRUE	D DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDIII	VOR CURVE IOWA 20-R0	г			
	SALVAGE PERCENT10	. 5			
NEI S	ALVAGE PERCENI10				
1981	424,373.64	2.75	12,837.30	0.9212	430,026
1982	69,648.09	2.80	2,145.16	0.9100	69,718
1983	19,487.59	2.85	610.94	0.8978	19,246
1984	79,633.90	2.91	2,549.08	0.8876	77,751
1985	464,696.86	2.96	15,130.53	0.8732	446,351
1986	631,910.25	3.02	20,992.06	0.8607	598,274
1987	418,543.52	3.08	14,180.25	0.8470	389,957
1988	247,457.20	3.14	8,547.17	0.8321	226,500
1989	307,636.74	3.21	10,862.65	0.8186	277,015
1990	368,362.84	3.28	13,290.53	0.8036	325,618
1991	512,622.85	3.35	18,890.15	0.7872	443,890
1992	576,824.42	3.42	21,700.13	0.7695	488,253
1993	592,369.99	3.50	22,806.24	0.7525	490,334
1994	340,339.84	3.58	13,402.58	0.7339	274,753
1995	184,547.42	3.66	7,429.88	0.7137	144,883
1996	908,170.43	3.75	37,462.03	0.6938	693,098
1997	559,666.29	3.84	23,640.30	0.6720	413,705
1998	164,148.52	3.94	7,114.20	0.6501	117,384
1999	65,908.55	4.04	2,928.98	0.6262	45,399
2000	181,997.15	4.14	8,288.15	0.6003	120,178
2001	258,192.63	4.26	12,098.91	0.5751	163,335
2002	289,670.10	4.38	13,956.31	0.5475	174,454
2003	400,454.28	4.51	19,866.54	0.5186	228,443
2004	445,642.54	4.66	22,843.64	0.4893	239,858
2005	611,467.55	4.81	32,352.75	0.4570	307,385
2006	701,014.00	4.99	38,478.66	0.4242	327,107
2007	975,796.18	5.19	55,708.20	0.3892	417,758
2008	949,253.83	5.42	56,594.51	0.3523	367,864
2009	1,642,326.05	5.70	102,973.84	0.3135	566,356
2010	1,808,031.76	6.04	120,125.63	0.2718	540,565
2011	1,905,324.26	6.47	135,601.93	0.2264	474,502
2012	1,169,623.20	7.06	90,832.94	0.1765	227,082
2013	993,169.41	8.00	87,398.91	0.1200	131,098
2014	922,820.08	10.43	105,875.15	0.0522	52,988
	20,191,131.96		1,159,516.23		10,311,128



### ACCOUNT 364.10 - DISTRIBUTION - TRANSFORMERS (UPTO 15 KVA)

	ORIGINAL		JAL ACCRUAL		DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	OR CURVE IOWA 4	0-S1			
	LVAGE PERCENT				
1965	19,377.15	1.72	339.95	0.8514	16,828
1967	11,294.74	1.77	203.92	0.8408	9,687
1968	22,612.61	1.79	412.86	0.8324	19,199
1969	37,693.85	1.81	695.90	0.8236	31,666
1971	20,285.27	1.86	384.85	0.8091	16,741
1972	42,917.12	1.88	822.98	0.7990	34,977
1973	42,807.00	1.90	829.60	0.7885	34,428
1974	48,278.96	1.93	950.42	0.7816	38,490
1975	144,906.35	1.96	2,896.97	0.7742	114,430
1976	126,117.69	1.98	2,547.07	0.7623	98,062
1977	79,168.61	2.01	1,623.11	0.7538	60,871
1984	105,705.71	2.21	2,382.82	0.6740	72,671
1985	585.10	2.24	13.37	0.6608	394
1986	205,274.77	2.27	4,752.93	0.6470	135,469
1987	160,814.58	2.30	3,772.71	0.6325	103,750
1988	3,604.30	2.34	86.03	0.6201	2,280
1989	94,162.36	2.37	2,276.28	0.6044	58,050
1990	80,536.86	2.40	1,971.54	0.5880	48,303
1992	186,675.80	2.47	4,703.11	0.5558	105,829
1993	89,170.24	2.51	2,282.94	0.5396	49,079
1994	35,866.16	2.55	932.88	0.5228	19,126
1995	80,359.69	2.58	2,114.75	0.5031	41,238
1996	135,938.72	2.62	3,632.83	0.4847	67,207
1997	174,892.27	2.66	4,745.18	0.4655	83,041
1998	459,835.86	2.70	12,663.88	0.4455	208,954
1999	422,560.09	2.73	11,766.61	0.4232	182,404
2000	743,680.20	2.77	21,011.94	0.4016	304,635
2001	532,414.45	2.81	15,260.06	0.3794	206,038
2002	576,314.62	2.85	16,753.47	0.3562	209,389
2003	563,242.57	2.88	16,545.81	0.3312	190,277
2004	468,065.09	2.92	13,940.85	0.3066	146,379
2005	403,856.00	2.96	12,193.22	0.2812	115,836
2006	443,437.64	2.99	13,523.96	0.2542	114,976
2007	619,517.01	3.03	19,146.79	0.2272	143,569
2008	594,849.12	3.06	18,566.43	0.1989	120,682
2009	226,576.24	3.09	7,141.23	0.1700	39,288
2010	330,095.51	3.11	10,471.29	0.1400	47,138
2011	253,031.02	3.14	8,104.08	0.1099	28,364
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### ACCOUNT 364.10 - DISTRIBUTION - TRANSFORMERS (UPTO 15 KVA)

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	INALANNUAL ACCRUAL		ACCRUED DEPREC.	
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	DR CURVE IOWA 40-S1 LVAGE PERCENT2				
2012	205,824.61	3.16	6,634.14	0.0790	16,585
2013	331,060.51	3.17	10,704.51	0.0476	16,074
2014	169,587.92	3.18	5,500.75	0.0159	2,750
	9,292,994.37		265,304.02		3,355,154

### ACCOUNT 364.11 - DISTRIBUTION - TRANSFORMERS (OVER 15 KVA)

	ORIGINAL	ANNUA	AL ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SHRVIV	OR CURVE IOWA 40-S1				
	ALVAGE PERCENT2				
1121 21					
1965	43,110.51	1.72	756.33	0.8514	37,438
1967	40,274.83	1.77	727.12	0.8408	34,540
1968	53,840.50	1.79	983.02	0.8324	45,713
1969	33,792.25	1.81	623.87	0.8236	28,388
1970	8,243.90	1.83	153.88	0.8144	6,848
1971	24,355.11	1.86	462.07	0.8091	20,100
1972	60,127.79	1.88	1,153.01	0.7990	49,003
1973	115,700.38	1.90	2,242.27	0.7885	93,054
1974	151,221.63	1.93	2,976.95	0.7816	120,559
1975	516,238.60	1.96	10,320.64	0.7742	407,665
1976	877,713.41	1.98	17,726.30	0.7623	682,463
1977	329,529.35	2.01	6,756.01	0.7538	253,367
1978	277,141.50	2.03	5,738.49	0.7410	209,469
1979	98,048.36	2.06	2,060.19	0.7313	73,137
1980	406,264.52	2.09	8,660.75	0.7210	298,775
1981	664,086.39	2.12	14,360.20	0.7102	481,067
1982	965,914.50	2.15	21,182.50	0.6988	688,481
1983	462,299.23	2.18	10,279.69	0.6867	323,810
1984	861,976.44	2.21	19,430.67	0.6740	592,592
1985	317,525.23	2.24	7,254.82	0.6608	214,017
1986	1,530,488.95	2.27	35,436.94	0.6470	1,010,031
1987	1,445,334.06	2.30	33,907.54	0.6325	932,457
1988	1,571,488.08	2.34	37,508.28	0.6201	993,969
1989	2,176,937.53	2.37	52,625.29	0.6044	1,342,056
1990	3,025,386.69	2.40	74,061.47	0.5880	1,814,506
1991	2,233,469.50	2.44	55,586.59	0.5734	1,306,285
1992	1,071,446.32	2.47	26,994.02	0.5558	607,420
1993	1,030,868.82	2.51	26,392.30	0.5396	567,382
1994	991,023.18	2.55	25,776.51	0.5228	528,469
1995	1,241,789.31	2.58	32,678.93	0.5031	637,239
1996	1,220,417.84	2.62	32,614.45	0.4847	603,367
1997	1,517,204.06	2.66	41,164.78	0.4655	720,384
1998	2,979,960.49	2.70	82,068.11	0.4455	1,354,124
1999	3,000,893.35	2.73	83,562.88	0.4232	1,295,378
2000	4,121,555.53	2.77	116,450.43	0.4016	1,688,321
2001	4,251,321.49	2.81	121,851.38	0.3794	1,645,210
2002	4,883,626.81	2.85	141,967.03	0.3562	1,774,339
2003	5,351,941.22	2.88	157,218.63	0.3312	1,808,014
2004	5,297,280.17	2.92	157,774.19	0.3066	1,656,629
2005	4,860,433.40	2.96	146,746.21	0.2812	1,394,089
2006	5,460,865.06	2.99	166,545.46	0.2542	1,415,915
2007	6,677,889.66	3.03	206,386.86	0.2272	1,547,561
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### ACCOUNT 364.11 - DISTRIBUTION - TRANSFORMERS (OVER 15 KVA)

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	VOR CURVE IOWA 40-S1 BALVAGE PERCENT2	L			
2008	8,321,989.32	3.06	259,745.93	0.1989	1,688,349
2009	7,005,816.17	3.09	220,809.31	0.1700	1,214,809
2010	6,726,497.31	3.11	213,377.95	0.1400	960,544
2011	7,339,860.76	3.14	235,081.06	0.1099	822,784
2012	6,896,905.41	3.16	222,301.06	0.0790	555,753
2013	6,820,011.24	3.17	220,518.24	0.0476	331,125
2014	7,271,856.31	3.18	235,869.93	0.0159	117,935
	122,631,962.47		3,596,870.54		36,994,930

### ACCOUNT 364.20 - DISTRIBUTION - VOLTAGE REGULATORS

	ORIGINAL	ANNUAI	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 40-S1				
	VAGE PERCENT2				
1968	4,174.52	1.79	76.22	0.8324	3,544
1969	35,722.57	1.81	659.51	0.8236	30,010
1970	45,677.35	1.83	852.61	0.8144	37,944
1971	45,307.55	1.86	859.57	0.8091	37,392
1972	35,277.88	1.88	676.49	0.7990	28,751
1973	27,694.98	1.90	536.73	0.7885	22,274
1974	79,099.97	1.93	1,557.16	0.7816	63,061
1975	66,403.16	1.96	1,327.53	0.7742	52,438
1976	26,145.14	1.98	528.03	0.7623	20,329
1977	7,910.67	2.01	162.18	0.7538	6,082
1978 1979	19,107.54 152.00	2.03 2.06	395.64	0.7410 0.7313	14,442
1979	92,040.18	2.00	3.19 1,962.11	0.7313	113 67,688
1981	61,940.33	2.12	1,339.40	0.7210	44,870
1982	19,408.32	2.15	425.62	0.6988	13,834
1983	13,832.33	2.18	307.58	0.6867	9,689
1984	17,404.05	2.21	392.32	0.6740	11,965
1985	103,883.54	2.24	2,373.53	0.6608	70,019
1986	27,539.78	2.27	637.66	0.6470	18,175
1987	163,723.49	2.30	3,840.95	0.6325	105,626
1988	40,347.23	2.34	963.01	0.6201	25,520
1989	146,095.24	2.37	3,531.71	0.6044	90,066
1990	120,210.80	2.40	2,942.76	0.5880	72,098
1991	166,090.56	2.44	4,133.66	0.5734	97,141
1992	37,815.58	2.47	952.73	0.5558	21,438
1994	189,772.34	2.55	4,935.98	0.5228	101,197
1997	38,883.18	2.66	1,054.98	0.4655	18,462
1998	126,011.39	2.70	3,470.35	0.4455	57,261
1999	30,312.00	2.73	844.07	0.4232	13,085
2000	31,957.81	2.77	902.94	0.4016	13,091
2001	21,968.00	2.81	629.65	0.3794	8,501
2002	88,436.46	2.85	2,570.85	0.3562	32,131
2003	69,496.40	2.88	2,041.53	0.3312	23,478
2004	316,871.46	2.92	9,437.70	0.3066	99,096
2005	563,707.80	2.96	17,019.47	0.2812	161,685
2006	259,679.71	2.99	7,919.71	0.2542	67,331
2007	277,400.81	3.03	8,573.35	0.2272	64,286
2008	71,064.02	3.06	2,218.05	0.1989	14,417
2009	38,419.10	3.09	1,210.89	0.1700	6,662
2010	475,727.63 557 153 78	3.11	15,091.03	0.1400	67,934 62,456
2011	557,153.78	3.14	17,844.52	0.1099	62,456

### ACCOUNT 364.20 - DISTRIBUTION - VOLTAGE REGULATORS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

ORIGINAL		ANNUAL ACCRUAL		ACCRUED DEPREC	
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	R CURVE IOWA 40-S1 VAGE PERCENT2				
2012	362,276.23	3.16	11,676.89	0.0790	29,192
2013	170,693.10	3.17	5,519.19	0.0476	8,287
2014	403,401.94	3.18	13,084.75	0.0159	6,542
	5,496,237.92		157,483.80		1,819,603

## ACCOUNT 364.30 - DISTRIBUTION - CAPACITOR BANKS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	R CURVE IOWA 40-S1 VAGE PERCENT2				
1990	3,406.00	2.40	83.38	0.5880	2,043
1991	2,680.00	2.44	66.70	0.5734	1,567
1993	19,978.00	2.51	511.48	0.5396	10,996
1995	4,786.00	2.58	125.95	0.5031	2,456
1997	14,492.00	2.66	393.20	0.4655	6,881
1998	38,064.00	2.70	1,048.28	0.4455	17,297
1999	77,432.00	2.73	2,156.17	0.4232	33,425
2000	20,434.00	2.77	577.34	0.4016	8,370
2008	5,656.85	3.06	176.56	0.1989	1,148
2009	90,993.49	3.09	2,867.93	0.1700	15,778
2011	53,215.97	3.14	1,704.40	0.1099	5,965
	331,138.31		9,711.39		105,926

## ACCOUNT 364.40 - DISTRIBUTION - RECLOSERS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 40-S	1			
NET S	ALVAGE PERCENT2				
1974	1,781.00	1.93	35.06	0.7816	1,420
1976	10,029.00	1.98	202.55	0.7623	7,798
1982	16,164.54	2.15	354.49	0.6988	11,522
1985	3,866.00	2.24	88.33	0.6608	2,606
1986	28,178.00	2.27	652.43	0.6470	18,596
1989	50,722.00	2.37	1,226.15	0.6044	31,270
1990	28,048.00	2.40	686.62	0.5880	16,822
1991	16,016.00	2.44	398.61	0.5734	9,367
2000	159,836.00	2.77	4,516.01	0.4016	65,474
2001	255,465.69	2.81	7,322.16	0.3794	98,862
2008	34,942.14	3.06	1,090.61	0.1989	7,089
2011	25,181.78	3.14	806.52	0.1099	2,823
2012	42,176.72	3.16	1,359.44	0.0790	3,399
2014	484,908.15	3.18	15,728.48	0.0159	7,864
	1,157,315.02		34,467.46		284,912

### ACCOUNT 365.10 - DISTRIBUTION - SERVICES OVERHEAD

YEAR (1)         COST (2)         RATE (3)         AMOUNT (4)         FACTOR (5)         AMOUNT (6)           SURVIVOR CURVE IOWA 49-R2 NET SALVAGE PERCENT60         SURVIVOR CURVE IOWA 49-R2         SURVIVOR CURVE IOWA 48-R2         SURVIVOR CURVE IOWA 49-R2         SURVIVOR CURVE IOWA 48-R2         SURVIVOR CURVE 10-R2         SURVIVOR CURVE 10-R2         SURVIVOR 48-R2         SURVIVOR 48-R2
SURVIVOR CURVE IOWA 49-R2 NET SALVAGE PERCENT60  1968 533.29 1.67 14.25 0.7766 63 1969 161,170.19 1.69 4,358.04 0.7690 198,304 1970 122,954.32 1.70 3,344.36 0.7565 148,824 1971 295,410.61 1.72 8,129.70 0.7482 353,642 1972 336,658.99 1.73 9,318.72 0.7352 396,019 1973 481,236.88 1.75 13,474.63 0.7262 559,159 1974 640,919.23 1.77 18,150.83 0.7168 735,057 1975 812,674.91 1.78 23,144.98 0.7031 914,227 1976 868,116.54 1.80 25,001.76 0.6930 962,568 1977 912,002.16 1.82 26,557.50 0.6825 995,906 1978 997,740.11 1.83 29,213.83 0.6680 1,066,385 1979 1,209,838.04 1.85 35,811.21 0.6568 1,271,395 1980 1,313,473.19 1.87 39,299.12 0.6452 1,355,925 1981 1,540,305.61 1.88 46,332.39 0.6298 1,552,135 1982 1,492,369.05 1.90 45,368.02 0.6175 1,474,461 1983 1,824,274.72 1.92 56,041.72 0.6048 1,765,314
NET SALVAGE PERCENT60  1968
NET SALVAGE PERCENT60  1968
1968       533.29       1.67       14.25       0.7766       663         1969       161,170.19       1.69       4,358.04       0.7690       198,304         1970       122,954.32       1.70       3,344.36       0.7565       148,824         1971       295,410.61       1.72       8,129.70       0.7482       353,642         1972       336,658.99       1.73       9,318.72       0.7352       396,019         1973       481,236.88       1.75       13,474.63       0.7262       559,159         1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981 </td
1969       161,170.19       1.69       4,358.04       0.7690       198,304         1970       122,954.32       1.70       3,344.36       0.7565       148,824         1971       295,410.61       1.72       8,129.70       0.7482       353,642         1972       336,658.99       1.73       9,318.72       0.7352       396,019         1973       481,236.88       1.75       13,474.63       0.7262       559,159         1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135
1969       161,170.19       1.69       4,358.04       0.7690       198,304         1970       122,954.32       1.70       3,344.36       0.7565       148,824         1971       295,410.61       1.72       8,129.70       0.7482       353,642         1972       336,658.99       1.73       9,318.72       0.7352       396,019         1973       481,236.88       1.75       13,474.63       0.7262       559,159         1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135
1970       122,954.32       1.70       3,344.36       0.7565       148,824         1971       295,410.61       1.72       8,129.70       0.7482       353,642         1972       336,658.99       1.73       9,318.72       0.7352       396,019         1973       481,236.88       1.75       13,474.63       0.7262       559,159         1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461
1971       295,410.61       1.72       8,129.70       0.7482       353,642         1972       336,658.99       1.73       9,318.72       0.7352       396,019         1973       481,236.88       1.75       13,474.63       0.7262       559,159         1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1972       336,658.99       1.73       9,318.72       0.7352       396,019         1973       481,236.88       1.75       13,474.63       0.7262       559,159         1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1973       481,236.88       1.75       13,474.63       0.7262       559,159         1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1974       640,919.23       1.77       18,150.83       0.7168       735,057         1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1975       812,674.91       1.78       23,144.98       0.7031       914,227         1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1976       868,116.54       1.80       25,001.76       0.6930       962,568         1977       912,002.16       1.82       26,557.50       0.6825       995,906         1978       997,740.11       1.83       29,213.83       0.6680       1,066,385         1979       1,209,838.04       1.85       35,811.21       0.6568       1,271,395         1980       1,313,473.19       1.87       39,299.12       0.6452       1,355,925         1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1977     912,002.16     1.82     26,557.50     0.6825     995,906       1978     997,740.11     1.83     29,213.83     0.6680     1,066,385       1979     1,209,838.04     1.85     35,811.21     0.6568     1,271,395       1980     1,313,473.19     1.87     39,299.12     0.6452     1,355,925       1981     1,540,305.61     1.88     46,332.39     0.6298     1,552,135       1982     1,492,369.05     1.90     45,368.02     0.6175     1,474,461       1983     1,824,274.72     1.92     56,041.72     0.6048     1,765,314
1978     997,740.11     1.83     29,213.83     0.6680     1,066,385       1979     1,209,838.04     1.85     35,811.21     0.6568     1,271,395       1980     1,313,473.19     1.87     39,299.12     0.6452     1,355,925       1981     1,540,305.61     1.88     46,332.39     0.6298     1,552,135       1982     1,492,369.05     1.90     45,368.02     0.6175     1,474,461       1983     1,824,274.72     1.92     56,041.72     0.6048     1,765,314
1979     1,209,838.04     1.85     35,811.21     0.6568     1,271,395       1980     1,313,473.19     1.87     39,299.12     0.6452     1,355,925       1981     1,540,305.61     1.88     46,332.39     0.6298     1,552,135       1982     1,492,369.05     1.90     45,368.02     0.6175     1,474,461       1983     1,824,274.72     1.92     56,041.72     0.6048     1,765,314
1980     1,313,473.19     1.87     39,299.12     0.6452     1,355,925       1981     1,540,305.61     1.88     46,332.39     0.6298     1,552,135       1982     1,492,369.05     1.90     45,368.02     0.6175     1,474,461       1983     1,824,274.72     1.92     56,041.72     0.6048     1,765,314
1981       1,540,305.61       1.88       46,332.39       0.6298       1,552,135         1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1982       1,492,369.05       1.90       45,368.02       0.6175       1,474,461         1983       1,824,274.72       1.92       56,041.72       0.6048       1,765,314
1983 1,824,274.72 1.92 56,041.72 0.6048 1,765,314
1,04 2,32,40.00 1.04 12,307.30 0.3017 2,203,301
1985 2,072,181.19 1.95 64,652.05 0.5752 1,907,070
1986 2,168,615.06 1.97 68,354.75 0.5614 1,947,937
1987 2,277,889.40 1.99 72,528.00 0.5472 1,994,338
1988 2,557,347.57 2.01 82,244.30 0.5326 2,179,269
1980 2,557,547.57 2.01 62,244.30 0.5320 2,179,209 1989 2,858,438.87 2.02 92,384.74 0.5151 2,355,811
1992 2,851,690.91 2.08 94,904.27 0.4680 2,135,346
1993 2,738,192.16 2.10 92,003.26 0.4515 1,978,070
1994 2,271,631.75 2.12 77,053.75 0.4346 1,579,602
1995 1,858,389.51 2.14 63,631.26 0.4173 1,240,810
1996 1,648,970.93 2.16 56,988.44 0.3996 1,054,286
1997 1,439,992.07 2.18 50,226.92 0.3815 878,971
1998 1,387,601.79 2.20 48,843.58 0.3630 805,919
1999 1,431,632.49 2.22 50,851.59 0.3441 788,200
2000 1,422,312.31 2.25 51,203.24 0.3262 742,333
2001 1,776,335.94 2.27 64,516.52 0.3064 870,831
2002 1,764,160.00 2.29 64,638.82 0.2862 807,844
2003 1,651,310.78 2.32 61,296.66 0.2668 704,912
2004 1,889,256.90 2.35 71,036.06 0.2468 746,030
2005 2,136,098.03 2.38 81,342.61 0.2261 772,755
2006 2,183,267.83 2.41 84,186.81 0.2048 715,413
2007 2,356,259.97 2.44 91,988.39 0.1830 689,913
2008 3,113,134.26 2.48 123,529.17 0.1612 802,940
2009 3,710,141.98 2.52 149,592.92 0.1386 822,761

#### ACCOUNT 365.10 - DISTRIBUTION - SERVICES OVERHEAD

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	_	AL ACCRUAL		DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 49-R2 ALVAGE PERCENT60				
2010	4,440,938.28	2.56	181,900.83	0.1152	818,554
2011	3,878,877.37	2.62	162,602.54	0.0917	569,109
2012	3,875,717.35	2.70	167,430.99	0.0675	418,577
2013	2,518,009.27	2.81	113,209.70	0.0422	170,016
2014	3,216,146.80	3.07	157,977.13	0.0154	79,246
	88,497,635.68		3,182,790.55		50,988,369

### ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 45-R4				
	VAGE PERCENT10				
1967	16,007.46	1.90	334.56	0.9025	15,891
1968	17,433.64	1.92	368.20	0.8928	17,121
1969	12,057.41	1.94	257.31	0.8827	11,707
1970	12,301.18	1.96	265.21	0.8722	11,802
1974	53,207.20	2.04	1,193.97	0.8262	48,356
1975	201,962.11	2.06	4,576.46	0.8137	180,770
1976	84,535.90	2.08	1,934.18	0.8008	74,466
1977	77,798.18	2.09	1,788.58	0.7838	67,076
1978	30,580.89	2.11	709.78	0.7702	25,909
1979 1980	47,300.23	2.13 2.14	1,108.24	0.7562	39,345
1980	118,760.98 74,052.93	2.14	2,795.63 1,759.50	0.7383 0.7236	96,449 58,943
1982	158,659.57	2.10	3,787.20	0.7052	123,075
1983	61,393.12	2.17	1,478.96	0.6898	46,584
1984	119,392.03	2.20	2,889.29	0.6710	88,123
1985	123,948.45	2.21	3,013.19	0.6520	88,896
1986	56,905.12	2.23	1,395.88	0.6356	39,786
1987	110,518.54	2.24	2,723.18	0.6160	74,887
1988	196,294.47	2.25	4,858.29	0.5962	128,734
1989	264,243.04	2.26	6,569.08	0.5763	167,512
1990	252,573.09	2.27	6,306.75	0.5562	154,529
1991	167,294.00	2.28	4,195.73	0.5358	98,600
1992	159,624.00	2.29	4,020.93	0.5152	90,462
1993	216,632.00	2.30	5,480.79	0.4945	117,837
1994	241,688.00	2.30	6,114.71	0.4715	125,351
1995	262,203.00	2.31	6,662.58	0.4504	129,906
1996	376,219.00	2.32	9,601.11	0.4292	177,621
1997	269,613.00	2.32	6,880.52	0.4060	120,409
1998	14,149.00	2.33	362.64	0.3844	5,983
2000	175,064.00	2.34	4,506.15	0.3393	65,339
2001	72,659.00	2.34	1,870.24	0.3159	25,248
2002	150,357.00	2.34	3,870.19	0.2925	48,377
2003	318,679.00	2.35	8,237.85	0.2702	94,718
2004	251,568.71	2.35	6,503.05	0.2468	68,296
2005	180,630.00	2.35	4,669.29	0.2232	44,348
2006	152,657.00	2.35	3,946.18	0.1998	33,551
2007	344,664.00	2.35	8,909.56	0.1762	66,803
2008	365,769.84	2.36	9,495.39	0.1534	61,720
2009	334,997.11	2.36	8,696.52	0.1298	47,831
2010	307,644.03	2.36	7,986.44	0.1062	35,939
2011	403,151.38	2.36	10,465.81	0.0826	36,630



## ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

ORIGINAL		ANNUAL ACCRUAL		ACCRUED DEPREC	
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 45-R4 ALVAGE PERCENT10				
2012	480,961.05	2.36	12,485.75	0.0590	31,214
2013	1,840,757.83	2.36	47,786.07	0.0354	71,679
2014	827,824.08	2.37	21,581.37	0.0118	10,745
	10,004,731.57		254,442.31		3,168,568

### ACCOUNT 366.10 - DISTRIBUTION - WATT-HOUR METERS

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	VOR CURVE IOWA 18-S1 ALVAGE PERCENT5				
1973	314.82			1.0000	331
1974	171.18			1.0000	180
1975	356.21			1.0000	374
1976	834.14			1.0000	876
1977	42,132.22			1.0000	44,239
1978	5,035.04			1.0000	5,287
1979	16,855.55		212	1.0000	17,698
1980	30,378.26	2.88	918.64	0.9936	31,693
1981	220,900.50	2.94	6,819.20	0.9849	228,443
1982	9,158.05	3.00	288.48	0.9750	9,376
1983	213,382.26	3.06	6,855.97	0.9639	215,963
1984	142,698.89	3.13	4,689.80	0.9546	143,031
1985	172,694.74	3.20	5,802.54	0.9440	171,175
1986	137,984.29	3.28	4,752.18	0.9348	135,437
1987	27,473.71	3.36	969.27	0.9240	26,655
1988	182,930.00	3.44	6,607.43	0.9116	175,097
1989	91,436.52	3.53	3,389.09	0.9002	86,427
1990	182,971.63	3.62	6,954.75	0.8869	170,391
1991	114,409.26	3.71	4,456.81	0.8718	104,729
1992	6,422.03	3.81 3.91	256.91	0.8572	5,780 7,210
1993 1995	8,168.41 63,017.17	3.91 4.14	335.35 2,739.36	0.8406 0.8073	53,417
1995	5,107.26	4.14	2,739.36	0.7881	4,226
1997	12,283.85	4.38	564.93	0.7665	9,886
1998	146,660.62	4.51	6,945.11	0.7442	114,602
1999	298,652.67	4.65	14,581.72	0.7442	226,032
2000	263,913.79	4.79	13,273.54	0.6946	192,480
2001	161,977.18	4.94	8,401.76	0.6669	113,424
2001	235,810.41	5.10	12,627.65	0.6375	157,846
2002	277,749.50	5.26	15,340.10	0.6049	176,411
2003	588,198.05	5.43	33,536.11	0.5702	352,160
2005	621,293.86	5.61	36,597.31	0.5330	347,707
2005	711,329.57	5.79	43,245.28	0.4922	367,622
2007	453,050.27	5.98	28,447.03	0.4485	213,353
2007	939,633.03	6.16	60,775.46	0.4004	395,041
2009	1,313,819.31	6.35	87,598.90	0.3492	481,725
2010	1,135,273.46	6.53	77,840.02	0.2938	350,221
2010	1,217,345.37	6.70	85,640.25	0.2345	299,741
2 O T T	T, 411, 979.31	0.70	00,040.20	0.4343	477,141

### ACCOUNT 366.10 - DISTRIBUTION - WATT-HOUR METERS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUAI RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 18-S1 ALVAGE PERCENT5				
2012	1,495,004.85	6.86	107,685.20	0.1715	269,213
2013	1,806,532.95	6.98	132,400.80	0.1047	198,601
2014	2,003,395.02	7.07	148,722.03	0.0354	74,466
	15,356,755.90		970,287.43		5,978,566

### ACCOUNT 366.20 - DISTRIBUTION - DEMAND METERS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUA RATE	AL ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC
(1)	(2)	(3)	(4)	(5)	(6)
( _ /	(2)	(3)	(1)	(3)	(0)
	VOR CURVE IOWA 18-S ALVAGE PERCENT5	1			
1986	1.20	3.28	0.04	0.9348	1
1987	36,085.87	3.36	1,273.11	0.9240	35,011
1992	1,768.66	3.81	70.76	0.8572	1,592
1993	6,097.94	3.91	250.35	0.8406	5,382
1994	8,468.06	4.02	357.44	0.8241	7,327
1995	14,015.09	4.14	609.24	0.8073	11,880
1996	16,663.75	4.26	745.37	0.7881	13,789
1997	1,664.68	4.38	76.56	0.7665	1,340
1999	34,210.77	4.65	1,670.34	0.7208	25,892
2000	8,617.68	4.79	433.43	0.6946	6,285
2002	31,658.05	5.10	1,695.29	0.6375	21,191
2003	38,837.84	5.26	2,145.01	0.6049	24,668
2004	20,879.42	5.43	1,190.44	0.5702	12,501
2005	218,557.00	5.61	12,874.10	0.5330	122,315
2006	229,106.97	5.79	13,928.56	0.4922	118,405
2007	383,332.53	5.98	24,069.45	0.4485	180,521
2008	150,551.65	6.16	9,737.68	0.4004	63,295
2009	345,228.98	6.35	23,018.14	0.3492	126,582
2010	768,615.80	6.53	52,700.14	0.2938	237,110
2011	981,878.31	6.70	69,075.14	0.2345	241,763
2012	1,550,488.46	6.86	111,681.68	0.1715	279,204
2013	1,603,833.98	6.98	117,544.99	0.1047	176,317
2014	1,085,359.75	7.07	80,571.68	0.0354	40,343
	7,535,922.44		525,718.94		1,752,714

### ACCOUNT 366.30 - DISTRIBUTION - INSTRUMENT TRANSFORMERS

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 36-R2.	. 5			
	LVAGE PERCENT5	. 5			
-					
1959	5,669.95	1.72	102.40	0.9546	5,683
1960	4,979.41	1.74	90.97	0.9483	4,958
1961	2,061.70	1.76	38.10	0.9416	2,038
1962	5,464.91	1.79	102.71	0.9398	5,393
1963	10,015.39	1.81	190.34	0.9322	9,803
1964	4,797.83	1.84	92.69	0.9292	4,681
1965	7,430.68	1.87	145.90	0.9256	7,222
1966	13,029.18	1.90	259.93	0.9215	12,607
1967	12,573.35	1.92	253.48	0.9120	12,040
1968	12,694.45	1.95	259.92	0.9068	12,087
1969	9,093.96	1.98	189.06	0.9009	8,602
1970	7,801.59	2.01	164.65	0.8944	7,327
1971	11,812.01	2.04	253.01	0.8874	11,006
1972	6,535.97	2.08	142.75	0.8840	6,067
1973	25,090.62	2.11	555.88	0.8756	23,068
1974	27,385.36	2.14	615.35	0.8667	24,922
1975	40,913.60	2.17	932.22	0.8572	36,825
1976	39,971.32	2.20	923.34	0.8470	35,548
1977	39,478.95	2.23	924.40	0.8362	34,663
1978	33,117.24	2.26	785.87	0.8249	28,684
1979	48,945.60	2.30	1,182.04	0.8165	41,962
1980	58,183.85	2.33	1,423.47	0.8038	49,107
1981	50,639.62	2.36	1,254.85	0.7906	42,037
1982	10,306.08	2.39	258.63	0.7768	8,406
1983	43,424.84	2.42	1,103.43	0.7623	34,758
1984	94,607.98	2.45	2,433.79	0.7472	74,226
1985	68,739.66	2.48	1,789.98	0.7316	52,804
1986	73,501.55	2.51	1,937.13	0.7154	55,212
1987	90,552.13	2.54	2,415.03	0.6985	66,413
1988	65,384.21	2.57	1,764.39	0.6810	46,753
1989	79,138.44	2.60	2,160.48	0.6630	55,092
1990	93,077.74	2.62	2,560.57	0.6419	62,734
1991	74,412.83	2.65	2,070.54	0.6228	48,662
1992	42,375.86	2.68	1,192.46	0.6030	26,830
1992	2,193.00	2.71	62.40	0.5826	
	21,363.06				1,342
1994 1995	26,376.55	2.74 2.77	614.62 767.16	0.5617	12,600
	31,303.08			0.5402	14,961
1996		2.80	920.31	0.5180	17,026
1997	18,083.96	2.83	537.36	0.4952	9,403
1998	22,191.39	2.85	664.08	0.4702	10,956
1999	20,692.87	2.88	625.75	0.4464	9,699
2000	30,427.05	2.91	929.70	0.4220	13,482

### ACCOUNT 366.30 - DISTRIBUTION - INSTRUMENT TRANSFORMERS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	AL ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	OR CURVE IOWA 36-R2. LVAGE PERCENT5	. 5			
2001	58,568.00	2.94	1,807.99	0.3969	24,408
2002	69,924.13	2.97	2,180.58	0.3712	27,254
2003	47,980.57	3.00	1,511.39	0.3450	17,381
2004	62,623.91	3.03	1,992.38	0.3182	20,923
2005	86,191.23	3.07	2,778.37	0.2916	26,390
2006	57,781.67	3.10	1,880.79	0.2635	15,987
2007	85,860.02	3.14	2,830.80	0.2355	21,231
2008	79,713.53	3.17	2,653.26	0.2060	17,242
2009	91,752.42	3.21	3,092.52	0.1766	17,014
2010	82,124.37	3.26	2,811.12	0.1467	12,650
2011	252,115.37	3.31	8,762.27	0.1158	30,655
2012	198,894.10	3.37	7,037.87	0.0842	17,584
2013	197,706.18	3.47	7,203.42	0.0520	10,795
2014	194,079.89	3.68	7,499.25	0.0184	3,750
	2,951,154.21		89,733.15		1,310,953

## ACCOUNT 366.40 - DISTRIBUTION - METERING TANKS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	RATE	ACCRUAL AMOUNT	FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA	36-R2 5			
	LVAGE PERCENT				
1121 21	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
1964	5,694.00	1.84	110.01	0.9292	5,555
1965	6,127.00	1.87	120.30	0.9256	5,955
1966	19,841.00	1.90	395.83	0.9215	19,198
1968	6,844.86	1.95	140.15	0.9068	6,517
1969	1,082.00	1.98	22.49	0.9009	1,024
1970	24,168.89	2.01	510.08	0.8944	22,697
1971	4,110.68	2.04	88.05	0.8874	3,830
1972	34,228.09	2.08	747.54	0.8840	31,771
1973	3,208.21	2.11	71.08	0.8756	2,950
1974	2,238.11	2.14	50.29	0.8667	2,037
1975	86,786.76	2.17	1,977.44	0.8572	78,113
1976	51,417.00	2.20	1,187.73	0.8470	45,728
1977	70,178.43	2.23	1,643.23	0.8362	61,617
1978	41,856.00	2.26	993.24	0.8249	36,253
1979	79,845.30	2.30	1,928.26	0.8165	68,453
1980	14,961.22	2.33	366.03	0.8038	12,627
1981	22,803.00	2.36	565.06	0.7906	18,929
1982	13,215.00	2.39	331.63	0.7768	10,779
1983	23,672.00	2.42	601.51	0.7623	18,947
1984	43,692.06	2.45	1,123.98	0.7472	34,279
1988	54,481.00	2.57	1,470.17	0.6810	38,957
1989	21,181.00	2.60	578.24	0.6630	14,745
1990	87,647.00	2.62	2,411.17	0.6419	59,074
1992	158,551.00	2.68	4,461.63	0.6030	100,387
1994	50,424.00	2.74	1,450.70	0.5617	29,739
2001	11,458.00	2.94	353.71	0.3969	4,775
2002	14,228.00	2.97	443.70	0.3712	5,546
2003	13,124.00	3.00	413.41	0.3450	4,754
2004	16,315.01	3.03	519.06	0.3182	5,451
2005	20,336.00	3.07	655.53	0.2916	6,226
2006	10,357.00	3.10	337.12	0.2635	2,866
2007	9,428.00	3.14	310.84	0.2355	2,331
2008	20,936.30	3.17	696.86	0.2060	4,529
2013	105,375.17	3.47	3,839.34	0.0520	5,753
2014	63,224.22	3.68	2,442.98	0.0184	1,221
	1,213,035.31		33,358.39		773,613



### ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCT AND MANHOLES

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 65-R4				
	VAGE PERCENT10				
1959	4,108.46	1.44	65.08	0.7992	3,612
1965	30,319.00	1.49	496.93	0.7376	24,600
1966	260,618.00	1.49	4,271.53	0.7226	207,155
1967	84,812.00	1.50	1,399.40	0.7125	66,471
1970	3,592.00	1.52	60.06	0.6764	2,673
1971	7,951.00	1.53	133.82	0.6656	5,821
1972	4,329.00	1.53	72.86	0.6502	3,096
1973	849.00	1.54	14.38	0.6391	597
1974	259,185.00	1.54	4,390.59	0.6237	177,819
1975 1976	109,104.00	1.55	1,860.22	0.6122	73,473
1976	145,315.00	1.56	2,493.61 7,299.86	0.6006	96,004
1977	425,400.00 43,145.00	1.56 1.57	7,299.86	0.5850 0.5730	273,745 27,194
1979	87,494.00	1.57	1,511.02	0.5574	53,646
1980	720,706.00	1.58	12,525.87	0.5451	432,143
1981	237,784.00	1.58	4,132.69	0.5293	138,445
1982	85,112.00	1.58	1,479.25	0.5135	48,076
1983	40,095.00	1.59	701.26	0.5008	22,088
1984	11,987.00	1.59	209.65	0.4850	6,395
1985	35,115.00	1.59	614.16	0.4690	18,116
1986	432,264.00	1.60	7,607.85	0.4560	216,824
1987	54,460.00	1.60	958.50	0.4400	26,359
1989	31,569.00	1.61	559.09	0.4106	14,258
1990	43,291.00	1.61	766.68	0.3944	18,781
1991	601,034.00	1.61	10,644.31	0.3784	250,174
1992	261,001.00	1.61	4,622.33	0.3622	103,988
1993	34,895.00	1.62	621.83	0.3483	13,369
1994	17,571.00	1.62	313.12	0.3321	6,419
1996	24,634.00	1.62	438.98	0.2997	8,121
2000	83,314.00	1.63	1,493.82	0.2364	21,665
2001	47,167.00	1.63	845.70	0.2200	11,414
2002	193,816.00	1.63	3,475.12	0.2038	43,450
2003	179,777.00	1.63	3,223.40	0.1874	37,059
2004	62,954.10	1.63	1,128.77	0.1712	11,856
2005	70,347.00	1.63	1,261.32	0.1548	11,979
2006	48,085.00	1.63	862.16	0.1386	7,331
2007	25,821.00	1.63	462.97	0.1222	3,471
2008	98,587.57	1.63	1,767.68	0.1060	11,495
2009	109,063.27	1.63	1,955.50	0.0896	10,749
2010	6,824.42	1.63	122.36	0.0734	551
2011	178,711.78	1.63	3,204.30	0.0570	11,205



### ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCT AND MANHOLES

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 65-R4 ALVAGE PERCENT10				
2012	3,080,698.87	1.64	55,575.81	0.0410	138,940
2013	781,439.90	1.64	14,097.18	0.0246	21,146
2014	1,225,714.93	1.64	22,111.90	0.0082	11,056
	10,290,061.30		182,598.03		2,692,829

#### ACCOUNT 367.20 - DISTRIBUTION - UNDERGROUND SWITCHES

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	RATE	L ACCRUAL AMOUNT	FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 47-	R4			
NET S	ALVAGE PERCENT10				
1960	1,528.40	1.71	28.75	0.9320	1,567
1973	5,059.73	1.97	109.64	0.8176	4,551
1975	15,509.00	2.00	341.20	0.7900	13,477
1986	47,961.00	2.15	1,134.28	0.6128	32,330
1991	141,500.00	2.19	3,408.74	0.5146	80,097
1992	87,047.00	2.20	2,106.54	0.4950	47,397
1998	51,766.78	2.23	1,269.84	0.3680	20,955
1999	103,587.00	2.23	2,540.99	0.3456	39,380
2000	221,146.00	2.24	5,449.04	0.3248	79,011
2001	262,514.00	2.24	6,468.34	0.3024	87,323
2002	134,280.00	2.24	3,308.66	0.2800	41,358
2003	355,740.00	2.25	8,804.56	0.2588	101,272
2004	141,267.74	2.25	3,496.38	0.2362	36,704
2010	147,588.70	2.26	3,669.06	0.1017	16,511
2012	502,784.39	2.26	12,499.22	0.0565	31,248
2013	249,760.92	2.26	6,209.06	0.0339	9,314
2014	465,538.11	2.27	11,624.49	0.0114	5,838
	2,934,578.77		72,468.79		648,333

### ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDVITV	OR CURVE IOWA 3	7_90			
	LVAGE PERCENT				
1121 011	TVIIOD TERCEIVI	10			
1958	2,329.00	1.59	40.73	0.8984	2,302
1959	35,765.00	1.61	633.40	0.8936	35,156
1961	8,951.00	1.64	161.48	0.8774	8,639
1962	2,829.00	1.66	51.66	0.8715	2,712
1963	94,127.02	1.68	1,739.47	0.8652	89,583
1964	68,703.00	1.70	1,284.75	0.8585	64,880
1965	1,805.00	1.72	34.15	0.8514	1,690
1966	15,829.00	1.74	302.97	0.8439	14,694
1967	9,589.00	1.76	185.64	0.8360	8,818
1968	21,228.00	1.78	415.64	0.8277	19,327
1969	22,588.00	1.80	447.24	0.8190	20,350
1970	51,174.00	1.82	1,024.50	0.8099	45,590
1971	19,623.00	1.84	397.17	0.8004	17,277
1972	39,627.00	1.86	810.77	0.7905	34,458
1973	28,754.00	1.89	597.80	0.7844	24,810
1974	84,769.00	1.91	1,781.00	0.7736	72,135
1975	3,581.47	1.93	76.03	0.7624	3,004
1976	36,762.08	1.96	792.59	0.7546	30,515
1977	48,235.00	1.98	1,050.56	0.7425	39,396
1978	60,702.00	2.01	1,342.12	0.7423	48,984
1979	18,697.13	2.04	419.56	0.7330	14,895
1980	4,262.00	2.04	97.05	0.7242	3,348
1981	16,539.00	2.10	382.05	0.7142	12,799
1981	48,886.00	2.13	1,145.40	0.6922	37,223
1982	149,691.00	2.16	3,556.66	0.6804	112,035
1983	69,952.36	2.19	1,685.15	0.6680	51,401
1985	186,493.00	2.19	4,554.16	0.6549	134,348
1985					
	56,126.00	2.25	1,389.12 1,503.26	0.6412	39,587 41,343
1987 1988	59,677.00	2.29		0.6298	
	97,616.00	2.33	2,501.90	0.6174	66,295
1989	23,483.00	2.36	609.62	0.6018	15,545
1990	41,655.00	2.40	1,099.69	0.5880	26,942
1991	73,633.00	2.44	1,976.31	0.5734	46,443
1993	2,017.00	2.53	56.13	0.5440	1,207
1994	10,970.00	2.57	310.12	0.5268	6,357
1996	5,864.28	2.67	172.23	0.4940	3,187
1997	41,577.00	2.72	1,243.98	0.4760	21,770
1998	28,304.00	2.77	862.42	0.4570	14,228
1999	36,168.00	2.83	1,125.91	0.4386	17,450
2000	39,637.40	2.89	1,260.07	0.4190	18,269
2001	21,876.64	2.95	709.90	0.3982	9,582
2002	12,779.59	3.02	424.54	0.3775	5,307

#### ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	AL ACCRUAL AMOUNT (4)	ACCRUED D FACTOR (5)	DEPREC AMOUNT (6)
	OR CURVE IOWA 37-S0				
NEI SAI	LVAGE PERCENT10				
2005	897.00	3.24	31.97	0.3078	304
2006	19,426.09	3.32	709.44	0.2822	6,030
2007	1,168.00	3.41	43.81	0.2558	329
2008	48,180.15	3.50	1,854.94	0.2275	12,057
2009	6,028.36	3.60	238.72	0.1980	1,313
2010	102,937.05	3.72	4,212.18	0.1674	18,955
2011	13,474.31	3.84	569.15	0.1344	1,992
2012	32,707.35	3.98	1,431.93	0.0995	3,580
2013	24,668.64	4.14	1,123.41	0.0621	1,685
2014	4,623.62	4.35	221.24	0.0218	111
	1,956,985.54		50,691.69		1,330,237

### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	ROAD - TRANSFORMER ST		, ,	` ,	, ,
	SURVIVOR CURVE IOWA				
PROBABL	E RETIREMENT YEAR 6	-2033			
NET SAL	VAGE PERCENT 0				
1957	28,575.00	1.37	391.48	0.7878	22,511
1962	3,343.00	1.46	48.81	0.7665	2,562
1963	10,791.00	1.48	159.71	0.7622	8,225
1966	104,408.00	1.55	1,618.32	0.7518	78,494
1967	647.00	1.57	10.16	0.7458	483
1968	5,519.00	1.60	88.30	0.7440	4,106
1969	264.00	1.62	4.28	0.7371	195
1971	2,609.00	1.67	43.57	0.7264	1,895
1972	8,229.00	1.70	139.89	0.7225	5,945
1973	16,864.00	1.73	291.75	0.7180	12,108
1974	8,878.00	1.76	156.25	0.7128	6,328
1975	13,639.00	1.79	244.14	0.7070	9,643
1977	14,677.00	1.85	271.52	0.6938	10,183
1978	1,665.00	1.88	31.30	0.6862	1,143
1979 1980	19,955.00	1.92	383.14	0.6816	13,601
1980	72,779.00 58,897.01	1.95 1.99	1,419.19 1,172.05	0.6728 0.6666	48,966 39,261
1981	103,528.86	2.03	2,101.64	0.6598	68,308
1984	2,953.00	2.11	62.31	0.6436	1,901
1986	20,475.00	2.21	452.50	0.6298	12,895
1987	17,994.00	2.25	404.86	0.6188	11,135
1988	17,919.00	2.30	412.14	0.6095	10,922
1991	11,926.00	2.47	294.57	0.5804	6,922
1992	20,026.00	2.53	506.66	0.5692	11,399
1993	58,970.00	2.60	1,533.22	0.5590	32,964
1994	32,428.00	2.67	865.83	0.5474	17,751
1996	8,605.00	2.82	242.66	0.5217	4,489
1997	14,741.00	2.90	427.49	0.5075	7,481
1998	2,534.00	2.98	75.51	0.4917	1,246
1999	6,144.00	3.08	189.24	0.4774	2,933
2000	75,242.00	3.17	2,385.17	0.4596	34,581
2001	67,068.00	3.28	2,199.83	0.4428	29,698
2002	139,445.74	3.39	4,727.21	0.4238	59,097
2003	29,366.88	3.51	1,030.78	0.4036	11,852
2004	17,426.99	3.64	634.34	0.3822	6,661
2005	55,375.00	3.78	2,093.18	0.3591	19,885
2006	25,789.00	3.93	1,013.51	0.3340	8,614
2007 2008	3,251.00 5,511.13	4.10 4.28	133.29 235.88	0.3075 0.2782	1,000 1,533
2000	J, JII. IJ	7.20	433.00	0.4/04	1,333



### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
INTERIN PROBABI	L ROAD - TRANSFORMER ST M SURVIVOR CURVE IOWA LE RETIREMENT YEAR 6 LVAGE PERCENT 0				
2009	15,812.24	4.48	708.39	0.2464	3,896
2013	581,610.17	5.69	33,093.62	0.0854	49,670
2014	5,259.43	6.41	337.13	0.0320	168
	1,711,140.45		62,634.82		682,650
INTERIN PROBABI	L ROAD - SYSTEM CONTROL M SURVIVOR CURVE IOWA LE RETIREMENT YEAR 6 LVAGE PERCENT 0				
1991	3,785.00	1.84	69.64	0.4324	1 627
1991	988,399.00	2.15	21,250.58	0.3332	1,637 329,335
2000	19,634.00	2.13	431.95	0.3332	6,263
2000	69,701.00	2.25	1,568.27	0.3190	21,175
2001	33,052.00	2.30	760.20	0.3036	9,502
2002	10,181.00	2.36	240.27	0.2714	2,763
2003	8,220.63	2.42	198.94	0.2714	2,703
2004	12,409.00	2.42	307.74	0.2341	2,089
2005	10,978.00	2.40	279.94	0.2350	2,380
2007	52,055.00	2.63	1,369.05	0.1972	10,265
2007	5,654.92	2.72	153.81	0.1768	1,000
2009	1,429.76	2.81	40.18	0.1546	221
2010	193,982.95	2.92	5,664.30	0.1340	25,489
2010	225,910.44	3.22	7,274.32	0.0805	18,186
2012	26,822.51	3.46	928.06	0.0519	1,392
2014	10,134.54	3.99	404.37	0.0200	203
	1,672,349.75		40,941.62		434,824
PROBABI	M SURVIVOR CURVE IOWA	70-R1 -2049			
1969	612,810.19	1.41	8,640.62	0.6416	393,179
1970	6,082.07	1.42	86.37	0.6319	3,843
1971	404.25	1.44	5.82	0.6264	253
1971	1,864.85	1.44	27.60	0.6142	1,145
17,5	1,001.03	1.10	27.00	J. U. 12	1,113



### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR	ORIGINAL COST	ANNUAL RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
( _ /	( 2 )	(3)	(1)	(3)	(0)
	UNT ROAD				
	IM SURVIVOR CURVE				
	BLE RETIREMENT YEAR	6-2049			
NET S	ALVAGE PERCENT 0				
1975	4,613.00	1.52	70.12	0.6004	2,770
1978	4,063.00	1.58	64.20	0.5767	2,343
1980	2,180,254.19	1.62	35,320.12	0.5589	1,218,544
1981	4,388.71	1.65	72.41	0.5528	2,426
1982	24,033.00	1.67	401.35	0.5428	13,045
1983	17,415.00	1.70	296.06	0.5355	9,326
1985	2,553.00	1.75	44.68	0.5162	1,318
1986	65,850.58	1.78	1,172.14	0.5073	33,406
1987	671,418.87	1.81	12,152.68	0.4978	334,232
1988	90,374.00	1.84	1,662.88	0.4876	44,066
1990	23,228.00	1.91	443.65	0.4680	10,871
1991	83,719.82	1.94	1,624.16	0.4559	38,168
1992	398,785.74	1.98	7,895.96	0.4455	177,659
1993	97,637.88	2.01	1,962.52	0.4322	42,199
1995	12,591.48	2.10	264.42	0.4095	5,156
1997	12,721.80	2.19	278.61	0.3832	4,875
1998	233,301.82	2.23	5,202.63	0.3680	85,855
1999	80,134.00	2.28	1,827.06	0.3534	28,319
2000	52,480.66	2.34	1,228.05	0.3393	17,807
2003	70,436.00	2.52	1,774.99	0.2898	20,412
2004	19,019.45	2.59	492.60	0.2720	5,173
2005	131,966.45	2.66	3,510.31	0.2527	33,348
2006	8,923.00	2.74	244.49	0.2329	2,078
2007	32,174.00	2.83	910.52	0.2122	6,827
2008	659,283.38	2.93	19,317.00	0.1904	125,528
2009	56,933.14	3.03	1,725.07	0.1666	9,485
2010	589,218.21	3.15	18,560.37	0.1418	83,551
2011	667,623.67	3.30	22,031.58	0.1155	77,111
2012	778,590.06	3.48	27,094.93	0.0870	67,737
2013	697,066.88	3.73	26,000.59	0.0560	39,036
2014	57,985.17	4.28	2,481.77	0.0214	1,241
	8,449,945.32		204,888.33		2,942,332

### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR	ORIGINAL COST	RATE	ACCRUAL AMOUNT	FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
DUFFY	PLACE				
INTER	IM SURVIVOR CURVE	IOWA 70-R1			
PROBA:	BLE RETIREMENT YEAR.	. 6-2065			
NET S	ALVAGE PERCENT 0				
1990	9,448,330.00	1.68	158,731.94	0.4116	3,888,933
1991	94,221.00	1.70	1,601.76	0.3995	37,641
1992	3,706.00	1.73	64.11	0.3892	1,442
1993	6,936.00	1.75	121.38	0.3762	2,609
1994	44,508.00	1.78	792.24	0.3649	16,241
1995	20,084.00	1.81	363.52	0.3530	7,090
1996 1997	23,539.00	1.84 1.87	433.12	0.3404	8,013
1997	47,264.00 75,022.00	1.91	883.84 1,432.92	0.3272 0.3152	15,465 23,647
1999	173,897.00	1.91	3,373.60	0.3152	52,291
2000	463,475.28	1.98	9,176.81	0.2871	133,064
2001	151,471.00	2.02	3,059.71	0.2727	41,306
2001	113,750.00	2.07	2,354.62	0.2588	29,438
2002	83,426.00	2.11	1,760.29	0.2426	20,239
2003	125,043.72	2.16	2,700.94	0.2120	28,360
2005	158,906.30	2.22	3,527.72	0.2109	33,513
2006	611,257.00	2.28	13,936.66	0.1938	118,462
2007	107,939.37	2.34	2,525.78	0.1755	18,943
2008	105,744.02	2.41	2,548.43	0.1566	16,560
2009	90,801.33	2.49	2,260.95	0.1370	12,440
2010	18,711.33	2.59	484.62	0.1166	2,182
2011	299,663.80	2.70	8,090.92	0.0945	28,318
2012	130,571.94	2.85	3,721.30	0.0712	9,297
2013	150,983.15	3.07	4,635.18	0.0460	6,945
2014	530,623.59	3.58	18,996.32	0.0179	9,498
	13,079,874.83		247,578.68		4,561,937
CARBO	NEAR - OFFICE/WAREHO	OUSE			
INTER	IM SURVIVOR CURVE	IOWA 70-R1			
PROBA	BLE RETIREMENT YEAR.	. 6-2052			
NET S	ALVAGE PERCENT 0				
1970	1,526.00	1.40	21.36	0.6230	951
1974	2,314.00	1.47	34.02	0.5954	1,378
1977	320,115.58	1.52	4,865.76	0.5700	182,466
1978	9,176.30	1.54	141.32	0.5621	5,158
1979	7,010.12	1.56	109.36	0.5538	3,882
1980	5,329.00	1.59	84.73	0.5486	2,923
1981	30,407.59	1.61	489.56	0.5394	16,402



### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR	ORIGINAL COST	ANNUAL RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
			( - /	( - ,	( - )
	SAR - OFFICE/WAREH				
	SURVIVOR CURVE				
	E RETIREMENT YEAR	0-2052			
NET SAL	VAGE PERCENT 0				
1985	8,460.00	1.71	144.67	0.5044	4,267
1987	220,891.32	1.76	3,887.69	0.4840	106,911
1988	27,605.16	1.79	494.13	0.4744	13,096
1989	423,305.56	1.82	7,704.16	0.4641	196,456
1990	206,746.27	1.85	3,824.81	0.4532	93,697
1991	8,171.00	1.88	153.61	0.4418	3,610
1992	3,672.00	1.91	70.14	0.4298	1,578
1993	26,190.00	1.95	510.70	0.4192	10,979
1996	42,867.09	2.06	883.06	0.3811	16,337
1997	8,410.00	2.11	177.45	0.3692	3,105
1998	102,256.74	2.15	2,198.52	0.3548	36,281
2006	6,882.34	2.62	180.32	0.2227	1,533
2007	5,802.00	2.70	156.65	0.2025	1,175
2008	5,301.98	2.79	147.93	0.1814	962
2009	3,184.16	2.89	92.02	0.1590	506
2010	40,370.26	3.01	1,215.14	0.1354	5,466
2011	5,752.30	3.14	180.62	0.1099	632
2012	9,567.44	3.31	316.68	0.0828	792
2013	295,581.44	3.56	10,522.70	0.0534	15,784
2014	746,175.20	4.09	30,518.57	0.0204	15,222
	2,573,070.85		69,125.68		741,549
WHITBOU	RNE				
INTERIM	SURVIVOR CURVE	IOWA 70-R1			
PROBABL	E RETIREMENT YEAR	6-2023			
NET SAL	VAGE PERCENT 0				
1973	6,000.00	2.02	121.20	0.8383	5,030
1977	2,351.00	2.19	51.49	0.8212	1,931
1978	224,535.10	2.24	5,029.59	0.8176	183,580
1979	49,742.00	2.29	1,139.09	0.8130	40,440
1980	1,056.00	2.34	24.71	0.8073	853
1982	5,746.00	2.46	141.35	0.7995	4,594
1983	2,890.00	2.52	72.83	0.7938	2,294
1984	8,632.00	2.58	222.71	0.7869	6,793
1985	32.00	2.65	0.85	0.7818	25
1987	16,120.54	2.80	451.38	0.7700	12,413
1988	131,804.00	2.88	3,795.96	0.7632	100,593
1989	8,222.00	2.97	244.19	0.7574	6,227



## ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
WHITBO	TDME				
	M SURVIVOR CURVE.	T∩W7 70_D1			
	LE RETIREMENT YEA				
	LVAGE PERCENT 0	K 0-2023			
NEI SA.	LVAGE PERCENI U				
1990	9,920.00	3.06	303.55	0.7497	7,437
1991	25,854.00	3.15	814.40	0.7402	19,137
1992	3,575.00	3.25	116.19	0.7312	2,614
1996	4,379.00	3.74	163.77	0.6919	3,030
1997	7,050.00	3.88	273.54	0.6790	4,787
1998	72,716.00	4.04	2,937.73	0.6666	48,472
2007	1,977.00	6.35	125.54	0.4762	941
2008	3,262.76	6.79	221.54	0.4414	1,440
2012	4,670.40	9.38	438.08	0.2345	1,095
2013	111,674.48	10.43	11,647.65	0.1564	17,466
2014	12,930.45	11.95	1,545.19	0.0598	773
	715,139.73		29,882.53		471,965
SALT PO	OND M SURVIVOR CURVE.	. IOWA 70-R1			
	LE RETIREMENT YEA LVAGE PERCENT 0	R 6-2023			
1968	746.00	1.83	13.65	0.8510	635
1969	47,127.00	1.87	881.27	0.8508	40,096
1970	820.00	1.90	15.58	0.8455	693
1972	2,700.15	1.98	53.46	0.8415	2,272
1974	166,663.00	2.06	3,433.26	0.8343	139,047
1976	8,022.00	2.14	171.67	0.8239	6,609
1977	896.00	2.19	19.62	0.8212	736
1978	30,690.00	2.24	687.46	0.8176	25,092
1982	6,795.00	2.46	167.16	0.7995	5,433
1984	1,652.00	2.58	42.62	0.7869	1,300
1985	811.00	2.65	21.49	0.7818	634
1986	28,547.00	2.72	776.48	0.7752	22,130
1987	149,734.72	2.80	4,192.57	0.7700	115,296
1988	2,114.00	2.88	60.88	0.7632	1,613
1989	1,322.00	2.97	39.26	0.7574	1,001
1990	22,374.00	3.06	684.64	0.7497	16,774
1993	41,492.23	3.36	1,394.14	0.7224	29,974
1995	79,070.00	3.61	2,854.43	0.7040	55,665
2002	41,411.65	4.82	1,996.04	0.6025	24,951
2003	4,277.87	5.06	216.46	0.5819	2,489
2004	41,384.08	5.33	2,205.77	0.5596	23,159

## ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SALT I	POND				
	IM SURVIVOR CURVE	IOWA 70-R1			
	BLE RETIREMENT YEAR				
	ALVAGE PERCENT 0				
-					
2005	10,069.91	5.63	566.94	0.5348	5,385
2007	4,070.00	6.35	258.44	0.4762	1,938
2008	163,006.35	6.79	11,068.13	0.4414	71,951
2009	3,083.87	7.29	224.81	0.4010	1,237
2012	3,317.50	9.38	311.18	0.2345	778
2013	16,993.07	10.43	1,772.38	0.1564	2,658
2014	30,609.52	11.95	3,657.84	0.0598	1,830
	909,799.92		37,787.63		601,376
	·		•		,
CT.APFI	NVILLE REGIONAL BUI	I.DING			
	IM SURVIVOR CURVE				
	BLE RETIREMENT YEAR				
	ALVAGE PERCENT 0	0 2030			
1111 01					
1990	1,651,044.00	1.89	31,204.73	0.4630	764,433
1991	139,476.00	1.92	2,677.94	0.4512	62,932
1992	8,811.00	1.95	171.81	0.4388	3,866
1993	6,094.00	1.99	121.27	0.4278	2,607
1995	18,780.00	2.07	388.75	0.4036	7,580
1999	19,303.00	2.25	434.32	0.3488	6,733
2000	21,716.00	2.31	501.64	0.3350	7,275
2005	5,317.00	2.62	139.31	0.2489	1,323
2006	124,297.00	2.70	3,356.02	0.2295	28,526
2007	13,473.00	2.78	374.55	0.2085	2,809
2008	4,867.89	2.88	140.20	0.1872	911
2010	32,584.44	3.10	1,010.12	0.1395	4,546
2012	7,009.12	3.42	239.71	0.0855	599
2013	11,951.73	3.67	438.63	0.0550	657
	2,064,724.18		41,199.00		894,797
~·	_				
GANDE		T0 E0 = 1			
	IM SURVIVOR CURVE				
	BLE RETIREMENT YEAR	6-2037			
NET S	ALVAGE PERCENT 0				
1062	2 020 00	1 40	20.16	0 7264	1 500
1963	2,039.00	1.43	29.16	0.7364	1,502
1968	1,096.00	1.53	16.77	0.7114	780



#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR	ORIGINAL COST	ANNUAL RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
GANDER					
	I SURVIVOR CURVE IOWA	70-R1			
PROBABI	E RETIREMENT YEAR 6	-2037			
NET SAI	VAGE PERCENT 0				
1975	231,781.00	1.70	3,940.28	0.6715	155,641
1976	24,084.00	1.73	416.65	0.6660	16,040
1977	8,245.00	1.75	144.29	0.6562	5,410
1978	14,751.00	1.78	262.57	0.6497	9,584
1979	2,688.00	1.81	48.65	0.6426	1,727
1981	1,109.00	1.88	20.85	0.6298	698
1983	40,197.00	1.95	783.84	0.6142	24,689
1984	30,568.00	1.99	608.30	0.6070	18,555
1985 1986	17,867.00 187,655.00	2.03	362.70	0.5988 0.5900	10,699
1986	71,157.00	2.07 2.11	3,884.46 1,501.41	0.5900	110,716 41,285
1988	1,273.00	2.11	27.37	0.5698	725
1989	8,645.00	2.13	190.19	0.5610	4,850
1990	1,197.00	2.24	26.81	0.5488	657
1997	613,545.00	2.66	16,320.30	0.4655	285,605
1998	21,825.00	2.73	595.82	0.4504	9,830
1999	385.00	2.80	10.78	0.4340	167
2001	47,190.00	2.97	1,401.54	0.4010	18,923
2003	22,015.00	3.16	695.67	0.3634	8,000
2004	53,349.91	3.27	1,744.54	0.3434	18,320
2005	9,965.00	3.38	336.82	0.3211	3,200
2007	8,630.00	3.64	314.13	0.2730	2,356
2009	3,773.81	3.95	149.07	0.2172	820
2011	8,128.52	4.34	352.78	0.1519	1,235
2012	17,095.18	4.60	786.38	0.1150	1,966
2013	23,609.97	4.93	1,163.97	0.0740	1,747
2014	233,690.35	5.57	13,016.55	0.0278	6,497
	1,707,554.74		49,152.65		762,224
GRAND F	ALLS SERVICE BUILDING				
	SURVIVOR CURVE IOWA	70-R1			
PROBABI	E RETIREMENT YEAR 6	-2056			
NET SAI	VAGE PERCENT 0				
1958	35,695.00	1.22	435.48	0.6893	24,605
1959	2,047.00	1.23	25.18	0.6826	1,397
1960	1,036.00	1.24	12.85	0.6758	700
1961	500.00	1.25	6.25	0.6688	334
1965	88.00	1.30	1.14	0.6435	57



#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR	ORIGINAL COST	ANNUAI RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
INTERI PROBAB	FALLS SERVICE BUIL M SURVIVOR CURVE LE RETIREMENT YEAR LVAGE PERCENT 0	IOWA 70-R1			
1967 1970 1972 1973 1974 1975 1977 1979 1980 1981 1982 1987 1988 1989 1994 1999 2001 2006 2007 2008 2009	1,147.00 1,369.00 3,706.00 2,735.00 2,961.00 13,026.00 2,666.00 30,724.00 1,113.00 17,128.00 18,645.00 3,918.00 322,421.00 11,220.00 18,827.00 10,552.00 6,518.00 682,964.00 198,434.00 32,102.46 17,044.93	1.33 1.37 1.40 1.42 1.43 1.45 1.49 1.52 1.54 1.56 1.58 1.70 1.73 1.75 1.91 2.10 2.20 2.49 2.56 2.65 2.74	15.26 18.76 51.88 38.84 42.34 188.88 39.72 467.00 17.14 267.20 294.59 66.61 5,577.88 196.35 359.60 221.59 143.40 17,005.80 5,079.91 850.72 467.03	0.6318 0.6096 0.5950 0.5893 0.5792 0.5728 0.5588 0.5396 0.5313 0.5226 0.5135 0.4675 0.4675 0.4584 0.4462 0.3916 0.3255 0.2970 0.2116 0.1920 0.1722 0.1507	725 835 2,205 1,612 1,715 7,461 1,490 16,579 591 8,951 9,574 1,832 147,798 5,006 7,373 3,435 1,936 144,515 38,099 5,528 2,569
2011	2,923.54	2.97	86.83	0.1040	304
2013	49,260.94	3.37	1,660.09	0.0506	2,493
2014	12,435.52	3.89	483.74	0.0194	241
	1,503,207.39		34,122.06		439,960
INTERI PROBAB	BROOK - MAPLE VAL M SURVIVOR CURVE LE RETIREMENT YEAR LVAGE PERCENT 0	IOWA 70-R1	ILDING		
1979 1981 1986 1988 1989 1994 2000 2001	352,375.00 1,806.00 4,895.29 2,379.00 81,883.00 35,269.00 2,080.00 96,882.00	1.51 1.55 1.66 1.71 1.74 1.89 2.13 2.17	5,320.86 27.99 81.26 40.68 1,424.76 666.58 44.30 2,102.34	0.5360 0.5192 0.4731 0.4532 0.4437 0.3874 0.3088 0.2930	188,873 938 2,316 1,078 36,331 13,663 642 28,386



#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
CORNER INTERI PROBAB	BROOK - MAPLE VAL M SURVIVOR CURVE LE RETIREMENT YEAR LVAGE PERCENT 0	LEY SERVICE BU IOWA 70-R1			
2003 2004 2007 2008 2009 2011 2012 2013 2014	37,979.00 2,517.81 905,647.00 3,556.88 38,002.37 17,599.64 1,082.44 31,869.55 3,017.82	2.28 2.33 2.53 2.62 2.71 2.94 3.10 3.33 3.85	865.92 58.66 22,912.87 93.19 1,029.86 517.43 33.56 1,061.26 116.19	0.2622 0.2446 0.1898 0.1703 0.1490 0.1029 0.0775 0.0500 0.0192	9,958 616 171,892 606 5,662 1,811 84 1,593
	1,618,841.80		36,397.71		464,507
INTERI PROBAB	NVILLE OFFICE AND M SURVIVOR CURVE LE RETIREMENT YEAR LVAGE PERCENT 0	IOWA 70-R1	NG		
1958	142,910.00	1.46	2,086.49	0.8249	117,886
1976	27,384.00	1.96	536.73	0.7546	20,664
1977	669.00	2.00	13.38	0.7500	502
1978	828.00	2.04	16.89	0.7446	617
1982	9,461.00	2.22	210.03	0.7215	6,826
1983	945.00	2.27	21.45	0.7150	676
1987	2,438.00	2.49	60.71	0.6848	1,670
1988	483,868.88	2.55	12,338.66	0.6758	326,999
1989	148,708.00	2.62	3,896.15	0.6681	99,352
1990	28,279.00	2.69	760.71	0.6590	18,636
1992	17,045.00	2.84	484.08	0.6390	10,892
1994	32,158.00	3.01	967.96	0.6170	19,841
1997	22,245.00	3.30	734.08	0.5775	12,846
1999	2,135.00	3.54	75.58	0.5487	1,171
2000	21,859.00	3.67	802.23	0.5322	11,633
2003	22,917.00	4.12	944.18	0.4738	10,858
2004	61,952.10	4.30	2,663.94	0.4515	27,971
2007	42,103.00	4.94	2,079.89	0.3705	15,599
2008	2,701.27	5.20	140.47	0.3380	913
2009	8,951.58	5.50	492.34	0.3025	2,708
2010	1,884.81	5.83	109.88	0.2624	495



#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
INTER PROBA	ENVILLE OFFICE AND IM SURVIVOR CURVE. BLE RETIREMENT YEA ALVAGE PERCENT (	. IOWA 70-R1 AR 6-2028	NG		
2011	6,992.84	6.22	434.95	0.2177	1,522
2012	8,783.18	6.67	585.84	0.1668	1,465
2014	7,732.46	8.16	630.97	0.0408	315
	1,104,951.12		31,087.59		712,057
INTER PROBA	AUX BASQUES IM SURVIVOR CURVE. BLE RETIREMENT YEA ALVAGE PERCENT (	AR 6-2035			
1953	2,100.00	1.28	26.88	0.7872	1,653
1966	5,552.00	1.52	84.39	0.7372	4,093
1982	143,108.00	1.97	2,819.23	0.6402	91,618
1983	22,703.00	2.01	456.33	0.6332	14,376
1985	1,545.00	2.09	32.29	0.6166	953
1987	7,518.00	2.18	163.89	0.5995	4,507
1988	40,396.00	2.22	896.79	0.5883	23,765
1989	6,142.00	2.27	139.42	0.5788	3,555
1990	20,209.00	2.32	468.85	0.5684	11,487
1997	610.00	2.77	16.90	0.4848	296
2000	7,150.00	3.02	215.93	0.4379	3,131
2010	1,767.71	4.40	77.78	0.1980	350
2011	23,166.81	4.63	1,072.62	0.1620	3,753
2012	10,021.44	4.91	492.05	0.1228	1,231
2013	22,108.92	5.28	1,167.35	0.0792	1,751
	314,097.88		8,130.70		166,519
	37,424,697.96		892,929.00		13,876,697

## ACCOUNT 372.00 - GENERAL - OFFICE EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUA RATE	L ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE 25-SQUARE ALVAGE PERCENT 0				
1989	423,921.00			1.0000	423,921
1990	742,516.00	4.00	29,700.64	0.9800	727,666
1991	270,246.00	4.00	10,809.84	0.9400	254,031
1992	357,631.00	4.00	14,305.24	0.9000	321,868
1993	127,487.00	4.00	5,099.48	0.8600	109,639
1994	716,551.00	4.00	28,662.04	0.8200	587,572
1995	198,331.00	4.00	7,933.24	0.7800	154,698
1996	105,582.00	4.00	4,223.28	0.7400	78,131
1997	433,487.00	4.00	17,339.48	0.7000	303,441
1998	258,621.00	4.00	10,344.84	0.6600	170,690
1999	146,317.00	4.00	5,852.68	0.6200	90,717
2000	414,211.77	4.00	16,568.47	0.5800	240,243
2001	360,559.00	4.00	14,422.36	0.5400	194,702
2002	148,751.61	4.00	5,950.06	0.5000	74,376
2003	329,744.13	4.00	13,189.77	0.4600	151,682
2004	123,705.97	4.00	4,948.24	0.4200	51,957
2005	71,535.00	4.00	2,861.40	0.3800	27,183
2006	93,438.00	4.00	3,737.52	0.3400	31,769
2007	48,757.00	4.00	1,950.28	0.3000	14,627
2008	94,246.50	4.00	3,769.86	0.2600	24,504
2009	113,536.76	4.00	4,541.47	0.2200	24,978
2010	122,002.10	4.00	4,880.08	0.1800	21,960
2011	460,118.67	4.00	18,404.75	0.1400	64,417
2012	77,739.79	4.00	3,109.59	0.1000	7,774
2013	111,309.74	4.00	4,452.39	0.0600	6,679
2014	165,420.14	4.00	6,616.81	0.0200	3,308
	6,515,766.18		243,673.81		4,162,533



## ACCOUNT 373.00 - GENERAL - STORES EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED DE	PREC
YEAR	COST	RATE	AMOUNT	FACTOR A	MOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SIIRVIV	OR CURVE 25-SQUARE				
	LVAGE PERCENT 0				
1989	113,142.00			1.0000	113,142
1990	90,012.00	4.00	3,600.48	0.9800	88,212
1991	23,515.00	4.00	940.60	0.9400	22,104
1992	22,969.00	4.00	918.76	0.9000	20,672
1993	4,556.00	4.00	182.24	0.8600	3,918
1994	58,688.00	4.00	2,347.52	0.8200	48,124
1995	94,538.00	4.00	3,781.52	0.7800	73,740
1996	38,389.00	4.00	1,535.56	0.7400	28,408
1997	27,661.00	4.00	1,106.44	0.7000	19,363
2000	16,786.00	4.00	671.44	0.5800	9,736
2001	8,787.00	4.00	351.48	0.5400	4,745
2003	4,302.00	4.00	172.08	0.4600	1,979
2004	8,902.53	4.00	356.10	0.4200	3,739
2005	28,110.00	4.00	1,124.40	0.3800	10,682
2006	5,824.00	4.00	232.96	0.3400	1,980
2007	4,126.00	4.00	165.04	0.3000	1,238
2014	6,935.01	4.00	277.40	0.0200	139
	040 -4		15 564 00		454 004
	557,242.54		17,764.02		451,921

## ACCOUNT 374.00 - GENERAL - SHOP EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	OR CURVE 25-SOUARE				
NET SAI	VAGE PERCENT 0				
1989	44,822.00			1.0000	44,822
1990	70,910.00	4.00	2,836.40	0.9800	69,492
1991	81,854.00	4.00	3,274.16	0.9400	76,943
1992	46,628.00	4.00	1,865.12	0.9000	41,965
1993	18,953.00	4.00	758.12	0.8600	16,300
1994	29,504.00	4.00	1,180.16	0.8200	24,193
1995	22,264.00	4.00	890.56	0.7800	17,366
1996	38,385.00	4.00	1,535.40	0.7400	28,405
1997	4,964.00	4.00	1,535.40	0.7400	3,475
1997	38,347.00	4.00	1,533.88	0.6600	25,309
1999	99,654.00	4.00	3,986.16	0.6200	61,785
2000	32,361.00	4.00	1,294.44	0.5800	18,769
2001	57,908.00	4.00	2,316.32	0.5400	31,270
2003	1,457.61	4.00	58.30	0.4600	671
2004	3,278.33	4.00	131.13	0.4200	1,377
2005	3,599.00	4.00	143.96	0.3800	1,368
2006	1,602.00	4.00	64.08	0.3400	545
2008	31,577.12	4.00	1,263.08	0.2600	8,210
2009	1,688.05	4.00	67.52	0.2200	371
2010	11,024.91	4.00	441.00	0.1800	1,984
2012	23,719.55	4.00	948.78	0.1000	2,372
2014	10,010.84	4.00	400.43	0.0200	200
	674,511.41		25,187.56		477,192

## ACCOUNT 375.00 - GENERAL - LABORATORY AND TESTING EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUA	L ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDIATI	AND GUDYES OF GOURT	N EI			
	/OR CURVE 25-SQUAF ALVAGE PERCENT 0	(L			
NEI SE	ALVAGE PERCENT U				
1989	168,124.00			1.0000	168,124
1990	359,251.00	4.00	14,370.04	0.9800	352,066
1991	87,473.00	4.00	3,498.92	0.9400	82,225
1992	692,594.00	4.00	27,703.76	0.9000	623,335
1993	258,557.00	4.00	10,342.28	0.8600	222,359
1994	187,890.00	4.00	7,515.60	0.8200	154,070
1995	91,335.00	4.00	3,653.40	0.7800	71,241
1996	265,873.00	4.00	10,634.92	0.7400	196,746
1997	204,056.00	4.00	8,162.24	0.7000	142,839
1998	433,249.00	4.00	17,329.96	0.6600	285,944
1999	367,649.00	4.00	14,705.96	0.6200	227,942
2000	57,184.00	4.00	2,287.36	0.5800	33,167
2001	52,376.00	4.00	2,095.04	0.5400	28,283
2002	222,014.00	4.00	8,880.56	0.5000	111,007
2003	139,900.56	4.00	5,596.02	0.4600	64,354
2004	251,504.35	4.00	10,060.17	0.4200	105,632
2005	360,052.00	4.00	14,402.08	0.3800	136,820
2006	338,028.00	4.00	13,521.12	0.3400	114,930
2007	217,379.00	4.00	8,695.16	0.3000	65,214
2008	300,125.44	4.00	12,005.02	0.2600	78,033
2009	139,558.51	4.00	5,582.34	0.2200	30,703
2010	131,840.44	4.00	5,273.62	0.1800	23,731
2011	133,219.75	4.00	5,328.79	0.1400	18,651
2012	218,046.16	4.00	8,721.85	0.1000	21,805
2013	117,757.80	4.00	4,710.31	0.0600	7,065
2014	53,430.03	4.00	2,137.20	0.0200	1,069
	5,848,467.04		227,213.72		3,367,355

## ACCOUNT 376.00 - GENERAL - MISCELLANEOUS EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	OR CURVE 15-SQUARE LVAGE PERCENT 0				
1999	96,730.00			1.0000	96,730
2000	108,765.00	6.67	7,254.63	0.9667	105,140
2001	79,001.00	6.67	5,269.37	0.9000	71,101
2002	65,622.05	6.67	4,376.99	0.8333	54,685
2003	431,737.83	6.67	28,796.91	0.7667	331,000
2004	224,366.94	6.67	14,965.27	0.7000	157,057
2005	262,457.00	6.67	17,505.88	0.6333	166,222
2006	269,899.00	6.67	18,002.26	0.5667	152,944
2007	191,883.00	6.67	12,798.60	0.5000	95,942
2008	258,748.52	6.67	17,258.53	0.4333	112,123
2009	146,446.92	6.67	9,768.01	0.3667	53,698
2010	135,833.66	6.67	9,060.11	0.3000	40,750
2011	192,958.34	6.67	12,870.32	0.2333	45,023
2012	152,998.38	6.67	10,204.99	0.1667	25,500
2013	170,256.75	6.67	11,356.13	0.1000	17,026
2014	222,254.03	6.67	14,824.34	0.0333	7,408
	3,009,958.42		194,312.34		1,532,349

## ACCOUNT 377.00 - GENERAL - ENGINEERING EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUA RATE	L ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	OR CURVE 25-SQUARE OVAGE PERCENT 0				
1989	8,642.00			1.0000	8,642
1990	10,841.00	4.00	433.64	0.9800	10,624
1991	9,859.00	4.00	394.36	0.9400	9,267
1992	1,980.00	4.00	79.20	0.9000	1,782
1993	3,932.00	4.00	157.28	0.8600	3,382
1995	707.00	4.00	28.28	0.7800	551
1996	2,540.00	4.00	101.60	0.7400	1,880
1998	6,983.00	4.00	279.32	0.6600	4,609
1999	24,076.00	4.00	963.04	0.6200	14,927
2008	21,708.70	4.00	868.35	0.2600	5,644
2009	2,534.00	4.00	101.36	0.2200	557
2013	68,360.28	4.00	2,734.41	0.0600	4,102
	162,162.98		6,140.84		65,967

#### ACCOUNT 378.20 - TRANSPORTATION - PICK-UP TRUCKS AND VANS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNU	AL ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	VOR CURVE IOWA 6-R4 ALVAGE PERCENT +15				
2005	48,407.09			1.0000	41,146
2006	234,832.78			0.9996	199,528
2007	191,351.13	12.97	21,095.51	0.9728	158,224
2008	812,853.28	14.14	97,696.84	0.9191	635,029
2009	924,663.07	15.20	119,466.47	0.8360	657,066
2010	525,994.47	16.14	72,161.18	0.7263	324,725
2011	565,192.17	16.87	81,045.73	0.5904	283,636
2012	708,524.27	17.36	104,549.84	0.4340	261,375
2013	1,472,987.59	17.63	220,734.56	0.2644	331,039
2014	612,896.37	17.75	92,470.74	0.0888	46,261
	6,097,702.22		809,220.87		2,938,029

#### ACCOUNT 378.30 - TRANSPORTATION - LARGE TRUCKS WITH HYDRAULIC DERRICKS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNU RATE (3)	AL ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	VOR CURVE IOWA 11-R3 ALVAGE PERCENT +5	3			
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2010 2011 2012 2013	108,128.03 119,325.84 47,211.47 533,019.01 245,388.68 2,368,415.79 1,640,577.27 493,866.34 1,561,410.00 449,419.00 658,405.86 963,747.31 1,548,112.41 1,473,841.33 889,316.12 1,299,659.87	5.93 6.20 6.49 6.81 7.15 7.49 7.83 8.15 8.46 8.75 9.03 9.29 9.54 9.77 9.99	6,091.39 7,028.29 2,910.82 34,483.66 16,668.03 168,524.63 122,034.34 38,237.60 125,490.52 37,357.95 56,481.35 85,055.52 140,305.43 136,794.58 84,400.55 126,060.51	0.9784 0.9610 0.9410 0.9194 0.8938 0.8614 0.8222 0.7742 0.7191 0.6562 0.5870 0.5110 0.4293 0.3420 0.2498 0.1532	100,503 108,939 42,205 465,555 208,362 1,938,146 1,281,438 363,234 1,066,669 280,163 367,160 467,851 631,374 478,851 211,044 189,152
2014	1,327,086.37 15,726,930.70	10.51	132,502.94	0.0526	66,315 8,266,961

## ACCOUNT 378.40 - TRANSPORTATION - LARGE TRUCKS WITH LINE AND STAKE BODIES

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIV	OR CURVE IOWA 11 LVAGE PERCENT +5	_			
2003	170,131.78	7.49	12,105.73	0.8614	139,224
2005	125,743.03	8.15	9,735.65	0.7742	92,483
2006	157,249.88	8.46	12,638.17	0.7191	107,424
2007	864,238.00	8.75	71,839.78	0.6562	538,757
2008	177,227.78	9.03	15,203.49	0.5870	98,831
2010	264,842.35	9.54	24,002.66	0.4293	108,012
2011	176,267.84	9.77	16,360.30	0.3420	57,269
2012	946,930.91	9.99	89,868.48	0.2498	224,716
2013	1,110,986.47	10.21	107,760.13	0.1532	161,693
2014	194,374.04	10.51	19,407.28	0.0526	9,713
	4,187,992.08		378,921.67		1,538,122

#### ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUAL RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC
(1)	(2)	(3)	(4)	(5)	(6)
( - )	(2)	(3)	( 1 )	(3)	(0)
	OR CURVE IOWA 1				
NET SA	LVAGE PERCENT +	15			
1975	17,325.31	2.45	360.80	0.9678	14,252
1979	9,245.20	2.68	210.61	0.9514	7,477
1988	3,337.04	3.35	95.02	0.8878	2,518
1989	2,393.77	3.45	70.20	0.8798	1,790
1990	2,066.00	3.55	62.34	0.8698	1,527
1992	4,239.00	3.77	135.84	0.8482	3,056
1993	6,082.11	3.88	200.59	0.8342	4,313
1994	50,777.35	4.01	1,730.75	0.8220	35,478
1997	0.66	4.45	0.02	0.7788	
2000	7,813.16	5.00	332.06	0.7250	4,815
2001	17,079.23	5.22	757.81	0.7047	10,230
2003	3,954.52	5.72	192.27	0.6578	2,211
2004	132,638.65	6.00	6,764.57	0.6300	71,028
2005	88,966.34	6.30	4,764.15	0.5985	45,259
2006	109,984.73	6.61	6,179.49	0.5618	52,521
2007	7,335.00	6.93	432.07	0.5198	3,241
2008	247,864.78	7.26	15,295.74	0.4719	99,422
2009	120,436.55	7.58	7,759.73	0.4169	42,678
2012	103,569.73	8.55	7,526.93	0.2138	18,822
2013	172,737.42	8.89	13,052.90	0.1334	19,587
2014	149,805.51	9.33	11,880.33	0.0466	5,934
	1,257,652.06		77,804.22		446,159

#### ACCOUNT 379.10 - COMPUTERS - HARDWARE

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	OR CURVE 5-SQUARE				
2009	1,528,748.00			1.0000	1,528,748
2010	1,567,202.14	20.00	313,440.43	0.9000	1,410,482
2011	1,749,920.15	20.00	349,984.03	0.7000	1,224,944
2012	1,662,283.00	20.00	332,456.60	0.5000	831,142
2013	1,657,187.00	20.00	331,437.40	0.3000	497,156
2014	1,698,194.66	20.00	339,638.93	0.1000	169,819
	9,863,534.95	:	1,666,957.39		5,662,291

#### ACCOUNT 379.20 - COMPUTERS - SOFTWARE

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST (2)	ANNU RATE (3)	JAL ACCRUAL AMOUNT (4)	ACCRUEI FACTOR (5)	DEPREC AMOUNT (6)
	VOR CURVE 10-SQUARE ALVAGE PERCENT 0				
2004	2,550,912.00			1.0000	2,550,912
2005	2,170,524.00	10.00	217,052.40	0.9500	2,061,998
2006	2,761,636.00	10.00	276,163.60	0.8500	2,347,391
2007	2,327,922.00	10.00	232,792.20	0.7500	1,745,942
2008	2,251,084.00	10.00	225,108.40	0.6500	1,463,205
2009	2,105,206.00	10.00	210,520.60	0.5500	1,157,863
2010	1,989,763.53	10.00	198,976.35	0.4500	895,394
2011	2,327,289.96	10.00	232,729.00	0.3500	814,551
2012	2,514,504.82	10.00	251,450.48	0.2500	628,626
2013	3,055,976.20	10.00	305,597.62	0.1500	458,396
2014	2,823,049.66	10.00	282,304.97	0.0500	141,152
	26,877,868.17		2,432,695.62		14,265,430

#### ACCOUNT 381.10 - MOBILE RADIOS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	R CURVE 15-SQUARE VAGE PERCENT 0				
2000	31,928.27	6.67	2,129.62	0.9667	30,864
2001	26,431.00	6.67	1,762.95	0.9000	23,788
2002	31,615.00	6.67	2,108.72	0.8333	26,346
2003	26,481.00	6.67	1,766.28	0.7667	20,302
2004	15,437.92	6.67	1,029.71	0.7000	10,807
2005	21,838.00	6.67	1,456.59	0.6333	13,831
2006	24,721.00	6.67	1,648.89	0.5667	14,009
2010	16,966.60	6.67	1,131.67	0.3000	5,090
	195,418.79		13,034.43		145,037

#### ACCOUNT 381.20 - MOBILE RADIOS - PORTABLE RADIOS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	R CURVE 15-SQUARE VAGE PERCENT 0				
1999 2001	19,565.00 13,654.00	6.67	910.72	1.0000	19,565 12,289
2002 2005 2007	22,354.00 4,891.00 1,001.00	6.67 6.67 6.67	1,491.01 326.23 66.77	0.8333 0.6333 0.5000	18,628 3,098 500
2008	14,448.47	6.67	963.71	0.4333	6,261
	75,913.47		3,758.44		60,341

## ACCOUNT 382.10 - RADIO SITES - ROADS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
	R CURVE IOWA 30-R4				
NET SAL	VAGE PERCENT 0				
1966	3,097.00			1.0000	3,097
1967	1,469.05			1.0000	1,469
1975	6,136.00	2.45	150.33	0.9678	5,938
1977	5,545.00	2.54	140.84	0.9525	5,282
1982	3,700.00	2.80	103.60	0.9100	3,367
1983	2,729.00	2.85	77.78	0.8978	2,450
1984	5,083.00	2.90	147.41	0.8845	4,496
1985	40,119.00	2.95	1,183.51	0.8702	34,912
1986	38,398.00	3.00	1,151.94	0.8550	32,830
1992	965.00	3.23	31.17	0.7268	701
2010	34,559.75	3.53	1,219.96	0.1588	5,488
	141,800.80		4,206.54		100,030

#### ACCOUNT 382.20 - RADIO SITES - BUILDINGS

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR	ORIGINAL COST	ANNUAL RATE	ACCRUAL AMOUNT	ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
	R CURVE IOWA 30-R4 VAGE PERCENT5				
1977	42,386.00	2.54	1,130.43	0.9525	42,391
1983	116,762.00	2.85	3,494.10	0.8978	110,070
1984	55,719.00	2.90	1,696.64	0.8845	51,748
1985	100,065.00	2.95	3,099.51	0.8702	91,430
1986	33,061.00	3.00	1,041.42	0.8550	29,681
1988	17,664.00	3.08	571.25	0.8162	15,138
2000	16,120.00	3.44	582.25	0.4988	8,443
2001	1,869.00	3.46	67.90	0.4671	917
2004	1,512.00	3.50	55.57	0.3675	583
2011	2,576.31	3.54	95.76	0.1239	335
2013	3,680.60	3.54	136.81	0.0531	205
	391,414.91		11,971.64		350,941

## ACCOUNT 383.00 - RADIO EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIV	OR CURVE 15-SQUARE	, ,	, ,	, ,	, ,
2000	61,961.98	6.67	4,132.86	0.9667	59,897
2001	100,392.00	6.67	6,696.15	0.9000	90,353
2002	37,617.00	6.67	2,509.05	0.8333	31,347
2004	160,211.91	6.67	10,686.13	0.7000	112,148
2005	1,737.00	6.67	115.86	0.6333	1,100
2007	5,048.00	6.67	336.70	0.5000	2,524
2008	51,251.16	6.67	3,418.45	0.4333	22,209
2009	109,270.85	6.67	7,288.37	0.3667	40,066
2010	11,869.94	6.67	791.72	0.3000	3,561
2011	28,896.78	6.67	1,927.42	0.2333	6,742
2012	51,588.65	6.67	3,440.96	0.1667	8,598
2014	901,943.01	6.67	60,159.60	0.0333	30,062
	1,521,788.28		101,503.27		408,607

#### ACCOUNT 384.00 - COMMUNICATIONS - CABLES AND PROTECTION

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNU	AL ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 25-R3				
NET S	ALVAGE PERCENT5				
1985	9,928.45	3.07	320.04	0.9056	9,441
1988	4,523.00	3.27	155.30	0.8666	4,116
1990	218,933.86	3.40	7,815.94	0.8330	191,491
1991	492,621.55	3.47	17,948.67	0.8154	421,768
1998	204,122.39	3.88	8,315.95	0.6402	137,213
1999	24,228.62	3.94	1,002.34	0.6107	15,536
2000	163,755.08	3.99	6,860.52	0.5786	99,486
2001	232,622.86	4.04	9,867.86	0.5454	133,216
2002	139,979.00	4.09	6,011.40	0.5112	75,135
2003	221,175.00	4.14	9,614.48	0.4761	110,566
2004	1,461.32	4.19	64.29	0.4400	675
2005	68,476.00	4.23	3,041.36	0.4018	28,889
2006	111,589.66	4.28	5,014.84	0.3638	42,626
2007	23,731.00	4.32	1,076.44	0.3240	8,073
2008	147,283.73	4.36	6,742.65	0.2834	43,827
2009	329,105.10	4.40	15,204.66	0.2420	83,626
2010	171,004.66	4.44	7,972.24	0.1998	35,875
2011	42,894.06	4.48	2,017.74	0.1568	7,062
2012	42,641.54	4.53	2,028.24	0.1132	5,068
2014	70,364.73	4.68	3,457.72	0.0234	1,729
	,		,		,
	2,720,441.61		114,532.68		1,455,418

## ACCOUNT 386.00 - COMMUNICATIONS - SCADA EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDVITV	OR CURVE IOWA 15-L2				
	LVAGE PERCENT1				
MEI DAI	DVAGE FERCENT I				
1980	5,618.00	2.79	158.31	0.9626	5,462
1983	171,773.36	2.99	5,187.38	0.9418	163,394
1984	199,589.00	3.07	6,188.66	0.9364	188,764
1985	28,476.00	3.15	905.96	0.9292	26,724
1986	124,883.00	3.23	4,074.06	0.9206	116,117
1987	67,570.62	3.32	2,265.78	0.9130	62,309
1988	66,520.27	3.41	2,291.02	0.9036	60,709
1989	372,873.55	3.51	13,218.74	0.8950	337,059
1990	9,448.00	3.61	344.48	0.8844	8,439
1991	158,334.19	3.72	5,948.93	0.8742	139,800
1992	48,554.46	3.83	1,878.23	0.8618	42,263
1993	33,038.68	3.95	1,318.08	0.8492	28,337
1994	3,395.94	4.08	139.94	0.8364	2,869
1996	31,656.00	4.37	1,397.20	0.8084	25,847
1997	158.56	4.53	7.25	0.7928	127
1999	148,554.05	4.91	7,366.94	0.7610	114,180
2000	1,100,192.19	5.13	57,004.26	0.7438	826,506
2001	489,373.59	5.36	26,492.73	0.7236	357,652
2002	310,079.00	5.62	17,600.70	0.7025	220,009
2004	27,355.85	6.19	1,710.26	0.6500	17,959
2005	6,282.92	6.49	411.84	0.6166	3,913
2006	13,323.70	6.79	913.73	0.5772	7,767
2007	85,438.00	7.08	6,109.50	0.5310	45,821
2008	36,961.56	7.34	2,740.11	0.4771	17,811
2011	33,421.44	7.99	2,697.08	0.2796	9,438
2012	81,890.75	8.18	6,765.65	0.2045	16,914
2013	86,877.70	8.33	7,309.28	0.1250	10,968
	3,741,640.38		182,446.10		2,857,158

## ACCOUNT 389.10 - TELEPHONE EQUIPMENT - TELEPHONE AND DATA COLLECTION EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

	ORIGINAL	ANNUAL	ACCRUAL	ACCRUED	DEPREC		
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT		
(1)	(2)	(3)	(4)	(5)	(6)		
SURVIVO	R CURVE IOWA 1	0-L2.5					
NET SALVAGE PERCENT 0							
1994	4,740.64	4.61	218.54	0.9450	4,480		
1996	121,982.28	5.00	6,099.11	0.9250	112,834		
1997	17,434.91	5.22	910.10	0.9135	15,927		
1998	624,349.41	5.45	34,027.04	0.8992	561,415		
2000	23,423.00	5.98	1,400.70	0.8671	20,310		
2005	4,678.00	8.03	375.64	0.7628	3,568		
2006	12,729.00	8.62	1,097.24	0.7327	9,327		
2008	29,309.05	9.84	2,884.01	0.6396	18,746		
2009	2,258.89	10.38	234.47	0.5709	1,290		
	840,905.18		47,246.85		747,897		

## ACCOUNT 391.00 - COMMUNICATIONS - TEST EQUIPMENT

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2014

ORIGINAL		ANNUAL ACCRUAL		ACCRUED DEPREC		
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT	
(1)	(2)	(3)	(4)	(5)	(6)	
SURVIVOR	R CURVE IOWA 15-R3					
NET SALVAGE PERCENT 0						
1985	25,849.17			1.0000	25,849	
1986	53,903.00			1.0000	53,903	
1987	31,238.50			1.0000	31,238	
1988	41,326.48			1.0000	41,326	
1989	122,101.00			1.0000	122,101	
1990	95,083.00	4.08	3,879.39	0.9996	95,045	
1991	30,442.00	4.20	1,278.56	0.9870	30,046	
1992	43,810.00	4.34	1,901.35	0.9765	42,780	
1993	26,087.00	4.48	1,168.70	0.9632	25,127	
1995	22,544.00	4.80	1,082.11	0.9360	21,101	
1996	9,667.47	4.97	480.47	0.9194	8,888	
1998	11,561.83	5.34	617.40	0.8811	10,187	
1999	10,612.00	5.53	586.84	0.8572	9,097	
	524,225.45		10,994.82		516,688	