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NEWFOUNDLAND POWER

DIRECT TESTIMONY

Prepared by

KATHLEEN C. McSHANE

FOSTER ASSOCIATES, INC.



March 2007

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1 I. INTRODUCTION AND SUMMARY OF CONCLUSIONS

2

My name is Kathleen C. McShane and my business address is 4550 Montgomery Avenue, Suite 350N, Bethesda, Maryland 20814. I am President of Foster Associates, Inc., an economic consulting firm. I hold a Masters in Business Administration with a concentration in Finance from the University of Florida (1980) and the Chartered Financial Analyst designation (1989).

8

9 I have testified on issues related to cost of capital and various ratemaking issues on behalf 10 of telephone companies, local gas distribution utilities, pipelines, and electric utilities in 11 more than 150 proceedings in Canada and the U.S. My professional experience is 12 provided in Appendix G.

13

I have been asked by Newfoundland Power Inc. (NP) to evaluate the reasonableness ofthe proposed capital structure and recommend a fair return on equity for 2008.

16

17 My conclusions are summarized below.

18

19 CAPITAL STRUCTURE

20

A reasonable capital structure for NP respects the stand-alone principle, is
 compatible with NP's business risks, and would permit NP to maintain investment
 grade debt ratings.

24

25 2. NP's business risks have not changed materially since the last general rate
26 application (2002), assuming that the proposed amendment to the Rate
27 Stabilization Clause is approved.

28

A debt rating in the A category is a reasonable objective to ensure access to the
debt markets to finance capital expenditures, on reasonable terms and conditions,
as required. The more limited market for BBB rated debt and lesser ability of

32		BBB credits to access the long-term (30-year) debt market also support targeting
22		aradit ratings in the A gatagory
33 34		credit ratings in the A category.
35	4.	Based on the views of the debt rating agencies, NP's common equity ratio will
36		need to remain close to the 45% cap that has been previously approved by the
37		PUB in order for the current debt ratings to be maintained.
38		-
39	5.	The equity ratios of NP's Canadian peers with debt ratings in the A category
40		support an equity ratio in the upper end of the 40% to 45% range; its U.S. peers'
41		equity ratios support an equity ratio for NP in the 40-55% range.
42		
43	6.	With the repeal of the Foreign Property Rule, the Canadian debt market is
44		increasingly attracting strong foreign issuers with whom Canadian issuers will
45		need to compete for capital. The increasing competition within the Canadian debt
46		market underscores the importance of a strong financial profile.
47		
48	7.	The debt rating agencies consider the current financial structures of Canadian
49		utilities to be weak relative to their global peers.
50		
51	8.	In light of the above factors, a common equity ratio of no less than 45% is
52		warranted for NP.
53		
54	RET	URN ON EQUITY
55		
56	I reco	ommend that the Board allow a return on equity for NP of 10.25-10.50%. This
57	recon	nmendation reflects the following:
58		
59	1.	The return is based on the results of three tests, equity risk premium, discounted
60		cash flow and comparable earnings, as applied to a benchmark Canadian utility.
61		

62 2. The equity risk premium results are based on three separate approaches. The 63 equity risk premium test supports the following return:

64

Risk-Free Rate	4.75-5.0%
Equity Risk Premium	4.25-5.25%
Financing Flexibility Adjustment	0.5%
Return on Equity	9.5-10.75%

65

69

- 66 3. The discounted cash flow test, applied to a sample of low risk utilities, supports a 67 cost of equity of 8.75%-9.0%. With a 0.50% adjustment for financing flexibility, 68 a fair return based on the DCF test is 9.25-9.5%.
- 70 4. The comparable earnings test shows that, based on the achievable earnings rates 71 of low risk competitive non-regulated Canadian firms, a fair return for NP would 72 be approximately 12.5%.
- 74 5. With primary weight given to the two capital market tests, equity risk premium 75 and DCF, a fair return for NP is 10.25-10.50%.
- 76

73

77 The returns on equity available to NP's peers (in conjunction with their capital 6. 78 structures) are an important indicator of the financial metrics with which NP 79 competes in the capital markets. Recent equity returns allowed for Canadian 80 utilities (and their allowed common equity ratios) are considered to be low by 81 capital market participants. My 10.25-10.50% recommended return on equity (on 82 a 45% common equity ratio is demonstrably reasonable in light of equity returns 83 and common equity ratios) allowed for NP's U.S. peers.

87 II. CAPITAL STRUCTURE AND THE FAIR RETURN

88

86

89 My analysis starts with the proposition that the fair return (which in this context 90 encompasses both capital structure and return on equity) for NP should be 91 determined on a stand-alone basis. The stand-alone principle encompasses the 92 notion that the cost of capital incurred by the ratepayers should be equivalent to 93 that which would be faced by the utility raising capital in the public markets on 94 the strength of its own business and financial parameters. Respect for the stand-95 alone principle is intended to promote efficient allocation of capital resources and 96 avoid cross-subsidies. The stand-alone principle has been respected by virtually 97 every Canadian regulator in setting both regulated capital structures and allowed 98 returns on equity, including the PUB.

99

100 The basic principle that underpins the determination of the stand-alone return on 101 equity is that the opportunity cost of capital to a firm, or division of a firm, is a 102 function of its business risks. The financing of the assets with a combination of 103 debt and equity can lower the overall (weighted average) cost of capital, since 104 debt is less expensive than equity, and interest expense is deductible for corporate 105 income tax purposes. However, too much debt will increase the weighted average 106 cost of capital, as the costs of financial distress will outweigh the benefits of 107 additional debt. Two other factors offset some of the advantage of using debt in 108 the capital structure. The first factor is the impact of personal income taxes on 109 interest income. While interest expense is deductible at the corporate level, the 110 corresponding interest income is taxable to individual investors at higher rates 111 than equity income. Second, in the case of utilities, the benefits of the tax 112 deductibility of interest expense flow to ratepayers, not shareholders, as the utility 113 revenue requirement is reduced to reflect the lower tax expense.

114

115 In theory, there exists an optimal capital structure, i.e., one that minimizes the 116 overall cost of capital. For tax-paying utilities, the ability to deduct interest expense for tax purposes creates a compelling incentive to pinpoint an optimal capital structure. However, it is not possible to pin-point the optimal capital structure. In practice, there exists a range of capital structures over which the average cost of capital does not change materially. Within this range, an increase in the debt ratio will result in an increase in both the cost of debt and the cost of equity, but the overall cost of capital will not change measurably.

123

124 There are effectively two approaches that can be used to determine the fair return The first is to assess the "subject" utility's business risks, then 125 on equity. 126 establish a capital structure that (a) is compatible with its business risks; (b) 127 would permit it to achieve a stand-alone debt rating similar to that of the utilities used as proxies for estimating its cost of equity; and (c) would equate the level of 128 129 the specific utility's total (business and financial) risk to that of the proxies (or 130 benchmarks) used to estimate a particular utility's cost of equity. This approach 131 permits the application of the proxy utilities' cost of equity to the subject utility 132 without any adjustment to the return on equity.

133

134 The second approach entails acceptance of the utility's actual or deemed capital 135 structure for regulatory purposes. The actual or deemed capital structure then 136 becomes the key measure of the utility's financial risks. The utility's level of 137 total risk (business plus financial) is then compared against that faced by the 138 proxy utilities used to estimate the equity return requirement. If the total risk of 139 the proxy utilities is higher or lower than that of the subject utility, an adjustment 140 to their cost of equity would be required when setting the subject utility's allowed 141 return on equity.

142

Both of these approaches have been taken by regulators in Canada. The first approach was employed by the National Energy Board (NEB) when it established its automatic adjustment mechanism for a number of oil and gas pipelines in 146 1995. The individual pipelines were deemed capital structure ratios that were intended to compensate for their different levels of business risks, so that a single

148 "benchmark" return on equity could be applied across all of the pipelines. In the 149 vears since the multi-pipeline return on equity was adopted, the NEB has changed 150 the allowed capital structure, rather than the allowed return, to recognize changes 151 in business risk. It is also the approach that was adopted by the Alberta Energy 152 and Utilities Board (AEUB) in Decision 2004-052 (July 2, 2004). In that 153 decision, the AEUB set different capital structures for eleven electric and gas 154 distribution and transmission entities, based on their different business risk 155 profiles, and then established a common return on equity to be applied to each of 156 the utilities under its jurisdiction.

157

In contrast to the NEB and AEUB approach, the British Columbia Utilities Commission has allowed for both different capital structures and different equity risk premiums among the various utilities it regulates. However, it explicitly designates a low risk benchmark utility (Terasen Gas) and a low risk benchmark return on equity.

- 164 In my opinion both approaches are valid as long as the combination of capital 165 structure and return on equity for a particular utility reasonably compensates for 166 its business risk relative to that of its peers.
- 167

163

For NP, I have relied on the second approach. Specifically, I analyzed NP's requested forecast capital structure, based on the principles set out in Section III.A. I then determined whether, with the proposed capital structure, NP would face a similar level of investment risk to a benchmark Canadian utility.

172		
173 174 175	III.	DETERMINATION OF APPROPRIATE CAPITAL STRUCTURE
176	A.	PRINCIPLES
177		
178		The following principles should be respected when evaluating and determining
179		what is an appropriate capital structure.
180		
181		1. The stand-alone principle.
182		2. Compatibility of capital structure with business risks.
183		3. Maintenance of creditworthiness/financial integrity.
184		
185		Each of these principles is defined below.
186		
187	1.	The Stand-Alone Principle: The stand-alone principle encompasses the notion
188		that the cost of capital incurred by the ratepayers should be equivalent to that
189		which would be faced by each division raising capital in the public markets on the
190		strength of its own business and financial parameters. The cost of capital should
191		reflect neither subsidies given to, nor taken from, other activities of the firm.
192		Application of the stand-alone principle to NP means it should be treated as if it
193		were operating as an independent entity. Respect for the stand-alone principle is
194		intended to promote efficient allocation of capital resources among the various
195		activities of the firm.
196		
197	2.	Business Risks: The capital structure should be consistent with the business risks

Business Risks: The capital structure should be consistent with the business risks
of the specific entity for which the capital structure is being set. The business
risks to which investors in a utility are exposed are those that reflect the basic
characteristics of the operating environment and regulatory framework of the
utility that can lead to the failure to recover a compensatory return on, and/or the
return of the capital investment itself.

- 203
- 2043.Maintenance of creditworthiness/financial integrity: A reasonable capital205structure, in conjunction with the returns allowed on the various sources of206capital, should provide the basis for stand-alone investment grade debt207ratings, and the benefits of ratings in the A category. The importance of208debt ratings in the A category is discussed in detail in Section III.C.
- 209

210 B. BUSINESS RISKS

- 212 Business risks have both short-term and longer-term aspects. The capital 213 structure and fair return on equity should reflect both short- and long-term risks. Long-term risks are important because utility assets are long-lived. Because 214 215 utilities are generally regulated on the basis of annual revenue requirements, there 216 has been a tendency to downplay longer-term risks, essentially on the grounds 217 that the regulatory framework provides the regulator an opportunity to 218 compensate the shareholder for the longer-term risks when they are experienced. 219 This premise may not hold. First, customer resistance may forestall higher return 220 awards when the risk materializes. Second, no regulator can bind his successors 221 and thus guarantee that investors will be compensated for longer-term risks in the 222 event they are incurred in the future.
- 223

Business risk encompasses those market demand, supply and regulatory factors that expose the shareholders to the risk of underrecovery of the required return on, and the return of, their capital investment. While different business risk categories can be identified, they are inter-related. The regulatory framework, for example, is generally designed around the inherent market and supply/physical risks.

- 230
- 231 Market demand risk relates to those factors that can lead to annual volatility in 232 electricity sales or loss of customers or load. It includes market size, economic

diversity and strength of the service area, growth potential, concentration of sales,competition with alternative energy sources and weather.

236 Supply and physical (operating) risks faced by electric an 237 distribution/transmission utility incorporate the risk of underearning due to the 238 inability to deliver electricity, or the inability to recover costs associated with the 239 delivery of electricity. The operating and physical risks of a distribution/ 240 transmission utility are a function of its geography, the age and reliability of its 241 assets, the design of the network (relative to different sources of generation and to 242 the customer load), and the ability to access alternative sources of supply.

The regulatory framework in which a utility operates is frequently viewed as the most significant aspect of risk to which investors in a utility are exposed. The financial community is very conscious of the regulatory environment, as highlighted in reports of both bond rating agencies and investment analysts.

248

243

235

249 Regulation has the power to expose utilities to enormous risks, by permitting 250 bypass of facilities, disallowing costs, approving rate designs that are tilted 251 against recovery of fixed costs, or returns that do not conform with informed 252 investors' perception of risk. Alternatively, regulation can provide an 253 environment characterized by consistency, and by even-handedness, conducive to 254 continued growth consistent with economic allocation of resources, affording the 255 utility a reasonable opportunity to achieve a fair return. Enlightened regulation 256 will mitigate risks that are substantially beyond management control, and award a 257 return that provides both (1) fair compensation for the risks that are left with 258 management and (2) incentives to achieve (and exceed) the allowed return 259 through continued improvement in productivity.

260

261To assess the business risk of NP, I have reviewed the trends since the PUB262issued P.U. 19 (2003) in June 2003. In its decision, the PUB concluded, "The263Board does not anticipate a change in the business risk of NP in the foreseeable

future and concurs with the assessment of NP and the cost of capital experts that NP is of average business risk compared to other utilities." (p.34) As discussed below, that conclusion remains valid.

- 268 As when its business risk was last evaluated by the Board, NP remains a relatively small utility. Its year-end 2006 assets totaled \$889 million, with common equity 269 270 of \$336 million. Despite 6% annual growth in assets since year-end 2001, NP is 271 still less than one-third the size of Nova Scotia Power, whose assets are over \$3 272 billion (common equity of \$1.1 billion). All other things equal, smaller utilities 273 require a more conservative capital structure than larger ones to achieve and 274 maintain similar debt ratings. Moody's, for example, has referred to NP's small 275 size as a credit challenge (Credit Opinion, Newfoundland Power Inc., July 2005).
- With respect to its service area, NP's business risk profile is in large part definedby its demographics and growth prospects over the longer term.
- 279

276

- 2801.Real growth in the province from 2001-2005 averaged approximately 4.4%, with281material year-to-year differences, ranging from 15.6% in 2002 to -0.9% in 2004.1282Both pre-operational construction and ramp-ups in production from such mega-283projects as Voisey's Bay mine and the offshore oilfield projects (Terra Nova and284White Rose) have contributed to a high average level of growth over this period.285The significant year-to-year swings in growth are also due to the effects of those286projects.
- 287
- 288 2. In 2006, real GDP growth in Newfoundland & Labrador, at 2.9%, is expected to
 289 be among the highest of the provinces, behind Alberta, Manitoba, and British
 290 Columbia.² However, the 2.9% growth rate represents a significant decline from

¹ Government of Newfoundland and Labrador, Economic Research and Analysis Division, *Selected Economic Indicators*.

² Conference Board of Canada, Provincial Outlook 2007, Long-Term Economic Forecast, February 2007.

forecasts made earlier in 2006,³ due primarily to lower than anticipated
production at Terra Nova and an extended strike at Voisey's Bay.

294 Housing starts, which experienced strong growth between 2001 and 2004 (annual 295 rate of 18.4%), declined by 13% in 2005 and are anticipated to decline by almost 12% in 2006.⁴ The decline in housing starts, when combined with the completion 296 297 of mega-projects, will result in lower construction activity in 2006 compared to 298 2005. The fishery industry continues to be relatively weak, with the impact of a 299 strong Canadian dollar, competition in processing from China, high fuel prices 300 and lower prices for shrimp and crab. In the pulp and paper industry, the closure 301 of the Abitibi Consolidated facilities in Stephenville in late 2005 has also had a negative impact on the economy. Other facilities in the industry are also at risk, 302 303 largely due to a decline in competitiveness from the high Canadian dollar, whose 304 value relative to the U.S. dollar is (end of February 2007) approximately 37% 305 higher than it was at the end of 2001.

306

293

307 Growth in the provincial economy is expected to remain strong in 2007, forecast 3. 308 by both the Provincial Government and the Conference Board of Canada at $5.7\%^5$, compared to the consensus forecast of 2.3% for Canada.⁶ Growth is 309 310 anticipated to remain stronger than the national average through 2007 due to a 311 rebound in production from Terra Nova following the extended downtime in 2006 312 and to increased production from both Voisey's Bay and White Rose. In the long 313 run, neither Voisey's Bay nor the offshore oil projects are expected to produce 314 relatively high growth in the province, nor are they expected to have a significant 315 impact on growth within NP's service area.

³ In March 2006, the Government of Newfoundland and Labrador forecast that the economy would grow by 6.2% in 2006. Government of Newfoundland and Labrador, *The Economic Review*, October 2006. ⁴ Conference Board of Canada, *Provincial Outlook 2006, Long-Term Economic Forecast*, March 2006 and

Provincial Outlook 2007, Long-Term Economic Forecast, February 2007.

⁵ The Economic Review, p.2, Provincial Outlook 2007.

⁶ Consensus Economics, Consensus Forecasts, February 12, 2007.

From 2008-2030, the Conference Board of Canada expects real annual GDP 4. growth in the province to average only .4%, compared to 2.4% for Canada. Other forecast key economic indicators, compared to those for Canada as a whole, include the following:

	Newfoundland and Labrador	Canada
Personal Disposable Income	2.7%	4.1%
Retail Sales	3.1%	4.5%
Housing Starts	-9.8%	-0.9%
Population	-0.3%	1.0%
Employment	-0.8%	0.8%
Service Producing Industries	0.9%	2.2%
The expected long-term growth which are the backbone of NP's since NP's last general rate appl As in 2002, population is still particularly among younger peo	h in service producing industries in s general service load, has not chan lication. expected to decline as a result of ople, and the aging of the population	the Province aged materially out-migration
The declining and aging population translates into lower growth in personal disposable income and retail sales, and a decline in housing starts. Growth in personal disposable income and retail sales are expected to lag the country as a whole by a considerable margin.		
The weak economic prospects a outlook for electricity sales by 1	for the province will be mirrored in NP. The impact of low economic g	the long-term growth in NP's

I able I	Ta	ble	1
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large part a result of the persistent decline in the fishery industry that hastraditionally been the economic backbone of the rural areas.

346 Rising power costs put downward pressure on average customer usage from 347 conservation, which, since NP's distribution costs are largely fixed, then tends to 348 increase unit costs of delivered power. Population migration from rural to urban 349 areas also tends to increase the investment that must be recovered from effectively 350 the same customer base. New facilities must be built to serve the urban load, but 351 the rural facilities must be maintained as long as there are customers using those 352 facilities. Increasing unit costs, in turn, act as an incentive for customers to 353 reduce electricity consumption.

354

345

355 On the positive side, NP continues to capture a high percentage of new load in the 356 urban area around St. John's. The high cost of home heating oil, along with 357 regulations governing its use, are supporting NP's capture rate.

358

With respect to supply and physical risks, NP continues to rely on Newfoundland
and Labrador Hydro (NLH) for close to 90% of its power supply. While DBRS
views NP's reliance on NLH for supply as a challenge (*Credit Rating Report, Newfoundland Power Inc.*, March 9, 2007), the supply risk has not changed since
NP's last general rate application.

364

365 With respect to regulation, NP's regulatory framework remains constructive, 10. 366 including mechanisms for risk factors over which the Company has no control. 367 NP has a Rate Stabilization Account that permits the pass-through to customers of 368 changes in the cost and quantity of fuel burned by NLH to produce the electricity 369 (energy) sold to NP. The utility also has a weather normalization mechanism 370 which decreases the volatility in earnings arising from weather related deviations 371 from average energy consumption. The weather normalization mechanism 372 primarily entails non-cash adjustments to earnings, so that the cash flows of the 373 utility are not impacted by its operation.

The major change that has occurred since NP's last general rate application is the implementation of a demand and energy wholesale rate applicable to NP's purchases of electricity supply from NLH. The new rate structure, approved in Order No. P.U. 44 (2004), introduced on January 1, 2005, is designed to encourage conservation.

- 381 Subsequent to the introduction of the demand energy rate, the Board approved a 382 reserve for both demand and energy variances between actual and forecast costs, 383 with the amounts to be transferred to and from the reserve subject to a deadband. 384 The treatment of amounts included in the reserve was subject to the discretion of the Board, based on NP's efforts to reduce the system peak. In this GRA, NP is 385 386 proposing a modification to the reserve mechanism so that it applies specifically 387 to demand variances. Transfers to the Company's proposed Demand 388 Management Incentive Account would occur when the variance in demand supply 389 costs exceeds 1% of forecast test year demand costs.
- 390

394

374

380

391The wholesale energy rate is based on a two-block inverted rate structure, with the392second block tied to NLH's marginal cost of production, that is, the forecast cost393of fuel oil.

395NP's retail rates to its customers are based on a forecast combined average unit396cost of purchased power, which includes the projected average per Kwh cost of397energy. However, for every Kwh NP purchases each month over 250 million398Kwh, it pays the second block rate. For the test year, the second block rate is399estimated to be approximately 3.3 cents higher than the forecast average unit cost400of energy.

402 NP has historically operated on a multi-year general rate application (GRA) cvcle.⁷ If the multiple year cycle continues, NP's rates in 2009 and 2010 will be 403 404 based on its 2008 forecasts, including the 2008 load forecast. As NP adds 405 incremental customers and load beyond the test year, it will be required to 406 purchase additional energy at the higher second block rate. The more new 407 customers and load that are added, the further apart will be NP's actual unit cost 408 of energy supply and the unit cost of energy supply that is included in customer 409 rates. Thus, in the absence of a recovery mechanism, there will be an erosion of 410 NP's margin as new customers and new load are added.

411

412 NP is proposing a change to its Rate Stabilization Clause that is designed to 413 provide a reasonable opportunity to recover its actual prudently incurred energy 414 supply costs. NP is proposing to recover or refund through the RSA the difference 415 between the average and the marginal energy supply cost applied to energy 416 purchases above or below the test year forecast.

417

In the absence of the proposed change to the Rate Stabilization Clause (or,
alternatively, more frequent GRAs), NP's business risks would be materially
higher than at the time of its last GRA.

421

In summary, based on the premise that the proposed change to the Rate
Stabilization Clause is adopted, and thus no significant change in NP's ability to
recover its total costs, the business risk profile of NP has not changed materially
since the PUB last reviewed the business risks at the time of the 2002 general rate
application.

⁷ NP's last GRA utilized a 2003-2004 test period. The previous GRA was based on a 1998-1999 test period.

428 C. IMPORTANCE OF A DEBT RATING IN THE A CATEGORY

430 In my opinion, the capital structure for NP should be sufficiently strong to be able 431 to achieve a debt rating in the A category. While debt ratings of BBB- or better 432 are considered investment grade, debt ratings in the A category provide assurance 433 that a utility will be able to access the debt markets as required on reasonable 434 terms and conditions over the full interest rate or business cycle. In contrast to 435 unregulated companies, utilities do not have the same flexibility to defer financing 436 new assets. Utilities are required to provide service on demand, and must access 437 the capital markets when service requirements demand it.

438

427

429

439 Utility assets are long-term (typically in excess of 30 years for transmission 440 assets); the term of the debt raised to finance those assets should mirror the life of 441 the assets. Financing long-term assets with shorter-term debt creates a mismatch 442 between recovery of the investment in rates and the return to investors of the 443 capital committed, and exposes the utility to higher refinancing risk. A debt 444 rating in the A category will provide better assurance of predictable access to the 445 long-term debt markets on reasonable terms and conditions than will BBB ratings. 446 In Order No. P.U. 19 (2003), the PUB found that, with both of NP's debt ratings 447 then in the A category, "based on its financial performance NP continues to 448 sustain a sound credit rating which is providing appropriate and cost efficient 449 access to the financial markets." (p.37).

450

451 Utilities with ratings in the BBB category not only will have to pay more for debt 452 than A-rated utilities but they may have more onerous conditions attached to debt 453 issues. In recent years, the spread between long-term BBB-rated utility debt and 454 A-rated utility debt in Canada has been as high as 175 basis points.⁸ In the U.S. 455 over the past five years, the spread between A and Baa long-term utility bonds has 456 been as high as 85 basis points. Of particular concern would be that a BBB-rated

⁸ Based on a comparison between the indicated spreads for TransAlta Corporation and Canadian utilities whose debt ratings are all in the A category.

457 utility would, at times, be completely shut out of the long-term (30-year) debt
458 market.⁹

459

The market for BBB-rated debt remains more limited in Canada than in the U.S.¹⁰ 460 461 Many institutions, who are major purchasers of corporate debt issues, either may 462 not purchase BBB-rated debt or have limitations on the proportion of BBB-rated 463 debt that they can hold in their portfolio. If an issuer's debt is downgraded further, into a non-investment grade category, the institution may have to dispose 464 of its holdings in those securities. 465 To illustrate, the NEB's Canadian 466 HydroCarbon System Report (August 2005) reported that Canadian bonds are an 467 important revenue source for pension funds, and a downgrade could require them to sell a large percentage of their bonds at discounted prices.¹¹ 468

469

470 D. DEBT RATING AGENCY VIEWS

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472 NP's current ratings on its First Mortgage Bonds are as follows:¹²

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- 474

Table 2

DBRS	А
Moody's	Baa1

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⁹ FortisBC, for example, rated Baa3 by Moody's and BBB(high) by DBRS, had a difficult time during late 2004 and early 2005 accessing the 30-year debt market, despite the fact that the debt markets at the time were some of the most robust that had been experienced in Canada for years.

¹⁰ The BBB-rated debt market in Canada has been estimated to account for approximately 4% of the corporate bond market. (Marlene K. Puffer "Back to Basics", *Canadian Investment Review*, Fall 2006)

¹¹ More generally, the pension funds had indicated to the NEB that the basic financial parameters in its regulatory scheme should be improved.

¹² NP discontinued its relationship with S&P rating effective May 31, 2006 and the S&P ratings have been withdrawn.

479 <u>DBRS</u>

481 DBRS has consistently rated NP as an A credit. The trend is "Stable". The debt 482 rating agency considers NP's main strengths to be its regulatory framework, 483 strong balance sheet, stable customer base and minimal competitive pressures. 484 The key challenges are related to its reliance on Newfoundland and Labrador 485 Hydro for the preponderance of its power supply, the sensitivity of its earnings to 486 interest rates (as a result of the automatic adjustment mechanism for return), 487 managing forecast risk and limited growth potential. DBRS also notes that rising 488 fuel costs could put pressure on retail rates, leading to conservation efforts by 489 customers and negatively impact volumes and earnings.

490

480

491 DBRS considers NP to be effectively "ring-fenced" from its parent. This 492 conclusion was drawn from both the policy and actions of the parent to treat its 493 utility subsidiaries as stand-alone entities and from the governing utility 494 regulation in the Province.¹³

495

496 DBRS notes that NP has managed its dividend payments so as to maintain a 497 common equity ratio of 45% as deemed by the regulator, and that key financial 498 ratios have trended downwards in recent years due in part to lower allowed ROEs, but are in line with the current rating.¹⁴ The key financial ratios include fixed 499 500 charge coverage, which averaged approximately 2.3 times from 2004-2006, and 501 cash flow/debt, which averaged 14% over the same time period. These ratios 502 were maintained in part as a result of returns on equity that averaged well in 503 excess of the 2007 allowed return on equity of 8.6%.

¹³ DBRS, Credit Rating Report: Newfoundland Power, January 6, 2006.

¹⁴ DBRS, Credit Rating Report: Newfoundland Power, March 9, 2007.

506

512

505 <u>Moody's</u>

507 Moody's initial debt rating for NP of Baa1 was assigned in June 2005. The rating 508 remains at Baa1, with a Stable Outlook. Moody's points to the regulatory 509 environment, low risk transmission and distribution operations, lack of 510 competitive pressures, and low predictable growth as among NP's key credit 511 strengths.

513 Similar to DBRS, Moody's considers NP to be operationally and financially 514 independent from its parent. Moody's expects NP to act to retain its common equity ratio close to the maximum 45% allowed by the Board. Moody's notes 515 516 that since its initial rating in 2005, NP's cash flow credit metrics have weakened, 517 largely due to the lack of a rate increase since 2003 and the impact of declining 518 bond yields on allowed returns. The current rating could be negatively impacted 519 with a sustained weakening in financial metrics (e.g., funds from operations 520 interest coverage below 2.5x and FFO/Debt below 15%). A positive impact on 521 the rating could occur if there were to be a sustained improvement in financial 522 ratios, e.g., FFO interest coverage above 4.0x and FFO/Debt above 20%. An 523 increase in those ratios, Moody's stated, could come from a rate increase, coupled with an increase in the allowed equity ratio or in the allowed return on equity.¹⁵ 524 525 Moody's considers an upward revision to the rating to be unlikely in the near 526 term.

527

528 Moody's publishes quantitative guidelines¹⁶ for utility ratings for two business 529 risk categories, "low" and "medium" risk.¹⁷ The guidelines for a stand-alone A 530 rating, compared to NP's actual 2006 metrics are as follows:

¹⁵ Moody's Investors Service, Credit Opinion: Newfoundland Power, Inc., March 5, 2007.

¹⁶ DBRS publishes broad guidelines for A/BBB ratings, but they do not distinguish by either business risk or investment-grade rating category.

¹⁷ *Ibid.* p. 3. The guidelines were originally published in March 2005 in Moody's Investor Services, *Rating Methodology: Global Regulated Electric Utilities.*

	Guide	elines	
	For an A	A Rating	NP
	Low	Medium	(2006)
FFO Interest Coverage	3.0-5.7x	3.5-6.0x	2.6x
FFO/Debt	12-22%	22-30%	13.6%
Retained Cash Flow/Debt	9-20%	13-25%	9.3%
Debt/Capital	50-70%	40-60%	55.8%

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NP's 2006 cash flow metrics (as calculated and published by Moody's), other than FFO Interest coverage, have been at the lower end of the guideline range for a low risk utility and an A rating. The FFO Interest coverage ratio, at 2.6x, is below the lower end of the range for an A rating and toward the lower end of the 2.0-4.0x range for a low risk utility and a Baa rating.

540

542

541 <u>Standard & Poor's</u>

543 While NP is no longer rated by S&P, the preponderance of Canadian utilities that 544 issue debt are rated by S&P. S&P's debt rating guidelines are therefore 545 applicable to those utilities and will play a role in the establishment of capital 546 structures that will be adequate to maintain investment grade debt ratings. NP's 547 financial parameters will be compared against its peers', whose financial 548 parameters, in turn, are judged against the S&P guidelines.

550 For a given business risk score¹⁸ and a debt rating category, S&P provides a 551 guideline range for debt ratios, funds from operations interest coverage, and funds 552 from operations to total debt. While the guidelines are not applied mechanically, 553 they do give one objective basis for evaluating an appropriate stand-alone capital 554 structure for NP.

555

¹⁸ S&P assigns to utilities a business risk score in a range of "1" to "10", where "1" indicates the lowest level of business risk, and "10" the highest.

556	The key qualitative factors	that S&P evaluate	s in arriving at a business risk	score
557	include regulation, markets	, operations, comp	petitiveness and management.	S&P
558	specifies that "regulation is	the major factor	affecting a company's busines	s risk
559	profile." ¹⁹ For stand-alone	e distribution con	npanies, S&P has indicated the	hat it
560	typically assigns them scor	res of "1" to "4".	²⁰ In April 2004, S&P assign	ned a
561	business risk score to NP of	f "3". ²¹ Although	that score was not updated, I s	ee no
562	reason that a score of "3" w	vould not still app	ly to NP on a stand-alone basi	s if it
563	were still rated by S&P.			
564				
565	S&P's guidelines for an A	debt rating and	a business risk score of "3" a	ire as
566	follows:			
567				
568		Table 3		
	Total Debt/Total Ca	apital (%)	50-55%	
	FFO Interest Cover	rage (x)	2.5-3.5x	
	FFO/Average Total	Debt (%)	15-25%	
569				
570	Source: Stand	ard and Poor's, Ke	ey Credit Factors: Assessing U	. <i>S</i> .
571 572	Vertic Sente	<i>cally Integrated U</i> mber 2006	tilities' Business Risk Drivers,	
573	5000	2000		
574	Based on the debt/capital g	uidelines, the indi	cated range of debt ratios for	a "3"
575	business risk score is 50% t	o 55%, or an equi	ty ratio in the range of 45% to	50%.
576	Assuming that NP mainta	uins a small (app	proximately 1.5%) preferred	share
577	component, with the pref	erred shares trea	ated as equity, the correspon	nding
578	common equity compone	nt would be 43	3.5-48.5%. NP has consist	tently
579	maintained a debt ratio of	approximately 55	.0%. A 55.0% debt ratio is a	at the
580	upper end of the guideline ra	ange for a "3" bus	iness risk score and an A rating	
581				

 ¹⁹ Standard and Poor's, *Research: Key Ratings Factors for US Electric Transmission Companies*, November 10, 2005.
 ²⁰ Standard & Poor's, *Corporate Criteria*, October 2004.
 ²¹ Standard & Poor's, *Research: Newfoundland Power Inc.*, April 23, 2004.

582		Implications of Debt Rating Reports
583		
584		The themes that emerge from the DBRS and Moody's debt rating reports as
585		regards the capital structure and ratings are:
586		
587		(1) There has been no material change in NP's business risk profile;
588		
589		(2) The current approved capital structure (common equity ratio cap of 45%)
590		is important to the maintenance of the current investment grade credit
591		ratings; and
592		
593		(3) There is an expectation that the current approved capital structure will be
594		maintained.
595		
596		However, without an improvement in the allowed return on equity from the 2007
597		level as generated by the existing automatic adjustment mechanism, it is unlikely
598		that NP's Moody's rating will move into the A category.
599		
600	E.	CAPITAL STRUCTURES OF "WIRES-ONLY" ELECTRIC UTILITIES
601		
602		The capital structures of NP's peers can also provide some insight into an
603		appropriate stand-alone capital structure. The capital structures that are most
604		relevant for this purpose are the actual capital structures of the utilities (as
605		contrasted with the allowed ratios); those ratios underpin the utilities' debt ratings
606		While NP has some of its own generation, the closest peers for NP would be
607		stand-alone electricity distribution utilities.
608		
609		The table below summarizes the 2005 actual common equity ratios and debu
610		ratings for both investor-owned and publicly-owned Canadian electricity
611		distribution companies with rated debt.
612		

Tabl	e 4	
------	-----	--

]	Debt Ratings	5	2005
	DBRS	Moody's	S&P	Common Equity Ratios
Newfoundland Power	Α	Baa1	A-	44.4
AltaLink L.P.	A		A-	38.2
Enersource Corp.	A		A-	41.0
ENMAX Corp.	Α		A-	84.8
FortisAlberta Inc.	A(low)	Baa1	n/a	41.5
Hydro One Inc.	А	Aa3	Α	44.9
Hydro Ottawa Holdings	A(low)		A-	50.1
Maritime Electric	NR		A-	42.7
Toronto Hydro	A		A-	40.5
Veridian Corp.	Α		n/a	57.2
Median	Α	A2	A-	42.7

- 615 Source: Schedule 2
- 616

614

The median common equity ratio for the group, excluding NP, is approximately 617 43%. The median DBRS and S&P debt ratings are A and A- respectively.²² The 618 619 capital structure ratios of the distribution utilities suggest an equity ratio of approximately 40-45% is warranted for an A rating for a "wires" electric utility, 620 621 and at the upper end of the range for a small utility.

With respect to U.S. peers, Table 5 below summarizes the recent equity ratios and 623 624 S&P debt ratings of stand-alone combination transmission/distribution utilities 625 that would be considered peers of NP. The table includes all regulated electricity 626 transmission/distribution utilities whose debt is rated A- or higher by S&P, and 627 for which stand-alone data are available.

628

629 As Table 5 below shows, the median S&P business risk score of the U.S. "wires-630 only" utilities is 2, lower than NP's expected stand-alone business risk score of 3;

²² Only two of the distribution utilities have Moody's ratings. In addition, Hydro One's Moody's rating reflects the level of implicit government support, despite the absence of a guarantee. Hydro One's Moody's rating would be two notches lower (A2) without the implied government support.

their median S&P debt rating is A, one notch higher than that of NP. The median
common equity ratio of the sample of comparable risk U.S. utilities is 49%. On
balance, the U.S. peer group indicates a common equity ratio in the range of
approximately 40-55% for an A rating.

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- 636

		S&P	2005 Common
	Rating	Business Profile Score	Equity Ratios (%)
Central Hudson Gas & Electric	А	3	43.0
Consolidated Edison Inc.	А	2	46.5
Consolidated Edison (NY)	А	2	48.6
Orange and Rockland Utilities	А	2	48.8
National Grid USA	А	2	61.3
Massachusetts Electric Co.	А	1	55.0
Niagara Mohawk Power	А	3	54.9
NSTAR	A+	1	34.0
NSTAR Electric	A+	1	42.7
PPL Electric Utilities	A-	3	50.0
Public Service Co (NC)	A-	2	58.7
Median	Α	2	48.8

Table 5

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Source: Schedule 4

640 F. <u>GLOBALIZATION OF CAPITAL MARKETS</u>

641

1. <u>Implications of Globalization</u>

642 643

In its 2003 *World Energy Investment Outlook*, the International Energy Agency estimated that over \$1.5 trillion in investment would be required by the electricity industry in North America. Of that amount, approximately half is required for transmission and distribution infrastructure. NP will thus be competing for capital in a market that may be characterized by unprecedented supply of debt capital in a single industry. To compete successfully, that is, to be able to attract capital on 650 flexible terms and conditions, NP will require financial metrics that are 651 compatible with its peers. Its peers are increasingly global in nature.

Globalization of the capital markets has been a gradual phenomenon. 653 As 654 information barriers continue to decline, financial reporting standards are 655 becoming increasingly standardized and transaction costs have fallen, cross-656 border risk/reward comparisons among alternative investments are increasingly common.²³ Investors have exhibited increasing willingness to commit capital 657 658 beyond domestic borders, opening up a vast number of investment alternatives. 659 The repeal of the Foreign Property Rule in Canada in August 2005 has eliminated 660 a further barrier, effectively releasing investment that was previously captive. 661 Under these circumstances, the ability of an individual Canadian utility to attract 662 capital is dependent on the utility's ability to offer a return that is compensatory with its risk and comparable to its peers' becomes an increasingly imperative 663 objective. 664

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652

666

2. <u>Globalization and Canadian Debt Rating Agencies</u>

667

668 As indicated in Section III.D, debt rating agencies and debt investors look at a variety of quantitative financial measures in assessing the financial strength of a 669 670 utility. For a regulated utility, the ability to achieve strong financial metrics arises 671 not only from the equity base on which it is allowed to earn, but also the allowed 672 return on equity and the rate of depreciation. Both DBRS and S&P have 673 consistently commented on the highly levered nature of Canadian utilities and the 674 low allowed common equity returns relative to their global peers, particularly 675 those in the U.S.

²³ For example, a peer comparison report by S&P compares Hydro One, Consolidated Edison and National Grid (*Peer Comparison: Consolidated Edison Inc., Hydro One Inc., and National Grid PLC – Same Rankings, Different Basis*, October 11, 2005); a second S&P report compares AltaLink, American Transmission Company and International Transmission Company (*Research: Peer Comparison: North American Stand-Alone Transmission Companies Deliver Electricity...And Profits*, April 20, 2006).

677DBRS has commented generally on the relatively low common equity ratios and678returns that are being allowed in Canada. In a May 2003 commentary, *The Rating*679*Process and the Cost of Capital for Utilities: Five Reasons Why Canadian*680*Utilities have Lower Ratios and Five Changes to Regulation Which Should be*681*Introduced in Canada*, DBRS noted that it would like to see both the deemed682common equity ratios increased as well as increases in allowed returns to levels683more consistent with U.S. returns.

- In December 2004, subsequent to the AEUB's Generic Cost of Capital Decision
 (2004-052, dated July 2004), DBRS referred to the low deemed equity and returns
 as a "challenge" for the ATCO Utilities. The DBRS report for ATCO Ltd. stated,
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While ATCO's diversified operations, coupled with the Company's prudent management approach, provide a level of earnings stability, additional challenges over the medium term include the relatively low approved returns on equity (ROE) and deemed equity for the regulated businesses, continuing regulatory risk and lag and ATCO's merchant power exposure in Alberta.

Additional recent DBRS reports citing the challenge of low approved returns on
equity have been published for other Alberta utilities, i.e., AltaLink (November
2004), and FortisAlberta (September 2004).

- With respect to Standard & Poor's, in early March 2003, the debt rating agency
 announced that it was reevaluating its prior justification of the strong investment
 grade ratings of Canadian utilities (i.e., the nature of Canadian regulation).
- 703

699

704S&P noted that Canadian utilities are among the most highly levered utilities in705their global ratings universe, and that the highly leveraged financial profiles706generally stem from regulatory directives. Subsequent to that announcement,707S&P has commented on the low equity ratios and allowed returns of specific708Canadian utilities.

710	Like DBRS, S&P has made references to the low level of equity ratios allowed in
711	the AEUB's Generic Cost of Capital decision for Alberta utilities. For example,
712	S&P commented on the thin equity layers (and the low returns) allowed the
713	ATCO group of utilities after the EUB decision, stating,
714	
715 716 717 718 719 720 721 722 723	 The regulatory regime, although comparable with other provinces in Canada, typically approves less generous returns on thinner equity layers than those approved for ATCO's global peers. Approved returns for ATCO's regulated businesses are 9.6% on equity layers varying from 33%-43% of total capital. (S&P, <i>Research Update: ATCO Group of Companies 'A' Ratings Affirmed; Outlook Stable</i>, November 9, 2004) In a more recent report for AltaLink (rated A-), S&P stated,
723 724 725 726 727	Like many regulated utilities in Canada, AltaLink's average financial profile is constrained by a comparatively low approved ROE (8.93% in 2006) on a thin deemed equity base of 35%. (S&P, <i>Research Summary: AltaLink</i> , June 5, 2006)
728	In its report for Union Gas issued subsequent to the utility's 2006 settlement in
728 729	In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses
728 729 730	In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated
728 729 730 731	In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers
728 729 730 731 732	In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers (S&P, <i>Research: Union Gas</i> , August 24, 2006).
 728 729 730 731 732 733 734 	In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers (S&P, <i>Research: Union Gas</i> , August 24, 2006). In general, S&P considers that Canadian utility financial polices tend to be aggressive with leverage, and regulators parsimonious with returns. ²⁴ As
 728 729 730 731 732 733 734 735 	In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers (S&P, <i>Research: Union Gas</i> , August 24, 2006). In general, S&P considers that Canadian utility financial polices tend to be aggressive with leverage, and regulators parsimonious with returns. ²⁴ As indicated above, the "aggressive leverage" is largely a result of regulatory
 728 729 730 731 732 733 734 735 736 	In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers (S&P, <i>Research: Union Gas</i> , August 24, 2006). In general, S&P considers that Canadian utility financial polices tend to be aggressive with leverage, and regulators parsimonious with returns. ²⁴ As indicated above, the "aggressive leverage" is largely a result of regulatory directives.
 728 729 730 731 732 733 734 735 736 737 	 In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers (S&P, <i>Research: Union Gas</i>, August 24, 2006). In general, S&P considers that Canadian utility financial polices tend to be aggressive with leverage, and regulators parsimonious with returns.²⁴ As indicated above, the "aggressive leverage" is largely a result of regulatory directives. 3. <u>Changes in Canadian Debt Market</u>
728 729 730 731 732 733 734 735 736 737 738	 In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers (S&P, <i>Research: Union Gas</i>, August 24, 2006). In general, S&P considers that Canadian utility financial polices tend to be aggressive with leverage, and regulators parsimonious with returns.²⁴ As indicated above, the "aggressive leverage" is largely a result of regulatory directives. 3. <u>Changes in Canadian Debt Market</u>
 728 729 730 731 732 733 734 735 736 737 738 739 	 In its report for Union Gas issued subsequent to the utility's 2006 settlement in which the allowed common equity ratio was raised to 36%, the two weaknesses referred to by S&P were the high leverage associated with company's regulated capital structure and the relatively low allowed ROE compared with global peers (S&P, <i>Research: Union Gas</i>, August 24, 2006). In general, S&P considers that Canadian utility financial polices tend to be aggressive with leverage, and regulators parsimonious with returns.²⁴ As indicated above, the "aggressive leverage" is largely a result of regulatory directives. 3. <u>Changes in Canadian Debt Market</u> Prior to the elimination of the Foreign Property Rule in August 2005, the

²⁴ Standard & Poor's, *Industry Report Card: Regulatory Rulings, M&A, and Fuel Cost Recovery Dominate Global Utilities Credit Environment*, November 21, 2006.

741 on foreign investment, pension funds limited their foreign investments primarily 742 to equities, and allocated their bond investments to Canadian bonds. The 743 elimination of the FPR has opened up a new avenue of diversification for pension 744 funds, and has been the catalyst for the creation of a new market for Canadian-745 dollar denominated foreign bonds. Canadian-dollar denominated foreign bonds 746 are particularly attractive to pension funds, whose liabilities are in Canadian 747 Investments in Canadian-dollar denominated foreign bonds provide dollars. 748 diversification while simultaneously avoiding foreign exchange risks or hedging 749 costs.

750

751 Attracted by the low interest rate environment as well as the increasing demand 752 for fixed income securities, foreign issuers have recently raised funds in Canada 753 in record amounts. During 2006, approximately \$27 billion of what have been termed "Maple bonds" were issued by foreign investors.²⁵ Approximately 40% of 754 755 the amount raised was by U.S. issuers.²⁶ To date, the major "Maple bond" issuers have been highly rated sovereign issuers and financial institutions. The 756 first corporate issuer was the UK utility, National Grid, which issued a five-year 757 "maple bond" in June 2006 to fund its acquisition of the U.S. combination 758 759 electric/gas utility, Keyspan.

760

The existence of the FPR, and the corresponding captive domestic debt market,
kept high grade Canadian bond spreads relatively low compared to spreads in the
U.S., reflecting the high demand in Canada for a relatively limited supply of high
quality issues.²⁷

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- 767

The opening of the Canadian bond market to foreign financial institution issuers raised spreads for Canadian issuers as the market absorbed an increasing amount

²⁵ Statistics Canada, *Canada's International Transactions in Securities*, December 2006.

²⁶ Hately, James, "The 'Maple Bond' Market", *Financial System Review*, Bank of Canada, December 2006.
²⁷ Over the past decade, for example, the average spread between long-term A rated Canadian utility bonds and long Canada bond yields was approximately 115 basis points. By comparison, A rated utility bond spreads in the U.S. market averaged 155 basis points. During 2006, the spreads have been approximately 120 basis points in both countries.

- of financial institution debt. The further broadening of the Maple bond market to
 include other types of issuers, such as utilities, could have a similar impact on
 utility spreads. An increasing ability of investors to swap between domestic and
 foreign issuers could also raise the volatility in spreads.
- With the potential for increasing spreads as the Maple bond market continues to
 grow and broaden, the cost benefits to NP of debt ratings in the A category are
 enhanced.
- 776

777 G. CAPITAL STRUCTURE FOR NEWFOUNDLAND POWER

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My review of NP's business risks, the views of the debt rating agencies, the capital structures of NP's peers, and trends in the capital markets, all indicate that the 45% cap approved by the Board in P.U. 16 (July 31, 1998) and reconfirmed in P.U. 19 (June 20, 2003) continues to be reasonable. At a 45% common equity ratio, in conjunction with a reasonable return on equity, NP should be able to achieve financial metrics (e.g., coverage ratios) that will permit it to maintain, and, based on Moody's comments, potentially improve its debt ratings.

- 786
- 787At NP's forecast common equity ratio of close to 45%, NP would be viewed by788investors as of approximately average investment risk relative to other Canadian789utilities.
- 790

791 IV. DETERMINATION OF BENCHMARK UTILITY AND 792 RETURN ON EQUITY

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The term "benchmark utility" is a hypothetical construct. It is based on no specific utility and hence reflects no specific business or financial risk characteristics. Since the estimate of the cost of equity is derived from data for utilities across industries (electric, gas distribution and gas pipeline), the "benchmark utility" reflects, in effect, the composite of the business and financial risks faced by the utilities used to establish the fair return. However, one objective measure of what constitutes a benchmark utilitywould be its ability, on a stand-alone basis, to achieve debt ratings in the A category.

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Designation of the debt rating as an indicator of relative risk recognizes that (1) debt ratings reflect both business and financial risk, and (2) the equity return requirement is a function of both business and financial risk. Thus, the benchmark return on equity would be one that is applicable to a specific utility whose capital structure is adequate to achieve, on a stand-alone basis, debt ratings in the A category. The estimation of the benchmark return on equity must then be derived from proxy groups whose total risk permits them to achieve debt ratings in the A category.

809

810 The applicability of the benchmark return on equity to a specific utility thus is dependent 811 on the business risks and capital structure allowed for that utility. Since different utilities 812 face different levels of business risk, utilities with lower (higher) business risk would 813 generally be allowed lower (higher) common equity ratios. If the lower (higher) business 814 risk of specific utilities is completely compensated for through a lower (higher) common 815 equity ratio, their total (or investment) risk will be approximately the same. If the 816 allowed common equity ratio is sufficient to result in a level of total risk equivalent to the 817 benchmark utility, the benchmark return on equity can be directly applied to that utility, 818 with no adjustment to the level of the benchmark return. If, however, the subject utility, 819 in conjunction with its allowed capital structure, faces a higher or lower level of total risk 820 than the benchmark, an increment to, or reduction from, the benchmark return on equity 821 will be required.

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Since, in Section III.G, I concluded that with its actual capital structure NP would be considered an average risk utility, the benchmark return on equity is directly applicable to NP. In other words, the benchmark return on equity developed in Section V represents a fair return for NP at a forecast 45% common equity ratio.
827 FAIR RETURN ON EQUITY V. 828 829 830 PRINCIPLES FOR A FAIR RETURN A. 831 832 To ensure that the allowed return considers all of the relevant factors that bear on 833 a fair return, I recommend application of the three tests that have traditionally 834 been used to set a fair return for regulated companies: the equity risk premium 835 test, the discounted cash flow test and the comparable earnings test. Reliance on 836 multiple tests recognizes that no one test produces a definitive estimate of the fair return.²⁸ Each test is a forward-looking estimate of investors' equity return 837 838 requirements. However, the premises of each of the three tests differ; each test 839 has its own strengths and weaknesses. In principle, the concept of a fair and 840 reasonable return does not reduce to a simple mathematical construct. It would be 841 unreasonable to view it as such. 842 843 A fair return is one that provides a utility with the opportunity to: 844 845 1. earn a return on investment commensurate with that of comparable risk 846 enterprises; 2. 847 maintain its financial integrity; and, 848 3. attract capital on reasonable terms. 849 850 These criteria give rise to two separate standards, the capital attraction standard 851 and the comparable returns, or comparable earnings, standard. The two standards 852 are applied using different tests. The equity risk premium and discounted cash

853 flow tests establish the cost of attracting capital. The comparable earnings test is 854 a measure of the comparable return, or comparable earnings, standard. A fair and 855 reasonable return gives weight to both the cost of attracting capital standard and

²⁸ As stated in Bonbright, "No single or group test or technique is conclusive." (James C. Bonbright, Albert L. Danielsen, David R. Kamerschen, *Principles of Public Utility Rates*, 2nd Ed., Arlington, Va.: Public Utilities Reports, Inc., March 1988).

comparable earnings standard. Appendix A discusses the distinctions between thetwo standards.

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859 B. EQUITY RISK PREMIUM TEST

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1. <u>Conceptual Underpinnings</u>

The equity risk premium test is derived from the basic concept of finance that there is a direct relationship between the level of risk assumed and the return required. Since an investor in common equity takes greater risk than an investor in bonds, the former requires a premium above bond yields in compensation for the greater risk. The equity risk premium test is a measure of the market-related cost of attracting capital, i.e., a return on the market value of the common stock, not the book value.

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871 The equity risk premium test, similar to the other tests used to arrive at a fair 872 return, is forward-looking, that is, it is intended to estimate investors' future 873 equity return requirements. The magnitude of the differential between the 874 required/expected return on equities and the risk-free rate is a function of 875 investors' willingness to take risks and their views of such key factors as inflation, 876 productivity and profitability. Because the risk premium test is forward-looking, 877 historic risk premium data need to be evaluated in light of prevailing 878 economic/capital market conditions. If available, direct estimates of the forward-879 looking risk premium should supplement estimates of the risk premium made 880 using historic data as the point of departure.

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2. <u>Risk-Free Rate</u>

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The application of the equity risk premium test requires a forecast of the risk-free rate to which the equity risk premium is applied. Reliance on a long-term government bond yield as the risk-free rate recognizes (1) the administered nature 887 of short-term rates; and (2) the long-term nature of the assets to which the equity 888 return is applicable. The risk-free rate, for purposes of this analysis, is the forecast 30-year Canada yield.²⁹ The forecast long Canada bond yield is based on 889 the February 2007 Consensus Forecast of 10-year Canada bond yields for 890 891 February 2008 of 4.4% and the October 2006 Consensus Forecast of 10-year 892 Canada bond yields for all of 2008 of 4.8%. The two forecasts indicate an average 893 10-year Canada bond yield for 2008 in the range of 4.5-4.75% for 2008. 894 895 At present, the yield curve is essentially flat; the yields on 10- and 30-year bonds 896 at February 28, 2007 were only 5 basis points apart. On average, historically, the 897 spread has been a positive 30 basis points, reflecting a normal upward sloping 898 yield curve. For purposes of applying the equity risk premium test for the test 899 period, I have estimated the 30-year Canada bond yield at approximately 4.75-900 5.0%, reflecting a return to the typical upward sloping yield curve. 901 902 3. **Risk-Adjusted Equity Market Risk Premium Test** 903 904 a. **Conceptual and Empirical Considerations** 905 906 The risk-adjusted equity market risk premium approach to estimating the required 907 utility equity risk premium entails (1) estimating the equity risk premium for the 908 equity market as a whole; (2) estimating the relative risk adjustment required for a 909 benchmark Canadian utility; and (3) applying the relative risk adjustment to the 910 equity market risk premium, to arrive at the equity risk premium required for a 911 benchmark Canadian utility. The cost of equity is thus estimated as: 912

²⁹ There is no consensus forecast of 30-year Canadian bond yields.

914	The risk-adjusted equity market risk premium test is a variant of the Capital Asset				
915	Pricing Model (CAPM). The CAPM attempts to measure what an equity investor				
916	should require as a return within the context of a diversified portfolio. Its focus is				
917	on the minimum return that will allow a company to attract equity capital. In its				
918	simplest form, the CAPM posits the following relationship between the required				
919	return on the risk-free investment and the required return on an individual equity				
920	security (or portfolio of equity securities):				
921					
922	$R_E = R_F + b_e (R_M - R_F)$				
923					
924	where,				
925	R_E = Required return on individual equity security				
926	R_F = Risk-free rate				
927	R_M = Required return on the equity market as a whole				
928	b_e = Beta on individual equity security.				
929					
930	The CAPM relies on the premise that an investor requires compensation for non-				
931	diversifiable risks only. Non-diversifiable risks are those risks that are related to				
932	overall market factors (e.g., interest rate changes, economic growth). Company-				
933	specific risks, according to the CAPM, can be diversified away by investing in a				
934	portfolio of securities; therefore, the shareholder requires no compensation to bear				
935	those risks.				
936					
937	In the CAPM, non-diversifiable risk is captured in the beta, which, in principle, is				
938	a forward-looking (expectational) measure of the volatility of a particular stock or				
939	portfolio of stocks, relative to the market. Specifically, the beta is equal to:				
940					
941	<u>Covariance (R_E, R_M)</u>				
942 943	Variance (R _M)				
944	The variance of the market return is intended to capture the uncertainty related to				
945	economic events as they impact the market as a whole The covariance between				
-					

- the return on a particular stock and that of the market reflects how responsive the
 required return on an individual security is to changes in events that also change
 the required return on the market.
- In practice, the beta is a calculation of the historical correlation between the
 overall equity market, as proxied in Canada by the S&P/TSX Composite, and
 individual stocks or portfolios of stocks.
- 954 The CAPM, framed in an elegant, simple construct, has an intuitive appeal. 955 However, in addition to its restrictive premises, the CAPM does have 956 disadvantages that caution against placing sole reliance on it for purposes of 957 determining a fair return on equity. The disadvantages are summarized in 958 Appendix B. Included in these disadvantages are weaknesses associated with beta 959 as a measure of risk and a predictor of the required equity return. Thus, the 960 estimation of the relative risk adjustment should also include a measure of relative 961 total market risk. Moreover, given the disadvantages of CAPM, it is important to 962 consider multiple tests in estimating a fair return on equity.
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- b. <u>Equity Market Risk Premium</u>
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i.

- Factors to Consider
 - (a) Globalization

968My estimate of the expected/required equity market risk premium was969made by reference to an analysis of historic (experienced) market risk970premiums. Analysis of historic risk premiums should not be limited to the971Canadian experience, but should also take into account the U.S. equity972market as a relevant benchmark for estimating the equity risk premium973from the perspective of Canadian investors.

975As discussed in Appendix B, the historic Canadian equity and government976bond returns incorporate various factors that make them questionable as a

977 good representation of future risk premiums (e.g., capital held captive in
978 Canada as a matter of policy, lack of equity market liquidity and diversity,
979 and the higher risk of Government of Canada bond market historically,
980 which has since dissipated).

982 Of particular importance has been the historic impact of the Foreign 983 Property Rule (FPR), which capped the proportion of foreign investment 984 that could be held by individuals (in RRSPs) and by pension funds. The 985 combination of mediocre returns and small size of the Canadian market 986 relative to the total global market (approximately 2%) put pressure on the 987 government to increase and finally eliminate the cap on foreign investment 988 that could be held in RRSPs and pension funds. This cap has been as low 989 as 10% of the book value of assets (from 1971 to 1990) and was at 30% when it was removed entirely in August 2005, effective January 2005.³⁰ 990 991 Historic Canadian equity returns therefore are likely to understate investor 992 return requirements.

994 Equity investment outside of Canada has grown rapidly as the barriers to 995 foreign investment (in terms of transactions and information costs as well as the foreign investment cap) have declined.³¹ Foreign stock purchases 996 997 by Canadians have increased over seven-fold over the past decade. 998 Purchases in 1995 were \$83 billion; in 2005 and 2006, they were \$610 and \$570 billion respectively.³² In 2005, although the total percentage of 999 foreign assets in the top 100 Canadian pension funds was only 1000 1001 approximately 29%, the percentage of foreign equity to total equity was

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³⁰ From 1957 to 1971 no more than 10% of income could come from foreign sources.

³¹ The IFIC's report Year 2002 in Review stated,

During the period of 1991-1998, the percentage of sales in equity mutual funds that were comprised of non-domestic equities has hovered around the 41-58% range. This has significantly increased in 1999 and onwards. While performance in the markets is the major factor affecting such an increase, these figures can also be attributed to increases in foreign content limits in registered retirement savings plans as well as increased interest and availability of foreign clone funds.

³² Statistics Canada, *Canada's International Transactions in Securities*, December 2006.

1002over 50%.33While the FPR was in effect, pension funds concentrated1003their foreign investment allocations to the equity markets, with the1004preponderance of their fixed income allocations in domestic bonds.

1006 The relevance of the U.S. experience to the estimation of the risk premium 1007 from a Canadian perspective has increased as the relationship between 1008 Canadian and U.S. interest rates has changed. From 1947-2006, the 1009 achieved risk premiums in Canada were 140-150 basis points lower than 1010 in the U.S. Of that amount approximately 70 basis points are accounted 1011 for by historically higher bond yields in Canada. With the vastly 1012 improved economic fundamentals in Canada (particularly the fiscal 1013 health), the risk of investing in Canadian government bonds has declined. 1014 Consequently, the differential between Canadian and U.S. government 1015 bonds that existed historically, on average, is not expected to persist in the 1016 future.

1018 The most recent consensus of long-term forecasts of government bond 1019 yields anticipates that yields will be slightly lower in Canada than in the 1020 U.S. in the future. Consensus Economics, Consensus Forecasts, October 1021 2006 anticipates an average 10-year government bond yield over the period 2008-2016 of 5.1% for Canada and 5.3% for the U.S.³⁴ With lower 1022 1023 interest rates in Canada, the differential between equity and bond returns 1024 in the two countries should, *ceteris paribus*, be closer in the future than it 1025 was historically. Consequently, the U.S. historic equity market risk 1026 premium is a relevant benchmark in the estimation of the forward-looking 1027 equity market risk premium for Canadian investors.

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³³ Benefits Canada, 2006 Top 100 Pension Funds, May 2006.

³⁴ Blue Chip *Financial Forecasts* (December 2006), which canvasses economic forecasters at over 50 North American financial institutions, also anticipates a 10-year U.S. Treasury yield of 5.3% from 2008-2017.

1029 On the equity side of the equation, the Canadian equity market composite 1030 is dominated by two sectors, financial services and energy. These two 1031 sectors alone accounted for approximately 60% of the total market 1032 capitalization of the S&P/TSX Composite at the end of 2006. In contrast 1033 to the S&P/TSX Composite, the historic U.S. equity returns have been 1034 generated by a more diversified and liquid market. In addition, the U.S. 1035 equity market has historically been the principal alternative to domestic 1036 equity investments. Over 50% of Canadian portfolio investment in foreign equities at the end of 2005 was in the U.S.³⁵ The diversified 1037 1038 nature of the U.S. equity market, as well as the close relationship between 1039 the Canadian and U.S. capital markets and economies, warrant giving 1040 significant weight to U.S. historical equity risk premiums in the estimation 1041 of the required equity risk premium for a benchmark Canadian utility.

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(b) The Post-World War II Period

1045 The estimation of the expected/required market risk premium from 1046 achieved market risk premiums is premised on the notion that investors' return expectations and requirements are linked to their past experience. 1047 1048 Basing calculations of achieved risk premiums on the longest periods 1049 available reflects the notion that it is necessary to reflect as broad a range 1050 of event types as possible to avoid overweighting periods that represent 1051 "unusual" circumstances. On the other hand, the objective of the analysis 1052 is to assess investor expectations in the current economic and capital 1053 market environment. Consequently, I focused on post-World War II 1054 returns, that is, 1947-2006, a period more closely aligned with what today's investors are likely to anticipate over the longer-term.³⁶ 1055

 ³⁵ Statistics Canada, *Canada's International Investment Position – Third Quarter 2006*. Of the remaining 48%, the next largest allocation of foreign portfolio equity investment is the U.K., which accounts for 12%.
 ³⁶ Key structural economic changes have occurred since the end of World War II, including:

^{1.} The globalization of the North American economies, which has been facilitated by the reduction in trade barriers of which GATT (1947) was a key driver;

1057 *ii.* Historic Risk Premiums

1059As previously indicated, in arriving at an estimation of the market risk premium,1060my point of departure was both Canadian and U.S. historic returns and risk1061premiums during the post-World War II period. The average U.S. and Canadian1062historic risk premiums during that period were as follows:

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Table 6

Historic Average Risk Premiums (1947-2006)					
	Arithmetic	Geometric			
Canada	5.5%	4.7%			
U.S.	7.0%	6.1%			

1065

1066 Source: Schedule 8.

1067

1068 In light of the increase in Canadian investors' purchases of U.K. equities,³⁷ I also

1069 looked at the historic U.K. indicated market risk premiums over the same period.

1070 The U.K. historic premiums were in the range of 6.0% to 6.3% (geometric and

1071 arithmetic averages respectively) from 1947-2006 (see Schedule 8).

^{2.} Demographic changes, specifically suburbanization and the rise of the middle class, which have impacted on the patterns of consumption;

^{3.} Transition from a resource-oriented/manufacturing economy to a service-oriented economy;

^{4.} Technological change, particularly in the areas of telecommunications and computerization, which have facilitated both market globalization and rising productivity.

³⁷ In 1995, U.K. equities represented only 4.5% of all foreign equities purchased by Canadian investors. In 2005, they represented 53%. Purchases of U.S. and U.K. equities, in total, accounted for 76% of all foreign equities purchased by Canadian investors in 2006. While purchases of UK securities dropped sharply in 2006, to 22% of total purchases, in favour of U.S. equities (54% of total), the UK remained the second largest destination for Canadian portfolio investment in foreign equities (Statistics Canada, *International Transactions in Securities*, December 2006 and *International Investment Position, Third Quarter 2006*, December 2006).

1073 *iii.* Superiority of Arithmetic Averages

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1075 When historic risk premiums are used as a basis for estimating the expected risk 1076 premium, arithmetic averages, not geometric (compound) averages, should be 1077 used. Expressed simply, the arithmetic average recognizes the uncertainty in the 1078 stock market; the geometric average removes the uncertainty by smoothing over 1079 annual differences. (See Appendix B)

1081 *iv.* Future vs. Historic Risk Premiums

The equity market "bubble and bust" over the period 1998-2002 spawned a 1083 1084 number of studies of the equity market risk premium that have speculated that the U.S. market risk premium will be lower in the future than in the past. The 1085 1086 speculation stems in part from the hypothesis that the magnitude of the achieved 1087 risk premiums is due to an increase in price/earnings ratios. That is, the historic 1088 U.S. equity market returns reflect appreciation in the value of stocks in excess of 1089 that supported by the underlying growth in earnings or dividends. The increase in 1090 P/E ratios, it has been argued, reflects a decline in the rate at which investors are 1091 discounting future earnings, i.e., a lower cost of capital.

- 1093 I have analyzed the trends in P/E ratios, equity market returns, and bond returns.³⁸ 1094 Briefly, that analysis demonstrates:
 - The increase in price/earnings ratios experienced during the market bubble of the 1990s has not resulted in a higher and unsustainable level of equity market returns. The arithmetic average equity returns in both Canada and the U.S. from 1947-1989 (prior to the "bubble") are actually higher than the average returns for the full 1947-2006 period.

³⁸ See Appendix B for further discussion.

- An analysis of decade-by-decade equity returns reveals no upward
 or downward trend in equity market returns in Canada or the U.S.
 over the post World War II period.
- The observed decline in the experienced risk premium is due to the unsustainable increase in bond returns, not a decline in equity returns. The observed historic bond returns are significantly higher than a reasonable estimate of future bond returns (that is, forecast yields of long Canada bond yields).

1111 Given the absence of any upward or downward trend in the historic equity market 1112 returns, a reasonable expected value of the future equity market return is a range 1113 of 11.5-12.5%, based on both the Canadian and U.S. equity market returns (see 1114 Appendix B). Based on the 2008 forecast for long Canada bond yields of 4.75-5.0%, and an expected equity market return of 11.5-12.5%, the indicated 1115 1116 Canadian equity market risk premium would be in the range of 6.75-7.5%. Based 1117 on the longer-term forecast for long Canada bond yields of 5.5%, the indicated 1118 market risk premium is 6.0-7.0%.

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v. Estimate of Equity Market Risk Premium

1122 Based on the analysis of the historic risk premiums, primarily in Canada and the U.S., with focus on the arithmetic averages, and with consideration given to 1123 1124 trends in the equity and government bond markets in both countries, a reasonable 1125 estimate of the expected value of the equity market risk premium at the forecast 1126 levels of long-term government bond yields is approximately 6.5%. The 6.5% 1127 estimate of the equity market risk premium explicitly recognizes the expected 1128 value of the equity market return developed from historic values in conjunction 1129 with the current and forecast low levels of interest rates.

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1131	c. <u>Relative Risk Adjustment</u>
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1133	<i>i</i> . <u>Total Market Risk</u>
1134	
1135	The market risk premium result needs to be adjusted to recognize the relatively
1136	lower risk of utilities. The relative risk adjustment that is applicable to a
1137	benchmark Canadian utility is approximately 0.65, based on total risk as
1138	measured by standard deviations of market returns and adjusted betas.
1139	
1140	My analysis of the relative risk adjustment starts with a recognition that investors
1141	are not perfectly diversified and that they expect some compensation for assuming
1142	company-specific risk. It also recognizes that, while investors can diversify their
1143	portfolios, the stand-alone utility to which the allowed return is applied cannot.
1144	Thus, a risk measurement which reflects those considerations is relevant. These
1145	considerations point to a focus on total market risk, rather than solely the non-
1146	diversifiable risk which beta attempts to measure. The infirmities of beta as a
1147	measure of risk, as well as the absence of an observable relationship between
1148	"raw" betas ³⁹ and the achieved market returns on equity, provide further support
1149	for reliance on measures of risk other than beta (see Appendix B).
1150	
1151	The standard deviation of market returns is the principal measurement of total
1152	market risk. To compare the relative total risk of Canadian utilities, I calculated
1153	the monthly standard deviations of total market returns for the S&P/TSX Index
1154	and for each of the 10 major Sectors of the S&P/TSX Index, over recent five-year
1155	periods (Schedule 11).
1156	
1157	To translate the standard deviation of market returns into a relative risk

adjustment, utility standard deviations must be related to those of the overall

³⁹ The "raw" beta refers to the simple regression between the monthly percentage changes in the price of a utility or utility index and the corresponding percentage change in the price of the equity market index (the S&P/TSX Composite).

1159 market. The relative market volatility of Canadian utility stocks was measured by 1160 comparing the standard deviations of the Utilities Index to the standard deviations 1161 of the S&P/TSX Index and the simple mean and median of the standard deviations of the 10 Sectors. Schedule 11 shows the ratios of the standard 1162 1163 deviations of the Utilities Index to those of the S&P/TSX Index and the 10 1164 S&P/TSX Sectors. The ratio of the standard deviation of the Utilities Index to the 1165 mean and median standard deviations of the 10 major Sector Indices suggests a relative risk adjustment for a benchmark Canadian utility of approximately in the 1166 1167 range of 0.55-0.74, with a central tendency of approximately 0.65-0.70.

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1169 *ii.* Historic Raw Betas

1171 Since beta remains the risk measure that underpins the application of the Capital 1172 Asset Pricing Model (CAPM) (of which the risk-adjusted equity market risk 1173 premium test is a variant), I also considered betas in arriving at the estimated 1174 relative risk adjustment for a benchmark utility. Schedule 13 summarizes "raw" 1175 betas for individual publicly-traded Canadian regulated electric and gas 1176 companies, the TSE Gas/Electric Index, and the S&P/TSX Utilities Sector over 1177 five-year periods ending 1993 through 2006.⁴⁰

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As Schedule 13 indicates, there was a significant decline in calculated "raw" betas between 1993-1998 and 1999-2005 (from approximately 0.50-0.60 to 0.0 and slightly negative) followed by an increase in 2006 to the 0.25 to 0.35 range. The observed levels of "raw" utility betas in 1999-2006 can be traced to three factors: (1) the technology sector bubble and subsequent bust; (2) the dominance in the TSE 300 of two firms during the early part of the "bubble and bust" period, Nortel Networks and BCE; (3) the negative impact of rising interest rates on utility stock

⁴⁰ The S&P/TSX Utilities Sector was created in 2002 (with historic data calculated from year-end 1987), when the TSE 300 was revamped to create the S&P/TSX Composite. The Utilities Sector was essentially an amalgamation of the former TSE 300 Gas/Electric and Pipeline sub-indices. In May 2004, the pipelines were moved to the Energy Sector, and no longer comprise a separate sub-index.

1186 prices while the equity market composite is otherwise increasing (e.g., during the 1187 "bubble" of 1999 and early 2000 and during the first half of 2006).

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1189 Chart 1 in the Statistical Exhibit graphically demonstrates the "decoupling" 1190 between utility stocks and the S&P/TSX Composite between 1999 and mid-2002 1191 period, when the equity market "bubble and bust" was most prevalent. As a 1192 result, the disparate movements in utility equities relative to the S&P/TSX 1193 Composite during this period produced lower measured utility betas.

1195 Chart 1 also shows that, beginning in mid-2002, the equity market composite and 1196 the utility equities began to once again exhibit a correlation that, graphically, 1197 resembled more closely the typical relationship observed prior to the market 1198 "bubble and bust". Utility betas calculated over recent periods that largely 1199 eliminate the "bubble and bust" period are higher than those that include data 1200 from this period. However, rising interest rates in early 2006 and the resulting negative impact on utility stock prices has again reduced the calculated "raw" 1201 utility betas (Schedule 14).⁴¹ 1202

1203

1204 The decoupling between utility shares and the rest of the market during both the 1205 technology "bubble and bust" and the first half of 2006 should not be interpreted 1206 as a change in the relative riskiness of utility shares,⁴² but rather as an indication 1207 of the weakness of beta as the sole measure of the relative equity return 1208 requirement, particularly within the Canadian equity market context.⁴³

⁴¹ Calculated with Nortel excluded from the Composite to remove any lingering effects on the behaviour of the Composite.

 $^{^{42}}$ Schedule 12 shows that utilities were not the only companies whose betas were negatively impacted by the speculative bubble and subsequent market decline. To illustrate, the 60-month beta ending 1997 of the Consumer Staples Sector was 0.62; the corresponding betas ending 2003 and 2004 were -0.08 and -0.07 respectively. In contrast, over the same periods, the beta of the Information Technology Sector rose from 1.57 to 2.87.

 $^{^{43}}$ For example, with the rise in energy stock prices the 60-month betas for the S&P/TSX Energy Sector rose from 0.17 in 2004, to 0.48 in 2005 to over 1.0 in 2006 suggesting a five-fold increase in risk for these companies.

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iii. Impact of Interest Sensitivity on Relative Risk

1212 Utilities are interest-sensitive stocks and thus tend to move with interest rates, 1213 which frequently move counter to the equity market. Consequently, utility equity 1214 price movements are correlated not only with the stock market, but also with 1215 movements in the bond market. Thus, the interest-sensitivity of utility shares is not fully captured in the calculated "raw" betas, which simply measure the 1216 covariability between a stock and the equity market composite.⁴⁴ An analysis of 1217 the relative historic sensitivity of utility shares to both interest rates and the equity 1218 1219 market indicates a relative risk adjustment of close to 80% (See Appendix B).

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iv. Use of Adjusted Beta

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1223 The deficiencies in "raw" betas can be mitigated by using adjusted betas. 1224 Adjusting betas entails moving betas above and below the market mean of 1.0 1225 toward the market mean. The adjustment that is used by the major commercial 1226 suppliers of betas uses a formula that gives approximately two-thirds weight to the stock's own beta and one-third weight to the market mean beta of $1.0.4^{45}$ Use 1227 1228 of adjusted betas implicitly recognizes that "raw" utility betas are not adequate 1229 explanators of utility returns. For example, as illustrated above, "raw" betas do 1230 not capture utilities' interest rate sensitivity. Further, the objective of the relative 1231 risk adjustment is to predict the investors' required return. Adjusted betas have 1232 been better predictors of utility returns than "raw" betas.

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Table 7 below summarizes the average of the adjusted five-year betas ending in 1993 to 1999 (pre-"Nortel effect") and those calculated over both the 30-month

⁴⁴ In theory, the beta should be measured against the entire "capital market" including short-term debt securities, bonds, real estate, etc. In practice, it is measured using the equity market only.

⁴⁵ *Value Line*, Bloomberg and Merrill Lynch, major sources of financial information for investors, all publish adjusted betas. Their formulas for adjusting the calculated raw betas are slightly different, but all give approximately two-thirds weight to the "raw" beta of the specific stock and one-third weight to the market beta of 1.0.

- period ended 12/31/05 and the longest possible post-market "bubble and bust"
 period (7/2002-12/2006).⁴⁶
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- 1239

Table 7 Canadian Utility Adjusted Betas Individual **TSE 300** S&P/TSX **Canadian Utilities** Gas/Electric Utilities Median **Utility Index** Index Periods Five-Year Betas ended 1993 to 1998 (Average) 0.65 0.66 0.73 42-Month Betas (7/2002 to 12/2005) 0.67 N/A 0.69 **30-Month Betas** (7/2003 to 12/2005)0.67 N/A 0.70 54-Month Betas (7/2002 to 12/2006) 0.58 N/A 0.56 Source: Schedules 13 and 14.

- 1243 The adjusted betas indicate a relative risk adjustment of approximately 0.60-0.70.
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1245 v. Relative Risk Adjustment

1247Based on the preceding analysis of standard deviations of market returns, interest1248sensitivity and betas, in my opinion, the relative risk adjustment for a benchmark1249Canadian utility is approximately 0.65-0.70.

- 1251 d. <u>Benchmark Utility Equity Risk Premium</u>
- 1253I previously estimated the equity market risk premium at the long Canada yield of12544.75-5.0%, at approximately 6.5%. At an equity market risk premium of 6.5%1255and a relative risk adjustment of 0.65-0.70, the indicated benchmark utility equity1256risk premium is approximately 4.25-4.50%.

⁴⁶ Adjusted utility beta = 2/3 ("raw" beta) + 1/3 (market beta of 1.0).

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4. <u>Utility-Specific Equity Risk Premium Analysis</u>

1260 The risk-adjusted equity market risk premium test (discussed above) estimates the 1261 required utility equity risk premium indirectly. That is, it estimates an equity risk 1262 premium for the equity market as a whole, then adjusts it for the relative risk of a 1263 benchmark utility. The following analyses estimate the equity risk premium for a 1264 benchmark utility directly, by analyzing utility equity return data. The analyses 1265 below focus on both long-term historic utility equity risk premiums and an equity risk-premium test derived from forward-looking monthly estimates of the 1266 1267 required utility equity return.

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The following two sections provide the results of that analysis.

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1271 a. <u>Histo</u>

Historic Utility Equity Risk Premiums

1273 The historic experienced returns for utilities provide an additional perspective on 1274 a reasonable expectation for the forward-looking utility equity risk premium. 1275 Reliance on achieved equity risk premiums for utilities as an indicator of what 1276 investors expect for the future is based on the proposition that over the longer 1277 term, investors' expectations and experience converge. The more stable an 1278 industry, the more likely it is that this convergence will occur.

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1280Over the longer-term (1956-2006),47 achieved utility equity risk premiums were12813.7-4.8% for Canadian electric and gas utilities, based on both geometric and1282arithmetic average returns.48 For U.S. electric utilities, the corresponding historic1283equity risk premiums averaged approximately 4.0-5.2% over the entire post-1284World War II period (1947-2006). The corresponding risk premiums for U.S. gas1285utilities were 4.9-6.1% (Schedule 15).

⁴⁷ The longest period for which Canadian utility data are available from the TSE.

⁴⁸ Based on the Gas/Electric Index of the TSE 300 (from 1956 to 1987) and on the S&P/TSX Utilities Index from 1988-2005.

1287

1288

Similar to the risk premiums for the market composite, the magnitude of achieved utility risk premiums is a function of both the equity returns and the bond returns, as summarized for Canadian utilities in the table below.

- 1289 1290
- 1291

A	Canadian Utility Risk Premiums					
Average	Utility Equity Returns	Bond Returns	Achieved Risk Premiums			
Arithmetic	12.6%	7.8%	4.8%			
Geometric	11.5%	7.8%	3.7%			

1292

1293 Source: Schedule 15.

1294

1295 An analysis of the underlying data indicates there has been no upward or 1296 downward trend in the utility equity returns (Schedule 16); the utility returns in 1297 both the U.S and Canada have clustered in the approximate range of 11.0-12.0%. 1298 However, as noted in Appendix B, the bond returns have risen over the fifty-year 1299 period to a level that cannot persist, given the low level of interest rates. The best 1300 estimate of the expected bond return is the forecast yields on long Canadas, which 1301 are in the range of 5.0-5.5%, based on both near-term and long-term forecasts. When that yield is compared to a utility equity return of 11.0-12.0%, the indicated 1302 equity risk premium is approximately 5.0-5.5%. 1303

1304

1305 Focusing on the arithmetic average risk premiums, and recognizing that historic 1306 bond returns overstate the expected bond return, the experience of Canadian and 1307 U.S. utilities supports an expected equity risk premium estimate for a benchmark 1308 Canadian utility in the approximate range of 5.0-5.5%.

1310

1311

b. <u>DCF-Based Equity Risk Premium Test</u>

A forward-looking equity risk premium test was also performed, using the discounted cash flow model (DCF) to estimate expected utility returns over time. Monthly cost of equity estimates were constructed for the period 1993-2006⁴⁹ using the DCF model and a sample of low risk U.S. electric and gas utilities as a proxy for a benchmark Canadian utility.⁵⁰ The reasons for choosing U.S. utilities are as follows:

1318

First, there are an insufficient number of forward-looking estimates of long-term growth rates for Canadian utilities that would permit the creation of a consistent series of DCF costs of equity and corresponding risk premiums from Canadian data. A consensus estimate of investors' growth expectations is key to the application of the discounted cash flow model. The availability of a consensus of analysts' forecasts means that the resulting growth estimate reflects the market view.

1326

Second, U.S. and Canadian utilities are reasonable proxies for one another, particularly in today's global capital market. Although there may be companyspecific differences in business and financial risk, the impact of those differences is minimized by selecting only relatively pure-play U.S. utilities with similar debt ratings to the typical Canadian utility. The selected U.S. utilities are of relatively low business risk; the sample, which is limited to utilities with debt ratings in the A category, is of similar total risk to a benchmark Canadian utility.

⁴⁹ The period 1993-2006 covers a full business cycle. It also represents the period of Open Access (implemented via FERC Order 636) for gas distributors which make up close to 50% of the utility sample. ⁵⁰ The selection criteria for the proxy utilities and the construction of the DCF estimates are described in Appendix C.

1335The DCF costs of equity were estimated as the sum of the consensus of analysts'1336forecasts of long-term normalized earnings growth,⁵¹ plus the expected dividend1337yield. The equity risk premium is equal to the difference between the average1338DCF cost of equity for the sample and the corresponding 30-year Treasury yield1339for the period.

1340

1341 For the sample of U.S. utilities, the DCF-based equity risk premium test indicates 1342 an average risk premium over the 1993-2006 period of 3.9% (Schedule 17); the 1343 corresponding average long-term government bond yield was 5.9%, a full 1344 percentage point higher than the test period forecast yield on long Canadas of 1345 4.75-5.0%. I also looked at the average risk premium over the period 1998-2006, representing the period subsequent to open access for electric utilities in the U.S.⁵² 1346 1347 The average risk premium over that period was 4.4%, with a corresponding 1348 government bond yield of 5.3%.

1349

The data suggest that there has been an inverse relationship between the risk-free rate (as proxied by the long-term government bond yield) and utility equity risk premiums. To test the relationship between interest rates and risk premiums, a simple regression analysis between the monthly 30-year Treasury yields and the corresponding equity risk premiums over the entire 1993-2006 period was conducted.⁵³ At the forecast 30-year government bond yield of 4.75-5.0%, the indicated utility equity risk premium is approximately 4.5%.

1357

1358The magnitude of the spread between corporate bond yields and government bond1359yields is frequently used as a proxy for changes in investors' perception of risk.541360Thus, I also tested the relationship between the spreads between long-term utility

⁵² Open access for electric utilities was implemented via FERC Order 888 in 1997.

³ Equi	ity Risk premium	=	7.31 -	- 0.59	(30-Year	Treasury	yield)
t-sta	tistic	=		-9.23			

\mathbb{R}^2	=	34%
⁵⁴ Or, alternatively, willingr	ness to take risks.	

⁵¹ The consensus forecasts are obtained from I/B/E/S, a leading provider of earnings expectations data. The data are collected from over 7,000 analysts at over 1,000 institutions worldwide, and cover companies in more than 60 countries.

and government bond yields in conjunction with the change in the yield on long-term government bond yields.

- 1364 To estimate this relationship, I performed a regression analysis over the 1993-2006 period using the utility risk premium⁵⁵ as the dependent variable, with the 1365 corresponding long-term government bond vield and spread between long-term 1366 high grade utility⁵⁶ and government bond yields as the two independent 1367 variables.⁵⁷ The analysis indicated that, while the utility risk premium has been 1368 1369 negatively related to the level of government bond yields, it has been positively 1370 related to the spread between utility bond yields and government bond yields. 1371 The spread between long-term Canadian A-rated utility bonds and 30-year 1372 Canada bond yields was approximately 120 basis points at the end of January 1373 2007, compared to the average Moody's A-rated utility/30-year Treasury spread 1374 of 140 basis points over the entire 1993-2006 period. Using a forecast long 1375 Canada yield of 4.75-5.0% and an A-rated utility bond/long Canada spread of 120 1376 basis points, the indicated utility risk premium is 4.0%.
- 1377

1363

Based on both the one and two independent variable approaches, the DCF-based equity risk premium test results indicate a utility equity risk premium in the range of approximately 4.0-4.5%, or a mid-point of approximately 4.25%, at a longterm Canada bond yield of 4.75-5.0%.

⁵⁵ Measured, as in the prior analysis, as the DCF cost of equity minus the long-term government bond yield. ⁵⁶ Based on Moody's long-term A rated utility bond index

Based on Moody's long-term A rated utility bond index.		
Utility Risk Premium	=	4.436 TY + 1.17 Spread
Where,		
TY	=	30-year Treasury Yield
Spread	=	Spread between A-rated Utility
		Bond Yields and 30-year Treasury Yields
R^2	=	70%
t-statistics:		
Long term bond yield	=	-8.1
Utility/government bond yield spread	=	14.4

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1382					
1383		5. <u>Equity Risk Premium Test "Bare-Bones"</u> (Cost of Equity		
1384					
1385		The estimated equity risk premiums for a benchmark Canadian utility based on			
1386		the three methodologies are as follows:			
1387					
1388		Risk Premium Test	Risk Premium		
1389					
1390		Risk-Adjusted Equity Market	4.25-4.50%		
1391		Historic Utility	5.00-5.50%		
1392		DCF-Based	4.25%		
1393					
1394		On balance, the three risk premium tests indica	ate an equity risk premium		
1395		applicable to a benchmark Canadian utility in the	he range of 4.25-5.25%, or		
1396		approximately 4.75%. At a forecast long Canada y	ield of 4.75-5.0%, the "bare-		
1397		bones" cost of equity is 9.0-10.25%.			
1398					
1399	C.	DISCOUNTED CASH FLOW TEST ⁵⁸			
1400					
1401		The discounted cash flow approach proceeds from th	e proposition that the price of		
1402		a common stock is the present value of the future	e expected cash flows to the		
1403		investor, discounted at a rate that reflects the riskine	ss of those cash flows. If the		
1404		price of the security is known (can be observed), a	ind if the expected stream of		
1405		cash flows can be estimated, it is possible to approx	kimate the investor's required		
1406		return (or capitalization rate) as the rate that equates	s the price of the stock to the		
1407		discounted value of future cash flows.			
1408					
1409		Although the DCF test, like the equity risk premiu	m test, has flaws, it has one		
1410		distinct advantage over risk premium estimates, part	icularly those made using the		
1411		CAPM. It allows the analyst to directly estimate	the utility cost of equity. In		

⁵⁸ See Appendix D for a more detailed discussion.

1412 contrast, the CAPM indirectly estimates the cost of equity. The DCF model
1413 provides a widely used alternative to the CAPM; it is the principal model utilized
1414 by U.S. regulators.

1415

1416 There are multiple versions of the discounted cash flow model available to 1417 estimate the investor's required return. An analyst can employ a constant growth 1418 model or a multiple period model to estimate the cost of equity. The constant 1419 growth model rests on the assumption that investors expect cash flows to grow at 1420 a constant rate throughout the life of the stock. Similarly, a multiple period model 1421 rests on the assumption that growth rates will change over the life of the stock. In 1422 determining the DCF cost of equity for a benchmark utility, I utilized both a constant growth and a two-stage model.⁵⁹ In both cases, the discounted cash flow 1423 test was applied to a sample of low risk U.S. "pure-play" electric and gas 1424 1425 distributors that are intended to serve as a proxy for a benchmark Canadian 1426 utility.⁶⁰

1427

1428 The growth component of the DCF model is an estimate of what investors expect 1429 over the longer-term. For a regulated utility, whose growth prospects are tied to 1430 allowed returns, the estimate of growth expectations is subject to circularity 1431 because the analyst is, in some measure, attempting to project what returns the 1432 regulator will allow, and the extent to which the utilities will exceed or fall short 1433 of those returns. To mitigate that circularity, it is important to rely on a sample of 1434 proxies, rather than the subject company. (When the subject company does not 1435 have traded shares, a sample of proxies is required.)

1436

Further, to the extent feasible, one should rely on estimates of longer-term growth readily available to investors, rather than superimpose on the analysis one's own view of what growth should be. Thus, in applying the DCF test, I relied solely on published forecast growth rates that are readily available to investors. The

⁵⁹ The two-stage model is a form of multiple period model; see Appendix D for discussion of the DCF models used; the sample selection is described in Appendix C.

⁶⁰ Reliance on U.S. utilities was explained in the discussion of the DCF-based equity risk premium test.

1441 constant growth model uses the consensus of analysts' earnings growth rate 1442 forecasts as the proxy for investors' long-term growth expectations. The two-1443 stage model is based on the premise that investors expect the growth rate for the 1444 utilities to be equal to the analysts' forecasts (which are five year projections) for 1445 the first five years, but, in the longer-term (from year 6 onward) to equal the 1446 expected long-run rate of nominal growth in the economy.

1447

1448 The results of the constant growth and two-stage DCF models indicate a required 1449 "bare-bones" return on equity of approximately 8.75-9.0% (Appendix D and 1450 Schedules 19 and 20). It is important to recognize that the 8.75-9.0% DCF cost 1451 represents the return investors expect to earn on the current market value of their 1452 utility common equity investments. It is not, however, the return that investors 1453 expect the utilities to earn on the book value of their common equity. *Value Line*, 1454 which publishes its projections of utility ROEs quarterly, anticipates that the 1455 return on average common equity for the sample of low risk U.S. utilities over the 1456 period 2009-2011 will be approximately 11.8-12.0% (Schedule 18).

1457

1458 D. ALLOWANCE FOR FINANCING FLEXIBILITY⁶¹

1459

1460The financing flexibility allowance is an integral part of the cost of capital as well1461as a required element of the concept of a fair return. The allowance is intended to1462cover three distinct aspects: (1) flotation costs, comprising financing and market1463pressure costs arising at the time of the sale of new equity; (2) a margin, or1464cushion, for unanticipated capital market conditions; and (3) a recognition of the1465"fairness" principle.

1466

1467The fairness principle recognizes the ability of competitive firms to maintain the1468real value of their assets in excess of book value and thus would not preclude1469utilities from achieving a degree of financial integrity that would be anticipated1470under competition.

⁶¹ See Appendix F for a more complete discussion.

At a minimum, the financing flexibility allowance should be adequate to allow a utility to maintain its market value, notionally, at a slight premium to book value, i.e., in the range of 1.05-1.10. At this level, a utility will be able to recover actual financing costs, as well as be in a position to raise new equity (under most market conditions) without impairing its financial integrity. A financing flexibility allowance adequate to maintain a market/book in the range of 1.05-1.10 is approximately 50 basis points.

1479

1471

1480The concept of a financing flexibility or flotation cost allowance has been1481accepted by most Canadian regulators, and a 50 basis point allowance has been1482adopted by a number of them. The addition of an allowance for financing1483flexibility of 50 basis points to the "bare-bones" return on equity estimate of 9.25-14849.75%, derived from the equity risk premium and DCF tests, results in an estimate1485of the fair return on equity of 9.75-10.25%.

1486

1487 E. COMPARABLE EARNINGS TEST

1488

1489 The comparable earnings test provides a measure of the fair return based on the 1490 concept of opportunity cost. Specifically, the test arises from the notion that 1491 capital should not be committed to a venture unless it can earn a return 1492 commensurate with that available prospectively in alternative ventures of 1493 comparable risk. Since regulation is a surrogate for competition, the opportunity 1494 cost principle entails permitting utilities the opportunity to earn a return 1495 commensurate with the levels achievable by competitive firms facing similar risk. 1496 The comparable earnings test, which measures returns in relation to book value, is 1497 the only test that can be directly applied to the equity component of an original 1498 cost rate base without an adjustment to correct for the discrepancy between book 1499 values and current market values. Neither the equity risk premium results nor the 1500 DCF results, if left without adjustment, recognizes the discrepancy. The 50 basis 1501 point financing flexibility adjustment only minimally addresses the discrepancy.

1503 The comparable earnings test is an implementation of the comparable earnings 1504 standard, as distinguished from the cost of attracting capital standard. The 1505 comparable earnings standard recognizes that utility costs are measured in 1506 vintaged dollars and that rates are based on accounting costs, not economic costs. 1507 In contrast, the cost of attracting capital standard relies on costs expressed in 1508 dollars of current purchasing power, i.e., a market-related cost of capital. In the 1509 absence of experienced inflation, the two concepts would be quite similar, but the 1510 impact of inflation has rendered them dissimilar and distinct.

1511

1502

1512 The concept that regulation is a surrogate for competition may be interpreted to 1513 mean that the combination of an original cost rate base and a fair return should 1514 result in a value to investors commensurate with that of competitive ventures of 1515 similar risk. The fact that an original cost rate base provides a starting point for 1516 the application of a fair return does not mean that the original cost of the assets is 1517 a measure of their fair value. The concept that regulation is a surrogate for 1518 competition implies that the regulatory application of a fair return to an original 1519 cost rate base should result in a value to investors commensurate with that of 1520 similar risk competitive ventures. The comparable earnings standard, as well as 1521 the principle of fairness, suggests that, if competitive industrial firms facing a 1522 level of total risk similar to utilities are able to maintain the value of their assets 1523 considerably above book value, the return allowed to utilities should not seek to 1524 maintain the value of utility assets at book value. It is critical that the regulator 1525 recognize the comparable earnings standard when setting a just and reasonable 1526 return.

1527

1528The comparable earnings test remains the only test that explicitly recognizes that,1529in the North American regulatory framework, the return is applied to an original1530cost (book value) rate base. The persistence of moderate inflation continues to1531create systematic deviations between book and market values. Application of a1532market-derived cost of capital to book value ignores that distinction. To illustrate,

1533	if the market value of an investment is \$15 and the required return is 10%, the
1534	return, in dollars, expected by investors is \$1.50. However, regulatory convention
1535	applies the market-derived return to the book value of the investment. If the book
1536	value of the investment is \$10.00, application of a 10% return to the book value
1537	will result in a return, in dollars, of only \$1.00. The cost of attracting capital tests,
1538	i.e., equity risk premium and discounted cash flow, do not make any allowance
1539	for the discrepancy between the return on market value and the corresponding fair
1540	return on book value. The comparable earnings test, however, does. It applies
1541	"apples to apples", i.e., a book value-measured return is applied to a book value-
1542	measured equity investment.
1543	
1544	The principal issues in the application of the comparable earnings test are: ⁶²
1545	
1546	• The selection of a sample of industrials of reasonably comparable risk to a
1547	benchmark Canadian utility.
1548	• The selection of an appropriate time period over which returns are to be
1549	measured in order to estimate prospective returns.
1550	• The need for any adjustment to the "raw" comparable earnings results if
1551	the selected industrials are not of precisely equivalent risk to the
1552	benchmark utility.
1553	• The need for a downward adjustment for the industrials' market/book
1554	ratios.
1555	
1556	The application of the comparable earnings test first requires the selection of a
1557	sample of industrials of reasonably comparable risk to a benchmark Canadian
1558	utility. The selection should conform to investor perceptions of the risk
1559	characteristics of utilities, which are generally characterized by relative stability
1560	of earnings, dividends and market prices. These were the principal criteria for the
1561	selection of samples of industrial companies (from consumer-oriented industries).

⁶² Full discussion in Appendix E.

1562 The criteria for selecting comparable unregulated low risk companies include 1563 industry, size, dividend history, stock and bond ratings and betas. (Appendix E)

Since the universe of Canadian industrial companies is sufficiently large to produce a representative sample of adequate size, the focus of the comparable earnings analysis was on Canadian firms. However a sample of U.S. companies was also used as a check on the reasonableness of the Canadian sample results. The application of the selection criteria to the Canadian universe produced a sample of 17 companies.

1571

1564

1572 Next, since industrials' returns on equity tend to be cyclical, the selection of an 1573 appropriate period for measuring industrial returns must be determined. The 1574 period selected should encompass an entire business cycle, covering years of both 1575 expansion and decline. That cycle should be representative of a future normal 1576 cycle, e.g., similar in terms of inflation and real economic growth.⁶³ The period 1577 1994-2005 provides a reasonable proxy for a future business cycle. The 1578 experienced returns on equity of the sample of 17 industrials over this period were 1579 in the approximate range of 12.5-12.75% (see Appendix E and Schedule 26).

1580

1581 The next step is to assess whether or not there is a need to adjust the "raw" 1582 comparable earnings results to reflect the differential risk of a benchmark 1583 Canadian utility relative to the selected industrials. The comparative risk data 1584 indicate, on balance, the Canadian industrials are of slightly higher risk than a 1585 benchmark utility. To recognize the industrials' marginally higher risk, the 1586 comparable earnings test, applied to a benchmark Canadian utility, should be 1587 interpreted as indicating a return at the lower end of the range, i.e., at 1588 approximately 12.5%.

⁶³ Returns on equity during earlier periods may not be comparable as the economic fundamentals that impact achievable returns (e.g., inflation) were not comparable)

1590 Since the Canadian sample while adequate is relatively small, in large part a 1591 function of the size and make-up of the Canadian equity market. I also selected a 1592 sample of low risk U.S. industrials to serve as a check on the reasonableness of 1593 the Canadian results. The selection criteria were similar to those used for the 1594 Canadian industrial sample. The greater breadth of the U.S. market allowed the 1595 selection of a sample of close to 160 companies in the same stable industries used 1596 to select the Canadian industrials. The experienced returns of the U.S. industrials 1597 were in the range of 13.5-14.5% (see Schedule 28). The comparative risk data 1598 indicate that the U.S. industrials are of somewhat higher risk than the Canadian 1599 utilities. When used as a check against the unregulated Canadian firms, the 1600 returns of the significantly larger U.S. sample of industrials underscore the 1601 reasonableness of the comparable earnings results for the sample of Canadian 1602 industrials.

1604 The final step is to assess the need for a market/book adjustment to the 1605 comparable earnings results. The sample results would warrant such an 1606 adjustment if their market/book ratios relative to the overall market indicated an 1607 ability to exert market power. In other words, a relatively high market/book ratio would point to returns on equity that were higher than the levels achievable if 1608 1609 market power were not present. The average market/book ratio of the sample of 1610 Canadian comparables over the 1994-2005 period was 1.8 times. By comparison, 1611 over the same period, the market/book ratio of the average market/book ratio of 1612 the S&P/TSX composite was in excess of two times (see Appendix E). For the 1613 U.S. sample, the average market/book ratio for 1994-2005 was approximately 2.2 1614 times, compared to 3.4 times for the S&P 500. The lower market/book ratios of 1615 the proxy samples relative to the market composites indicate no evidence of 1616 market power and thus no rationale for a downward adjustment. As a result, a fair 1617 return for a benchmark Canadian utility based on the comparable earnings test is 1618 approximately 12.5%.

1620 F. FAIR RETURN ON EQUITY FOR A BENCHMARK CANADIAN 1621 UTILITY

1622

1623The results of the three tests used to estimate a reasonable return on equity for a1624benchmark Canadian utility are summarized below:

Table 0

1625

	Table 9	
	"Bare-Bones"	Fair
Test	Cost of Equity	Return on Equity
Equity Risk Premium	9.0-10.25%	9.5-10.75%
Discounted Cash Flow	8.75%-9.0%	9.25%-9.5%
Comparable Earnings	N/A	12.5%

1626

1627

1628 In arriving at a reasonable return for a benchmark utility, I have given primary 1629 weight to the cost of attracting capital, as measured by both the equity risk 1630 premium and DCF tests. The "bare-bones" cost of attracting capital based on 1631 these two tests is in the range of 9.25-9.75%. Including the allowance for 1632 financing flexibility, the indicated return on equity is 9.75-10.25%. However, the 1633 results of the comparable earnings test are also entitled to significant weight when 1634 setting a fair return that balances both ratepayer and shareholder interests. Based 1635 on all three test results, a fair return for a benchmark Canadian utility, and for NP, 1636 is 10.25-10.50%.

1638 VI. REASONABLENESS OF RECOMMENDATION

1639

My determination of a return on equity (10.25-10.50%) for NP is independent of what other regulators allow. Nevertheless, the capital structures and returns allowed for other utilities can provide a perspective on the reasonableness of the return recommended.

1643

As indicated in Section III.F of this testimony, there have been, over the past several years, concerns expressed by the debt rating agencies regarding the low level of allowed returns in Canada and the disparity between allowed returns in Canada and the U.S. Representative comments of both DBRS and S&P are documented in Section III.F.

1648

1649 In the National Energy Board's (NEB) August 2005 Canadian HydroCarbon System 1650 Report, pension funds had indicated to the Board that the basic financial parameters 1651 (allowed return on equity and deemed capital structure) in its regulatory scheme should 1652 be improved. In its 2006 report of the same name, the NEB reported that a number of 1653 analysts felt that the ROE generated by the NEB formula and by other Canadian 1654 regulators' formulas "were a little too low" and not supportive of dividend growth or 1655 A number of analysts commented that where they have "Buy" credit metrics. 1656 recommendations on utility stocks, the recommendations tend to reflect the prospects of the unregulated operations.⁶⁴ Analysts also commented that companies have reduced 1657 1658 costs and taken other steps to improve profitability and dividend growth for several years, 1659 and wondered how long that could continue.

⁶⁴ In many cases, the ROEs achieved by the entity whose shares are traded have been materially higher than the ROEs allowed under the formulas. The allowed ROE generated by the NEB formula averaged 9.6% over the period 2002 to 2005; the ROE reported for TransCanada Pipelines Ltd by DBRS over that same period was 12.7%. For Terasen Gas, its allowed ROE averaged 9.2%; Terasen Inc.'s ROE (as reported by DBRS) averaged 11.1%. DBRS reported an average ROE of 13.0% for Canadian Utilities Ltd., compared to its regulated subsidiaries' allowed ROEs of approximately 9.6%.

Recent equity analyst commentary on the level of allowed ROEs in Canada expresses the view that the current level of allowed ROEs, expected to be approximately 8.6% in 2007, is now confiscatory.⁶⁵

1664

1665 With respect to returns allowed for U.S. utilities, Schedule 5, page 3 shows that Canadian 1666 allowed utility returns were at similar levels to U.S. utility returns from 1994-1997. 1667 However, while allowed Canadian returns have declined by over 200 basis points from 1668 11.5% to under 9.0%, the decline in U.S. returns allowed by state regulators for both 1669 electric and gas utilities has been more moderate (from about 11.5% to 10.25-10.5%). 1670 Over the last five years, with relatively similar levels of interest rates, the effective equity 1671 risk premium embedded in Canadian utilities' recent allowed equity returns has averaged 1672 approximately 1.25 percentage points lower than that of U.S. utilities.

1673

The possibility that gas and electric utilities in the U.S. face higher business/regulatory risks than the typical Canadian utility is offset by significantly higher allowed common equity ratios in the U.S. The average allowed common equity ratio for the major Canadian electric and gas utilities is approximately 37%. In contrast, the average allowed common equity ratio for U.S. electric and gas utilities over the last five years (1999-2006) has been approximately 48% (Schedule 5, page 4).

1680

1681 The difference in equity ratios between Canadian and U.S. utilities can be quantified, that 1682 is, translated into a further differential in equity returns. The approximately ten 1683 percentage point differential between the average allowed common equity ratios for the 1684 U.S. and Canadian utilities translates into approximately 150 basis points in equity return 1685 compensation in favor of U.S. utilities. The indicated differential is based on the inverse 1686 relationship between equity ratios and equity returns.⁶⁶

1687

1688 In sum, the returns available to comparable U.S. utilities are materially higher than the 1689 returns that are allowed to Canadian utilities, the returns allowed for Canadian utilities

⁶⁵ Taylor, Karen, BMO, "Pipelines/Gas & Electric Utilities: 2007 ROEs Decline to Unprecedented Levels; Ontario Gets Reprieve", December 7, 2006.

⁶⁶ Using approaches outlined in Schedule 23.

are generally regarded as too low, and the returns that investors expect and are achieving from the traded entities in Canada are considerably higher than the returns that have been allowed by regulators. These factors are legitimate considerations to be taken into account in setting a fair and reasonable return for NP.⁶⁷ These factors underscore the reasonableness of the 10.25-10.5% return on equity I am recommending for NP.

1695

1696

1697

These comments are no less applicable to all Canadian utility investments.

⁶⁷ The Conference Board of Canada has pointed out the importance of competitive returns for electricity transmission in Canada. In its May 2004 Briefing entitled, *Electricity Restructuring: Opening Power Markets*, the Conference Board stated,

Investors are discouraged by limitations on the regulated cost recovery for transmission upgrading. Transmission companies are simply not seeing favourable risk/return ratios on their investments, and know that they can realize better returns in the United States, where regulated rates of return are much higher. Rates of return to Canadian firms for transmission projects are around 9 to 10 per cent, well below the 13 to 14 per cent available to U.S. companies. These lower rates discourage investment in Canadian utilities. Moreover, investors are additionally deterred by the fact that existing cost-of-service rates do not reflect the economic value of the transmission grid.

APPENDIX A

THE CAPITAL ATTRACTION AND COMPARABLE EARNINGS STANDARDS

Two standards for a fair return have arisen from the legal precedents for establishing a fair return, the capital attraction and comparable earnings standard. The principal Court cases in Canada and the U.S. establishing the standards include *Northwestern Utilities Ltd.* v. *Edmonton (City)*, [1929] S.C.R. 186; *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia, 262 U.S. 679, 692 (1923)*; and, *Federal Power Commission v. Hope Natural Gas Company (320 U.S. 591 (1944))*.

In Northwestern, Mr. Justice Lamont stated

The duty of the Board was to fix fair and reasonable rates; rates which, under the circumstances, would be fair to the consumer on the one hand, and which, on the other hand, would secure to the company a fair return for the capital invested. 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.

In *Bluefield*, the criteria for a fair return were described as follows:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

In Hope, Justice Douglas stated,

By that standard the return on 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.

The fact that the allowed return is applied to an original cost rate base is key to distinguishing between the capital attraction and comparable earnings standards. The base to which the return is applied determines the dollar earnings stream to the utility, which, in turn, generates the return to the shareholder (dividends plus capital appreciation). In the early years of rate of return regulation in North America, there was considerable debate over how to measure the investment base. The controversy arose from the objective that the price for a public utility service should allow a fair return on the fair value of the capital invested in the business. The debate focused on what constituted fair value: Was it historic cost, reproduction cost, or market value? Ultimately, *Hope* opted for the "reasonableness of the end result" rather than the specification of a particular method of rate base determination. The use of a historic cost rate base became the norm because it provided an objective, measurable point of departure to which the return would be applied. There is no prescription, however, that the historic cost rate base itself constitutes the "fair value" of the investment.

Nevertheless, regulators' application of a capital market-derived "cost of attracting capital" to a historic rate base in principle will result in the market value of the investment trending toward the historic cost based on the erroneous assumption that this equates to "fair value". The "fair value equals original cost" result arises from the way "cost" has typically been interpreted and applied in determining other cost elements in the regulation of North American utilities. For most utilities, rates are set on the basis of book costs; that concept has been applied to the cost of debt and depreciation expense, as well as to all operating and maintenance expenses.

For economists, the theoretically appropriate definition of cost is marginal or incremental cost. For regulated utilities historic costs have been substituted for marginal or incremental costs for two reasons: first, as a practical matter, long-run incremental costs are difficult to measure; second, for the capital intensive utility industries, pricing on the basis of short-run marginal costs would not cover total costs incurred.

The determination of the return on common equity for regulated companies has traditionally been a "hybrid" concept. The cost of equity is a forward-looking measure of the equity investors' required return. It is, therefore, an incremental cost concept. The required equity return is not, however, applied to a similarly determined rate base (that is, current cost). It is applied to an original cost rate base. When there is a significant difference between the historic original cost rate base and the corresponding current cost of the investment, application of a current cost of attracting capital to an original cost rate base produces an earnings stream that is significantly lower than that which is implied by the application of the return to book value rather than market value is magnified as a result of the long lives of utility assets.

The current cost of attracting capital is measured by reference to market values. The discounted cash flow test, for example, measures the return that investors require on the market value of the equity. For a utility regulated on the basis of original cost book value, the current cost of attracting equity capital is only equivalent to the return investors require on book value when the market value of the common stock is <u>equal</u> to its book value. As the market value of the equity of regulated utilities increases above its book value, the application of a market-value derived cost of equity to the book value of that equity increasingly understates investors' return requirements (in dollar terms).

Some would argue that the market value of utility shares should be equal to book value. However, economic principles do not support that conclusion. A basic economic principle establishes the expected relationship between market value and replacement cost which provides support for market prices in excess of original cost book value. That
economic principle holds that, in the longer-run, in the aggregate for an industry, market value should equal replacement cost of the assets. The principle is based on the notion that, if the market value of firms exceeds the replacement cost of the productive capacity, there is an incentive to establish new firms. The existence of additional firms would lower prices of goods and services, lower profits and thus reduce market values of all the firms in the industry. In the opposite circumstance, there is an incentive to disinvest, i.e., to not replace depreciated assets. The disappearance of firms would push up prices of goods and services; raise the profits of the remaining firms, thereby raising the market values of the remaining firms. In equilibrium, market value should equal replacement cost. In the presence of inflation, even at moderate levels, absent significant technological advances, replacement cost should exceed the original cost book value of assets. Consequently, the market value of utility shares should be expected to exceed their book value.

Therefore, when the allowed return on original cost book value is set, a market-derived cost of attracting capital must be converted to a fair and reasonable return on book equity. The conversion of a market-derived cost of capital to a fair return on book value ensures that the stream of dollar earnings on book value equates to the investors' dollar return requirements on market value.

APPENDIX B

RISK-ADJUSTED EQUITY MARKET RISK PREMIUM TEST

CONCEPTUAL UNDERPINNINGS OF THE CAPITAL ASSET PRICING MODEL

The Capital Asset Pricing Model (CAPM) is a theoretical, formal model of the equity risk premium test which posits that the investor requires a return on a security equal to:

$$R_F$$
 + $\beta(R_M - R_F)$,

Where:

$\mathbf{R}_{\mathbf{F}}$	=	risk-free rate
β	=	covariability of the security with the market (M)
R _M	=	return on the market.

The model is based on restrictive assumptions, including:

- 1. Perfect, or efficient, markets exist where,
 - a) each investor assumes he has no effect on security prices;
 - b) there are no taxes or transaction costs;
 - c) all assets are publicly traded and perfectly divisible;
 - d) there are no constraints on short-sales; and,
 - e) the same risk-free rate applies to both borrowing and lending.

2. Investors are identical with respect to their holding period, their expectations and the fact that all choices are made on the basis of risk and return.

The CAPM relies on the premise that an investor requires compensation for nondiversifiable risks only. Non-diversifiable risks are those risks that are related to overall market factors (e.g., interest rate changes, economic growth). Company-specific risks, according to the CAPM, can be diversified away by investing in a portfolio of securities whose expected returns are not perfectly correlated. Therefore, a shareholder requires no compensation to bear company-specific risks.

In the CAPM, non-diversifiable risk is captured in the beta, which, in principle, is a forward-looking (expectational) measure of the volatility of a particular stock or portfolio of stocks, relative to the market. Specifically, the beta is equal to:

$\frac{\text{Covariance } (R_{\text{E}}, R_{\text{M}})}{\text{Variance } (R_{\text{M}})}$

The variance of the market return is intended to capture the uncertainty related to economic events as they impact the market as a whole. The covariance between the return on a particular stock and that of the market reflects how responsive the required return on an individual security is to changes in events that also change the required return on the market.

RISK-FREE RATE

 The theoretical CAPM assumes that the risk-free rate is uncorrelated with the return on the market. In other words, the assumption is that there is no relationship between the risk-free rate and the equity market return (i.e., the riskfree rate has a zero beta). However, the application of the model typically assumes that the return on the market is <u>highly</u> correlated with the risk-free rate, that is, that the equity market return and the risk-free rate move in tandem.

- 2. The theoretical CAPM calls for using a risk-free rate, whereas the typical application of the model in the regulatory context employs a long-term government bond yield as a proxy for the risk-free rate. Long-term government bond yields may reflect various factors that render them problematic as an estimate of the "true" risk-free rate, including:
 - a) The yield on long-term government bonds reflects the impact of monetary and fiscal policy; e.g., the potential existence of a scarcity premium. The Canadian federal government has been in a surplus position for nine years, which has reduced its financing requirements. However, the demand for long-term government securities by institutions (e.g., pension funds) that match assets and liabilities has not declined. The pension funds, which are key purchasers of long-term government bonds, are typically buy and hold investors, which means that the government bonds in their portfolios do not trade. Thus, there is the potential not only for a scarcity premium in prices due to the demand for long-term government bonds, but also potential illiquidity in the market.
 - b) Yields on long-term government bonds may reflect shifting degrees of investors' risk aversion; e.g., "flight to quality". An increase in the equity risk premium arising from a reduction in bond yields due to a "flight to quality" is not likely to be captured in the typical application of the CAPM which focuses on a long-term average market risk premium.
 - c) Long-term government bond yields are not risk-free; they are subject to interest rate risk. The size of the equity market risk premium at a given point in time depends in part on how risky long-term government bond yields are relative to the overall equity market. The need to capture and

measure changes in the risk of the so-called risk-free security introduces a further complication in the application of the CAPM.

EQUITY MARKET RISK PREMIUM

1. Equity Risk Premium and Historic Data

The equity market risk premium is typically measured largely by reference to historic data. Adjustments are then made to capture (a) changes that have occurred in the underlying markets over time, or (b) perceived differences between what investors actually achieved and what they may have expected on an *ex ante* basis. There are a wide range of views on what constitutes an appropriate period for estimating the historic risk premium, on what constitutes the appropriate averaging technique, and on whether various time-specific or country-specific outcomes diminish the reliability of history as a predictor of the future (expected) risk premium. In summary, the link between the historic and the expected risk premium is subject to considerable judgment.

2. Issues Specific to Canadian Historic Risk Premium Data

a) The Canadian equity market has undergone significant structural changes over the periods typically used to measure historic risk premiums. The historic market returns reflect in considerable measure a resource-based economy. At the end of 1980, no less than 46% of the market value of the TSE 300 was resource-based stocks.⁶⁸ By comparison, at the end of 2000, the resource-based percentage of the S&P/TSX Composite had declined to 18.4%. The influence of technology-intensive and service-related sectors on the index, in comparison had risen markedly. In particular, financial

⁶⁸ As measured by the oil and gas, gold and precious minerals, metals/minerals, and pulp and paper products sectors. Excludes "the conglomerates sector", which also contained stocks with significant commodity exposure.

services had become a key sector of the equity composite. Table B-1, which compares the year-end 1980 and 2000 market weightings of the financial services and technology sectors, highlights the changes that occurred between 1980 and 2000.

	1980	2000
Biotechnology/ Health Care/ Pharmaceuticals	0.0%	2.8%
Information Technology	0.9%	24.1%
Telecommunication Services	4.8%	6.5%
Media & Entertainment	0.6%	4.1%
Financial Services	13.5%	24.1%
Total	19.8%	61.1%

Table B-1

Source: TSE Review, December 1980 and December 2000.

By the end of December 2006, with the run-up in commodity prices since mid-2004, (and, to a lesser extent, with the implosion of the information technology sector in 2001), the resource-based sectors (Energy and Materials) once again have become a dominant component of the equity market, accounting for 44.0% of the total market value of the S&P/TSX Composite.

b) The Canadian market has, to some extent, had characteristics of market sectors, rather than of a diversified portfolio. At the end of 2006, approximately 75% of the S&P/TSX Composite's market value was in three sectors, Energy (27.9%), Materials (16.1%) and Financials (31.9%).

By comparison, the U.S. market is significantly more balanced among industry sectors. A comparison of market weights in Canada and the U.S. of the major sectors at December 31, 2006 demonstrates the difference.

Table B-2

	Canada S&P/TSX	U.S.
Sector	Composite	S&P 500
Consumer Discretionary	5.2%	10.6%
Consumer Staples	2.6%	9.3%
Energy	27.9%	9.8%
Financials	31.9%	22.3%
Health Care	0.8%	12.0%
Industrials	5.3%	10.8%
Information Technology	3.7%	15.1%
Materials	16.1%	3.0%
Telecommunication Services	5.0%	3.5%
Utilities	1.5%	3.6%

Source: TSX Review, December 2006 and Standardandpoors.com.

- c) Even within the remaining 25% of the Canadian market (the non-resource and non-financial sectors), there are various sectors of the economy that are relatively underrepresented, e.g., pharmaceuticals, retailing and health care.
- d) The historic average achieved returns of the TSE 300 Index have been significantly affected by the relatively mediocre performance of commodity-linked securities over the long-term. From 1956-2003 (the longest period for which consistent data exist for the individual TSE 300 sub-indices), the average returns of the commodity-based sectors were exceeded by the returns of virtually every other sector of the TSE 300.⁶⁹

⁶⁹ The average (compound, or geometric) returns of the commodity-based sectors were as follows:

Metals/Minerals	7.8%
Gold	9.5%
Oil and Gas	9.5%
Paper/Forest	7.1%

Because the long-term returns of the various sectors are inconsistent with their relative risk, the achieved returns for the market composite may not accurately reflect what investors had expected.

- e) In December 2005, the S&P/TSX Composite underwent a significant change with the inclusion of income trusts. Income trusts, which just five years ago, had a market capitalization of approximately \$20 billion, had a market capitalization of approximately \$189 billion at the end of 2006, accounting for 9.0% of the total market value of the TSX. Despite the change to the income tax treatment of income trusts announced in October 2006, income trusts significantly outperformed the "conventional" equity markets during the period for which income trust market data are readily available. The annual total return for the S&P/TSX Income Trust Index over the 1998-2006 period averaged 16.4%, compared to 9.4% for the S&P/TSX Composite Index. The exclusion of income trust returns from the S&P/TSX Composite Index prior to late 2005 means that the measured equity returns using the Composite Index understate the actual equity market returns achieved by Canadian investors.
- f) The TSE 300 Index has been criticized for its lack of liquidity and for the quality and size of the stocks it has contained. In a speech in early 2002, Joseph Oliver, President and CEO of the Investment Dealers Association of Canada stated,

Over the last 25 years, the TSE 300 has steadily declined as a relevant benchmark index. Part of the problem relates to the illiquidity of the smaller component companies and part to the departure of larger companies that were merged or acquired. Over the last two years, 120 Canadian companies have been deleted from the TSE 300.

By comparison, the corresponding simple average of the remaining sectors' returns over the same period was 10.3%.

When a company disappears from a US index due to a merger or acquisition, that doesn't affect the U.S. market's liquidity. An ample supply of large cap, liquid U.S. companies can take its place. In Canada, when a company merges or is acquired by another company, it leaves the index and is replaced by a smaller, less liquid Canadian company. We have seen this over the last two years, -- notably in the energy sector. Over the next few years, we are likely to see it in financial services, where further consolidation is inevitable. Over time, Canada's senior index has become less diversified, with more smaller component companies. As a result, as many as 75 of the TSE 300 will not qualify for inclusion in the new S&P/TSE Composite Index.

When the TSE 300 was overhauled (becoming the S&P/TSX Composite in May 2002), 275 companies were initially included, instead of the previous 300.⁷⁰ At December 31, 2006 there were 277 companies in the Composite, including seventy-five income trusts.

- g) The performance of the Canadian equity market as the "market portfolio" has been unduly influenced by a small number of companies. In mid-2000, before the debacle in Nortel Networks' stock value, Nortel shares alone accounted for 34.6% of the total market value of the TSE 300. To put this in perspective, the largest stock in the S&P 500 at that time (General Electric) accounted for only 4% of the S&P 500's total market value. The undue influence of a small number of stocks requires caution in drawing conclusions from the history of the TSE 300 regarding the forward-looking market risk premium.
- h) The returns in the Canadian market have historically been negatively impacted by the existence of restrictions on the foreign content of assets held in pension plans and tax deferred savings plans such as Registered Retirement Savings Plans (RRSPs). In 1957, when tax deferred savings plans were first established, no more than 10% of the income in pension

⁷⁰ The overhaul of the composite index, which included more stringent criteria for inclusion, did not require that a specific number of companies be included in the index.

plans or RRSPs could come from foreign sources. The Foreign Property Rule was instated in 1971 and limited foreign content to 10% of the book value of assets in the funds. The limit was raised to 20% in 2% increments between 1990 and 1994.

In 1999, the Investment Funds Institute of Canada (IFIC) estimated that raising the cap to 20% had increased returns by 1% and that a 30% limit would increase returns a further 0.5%.⁷¹ The limit was raised to 30% in 5% increments between 2000 and 2001. In 2002, the Pension Investment Association of Canada (PIAC) and the Association of Canadian Pension Management (ACPM) published a report entitled *The Foreign Property Rule: A Cost-Benefit Analysis*,⁷² which supported the removal of the cap.⁷³ The *Globe and Mail* reported that the removal of the foreign content cap is expected to "have the broadest long-term impact of any personal finance measure in the budget. Global stock markets, accessible to any investor through global equity mutual funds, have historically made higher returns than the Canadian market, which only accounts for just over 2 per cent of the world's stock market value."⁷⁴ The Foreign Property Rule was finally eliminated in August 2005 effective January 1, 2005.

 The achieved equity market risk premiums in Canada have been squeezed by the performance of the government bond market. The radical change in Canada's fiscal performance over the past decade has contributed to a

⁷¹ Paving the Way for Change to RRSP Foreign Content Rules, Tom Hockin, President and CEO IFIC, January 31, 2000

⁷² David Burgess and Joel Fried, *The Foreign Property Rule: A Cost-Benefit Analysis*, The University of Western Ontario, November 2002.

⁷³ The IFIC's report *Year 2002 in Review* stated,

During the period of 1991-1998, the percentage of sales in equity mutual funds that were comprised of non-domestic equities has hovered around the 41-58% range. This has significantly increased in 1999 and onwards. While performance in the markets is the major factor affecting such an increase, these figures can also be attributed to increases in foreign content limits in registered retirement savings plans as well as increased interest and availability of foreign clone funds.

⁷⁴ Rob Carrick, *Finance: Your Bottom Line*, <u>Globeandmail.com</u>, February 23, 2005.

steady decline in interest rates and concomitant increases in total bond returns. The prevailing low level of interest rates relative to the historic total returns on bonds indicates that the historic returns on long-term Government of Canada bonds overstate likely future bond returns. Consequently the historic equity risk premium understates the future risk premium.

3. Use of Arithmetic Averages to Estimate the Equity Market Risk Premium

a) Rationale for the Use of Arithmetic Averages

In Robert F. Bruner, Kenneth M. Eades, Robert S. Harris, and Robert C. Higgins, "Best Practices in Estimating the Cost of Capital: Survey and Synthesis", *Financial Practice and Education*, Spring/Summer 1998, pp. 13-28, the authors found that 71% of the texts and tradebooks in their survey supported use of an arithmetic mean for estimation of the cost of equity. One such textbook, Richard A. Brealey and Stewart C. Myers, *Principles of Corporate Finance*, Boston: Irwin McGraw Hill, 2000 (p. 157), states, "Moral: If the cost of capital is estimated from historical returns or risk premiums, use arithmetic averages, not compound annual rates of return."

The appropriateness of using arithmetic averages, as opposed to geometric averages, for this purpose is succinctly explained in Ibbotson Associates; *Stocks, Bonds, Bills and Inflation, 1998 Yearbook*, pp. 157-159:

The expected equity risk premium should always be calculated using the arithmetic mean. The arithmetic mean is the rate of return which when compounded over multiple periods, gives the mean of the probability distribution of ending wealth values . . . in the investment markets, where returns are described by a probability distribution, the arithmetic mean is the measure that accounts for uncertainty, and is the appropriate one for estimating discount rates and the cost of capital.⁷⁵

Triumph of the Optimists: 101 Years of Global Investment Returns by Elroy Dimson, Paul Marsh and Mike Staunton, Princeton: Princeton University Press, 2002 (p. 182), stated,

The arithmetic mean of a sequence of different returns is always larger than the geometric mean. To see this, consider equally likely returns of +25 and -20 percent. Their arithmetic mean is $2\frac{1}{2}$ percent, since $(25 - 20)/2 = 2\frac{1}{2}$. Their geometric mean is zero, since $(1 + 25/100) \times (1 - 20/100) - 1 = 0$. But which mean is the right one for discounting risky expected future cash flows? For forward-looking decisions, the arithmetic mean is the appropriate measure.

To verify that the arithmetic mean is the correct choice, we can use the $2\frac{1}{2}$ percent required return to value the investment we just described. A \$1 stake would offer equal probabilities of receiving back \$1.25 or \$0.80. To value this, we discount the cash flows at the arithmetic mean rate of $2\frac{1}{2}$ percent. The present values are respectively \$1.25/1.025 = \$1.22 and \$0.80/1.025 = \$0.78, each with equal probability, so the value is $$1.22 \times \frac{1}{2} + $0.80 \times \frac{1}{2} =$ \$1.00. If there were a sequence of equally likely returns of +25 and -20 percent, the geometric mean return will eventually converge on zero. The $2\frac{1}{2}$ percent forward-looking arithmetic mean is required to compensate for the year-to-year volatility of returns.

⁷⁵ An illustration from Ibbotson Associates demonstrating why the arithmetic average is more appropriate than the geometric average for estimating the expected risk premium is presented in Figure B-1.

In Ibbotson Associates, *Stocks, Bonds, Bills and Inflation: Valuation Edition, 2006, the following discussion was included:*

To illustrate how the arithmetic mean is more appropriate than the geometric mean in discounting cash flows, suppose the expected return on a stock is 10 percent per year with a standard deviation of 20 percent. Also assume that only two outcomes are possible each year -+30 percent and -10 percent (i.e., the mean plus or minus one standard deviation). The probability of occurrence for each outcome is equal. The growth of wealth over a two-year period is illustrated in Graph 5-4.



The most common outcome of \$1.17 is given by the geometric mean of 8.2 percent. Compounding the possible outcomes as follows derives the geometric mean:

$$\left[(1+0.30)x(1-0.10)\right]^{\frac{1}{2}} - 1 = 0.082$$

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However, the expected value is predicted by compounding the arithmetic, not the geometric, mean. To illustrate this, we need to look at the probability-weighted average of all possible outcomes:

Therefore, \$1.21 is the probability-weighted expected value. The rate that must be compounded to achieve the terminal value of \$1.21 after 2 years is 10 percent, the arithmetic mean.

$$(1+0.10)^2 = (1.21)^2$$

The geometric mean, when compounded, results in the median of the distribution:

$$(1+0.0.082)^2 = (1.17)^2$$

The arithmetic mean equates the expected future value with the present value; it is therefore the appropriate discount rate.

c) Randomness of Annual Equity Market Risk Premiums

The use of arithmetic averages is premised on the unpredictability of future risk premiums. The following figures illustrate the uncertainty in the future risk premiums by reference to the historic annual risk premiums. The figures for both Canada and the U.S. suggest that each year's actual risk premium has been random, that is, not serially correlated with the preceding year's risk premium.⁷⁶

Foster Associates Inc.

 $^{^{76}}$ A test for serial correlation between the year-to-year equity risk premiums shows that the serial correlation between the current year's risk premium and that of the prior year for the period 1947-2006 is 0.05 for Canada and -.05 for the U.S. If the current year's risk premium were predictable based on the prior year's risk premium the serial correlation would be close to positive or negative 1.0.



Source: Canadian Institute of Actuaries, *Report on Canadian Economic* Statistics, 1924-2006, Bank of Canada and TSX Review.



Source: Ibbotson Associates, Stocks, Bonds, Bills & Inflation, 2006 Yearbook, www.standardandpoors.com and U.S. Federal Reserve.

FUTURE VS. HISTORIC RISK PREMIUMS

1. Analysis of Trends in Canadian and U.S. Stock and Bond Returns

Table B-3 below compares the historic Canadian and U.S. stock returns, bond returns, and equity risk premiums, by decade.

Time	Stock Returns		Bond Returns		Risk Premiums	
Period	Canada	U.S.	Canada	U.S.	Canada	U.S.
1940s	10.0%	10.3%	3.9%	3.3%	6.0%	7.0%
1950s	17.0%	20.8%	0.4%	0.0%	16.5%	20.8%
1960s	10.8%	8.7%	2.9%	1.6%	7.9%	7.1%
1970s	12.1%	7.5%	6.1%	5.7%	6.0%	1.8%
1980s	13.1%	18.2%	13.7%	13.5%	-0.6%	4.7%
1990s	11.6%	19.0%	11.8%	9.5%	-0.2%	9.5%
1997- 2006	11.0%	10.0%	8.6%	8.2%	2.4%	1.8%

Table B-3

Source: Canadian Institute of Actuaries, *Report on Canadian Economic Statistics*, 1924-2005 and Ibbotson Associates, *Stocks, Bonds, Bills & Inflation, 2006 Yearbook, TSX Review*, the Bank of Canada and the U.S. Federal Reserve.

The decade-by-decade averages suggest that there has been no upward or downward trend in the stock returns. By comparison, the bond returns generally exhibit an increase over time. The pattern in the bond returns results from:

- low bond returns in the 1950s-1970s, as rising interest rates produced capital losses on bonds;
- high bond returns in the 1980s, corresponding to the high rates of inflation, which pushed up bond yields; and,

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 high bond returns in the 1990s and first half of the 2000s, reflecting the decline in interest rates and resulting capital appreciation of bonds, leading to total returns well in excess of the yields.⁷⁷

A similar conclusion regarding trends in the risk premium can be drawn from an analysis of rolling and cumulative averages of Canadian and U.S. stock and bond returns. The following averages were calculated for this analysis:

- Twenty-five year rolling arithmetic averages of Canadian and U.S. equity and long-term government bond returns (1947-2006).
- A series of cumulative average equity and bond returns for Canada and the U.S. The first average starts in 1947, covering 25 years (1947-1971). The second average incorporates 26 years, etc. The final average encompasses the full 1947-2006 period.
- A second series of cumulative average returns, where the first average includes the most recent 25 year period (1982-2006); each subsequent average includes an additional prior year.

The following table summarizes the resulting averages for the equity market returns.⁷⁸ The summary of the various averages indicates that the historic equity market returns have not exhibited a secular upward or downward trend, but are within the following ranges:

⁷⁷ The bond yield is, in fact, an estimate of the expected return.

⁷⁸ All of the averages appear on Schedule 9.

	Canada	U.S.
25-Year Rolling Averages:		
Range	9.6-14.5%	9.4-18.0%
Average of Averages	11.8%	12.5%
\pm 1 standard deviation	10.7-12.8%	10.4-14.6%
Increasing Averages (1947+):		
Range	11.4-13.6%	11.5-14.6%
Average of Averages	12.6%	13.1%
\pm 1 standard deviation	12.0-13.1%	12.4-13.8%
Increasing Averages (2006+):		
Range	10.8-13.3%	11.6-14.6%
Average of Averages	11.9%	12.8%
\pm 1 standard deviation	11.3-12.6 %	11.9-13.7%

Table B-4

Source: Schedule 9.

The analysis also shows achieved total bond returns have experienced an upward trend, similar to that identified in the decade-by-decade returns described earlier. That trend is unlikely to continue, as recent low levels of interest rates limit future capital gains; it is more likely, in an environment of rising interest rates that bonds would experience capital losses, and the achieved risk premiums will rise.

Given the absence of any upward or downward trend in the historic equity market returns, a reasonable expected value of the future equity market return is a range of 11.5-12.5%, based on both the Canadian and U.S. equity market returns. Based on the 2008 forecast for long Canada bond yields of 4.75-5.0%⁷⁹, and an expected equity market return of 11.5-12.5%, the indicated market risk premium would be in the range of 6.75-

⁷⁹ Based on the February 2007 *Consensus Forecasts* of 10-year Canada bond yields for February 2008 of 4.4% and the October 2006 *Consensus Forecasts* of 10-year Canada bond yields for all of 2008 of 4.8%. Assuming the historic spread between 10- and 30-year Canada bond yields of approximately 30 basis points is reestablished in the longer term, the forecast 30-year Canada bond yield is approximately 4.75-5.0%.

7.5%, or approximately 7.0-7.25%. Based on the longer-term forecast for long Canada bond yields of 5.5%⁸⁰ the indicated market risk premium is 6.0-7.0%.

2. **Trends in Price/Earnings Ratios**

Several studies of historic and equity risk premiums conclude that past equity markets are unsustainable, since they were achieved through an increase in price/earnings ratios that cannot be perpetuated.

With respect to the U.S. equity market, the preponderance of the increase in price/earnings ratios occurred during the 1990s. The P/E ratio⁸¹ of the S&P 500 averaged 14 times from 1926-1989, with no discernible upward trend.⁸² From 14.7 in 1989, the P/E ratio rose to a high of 32.3 in 1998, and averaged 23 from 1990-2000. At the height of the equity market (1998 to mid-2000), frequently described as a "speculative bubble", investors believed the only risk they faced was not being in the equity market. In mid-2000, the bubble burst, as the U.S. economy began to lose steam. The events of September 11, 2001, the threat of war, the loss of credibility on Wall Street, accounting misrepresentations and outright fraud, led to a loss of confidence in the market and a sense of pessimism about the equity market. These events led to a heightened appreciation of the inherent risk of investing in the equity market, all of which translated into a "bearish" outlook for the U.S. equity market and sent retail investors to the sidelines.⁸³ Nevertheless, the P/E ratio for the S&P 500 remains above the average for 1947-1989, but within the historic range.⁸⁴

⁸⁰ Consensus Economics, *Consensus Forecasts*, October 9, 2006 anticipates the 10-year Canada bond yield to average 5.15% from 2008 to 2016. Adding the historic spread between 10- and 30-year Canada bond yields of approximately 30 basis points to the 5.15% forecast results in a forecast 30-year Canada bond yield of close to 5.5%. ⁸¹ Coincident price and earnings.

⁸² The average from 1947-1989 was 13.3 times.

⁸³ Lowered expectations for the public equity market have led investors to focus elsewhere for superior risk/reward opportunities, e.g., real estate, and private equity, suggesting the possibility that recent expectations for the public equity market may be out-of-line with return requirements. Investors' experiences during the equity market "bust" have been a key factor in explaining the recent burgeoning of the income trust market in Canada.

⁸⁴ At the end of December 2006, the S&P 500 P/E ratio was 18.0 times (*Barron's*, January 1, 2007).

To assess the impact of rising P/E ratios on achieved returns, I analyzed the equity returns of the S&P 500 achieved between 1947 and 1990, that is, prior to the observed upward trend in P/E ratios. The analysis indicates that the achieved equity returns for the S&P 500 averaged 12.3% (geometric average) to 13.5% (arithmetic average) from 1947-1989. The corresponding returns from 1947-2006 were 11.9% (geometric average) to 13.2% (arithmetic average). Hence, despite the increase in P/E ratios experienced during the 1990s, the average equity market returns were actually <u>lower</u> over the entire 1947-2006 period than over the 1947-1989 period. Stated differently, the increase in P/E ratios during the 1990s has not resulted in a higher and unsustainable level of equity market returns. Consequently, based on history, an expected value for the U.S. equity market return equal to the historic levels of 12.0-13.0% is not unreasonable. Relative to the consensus forecast yield for 30-year Treasury bonds over the longer term of approximately 5.5%,⁸⁵ the risk premium would be approximately 6.5-7.5%. Relative to the March 2007 consensus forecast of 30-year Treasury bond yields of 5.0% for the first two quarters of 2008,⁸⁶ the indicated market risk premium is approximately 7.0-8.0%.

My review of Canadian equity returns over the same period indicates similar results. The 1947-1989 returns for the Canadian equity market were 11.9% (geometric average) to 13.1% (arithmetic average), very similar to the U.S. returns, and higher than the average of the 1947-2006 returns of 11.2% (geometric average) and 12.4% (arithmetic average). In relation to the 2008 and long-term forecasts of the 30-year Canada bond yield, 4.75-5.0% and 5.5% respectively, and an equity market return in the pre-1990 range of 12.0-13.0%, the expected value for the equity risk premium would be approximately 7.0-7.5%.

The analysis of stock and bond returns in Canada and the U.S. over the 1947-2006 period reveals no upward or downward trend in market equity returns. Nevertheless, the achieved risk premiums have declined. The arithmetic average achieved risk premium in Canada from 1947-1989 was 7.6%; in the U.S., it was 8.5%. By comparison, the

⁸⁵ For 2008-2017; Blue Chip Financial Forecasts, December 1, 2006.

⁸⁶ Blue Chip Financial Forecasts, March 1, 2007.

corresponding 1947-2006 risk premiums were 5.5% and 7.0% respectively. An analysis of the data shows that high bond returns over the period 1990-2006 are the principal reason for the decline in experienced risk premiums, not a downward trend in stock returns. The average bond return from 1990-2006 was 11.1%, compared to the corresponding average yield on long-term Canada bonds of 6.8%.

Over the entire 1947-2006 period, the average return (income plus capital appreciation) on long Canada bonds was 6.9%. With long-term Canada bond yields at historically low levels (4.1% at February 28, 2007), and more likely to increase rather than decrease further, the 1947-2006 average bond return of 6.9% overstates the forward-looking expectation of bond returns, as embedded in both spot yields and long-term forecasts. The current low level of long-Canada bond yields limits the possibility of future capital gains, which arise from a decline in interest rates. Thus, a reasonable expected value of the long Canada bond return is the forecast long Canada yield, rather than the historic average total return.

RELATIVE RISK ADJUSTMENT

1. Beta

Impediments to reliance on beta as the sole relative risk measure, as the CAPM indicates, include:

- a) The assumption that all risk for which investors require compensation can be captured and expressed in a single risk variable.
- b) The only risk for which investors expect compensation is non-diversifiable equity market risk; no other risk is considered (and priced) by investors.

- c) The assumption that the observed calculated betas (which are simply a calculation of how closely a stock's or portfolio's price changes have mirrored those of the overall equity market)⁸⁷ are a good measure of the relative return requirement.
- d) Use of beta as the relative risk adjustment allows for the conclusion that the cost of equity capital for a firm can be lower than the risk-free rate, since stocks that have moved counter to the rest of the equity market could be expected to have betas that are negative. Gold stocks, for example, which are regarded as a quintessential counter-cyclical investment, could reasonably be expected to exhibit negative betas. In that case, the CAPM would posit that the cost of equity capital for a gold mining firm would be less than the risk-free rate, despite the fact that, on a total risk basis, the company's stock could be very volatile.

The body of evidence on CAPM leads to the conclusion that, while betas do measure relative volatility, the proportionate relationship between beta and return posited by the CAPM has not been established. A summary of various studies, published in a guide for practitioners, concluded,

Empirical tests of the CAPM have, in retrospect, produced results that are often at odds with the theory itself. Much of the failure to find empirical support for the CAPM is due to our lack of ex ante, expectational data. This, combined with our inability to observe or properly measure the return on the true, complete, market portfolio, has contributed to the body of conflicting evidence about the validity of the CAPM. It is also possible that the CAPM does not describe investors' behavior in the marketplace.

 $\frac{\text{Covariance } (R_{\underline{F}}, R_{\underline{M}})}{\text{Variance } (R_{\underline{M}})}$

⁸⁷ The beta is equal to:

Betas are typically calculated by reference to historical relative volatility using simple regression analysis of the change in the market portfolio return and the corresponding change in an individual stock or portfolio of stock returns.

Theoretically and empirically, one of the most troubling problems for academics and money managers has been that the CAPM's single source of risk is the market. They believe that the market is not the only factor that is important in determining the return an asset is expected to earn. (Diana R. Harrington, *Modern Portfolio Theory, The Capital Asset Pricing Model & Arbitrage Pricing Theory: A User's Guide*, Second Edition, Prentice-Hall, Inc., 1987, page 188.)

Fama and French in "The CAPM: Theory and Evidence", *Journal of Economic Perspectives*, Volume 18, Number 3 (Summer 2004), pp. 25-26:

The attraction of the CAPM is that it offers powerful and intuitively pleasing predictions about how to measure risk and the relation between expected return and risk. Unfortunately, the empirical record of the model is poor – poor enough to invalidate the way it is used in applications. The CAPM's empirical problems may reflect theoretical failings, the result of many simplifying assumptions. But they may also be caused by difficulties in implementing valid tests of the model. For example, the CAPM says that the risk of a stock should be measured relative to a comprehensive 'market portfolio' that in principle can include not just traded financial assets, but also consumer durables, real estate and human capital. Even if we take a narrow view of the model and limit its purview to traded financial assets, is it legitimate to limit further the market portfolio to U.S. common stocks (a typical choice), or should the market be expanded to include bonds, and other financial assets, perhaps around the world? In the end, we argue that whether the model's problems reflect weaknesses in the theory or in its empirical implementation, the failure of the CAPM in empirical tests implies that most applications of the model are invalid.

Fama and French have developed an alternative model which incorporates two additional explanatory factors in an attempt to overcome the problems inherent in the single variable CAPM.⁸⁸

⁸⁸ The additional factors are size and book to market.

To quote Burton Malkiel in *A Random Walk Down Wall Street*, New York: W. W. Norton & Co., 2003:

Beta, the risk measure from the capital-asset pricing model, looks nice on the surface. It is a simple, easy-to-understand measure of market sensitivity. Alas, beta also has its warts. The actual relationship between beta and rate of return has not corresponded to the relationship predicted in theory during long periods of the twentieth century. Moreover, betas for individual stocks are not stable from period to period, and they are very sensitive to the particular market proxy against which they are measured.

I have argued here that no single measure is likely to capture adequately the variety of systematic risk influences on individual stocks and portfolios. Returns are probably sensitive to general market swings, to changes in interest and inflation rates, to changes in national income, and, undoubtedly, to other economic factors such as exchange rates. And if the best single risk estimate were to be chosen, the traditional beta measure is unlikely to be everyone's first choice. The mystical perfect risk measure is still beyond our grasp. (page 240)

One of the key developers of the Arbitrage Pricing Model, Dr. Stephen Ross, has stated,

Beta is not very useful for determining the expected return on a stock, and it actually has nothing to say about the CAPM. For many years, we have been under the illusion that the CAPM is the same as finding that beta and expected returns are related to each other. That is true as a theoretical and philosophical tautology, but pragmatically, they are miles apart.⁸⁹

⁸⁹ Dr. Stephen A. Ross, "Is Beta Useful?" *The CAPM Controversy: Policy and Strategy Implications for Investment Management*, AIMR, 1993.

2. Relationship between Beta and Return in the Canadian Equity Market

To test the actual relationship between beta and return in a Canadian context, the betas (using monthly total return data) were calculated for various periods for each of the 15 major sub-indices of the "old" TSE 300 as were the corresponding actual geometric average total returns. Simple regressions of the betas on the achieved market returns were then conducted to determine if there was indeed the expected positive relationship. The regressions covered (a) 1956-2003, the longest period for which data for the TSE 300 and its sub-index components are available; (b) 1956-1997, which eliminates the major effects of the "technology bubble", and (c) all potential non-overlapping 10-year periods from 2003 backwards.

The analysis showed the following:

Returns Measured Over:	Coefficient on Beta	R ²
1956-2003	088	47%
1956-1997	082	44%
1964-1973	020	1%
1974-1983	008	1%
1984-1993	056	11%
1994-2003	053	9%

Table B-5

Source: Schedule 10, page 1 of 2.

The analysis suggests that, over the longer term, the relationship between beta and return has been negative, rather than the positive relationship posited by the CAPM. For example, as indicated in Table B-5 above, for the period 1956-2003, the R^2 of 47% means that the betas explained 47% of the variation in returns among the key sectors of

the TSE 300 index. However, since the coefficient on the beta was <u>negative</u>, this means that the <u>higher</u> beta companies actually earned <u>lower</u> returns than the low beta companies.

A series of regressions was also performed on the 10 major sectors of the S&P/TSX Composite. These regressions covered (a) 1988-2006, the longest period for which data for the new Composite and its sector components are available; (b) 1988-1997,⁹⁰ and (c) the most recent 10-year period ending 2006.

That analysis showed the following:

Returns Measured Over:	Coefficient on Beta	R ²
1988-2006	043	23%
1988-1997	017	1%
1997-2006	098	45%

Table B-6

Source: Schedule 10, page 2 of 2.

These analyses indicate that, historically, the relationship between beta and return in the Canadian equity market has been the reverse (higher beta = lower return) than the posited relationship.

3. Impact of Interest Sensitivity of Utility Shares on Relative Risk Adjustment

The single equity beta does not capture the interest sensitivity of utility shares. The following analysis demonstrates how explicitly incorporating interest sensitivity impacts the relative risk assessment.

⁹⁰ The use of this sub-period was intended to ensure elimination of the impacts of any anomalous market behavior during the technology "bubble and bust", which occurred mainly from 1999 through mid-2002.

A regression of the monthly returns on the TSE Gas/Electric Index against the TSE 300 over the period 1970-August 1999⁹¹ shows the following:

$$\begin{array}{rcl} \text{Monthly TSE} \\ \text{Gas/Electric} \\ \text{Return} \\ \text{t-statistic} \\ \text{R}^2 \\ \end{array} = \begin{array}{rcl} 0.0054 + & 0.58 \\ \text{monthly TSE 300} \\ \text{Return} \\ \text{I6.5} \\ \end{array} \right\}$$

The relationship quantified in the above equation suggests a relative risk adjustment of close to 0.60. However, the R^2 , which measures how much of the variability in utility stock prices is explained by volatility in the equity market as a whole, is only 43%. That means 57% of the volatility remains unexplained.

When the analysis is expanded to include Government of Canada bond returns, the following regression is produced:

When interest rates (as proxied by government bond returns) are added as a further explanatory variable, more of the observed volatility in utility stock prices is explained (55% versus 43%).

The second regression equation suggests that utility shares have had approximately 50% of the volatility of the equity market as well as approximately 50% of the volatility of the bond market, consistent with utility common stocks' interest sensitivity. Using an expected equity market return of 11.5%, and a long Canada bond return equal to the 2008 forecast 30-year Canada yield of 4.75-5.0%, the equation indicates an expected utility return of 10.3%. When the 10.3% utility return is expressed as an equity risk premium

⁹¹ Excludes the anomalous market "bubble and bust"/"Nortel effect" period.

relative to the 4.75-5.0% long Canada yield, the indicated relative risk adjustment is close to 82%.⁹²

 $^{92} \frac{10.3\% - 4.875\%}{11.5\% - 4.875\%} = .82.$

Appendix B

APPENDIX C

DCF-BASED EQUITY RISK PREMIUM TEST

SELECTION OF PROXY UTILITIES

A sample of low risk U.S. utilities was selected, comprised of all electric utilities and gas distributors satisfying the following criteria:

- (1) Classified by *Value Line* as an electric utility or a gas distributor;
- (2) Standard & Poor's business risk profile score of "5" or less;
- (3) Standard & Poor's debt rating of A- or higher; and,
- (4) Not being acquired at time of selection.

The 13 utilities that met these criteria are listed on Schedule 17.

CONSTRUCTION OF THE DCF-BASED EQUITY RISK PREMIUM TEST

The constant growth DCF model was used to construct a monthly series of expected utility returns for each of the 13 utilities in the sample over the period 1993-2006.⁹³ The monthly DCF cost for each utility was estimated as the sum of the utilities' I/B/E/S mean earnings growth forecast (published monthly) (g) and the corresponding expected monthly dividend yield (DY_e). The dividend yield (DY) was calculated as the most recent quarterly dividend paid, annualized, divided by the monthly closing price. The expected dividend yield was then calculated by adjusting the monthly dividend yield for one-half the I/B/E/S mean earnings growth forecast ($DY_e=DY*(1+.5g)$). The individual

⁹³ Subsequent to Open Access implemented via FERC Order 636.

utilities' monthly DCF estimates $(DY_e + g)$ were then averaged to produce a time series of monthly DCF estimates (DCF_s) for the sample. The monthly equity risk premium (ERP) for the sample was calculated by subtracting the corresponding 30-year Treasury yield (TY) from the average DCF cost of equity (ERP_s=DCF_s-TY) (Schedule 17). The monthly sample average ERP_s were used to estimate the regression equations found in Section V.B of the testimony.

APPENDIX D

DISCOUNTED CASH FLOW TEST

DCF MODELS

CONSTANT GROWTH MODEL

The constant growth model rests on the assumption that investors expect cash flows to grow at a constant rate throughout the life of the stock. The assumption that investors expect a stock to grow at a constant rate over the long-term is most applicable to stocks in mature industries.

Growth rates in these industries will vary from year to year and over the business cycle, but will tend to deviate around a long-term expected value. As a pragmatic matter, the application of a constant growth model is compatible with the likelihood that investors do not forecast beyond five years. Hence, in that context the current market price and dividend yield would not explicitly anticipate any changes in the outlook for growth.

The constant growth model is expressed as follows:

Cost of Equity (k) =
$$\underline{D_1} + g$$
,
 P_0

where,

⁹⁴Alternatively expressed as D_o (1 + g), where D_o is the most recently paid dividend.

This model, as set forth above, reflects a simplification of reality. First, it is based on the notion that investors expect all cash flows to be derived through dividends. Second, the underlying premise is that dividends, earnings, and price all grow at the same rate. However, it is likely that, in the near-term, investors expect growth in dividends to be lower than growth in earnings.

The model can be adapted to account for the potential disparity between earnings and dividend growth by recognizing that all investor returns must ultimately come from earnings. Hence, focusing on investor expectations of earnings growth will encompass all of the sources of investor returns (e.g., dividends and retained earnings).

TWO-STAGE MODEL

The two-stage model is based on the premise that investors expect the growth rate for the utilities to be equal to the company-specific growth rates for the near-term (Stage 1 Growth), but, in the longer-term (from Year 6 onward) to migrate to the expected long-run rate of growth in the economy (GDP Growth). All industries go through various stages in their life cycle. Utilities are considered to be the quintessential mature industry. Mature industries are those whose growth parallels that of the overall economy.

The use of forecast GDP growth as the long-term growth component is a widely utilized approach. For example, the Merrill Lynch discounted cash flow model for valuation utilizes nominal GDP growth as a proxy for long-term growth expectations. The Federal Energy Regulatory Commission relies on GDP growth to estimate expected long-term nominal GDP growth in its standard DCF models for gas and oil pipelines.

Using the two-stage DCF model, the DCF cost of equity is estimated as the internal rate of return that causes the price of the stock to equal the present value of all future cash flows to the investor.

The cash flow per share in Year 1 is equal to:

Last Paid Annualized Dividend x (1 + Stage 1 Growth)

For Years 2 through 5, cash flow is defined as:

Cash Flow t-1 x (1 + Stage 1 Growth)

Cash flows from Year 6 onward are estimated as: Cash Flow t-1 x (1 + GDP Growth)

SELECTION OF PROXY UTILITIES

The same sample of utilities was used as for the DCF-based risk premium test. The selection criteria are described in Appendix C.

INVESTOR GROWTH EXPECTATIONS

The application of the constant growth model relies principally on the consensus of investment analysts' forecasts of long-term earnings growth compiled by I/B/E/S. It also relies on the *Value Line* forecasts of earnings growth as an alternative to the I/B/E/S estimates. The application of the two-stage model relies upon the I/B/E/S consensus earnings forecasts as the estimate of investor growth expectations during Stage 1. The expected nominal long-run rate of growth in the economy (GDP) is based on the consensus of economists' long-term forecasts (found in Blue Chip *Financial Forecasts* (December 1, 2006). The consensus forecast rate of growth in the long-term (2012-2017) is 5.3%.

Empirical studies that conclude that investment analysts' growth forecasts serve as a better surrogate for investors expectations than historic growth rates include: Lawrence D. Brown and Michael S. Rozeff, "The Superiority of Analyst Forecasts as Measures of Expectations: Evidence from Earnings", *The Journal of Finance*, Vol. XXXIII, No. 1, March 1978; Dov Fried and Dan Givoly, "Financial Analysts Forecasts of Earnings, A Better Surrogate for Market Expectations", *Journal of Accounting and Economics*, Vol. 4 (1982); R. Charles Moyer, Robert E. Chatfield, Gary D. Kelley, "The Accuracy of Long-Term Earnings Forecasts in the Electric Utility Industry", *International Journal of Forecasting* Vol. I (1985); Robert S. Harris, "Using Analysts' Growth Forecasts to Estimate Shareholder Required Rates of Return", *Financial Management*, Spring 1986, and, James H. Vander Weide and William T. Carleton, "Investor Growth Expectations: Analysts vs. History", *The Journal of Portfolio Management*, Spring 1988; David Gordon, Myron Gordon and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

The Vander Weide and Carleton study cited

found overwhelming evidence that the consensus analysts' forecast of future growth is superior to historically oriented growth measures in predicting the firm's stock price [and that these results] also are consistent with the hypothesis that investors use analysts' forecasts, rather than historically oriented growth calculations, in making stock buy-and-sell decisions.

The Gordon, Gordon and Gould study concluded,

...the superior performance by KFRG [forecasts of [earnings] growth by securities analysts] should come as no surprise. All four estimates [securities analysts' forecasts plus past growth in earnings and dividends and historic retention growth rates] rely upon past data, but in the case of KFRG a larger body of past data is used, filtered through a group of security analysts who adjust for abnormalities that are not considered relevant for future growth.

In the application of the DCF, the reliability of the earnings growth forecasts as a measure of investor expectations has been questioned by some Canadian regulators. The issue of reliability arises because of the documented optimism of analysts' forecasts

historically. However, as long as investors have believed the forecasts, and have priced the securities accordingly, the resulting DCF costs of equity are an unbiased estimate of investors' expected returns. That proposition can be tested indirectly. For the sample of utilities used in the DCF test (as well as the DCF-based equity risk premium test), the average expected long-term growth rate, as estimated using analysts' forecasts, for the entire 1993-2006 period of analysis was 4.7%. That growth rate is lower than the expected long-term nominal growth in the economy as a whole over the same period.⁹⁵ An expected growth rate that is close to that of the economy as a whole would not be out-of-line with the level of growth investors in the relatively mature utility industries could reasonably expect over the longer-term.

I also tested the potential bias of the I/B/E/S long-term consensus forecasts of earnings growth for U.S. utilities by comparing the I/B/E/S estimates to the *Value Line* forecasts of earnings growth for all utilities with forecasts from each firm. As an independent research firm, *Value Line* has no incentive to "inflate" its estimates of earnings growth in an attempt to make stocks more attractive to investors, as analysts associated with investment banking firms might have. Both I/B/E/S and *Value Line* publish 3-5 year growth forecasts. I/B/E/S releases the consensus forecast monthly; *Value Line* updates and releases its forecasts quarterly. For each utility that has both an I/B/E/S and *Value Line* each of the two firms published in calendar 2006 were calculated. The following table compares the average and median long-term growth forecasts from each firm. This comparison suggests no upward bias in the I/B/E/S forecasts.

	Value Line	I/B/E/S
Average	6.1	5.8
Median	5.4	5.2

⁹⁵ The average expected long-term nominal rate of growth in the U.S. economy, based on consensus forecasts (Blue Chip *Economic Indicators*, March editions, 1993-2006), has been 5.3% over the same period covered by the DCF-based equity risk premium test.

APPLICATION OF THE DCF MODELS

CONSTANT GROWTH MODEL

The constant growth DCF model was applied to the sample of U.S. gas and electric utilities using the following inputs to calculate the dividend yield:

- (1) the most recent annualized dividend paid as of February 28, 2007 as D_0 ; and,
- (2) the average of the daily close prices for February 2007 as P_{o} .

For the expected growth rates, the most recent I/B/E/S (February 2007) consensus (mean) earnings growth forecasts were used to estimate "g" in the growth component for each utility and to adjust the current dividend yield to the expected dividend yield. The DCF estimates of the cost of equity based on the constant growth model were in the range of 8.5-8.7% (See Schedule 19).

TWO-STAGE MODEL

The two-stage model relies on the I/B/E/S consensus of analysts' earnings forecasts for the first five years (Stage 1), and forecast growth in the economy thereafter (Stage 2). The consensus long-run (2012-2017) expected nominal rate of growth in GDP, as noted above, is 5.3%.

The two-stage DCF model estimates of the cost of equity for the utility sample (Schedule 20) are as follows:

Mean	9.2%
Median	9.2%

Foster Associates Inc.
RESULTS OF THE CONSTANT GROWTH AND TWO-STAGE MODELS

The results of the two models indicate a required "bare-bones" return on equity of approximately 8.75-9.0%

Foster Associates Inc.

APPENDIX E

COMPARABLE EARNINGS TEST

SELECTION OF CANADIAN INDUSTRIALS

The selection process starts with the recognition that industrials generally are exposed to higher business risk, but lower financial risk, than a benchmark Canadian utility. The selection of industrials focuses on total investment risk, i.e., the combined business and financial risks. The comparable earnings test is based on the premise that industrials' higher business risks are offset by a more conservative capital structure, i.e., higher equity ratios, thus permitting selection of industrial samples of reasonably comparable investment risk to a benchmark Canadian utility.

As a point of departure, the selection was limited to industries that are characterized by relatively stable demand characteristics, as well as consistent dividend payments and relatively low earnings and share price volatility. The initial universe consisted of all firms on the TSX in Global Industry Classification Standard (GICS) sectors 20-30. The sectors represented by the GICS codes in this range are: Industrials, Consumer Discretionary and Consumer Staples.⁹⁶ The resulting universe contained 473 firms. From this group of 473 companies, all firms with missing book equity or negative common equity during the period 1994-2005 as well as 2005 equity below \$50 million were removed (88 companies remaining). Next, all companies that paid no dividends in any year 2001-2006 were removed (55 companies remaining). To remove small and/or thinly traded companies, all companies that traded fewer than 125,000 shares in 2005 were eliminated, as were those companies with fewer than five years of market data available (leaving 51 companies).⁹⁷ To ensure that relatively low risk unregulated

⁹⁶ Included in these sectors are major industries such as: Food Retail, Food Distributors, Tobacco, Packaged Foods, Soft Drinks, Distillers, Household Appliances, Aerospace and Defense, Electrical Components & Equipment, Industrial Machinery, Publishing & Printing, Department Stores, and General Merchandise.

⁹⁷ SNC-Lavalin was removed due to its purchase of regulated electric transmission assets in Alberta; Canadian Pacific Railway was also eliminated due to its reorganization in 2000, which rendered its historic

companies were selected; all companies with five-year "raw" betas ending September 2006 over 1.0 were removed. The resulting group contained 38 companies. Next, those companies whose 1995-2005 returns fall outside \pm 1 standard deviation from the average were removed to eliminate companies whose earnings have been chronically depressed or which have been extraordinarily profitable (32 companies remaining). Finally, those companies whose stock was ranked "Higher Risk" or "Speculative" by the Canadian Business Service (CBS),⁹⁸ whose debt is rated non-investment grade i.e., BB+ or below by either DBRS or Standard & Poor's, or for which none of the agencies report a rating, were eliminated. The final sample of low risk Canadian industrials is comprised of 17 companies (Schedule 25).

TIME PERIOD FOR MEASURING RETURNS

Since industrials' returns on equity tend to be cyclical, the appropriate period for measuring industrial returns should encompass an entire business cycle, covering years of both expansion and decline. That cycle should be representative of a future normal cycle, e.g., similar in terms of inflation and real economic growth. Over the period 1994-2005, the experienced returns on equity of the sample of 17 industrials were as follows.

data series inconsistent; Canadian National Railway was removed as it was controlled by the Federal Government through November 1995; Foremost Income Fund and North West Co. Fund, were removed because they are income trusts.

⁹⁸ Canadian Business Service (CBS) ranks stocks "Very Conservative", "Conservative", "Average", "Higher Risk", or "Speculative".

<u>Returns on Average Common Equity</u> <u>for Low Risk Canadian Industrials</u>							
(1994-2005)							
Average	12.8%						
Median	12.4%						
Average of annual medians	12.7%						

Table E-1

Source: Schedule 26.

Based on these data, the returns are in the approximate range of 12.5-12.75%.

The average nominal economic growth for Canada during the 1994-2005 business cycle was 5.4%, compared to the consensus forecast for real growth of approximately 2.7%, and for inflation (CPI) of 2.0% for the period (2008-2016)⁹⁹, which suggests nominal long-term GDP growth of 4.75%. With nominal growth expected to be only moderately lower relative to the past business cycle, the experienced returns on book equity, absent extraordinary events, provide a reasonable proxy for the future.

RELATIVE RISK COMPARISON

With respect to the investment risk of the Canadian industrials relative to a benchmark Canadian utility, comparisons of the various risk measures indicate that they are in a similar risk class. The median CBS stock rating for the industrials is "Conservative", compared to the median of "Very Conservative" for the investor-owned Canadian utilities with publicly-traded stock. The median S&P and DBRS debt ratings for the industrials are A-/BBB+ and A(low)/BBB(high) respectively, compared to the Canadian utilities' median ratings of A- and A (See Schedules 1 and 25). The median adjusted beta for the industrials was 0.57 for the five year period ending December 2006 (see Schedule

⁹⁹ Consensus Economics, Consensus Forecasts, October 9, 2006.

25), compared to my estimate of the relative risk adjustment factor for a benchmark Canadian utility of approximately 0.65-0.70.

The estimate of a normal cycle average level of returns for low risk Canadian industrials is in the approximate range of 12.5-12.75%. The comparative risk data indicate, on balance, the Canadian industrials are somewhat riskier than the utilities. To recognize the industrials' marginally higher risk, the comparable earnings test, applied to a benchmark Canadian utility, should be interpreted as indicating a return at the bottom end of the range, i.e., at approximately 12.5%.

SELECTION OF U.S. INDUSTRIALS

The U.S. industrials were selected using similar criteria to the selection of Canadian industrials. The initial universe consisted of all firms actively traded in the U.S. from S&P's Research Insight database in Global Industry Classification Standard (GICS) sectors 20-30. The sectors represented by the GICS codes in this range are: Industrials, Consumer Discretionary and Consumer Staples.¹⁰⁰ The resulting universe contained 2,682 firms. All non-U.S. companies were then removed, leaving 2,396. From this group of 2,396 companies, all firms with missing or negative common equity during the period 1994-2005 or with 2005 common equity less than \$50 million were removed (733 companies remaining). To remove thinly traded companies, all companies that traded fewer than 125,000 shares in 2005 were eliminated (leaving 703 companies). Next, all companies that paid no dividends in any year 2001-2006 were removed (323 companies remaining).¹⁰¹ To ensure that low risk companies were selected, all companies with five year "raw" betas ending September 2006 over 1.0 were removed (218 companies). Next, those companies whose 1995-2005 returns were greater than ± 1 standard deviation from the average were removed to eliminate companies whose earnings have been chronically

¹⁰⁰ Included in these sectors are major industries such as: Food Retail, Food Distributors, Tobacco, Packaged Foods, Soft Drinks, Distillers, Household Appliances, Aerospace and Defense, Electrical Components & Equipment, Industrial Machinery, Publishing & Printing, Department Stores, and General Merchandise.

¹⁰¹ Molson Coors was removed due to its recent merger.

depressed or which have been extraordinarily profitable (182 companies). Finally, those companies whose debt is rated non-investment grade i.e., BB+ or below by Standard and Poor's, or for which the *Value Line* Safety Rank was equal to "4" or "5",¹⁰² were eliminated. The final sample of low risk U.S. industrials is comprised of 159 companies (Schedule 27). The returns for the sample of U.S. industrials are summarized in Table E-2 following.

Returns on Average Commo	n Equity
<u>for Low Risk U.S. Indust</u>	rials
<u>(1994-2005)</u>	
Average	14.6%
Median	13.7%
Average of annual medians	14.4%

Table E-2

Source: Schedule 28

Based on these data, the returns are in the approximate range of 13.5-14.5%.

Comparisons of the U.S. industrials' and utilities' risk measures indicate that the U.S industrials are of somewhat higher risk than the utilities. The median and mean *Value Line* Safety Ranks for the U.S. industrials are "3" and "2" respectively, compared to the Safety Rank of "2" for TransCanada Corporation, the one regulated Canadian company with *Value Line* rankings.¹⁰³ The industrials' median and mean S&P debt ratings are BBB+ and A-, respectively, compared to the major Canadian utilities' median and mean

¹⁰² *Value Line*'s Safety Rank is a measurement of potential risk associated with individual common stocks. The Safety Rank is computed by averaging two other *Value Line* indexes – the Price Stability Index and the Financial Strength Rank. Safety Ranks range from "1" (highest) to "5" (lowest).

¹⁰³ The mean and median Safety Ranks for the proxy sample of U.S. electric and gas utilities used to perform the DCF-based equity risk premium and discounted cash flow tests are "2" and "1" respectively; See Schedule 18.

ratings of A- and to the benchmark low risk U.S. utilities' median and mean debt ratings of A (see Schedules 1, 18 and 27). The most recent median *Value Line* and adjusted Research Insight betas of 0.90 and 0.78 respectively for the U.S. industrials compare to the similarly calculated betas of 0.85 and 0.57 of the benchmark low risk U.S. utilities (see Schedule 27). A downward adjustment to the U.S industrial returns for the difference in betas indicates a risk-adjusted return of approximately 12.5-13.0%. The returns for the U.S. industrials as adjusted for relative risk then supports the reasonableness of the comparable earnings results as applied to the Canadian industrials.

The returns for the relatively low risk competitive U.S. firms confirm that the results of the comparable earnings test applied to unregulated Canadian firms are reasonable.

MARKET TO BOOK RATIOS

In prior testimony before the PUB, the expert witness for the Consumer Advocate, Dr. Basil Kalymon, has argued that the comparable earnings results require a market/book adjustment. In arriving at its recent decision for Terasen Gas (March 2006), the British Columbia Utilities Commission stated that it did not believe comparable earnings had outlived its usefulness, and that it may yet play a role in future ROE hearings. Nevertheless, the BCUC concluded that there was insufficient evidence before it regarding whether or not a market/book ratio adjustment was merited and, if so, how it might be accomplished.

The rationale for a market/book ratio adjustment to the comparable earnings test results has arisen on two grounds:

1. The market/book ratio of utility common shares should be approximately 1.0 times, i.e., that the fair market value of utility shares is equal to their book value.

2. Market/book ratios of unregulated firms well in excess of 1.0 times is evidence that the companies are earning returns in excess of their cost of capital, and thus are exerting market power.

With respect to the notion that the market/book ratio of utility shares should be approximately 1.0 times, that conclusion is incompatible with the standard of comparable returns. The comparable returns standard requires that a utility have the opportunity to earn a return commensurate with returns on investments in other enterprises having corresponding risks.

Regulation is intended to be a surrogate for competition. If unregulated competitive enterprises of corresponding risks to utilities are able to maintain market/book ratios in excess of 1.0, it would be patently contrary to the to the objective of regulation and to the comparable earnings standard to reduce the returns of unregulated comparable firms in order to target a particular market/book ratio for a utility.

With respect to the second rationale, the question that needs to be addressed is whether the market/book ratios of the sample of comparable unregulated companies are evidence of market power.

To address this question, the first issue is whether the market/book ratios of competitive companies should, in principle, trend toward 1.0. Regulation is intended to be a surrogate for competition. The competitive model indicates that equity market values tend to gravitate toward the replacement cost of the underlying assets. This is due to the economic proposition that, if the discounted present value of expected returns (market value) exceeds the cost of adding capacity, firms will expand until an equilibrium is reached, i.e., when the market value equals the replacement cost of the productive capacity of the assets.

The ratio of market value to replacement cost is called the "Q Ratio", a term coined by the Nobel Prize winning economist James Tobin in the late 1960s.¹⁰⁴ Essentially, the economic theory is that the market value of assets in the aggregate should equate to their replacement cost, that is, the "Q Ratio" (market value/replacement cost) should trend toward 1.0.

The "Q Ratio" has since gained stature as an investment tool,¹⁰⁵ whose importance was underscored in a March 2002 *New York Times* article which stated, referring to Tobin's obituaries:

Great emphasis was placed on how revolutionary his insights were three, four or five decades ago. Yet most were relatively silent on how those insights can lead us to be more successful investors today. It is a shame. Investors greatly handicap themselves if they ignore Dr. Tobin's work.

Consider Tobin's Q, the ratio for which Dr. Tobin, at least at one time, was most famous among investors. This is the ratio of a company's total market capitalization to the replacement value of that company's total assets. While the Q ratio – as Tobin's Q is often called – is conceptually similar to the price-to-book ratio, it avoids the myriad accounting difficulties associated with book value. For example, while book value carries assets at depreciated original cost, replacement value focuses on how much it would cost to buy those assets today. [emphasis added]

Absent inflation and technological change, the market value and replacement cost of firms operating in a competitive environment would tend to equal their book value or cost. However, the fact that inflation has occurred, and continues to occur, renders that relationship invalid. With inflation, under competition, the market value of a firm trends toward the current cost of its assets. The book value of the assets, in contrast, reflects the historic depreciated cost of the assets. Since there have been moderate to relatively high

¹⁰⁴ The general idea had been expressed decades earlier by the economist John Keynes.

¹⁰⁵ The Federal Reserve Board tracks the "Q Ratio" of the U.S. equity market. It was the level of the "Q Ratio", along with the price/dividend ratio, that led Fed Chairman Alan Greenspan to warn of a speculative bubble in the equity market as early as 1996.

levels of inflation over the past twenty-five years, it is reasonable to expect market values to exceed the book value of those assets.

As indicated in Figure E-1 below, market/replacement cost ratios, as derived from the flow of funds accounts, have been systematically higher than the market to original cost ratios. For the U.S., the market/replacement cost ratio for corporations¹⁰⁶ has averaged approximately 60% higher than the market/book ratio.



Figure E-1

Source: US Federal Reserve Flow of Funds (B102).

To test the potential for market power in the achieved returns of the two samples of low risk unregulated firms used in the comparable earnings test, their market/book ratios were compared to those of the respective Canadian and U.S. market composites. The figure on the following page tracks the market/book values for the S&P/TSX Composite and the S&P 500 from 1980-2005.

¹⁰⁶ Based on non-farm, non-financial corporate businesses.

Figure E-2



Source: RBC Capital Markets

The data from which the figure was created indicate that the market/book ratio for the overall Canadian equity market has averaged approximately 1.7 times from 1980-2005, and approximately 2.1 times from 1994-2005, the period over which the comparable earnings test was conducted. Based on twenty-five years of data, the market/book ratio for the Canadian equity market has varied around an average of close to 1.7 times, not 1.0 times. By comparison to the equity market composite's 2.1 times average over the 1994-2005 period, the market/book ratio for the sample of comparable Canadian unregulated companies averaged 2.0 times. For the S&P 500, the market/book ratios were approximately 2.5 and 3.4 times, respectively, over the same two periods. For the sample of low risk U.S. unregulated firms, the average market/book ratio was 2.7 times from 1994-2005. The lower average market/book ratios of the low risk samples relative to the overall equity market composites permit the inference that the sample average returns are not characterized by market power.

In summary, the comparable earnings results do not warrant an adjustment for market/book ratios.

APPENDIX F

FINANCING FLEXIBILITY ADJUSTMENT

An adjustment to the equity risk premium and discounted cash flow test results for financing flexibility is required because the measurement of the return requirement based on market data results in a "bare-bones" cost. It is "bare-bones" in the sense that, theoretically, if this return is applied to (and earned on) the book equity of the rate base (assuming the expected return corresponds to the approved return), the market value of the utility would be kept close to book value.

The financing flexibility allowance is an integral part of the cost of capital as well as a required element of the concept of a fair return. The allowance is intended to cover three distinct aspects: (1) flotation costs, comprising financing and market pressure costs arising at the time of the sale of new equity; (2) a margin, or cushion, for unanticipated capital market conditions; and (3) a recognition of the "fairness" principle. Fairness dictates that regulation should not seek to keep the market value of a utility stock close to book value when industrials of comparable investment risk have been able to consistently maintain the real value of their assets considerably above book value.

The financing flexibility allowance recognizes that return regulation remains, fundamentally, a surrogate for competition. Competitive industrials of reasonably similar risk to utilities have consistently been able to maintain the real value of their assets significantly in excess of book value, consistent with the proposition that, under competition, market value will tend to equal the replacement cost, not the book value, of assets.

Utility return regulation should not seek to target the market/book ratios achieved by such industrials, but, at the same time, it should not preclude utilities from achieving a level of financial integrity that gives some recognition to the longer run tendency for the market value of industrials to equate to the replacement cost of their productive capacity. This is

warranted not only on grounds of fairness, but also on economic grounds, to avoid misallocation of capital resources. To ignore these principles in determining an appropriate financing flexibility allowance is to ignore the basic premise of regulation. The adjustment for financing flexibility recognizes that the market return derived from the equity risk premium test needs to be translated into a return that is fair and reasonable when applied to book value.

This premise was recognized by the Independent Assessment Team (IAT), retained by the Alberta Department of Resource Development to determine the cost parameters for the Power Purchase Arrangement (PPAs) for existing regulated generating plants, concluded in its 1999 report, regarding flotation costs,

This is sometimes associated with flotation costs but is more properly regarded as providing a financial cushion which is particularly applicable given the use of historic cost book values in traditional rate of return regulation in Canada. No such adjustment has ever been made in UK utility regulation cases which tend to use market values or current cost values.¹⁰⁷

The Report of the IAT was accepted by the Alberta Energy and Utilities Board in Decision U99113 (December 1999).

Further, the financing flexibility allowance should also recognize that both the equity risk premium and DCF cost of equity estimates are derived from market values of equity capital. The cost of capital reflects the market value of the firms' capital, both debt and equity. The market value capital structures may be quite different from the book value capital structures. When the market value common equity ratio is higher (lower) than the book value common equity ratio, the market is attributing less (more) financial risk to the firm than is "on the books" as measured by the book value capital structure. Higher financial risk leads to a higher cost of common equity, all other things equal.

¹⁰⁷Independent Assessment Team Power Purchase Arrangement Report, July 1999, page XLV, footnote 99.

To put this concept in common sense terms, assume that I purchased my home 10 years ago for \$100,000. My home is currently worth \$250,000. If I were applying for a loan, the bank would consider my net worth (equity) to be \$150,000, not the "book value" of my home, which reflects the original purchase price less the mortgage loan amount. It is the market value of my home that determines my financial risk to the bank, not the original purchase price. The same principle applies when the cost of common equity is estimated. The book value of the common equity shares is not the relevant measure of financial risk to equity investors; it is their market value, that is, the value at which the shares could be sold.

Regulatory convention applies the allowed equity return to a book value capital structure. When the market value equity ratios of the proxy utilities are well in excess of their book value common equity ratios, application of an unadjusted market-derived cost of equity to the book value capital structure fails to recognize the higher financial risk and the higher cost of equity implied by the book value capital structures.

Two approaches can be used to quantify the range of the impact of a change in financial risk on the cost of equity. The first approach is based on the theory that the overall cost of capital does not change materially over a relatively broad range of capital structures. The second approach is based on the theoretical model which assumes that the overall cost of capital declines as the debt ratio rises due to the income tax shield on interest expense.¹⁰⁸

Schedules 23 and 24 provide the formulas and inputs for estimating the change in the cost of equity under each of the two approaches. The schedules show that a recognition of the difference in financial risk between the market value and book value capital structures of the publicly-traded Canadian utilities and the low risk U.S. utilities results in an increase

¹⁰⁸ The second approach does not account for any of the factors that offset the corporate income tax advantage of debt, including the costs of bankruptcy/loss of financing flexibility, the impact of personal income taxes on the attractiveness of issuing debt, or the flow-through of the benefits of interest expense deductibility to ratepayers. Thus, the results of applying the second approach will over-estimate the impact of leverage on the overall cost of capital and understate the impact of increasing financial leverage on the cost of equity.

in the cost of equity in the range of 0.90 to 1.90 percentage points. A minimal recognition of the higher financial risk in the book value capital structures supports a financing flexibility adjustment of no less than 50 basis points.

At a minimum, the financing flexibility allowance should be adequate to allow a utility to maintain its market value, notionally, at a slight premium to book value, i.e., in the range of 1.05-1.10. At this level, a utility will be able to recover actual financing costs, as well as be in a position to raise new equity (under most market conditions) without impairing its financial integrity. A financing flexibility allowance adequate to maintain a market/book in the range of 1.05-1.10 is approximately 50 basis points.¹⁰⁹

Return on Book Equity = $\frac{\text{Market/Book Ratio x "bare-bones" cost of equity}}{1 + [retention rate (M/B - 1.0)]}$

For a market/book ratio of 1.075 (mid-point of 1.05 and 1.10), assuming a dividend payout ratio of 65% and a cost of equity of 9.25%, the indicated ROE is:

$$ROE = \frac{1.075 \times 9.25\%}{1 + [.35 (1.075 - 1.0)]}$$

ROE = 9.7%

The difference between the ROE and the "bare-bones" cost of equity of approximately 50 basis points is the financing flexibility allowance.

¹⁰⁹ The financing flexibility allowance is estimated using the following formula developed from the discounted cash flow formula:

APPENDIX G

QUALIFICATIONS OF KATHLEEN C. McSHANE

Kathleen McShane is the President of and a senior consultant with Foster Associates, Inc., where she has been employed since 1981. She holds an M.B.A. degree in Finance from the University of Florida, and M.A. and B.A. degrees from the University of Rhode Island. She has been a CFA charterholder since 1989.

Ms. McShane worked for the University of Florida and its Public Utility Research Center, functioning as a research and teaching assistant, before joining Foster Associates. She taught both undergraduate and graduate classes in financial management and assisted in the preparation of a financial management textbook.

At Foster Associates, Ms. McShane has worked in the areas of financial analysis, energy economics and cost allocation. Ms. McShane has presented testimony in more than 150 proceedings on rate of return and capital structure before federal, state, provincial and territorial regulatory boards, on behalf of U.S. and Canadian telephone companies, gas pipelines and distributors, and electric utilities. These testimonies include the assessment of the impact of business risk factors (e.g., competition, rate design, contractual arrangements) on capital structure and equity return requirements. She has also testified on various ratemaking issues, including deferral accounts, rate stabilization mechanisms, excess earnings accounts, cash working capital, and rate base issues. Ms. McShane has provided consulting services for numerous U.S. and Canadian companies on financial and regulatory issues, including financing, dividend policy, corporate structure, cost of capital, automatic adjustments for return on equity, form of regulation (including performance-based regulation), unbundling, corporate separations, stand-alone cost of debt, regulatory climate, income tax allowance for partnerships, change in fiscal year end, treatment of inter-corporate financial transactions, and the impact of weather normalization on risk.

Ms. McShane was principal author of a study on the applicability of alternative incentive regulation proposals to Canadian gas pipelines. She was instrumental in the design and preparation of a study of the profitability of 25 major U.S. gas pipelines, in which she developed estimates of rate base, capital structure, profit margins, unit costs of providing services, and various measures of return on investment. Other studies performed by Ms. McShane include a comparison of municipal and privately owned gas utilities, an analysis of the appropriate capitalization and financing for a new gas pipeline, risk/return analyses of proposed water and gas distribution companies and an independent power project, pros and cons of performance-based regulation, and a study on pricing of a competitive product for the U.S. Postal Service. She has also conducted seminars on cost of capital for regulated utilities, with focus on the Canadian regulatory arena.

Publications, Papers and Presentations

- "Utility Cost of Capital Canada vs. U.S.", presented at the CAMPUT Conference, May 2003.
- "The Effects of Unbundling on a Utility's Risk Profile and Rate of Return", (co-authored with Owen Edmondson, Vice President of ATCO Electric), presented at the Unbundling Rates Conference, New Orleans, Louisiana sponsored by Infocast, January 2000.
- Atlanta Gas Light's Unbundling Proposal: More Unbundling Required?" presented at the 24th Annual Rate Symposium, Kansas City, Missouri, sponsored by several commissions and universities, April 1998.
- "Incentive Regulation: An Alternative to Assessing LDC Performance", (co-authored with Dr. William G. Foster), presented at the Natural Gas Conference, Chicago, Illinois sponsored by the Center for Regulatory Studies, May 1993.
- "Alternative Regulatory Incentive Mechanisms", (co-authored with Stephen F. Sherwin), prepared for the National Energy Board, Incentive Regulation Workshop, October 1992.

Expert Testimony/Opinions

On

Rate of Return & Capital Structure

Alberta Natural Gas	1994
AltaGas Utilities	2000
Ameren (Central Illinois Public Service)	2000, 2002, 2005
Ameren (Central Illinois Light Company)	2005
Ameren (Illinois Power)	2004, 2005
Ameren (Union Electric)	2000 (2 cases), 2002 (2 cases), 2003, 2006 (2 cases)
ATCO Electric	1989, 1991, 1993, 1995, 1998, 1999, 2000, 2003
ATCO Gas	2000, 2003
ATCO Pipelines	2000, 2003
Bell Canada	1987, 1993
Benchmark Utility Cost of Equity (British	Columbia) 1999
Canadian Western Natural Gas	1989, 1998, 1999
Centra Gas B.C.	1992, 1995, 1996, 2002
Centra Gas Ontario	1990, 1991, 1993, 1994, 1996
Direct Energy Regulated Services	2005
Dow Pool A Joint Venture	1992
Edmonton Water/EPCOR Water Services	1994, 2000, 2006
Enbridge Gas Distribution	1988, 1989, 1991-1997, 2001, 2002
Enbridge Gas New Brunswick	2000
FortisBC	1995, 1999, 2001, 2004
Gas Company of Hawaii	2000
Gaz Metropolitain	1988
Gazifère	1993, 1994, 1995, 1996, 1997, 1998
Generic Cost of Capital, Alberta (ATCO a	nd AltaGas Utilities) 2003
Heritage Gas	2002
Hydro One	1999, 2000, 2006

Foster Associates Inc.

Insurance Bureau of Canada (Newfoundland)	2004
Laclede Gas Company	1998, 1999, 2001, 2002, 2005
Mackenzie Valley Pipeline	2005
Maritimes NRG (Nova Scotia) and (New Bru	nswick) 1999
Multi-Pipeline Cost of Capital Hearing (Natio	onal Energy Board) 1994
Natural Resource Gas	1994, 1997, 2006
New Brunswick Power Distribution	2005
Newfoundland & Labrador Hydro	2001, 2003
Newfoundland Power	1998, 2002
Newfoundland Telephone	1992
Northwestel, Inc.	2000, 2006
Northwestern Utilities	1987, 1990
Northwest Territories Power Corp.	1990, 1992, 1993, 1995, 2001, 2006
Nova Scotia Power Inc.	2001, 2002, 2005
Ozark Gas Transmission	2000
Pacific Northern Gas	1990, 1991, 1994, 1997, 1999, 2001, 2005
Platte Pipeline Co.	2002
St. Lawrence Gas	1997, 2002
Southern Union Gas	1990, 1991, 1993
Stentor	1997
Tecumseh Gas Storage	1989, 1990
Telus Québec	2001
Terasen Gas	1992, 1994, 2005
TransCanada PipeLines	1988, 1989, 1991 (2 cases), 1992, 1993
TransGas and SaskEnergy LDC	1995
Trans Québec & Maritimes Pipeline	1987
Union Gas	1988, 1989, 1990, 1992, 1994, 1996, 1998, 2001
Westcoast Energy	1989, 1990, 1992 (2 cases), 1993, 2005
Yukon Electric Co. Ltd./Yukon Energy	1991, 1993

Expert Testimony/Opinions

on

Other Issues

Client Issue Date Heritage Gas **Revenue Deficiency Account** 2006 Hydro Québec Cash Working Capital 2005 Nova Scotia Power Cash Working Capital 2005 **Ontario Electricity Distributors** Stand-Alone Income Taxes 2005 Caisse Centrale de Réassurance **Collateral Damages** 2004 Enbridge Gas New Brunswick AFUDC 2004 Heritage Gas Deferral Accounts 2004 ATCO Electric Carrying Costs on Deferral Account 2001 2001 Newfoundland & Labrador Hydro Rate Base, Cash Working Capital Gazifère Inc. 2000 Cash Working Capital Maritime Electric **Rate Subsidies** 2000 Enbridge Gas Distribution Principles of Cost Allocation 1998 Enbridge Gas Distribution Unbundling/Regulatory Compact 1998 Maritime Electric Form of Regulation 1995 1995 Northwest Territories Power **Rate Stabilization Fund** Canadian Western Natural Gas Cash Working Capital/ 1989 **Compounding Effect** Gaz Metro/ Cost Allocation/ 1984 Province of Québec Incremental vs. Rolled-In Tolling

NEWFOUNDLAND POWER

STATISTICAL EXHIBIT

to accompany

DIRECT TESTIMONY

Prepared by

KATHLEEN C. McSHANE

FOSTER ASSOCIATES, INC.



March 2007

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TREND IN S&P/TSX UTILITIES AND S&P/TSX PRICE INDICES (January 1988 to December 2006)



Company	Debt Rated	DBRS Bond Rating	Moody's Bond Rating	S&P Bond Rating	CBS Stock Ranking
		U			¥
AltaLink L.P.	Senior Secured	А		A-	NR
CU Inc.	Senior Unsecured	A(high)		А	Very conservative
Enbridge Gas Distribution	Senior Unsecured	А		A-	Very conservative
Enbridge Pipelines	Senior Unsecured	A(high)		A-	Very conservative
ENMAX	Unsecured Debentures (DBRS) Issuer (S&P)	А		A-	
Enersource	Issuer	А			
EPCOR Utilities Inc	Senior Unsecured	A(low)	Baa2	BBB+	NR
FortisAlberta Inc.	Senior Unsecured	A(low)	Baa1		Very conservative
FortisBC Inc	Secured Debentures	BBB(high)	Baa3		Very conservative
Gaz Metropolitain	Senior Secured	А		А	NR
Hydro One	Senior Unsecured	A(high)	Aa3	А	NR
Hydro Ottawa Holding Inc.	Senior Unsecured	A (low)		A-	
Maritime Electric	Senior Secured	NR		A-	Very conservative
Newfoundland Power	First Mortgage	А	Baa1	NR ^{1/}	Very conservative
NOVA Gas Transmission	Senior Unsecured	А	A2	A-	Very conservative
Nova Scotia Power	Senior Unsecured	A(low)	Baa1	BBB	Very conservative
Pacific Northern Gas	Senior Secured	BBB(low)		NR ^{2/}	Average
Terasen Gas	Senior Secured Senior Unsecured	A A	A2 A3	A- BBB	NR ^{3/}
Toronto Hydro	Senior Unsecured	А		A-	
TransCanada PipeLines	Senior Secured Senior Unsecured	A A	A2	A A-	Very conservative
Union Gas Limited	Senior Unsecured	А		BBB	Very conservative
Veridian Corp.	Issuer	А			
Westcoast Energy	Senior Unsecured	A(low)		BBB	Very conservative
Mean Median		A A	A3 Baa1	A- A-	Very conservative Very conservative

DEBT AND COMMON STOCK QUALITY RATINGS OF CANADIAN UTILITIES

^{1/} Withdrawn by company; A- (First Mortgage Bonds) prior to withdrawal.
 ^{2/} Withdrawn by company; BBB- prior to withdrawal.
 ^{3/} "Very Conservative" for Terasen Inc. prior to purchase by Kinder Morgan Inc.

Note: Debt ratings are for utility; Stock rankings are for parent.

Source: DBRS Bond Ratings, Moodys.com, Standard & Poor's, The Blue Book of CBS Stock Reports.

CAPITAL STRUCTURE RATIOS OF CANADIAN UTILITIES (2005)

	Long-term	Short-Term	Preferred	Common Stock
Company	Debt ^{1/}	Debt	Stock ^{2/}	Equity ^{3/}
Electric Utilities				
AltaLink L.P.	61.8	0.0	0.0	38.2
CU Inc.	55.3	0.0	6.7	38.0
Enersource Corp.	59.0	0.0	0.0	41.0
ENMAX Corp.	15.2	0.0	0.0	84.8
EPCOR Utilities Inc.	49.4	0.7	8.2	41.7
FortisAlberta Inc.	58.5	0.0	0.0	41.5
FortisBC Inc.	60.4	0.0	0.0	39.6
Hydro One Inc.	51.7	0.1	3.3	44.9
Hydro Ottawa Holding Inc.	0.0	49.9	0.0	50.1
Maritime Electric	42.4	14.9	0.0	42.7
Newfoundland Power	52.7	1.6	1.3	44.4
Nova Scotia Power	53.7	0.2	9.1	37.0
Toronto Hydro	59.5	0.0	0.0	40.5
Veridian Corp.	0.0	42.8	0.0	57.2
Gas Distributors				
Enbridge Gas Distribution	38.1	25.0	2.1	34.7
Gaz Metropolitain	58.8	1.3	0.0	39.9
Pacific Northern Gas	46.7	5.8	2.9	44.6
Terasen Gas	53.8	12.5	0.0	33.7
Union Gas	59.5	4.6	3.0	32.9
Pipelines				
Enbridge Pipelines	44.5	7.7	0.0	47.7
Nova Gas Transmission Ltd.	58.9	1.7	0.0	39.4
TransCanada Pipel ines I td 4/	55 4	5.0	2.0	37.5
Westcoast Energy Inc.	55.6	2.2	4.9	37.3
	00.0			01.0
Medians	F 0 -	• •	• •	
	52.7	0.0	0.0	44.4
Electric Integrated	53.7	0.2	6.7	39.6
All Electric	53.2	0.1	0.0	41.6
Gas Distributors	53.8	5.8	2.1	34.7
All Companies	53.8	1.6	0.0	40.5

1/ Includes current portion of long-term debt and preferred securities classified as debt.

2/ Includes minority interest in preferred shares of subsidiary companies and preferred securities.

3/ Includes minority interest in common shares of subsidiary companies.

4/ Excludes non-recourse debt

Source: Reports to Shareholders, DBRS (Veridian)

Schedule 3

FINANCIAL METRICS FOR CANADIAN UTILITIES (Average of 2003-2005)

	EBIT	FFO	FFO/		
Company	Coverage	Coverage ^{1/}	Total Debt		
Electric Utilities					
AltaLink L.P.	2.2	3.0	11.9		
CU Inc.	2.9	3.7	19.9		
Enersource Corp. ²	2.0	3.6	15.8		
ENMAX Corp.	7.4	3.3	63.7		
EPCOR Utilities Inc.	2.8	3.2	15.9		
FortisAlberta Inc.	2.6	3.0	15.7		
FortisBC Inc.	2.2	2.8	22.3		
Hydro One Inc.	3.1	4.1	19.8		
Hydro Ottawa Holding Inc.	2.1	4.0	18.8		
Maritime Electric	2.5	2.8	15.0		
Newfoundland Power	2.4	2.8	18.4		
Nova Scotia Power	2.3	3.4	14.8		
Toronto Hydro	2.8	3.4	17.7		
Veridian Corp. ^{2/}	2.2	3.7	22.9		
Gas Distributors					
Enbridge Gas Distribution	2.6	3.5	16.0		
Gaz Metropolitain	2.6	4.8	25.8		
Pacific Northern Gas	2.4	3.5	24.4		
Terasen Gas	1.9	2.3	9.4		
Union Gas ^{2/}	2.1	2.5	12.1		
Pipelines					
Enbridge Pipelines ^{2/}	2.4	3.1	15.2		
Nova Gas Transmission Ltd. ^{2/}	2.4	2.8	15.4		
TransCanada PipeLines Ltd.	2.4	2.8	15.6		
Westcoast Energy Inc.	2.0	2.9	15.4		
Medians					
Electric T&D	2.6	3.3	18.4		
Electric Integrated	2.5	3.2	15.9		
All Electric	2.5	3.3	18.1		
Gas Distributors	2.4	3.5	16.0		
All Companies	2.4	3.2	15.9		

^{1/} S&P defines Funds from Operations as follows: FFO = (income from continuing operations + depreciation & amortization + deferred income taxes – AFUDC).

^{2/} Data for 2002-2004

Source: Annual Reports to Shareholders, DBRS and Standard and Poor's

BUSINESS PROFILE SCORES AND FINANCIAL STATISTICS FOR SELECTED US REGULATED TRANSMISSION & DISTRIBUTION ELECTRIC UTILITIES

			: Average 2	verage 2003-2005			
		Business					Common
	S&P Debt	Profile	Total	EBIT	FFO	FFO/Total	Equity
	Rating	Score	Debt/Capital	Coverage	Coverage	Debt	Ratio ^{1/}
Central Hudson Gas & Electric Co.	Α	3	54.1	3.7	3.6	19.8	43.0
Consolidated Edison Inc.	Α	2	56.2	2.5	3.8	17.3	46.5
Consolidated Edison Co. of New York Inc.	А	2					48.6
Orange and Rockland Utilities Inc.	А	2					48.8
National Grid USA	Α	2	42.7	3.1	3.9	21.2	61.3
Massachusetts Electric Co.	А	1					55.0
Niagara Mohawk Power Corp.	А	3					54.9
NSTAR	A+	1	60.6	3.6	4.4	24.3	34.0
NSTAR Electric Co.	A+	1					42.7
PPL Electric Utilities Corp.	A-	3	58.4	3.4	3.4	54.3	50.0
Public Service Co. of North Carolina Inc. ^{1/}	A-	2	59.7	2.5	4.5	21.4	58.7
Median	Α	2	57.3	3.2	3.9	21.3	48.8

^{1/} S&P financial metrics for parent, Scana Corp.

Source: Standard and Poor's Credit Stats, "Utility and Power Ranking List" (January 26, 2007); and S&P reports for National Grid USA and PPL Electric Utilities Corp.

EQUITY RETURN AWARDS AND CAPITAL STRUCTURES ADOPTED BY REGULATORY BOARDS FOR CANADIAN UTILITIES (Percentages)

		Order/				Common		Forecast
	Decision		File		Preferred	Stock	Equity	30-Year
	Date	Regulator	Number	Debt	Stock	Equity	Return	Bond Yield
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Electric Utilities								
AltaLink	7/04; 11/06	EUB	2004-052; U2006-292	65.00	0.00	35.00 ^{1/}	8.51	4.22
ATCO Electric		EUB						
Transmission	7/04; 11/06		2004-052; U2006-292	61.00	6.00	33.00	8.51	4.22
Distribution	7/04; 11/06		2004-052; U2006-292	56.10	6.90	37.00	8.51	4.22
EPCOR		EUB						
Transmission	7/04; 11/06		2004-052; U2006-292	65.00	0.00	35.00	8.51	4.22
Distribution	7/04; 11/06		2004-052; U2006-292	61.00	0.00	39.00	8.51	4.22
FortisAlberta Inc.	7/04; 11/06	EUB	2004-052; U2006-292	63.00	0.00	37.00	8.51	4.22
FortisBC Inc.	3/06; 12/06	BCUC	G-14-06; L-75-06	60.00	0.00	40.00	8.77	4.22
Maritime Electric	6/06	IRAC	UE20934	57.31	0.00	42.69	10.25	na
Newfoundland Power	6/03;12/06	NLPub	PU 19(2003); PU 40(2006)	54.06	1.39	44.55	8.60	4.16
Nova Scotia Power	1/05;2/07	UARB	2005 NSUARB 27; 2007 NSUARB 8	53.30	9.20	37.50	9.55	na
Gas Distributors								
ATCO Gas	7/04; 11/06	EUB	2004-052; U2006-292	55.10	6.90	38.00	8.51	4.22
Enbridge Gas Distribution Inc	1/04; 1/07	OEB	RP-2002-0158; EB-2006-0034	62.23	2.77	35.00	8.39	4.23
Gaz Metropolitain	9/06	Régie	D-2006-140	54.00	7.50	38.50	8.73	4.55
Pacific Northern Gas	8/06; 3/06; 11/06	BCUC	G-99-04; G-14-06; L-75-06	58.18	3.82	40.00	9.02	4.22
Terasen Gas	3/06; 12/06	BCUC	G-14-06; L-75-06	65.00	0.00	35.00	8.37	4.22
Union Gas	1/04; 3/04; 5/06	OEB	RP-2002-0158; RP-2003-0063; EB-2005-0520	60.60	3.40	36.00	8.54	4.23
Gas Pipelines								
Alberta Natural Gas	11/06; 2/06	NEB	RH-2-94;TG-02-2006	64.00	0.00	36.00	8.46	4.22
Foothills Pipe Lines (Yukon) Ltd.	11/06; 12/05	NEB	RH-2-94;TG-08-2005	64.00	0.00	36.00	8.46	4.22
TransCanada PipeLines	11/06; 4/05	NEB	RH-2-94/RH-2-2004	64.00	0.00	36.00	8.46	4.22
Trans Quebec & Maritimes Pipeline	11/06	NEB	RH-2-94	70.00	0.00	30.00	8.46	4.22
Westcoast Energy	11/06; 12/06	NEB	RH-2-94;TG-05-2006	65.00	0.00	36.00	8.46	4.22

^{1/} EUB 2004-052 set the equity ratio at 35% (33% for transmission plus 2% in recognition of AltaLink's tax status).

Source: Board Decisions.

RATES OF RETURN ON COMMON EQUITY ADOPTED BY REGULATORY BOARDS FOR INVESTOR-OWNED CANADIAN UTILITIES

Schedule 5 Page 2 of 4

	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Electric Utilities																		
AltaLink	NA	9.40	9.60	9.50	8.93	8.51												
ATCO Electric	13.50	13.50	13.25	11.88	NA	NA	11.25	1/	1/	1/	1/	1/	1/	9.40	9.60	9.50	8.93	8.51
FortisAlberta Inc.	NA	9.50	9.50	9.60	9.50	8.93	8.51											
FortisBC Inc.	13.50	NA	11.75	11.50	11.00	12.25	11.25	10.50	10.25	9.50	10.00	9.75	9.53	9.82	9.55	9.43	9.20	8.77
Newfoundland Power	13.95	13.25	NA	NA	NA	NA	11.00	NA	9.25	9.25	9.59	9.59	9.05	9.75	9.75	9.24	9.24	8.60
Nova Scotia Power	NA	NA	NA	11.75	NA	NA	10.75	NA	NA	NA	NA	NA	10.15	NA	NA	9.55	9.55	NA
TransAlta Utilities	13.50	13.50	13.25	11.88	NA	12.25	11.25	1/	2/	9.25	9.25	NA	9.40	NA	NA	NA	NA	NA
Mean of Electric Utilities	13.61	13.42	12.75	11.75	11.00	12.25	11.10	10.50	9.75	9.33	9.61	9.67	9.53	9.57	9.62	9.45	9.13	8.58
Gas Distributors																		
ATCO Gas	13.25	13.25	12.25	12.25	NA	NA	NA	10.50	9.38	NA	NA	9.75	9.75	9.50	9.50	9.50	8.93	8.51
Enbridge Gas Distribution	13.25	13.13	13.13	12.30	11.60	11.65	11.88	11.50	10.30	9.51	9.73	9.54	9.66	9.69	NA	9.57	8.74	8.39
Gaz Metro	14.25	14.25	14.00	12.50	12.00	12.00	12.00	11.50	10.75	9.64	9.72	9.60	9.67	9.89	9.45	9.69	8.95	8.73
Pacific Northern Gas	15.00	14.00	13.25	NA	11.50	12.75	11.75	11.00	10.75	10.00	10.25	10.00	9.88	10.17	9.80	9.68	9.45	9.02
Terasen Gas	NA	NA	12.25	NA	10.65	12.00	11.00	10.25	10.00	9.25	9.50	9.25	9.13	9.42	9.15	9.03	8.80	8.37
Union Gas	13.75	13.50	13.50	13.00	12.50	11.75	11.75	11.00	10.44	9.61	9.95	9.95	9.95	9.95	9.62	9.62	9.62	8.54
Mean of Gas Distributors	13.90	13.63	13.06	12.51	11.65	12.03	11.68	10.96	10.27	9.60	9.83	9.68	9.67	9.77	9.50	9.52	9.08	8.59
Gas Pipelines (NEB)																		
TransCanada PipeLines	13.25	13.50	13.25	12.25	11.25	12.25	11.25	10.67	10.21	9.58	9.90	9.61	9.53	9.79	9.56	9.46	8.88	8.46
Westcoast Energy	13.25	13.75	12.50	12.25	11.50	12.25	11.25	10.67	10.21	9.58	9.90	9.61	9.53	9.79	9.56	9.46	8.88	8.46
Mean of Gas Pipelines	13.25	13.63	12.88	12.25	11.38	12.25	11.25	10.67	10.21	9.58	9.90	9.61	9.53	9.79	9.56	9.46	8.88	8.46
Mean of All Companies	13.68	13.56	12.94	12.16	11.50	12.13	11.36	10.84	10.15	9.52	9.78	9.67	9.59	9.70	9.56	9.48	9.07	8.57

Note: A rate freeze was in effect for BC Gas (now Terasen Gas) in 1990 and 1991, BCUC regulation resumed in late 1991.

Nova Scotia Power was privatized in 1992.

^{1/} Negotiated settlement, details not available.

 $^{2\prime}$ Negotiated settlement, implicit ROE made public is 10.5%.

Source: Regulatory Decisions

COMPARISON BETWEEN ALLOWED EQUITY RISK PREMIUMS FOR CANADIAN AND U.S. UTILITIES

		Canadian Utilities			U.S. Utilities	
	Allowed	Average Long Canada	Equity Risk	Allowed	Average Long Treasury	Equity Risk
Year	ROE	Yield	Premium	ROE	Yield	Premium
1990	13.66	10.69	2.97	12.69	8.61	4.08
1991	13.58	9.72	3.86	12.51	8.14	4.37
1992	12.99	8.68	4.31	12.06	7.67	4.39
1993	12.19	7.86	4.33	11.37	6.59	4.78
1994	11.54	8.69	2.85	11.34	7.39	3.95
1995	12.13	8.41	3.72	11.51	6.85	4.66
1996	11.36	7.75	3.61	11.29	6.73	4.56
1997	10.88	6.66	4.22	11.34	6.58	4.76
1998	10.20	5.59	4.61	11.59	5.54	6.05
1999	9.52	5.72	3.80	10.74	5.91	4.83
2000	9.78	5.71	4.07	11.41	5.88	5.53
2001	9.67	5.77	3.90	11.04	5.50	5.54
2002	9.59	5.67	3.92	11.10	5.41	5.69
2003	9.70	5.31	4.39	10.98	5.03	5.95
2004	9.56	5.11	4.45	10.73	5.08	5.65
2005	9.48	4.38	5.10	10.50	4.52	5.98
2006	9.04	4.33	4.71	10.38	4.93	5.45
Means:						
1990-1993	13.10	9.24	3.87	12.16	7.75	4.41
1994-1998	11.22	7.42	3.80	11.41	6.62	4.80
1999-2006	9.54	5.25	4.29	10.86	5.28	5.58

Note: For U.S. Treasury yields, 30-year maturities used through January 2002; theoretical 30-year yield from February 2002 to January 2005; 30-year maturities February 2002 forward.

Sources: Regulatory Research Associates; www.snl.com; Various Canadian Regulatory Decisions; Bank of Canada; Federal Reserve; U.S. Treasury.

Year	Electric	Gas	Total ^{1/}
1990	42.4	47.2	44.4
1991	43.8	47.2	45.3
1992	44.7	46.6	45.4
1993	47.4	46.2	46.7
1994	45.2	48.1	46.6
1995	45.9	50.0	47.3
1996	44.3	47.7	47.4
1997	48.8	47.8	48.3
1998	46.1	49.5	48.0
1999	45.1	49.1	46.5
2000	48.9	48.6	48.7
2001	47.2	44.0	46.3
2002	46.3	48.3	47.3
2003	49.4	49.9	49.7
2004	46.8	45.9	46.3
2005	46.2	48.7	47.4
2006	50.1	47.9	49.1
Means:			
1990-1993	44.6	46.8	45.4
1994-1998	46.1	48.6	47.5
1999-2006	47.5	47.8	47.7

ALLOWED EQUITY RATIOS FOR U.S. UTILITIES

1/ Weighted by number of cases.

Sources: Regulatory Focus, Regulatory Research Associates, www.snl.com

TREND IN INTEREST RATES AND OUTSTANDING BOND YIELDS (Percent Per Annum)

		Government Securities								_			
Year		<u>T-BII</u> Canadian	<u>T-BILLS</u> Canadian U.S. ^{1/}		<u>ear</u> U.S.	<u>Long-</u> Canadian	ong-Term ian U.S. ^{2/}	Canada Bonds Over 10 Years ^{3/}	Canadian Inflation Indexed Bonds	Scotia Capital Long-Term <u>Corporates</u>	Canadian A-Rated <u>Utility Bonds ^{4/}</u>	Moody's U.S. Utility Long-Term <u>A-Rated Bonds</u>	Exchange Rates (Canadian dollars <u>in U.S. funds)</u>
1003	d1	5.84	2.96	7.65	6.28	8 27	6 98	8 38	4 57	9.54	9.54	8.07	0.79
1999	q2	4.91	3.01	7.46	5.99	8.11	6.87	8.12	4.39	9.16	9.35	7.81	0.79
	q3	4.52	3.02	6.99	5.62	7.63	6.29	7.58	4.21	8.50	8.84	7.28	0.77
1994 1995	q4	4.11	3.09	6.76	5.61	7.42	6.19	7.31	3.94	8.20	8.58	7.22	0.75
	q1	4.29	3.42	7.09	6.07	7.67	6.74	7.48	3.80	8.33	8.79	7.53	0.75
	q2	6.28	3.96	8.49	7.08	8.69	7.33	8.67	4.38	9.52	10.09	8.29	0.72
	q3	5.48	4.61	8.99	7.33	9.13	7.55	9.14	4.67	9.92	10.11	8.51	0.73
	q 4 a1	7.99	5.73	8.89	7.48	9.01	7.61	8.99	4.86	9.80	9.99	8.54	0.71
	q2	7.34	5.58	8.00	6.62	8.32	6.91	8.19	4.48	8.93	9.38	7.93	0.73
	q3	6.47	5.32	8.05	6.32	8.45	6.71	8.28	4.76	8.97	9.30	7.72	0.74
	q4	5.76	5.15	7.39	5.89	7.85	6.18	7.66	4.61	8.37	8.44	7.37	0.74
1996	q1	5.11	4.92	7.39	5.91	7.95	6.37	7.71	4.78	8.40	8.41	7.44	0.73
	q2	4.70	5.04	7.75	6.72	8.17	6.95	7.99	4.87	8.60	8.58	7.98	0.73
	q3	4.14	5.13	7.37	6.78	7.88	7.00	7.65	4.71	8.22	8.23	7.96	0.73
1997	q4 q1	2.89	5.08	6.30	6.64	6.99 7.24	6.00	6.07	4.07	7.23	7.19	7.62	0.74
	a2	3.00	5.12	6.49	6.64	7.03	6.90	6.80	4.26	7.28	7.30	7.88	0.72
	q3	3.18	5.06	5.85	6.18	6.39	6.45	6.16	4.06	6.64	6.59	7.49	0.72
	q4	3.89	5.14	5.55	5.84	5.98	6.07	5.79	4.07	6.38	6.34	7.25	0.71
1998	q1	4.44	5.08	5.41	5.63	5.76	5.93	5.60	4.07	6.25	6.22	7.11	0.70
	q2	4.82	4.99	5.39	5.58	5.63	5.80	5.53	3.90	6.09	6.05	7.12	0.69
	q3	4.92	4.76	5.36	5.12	5.59	5.35	5.50	4.00	6.31	6.23	6.99	0.66
1999	q4	4.75	4.34	5.02	4.72	5.38	5.10	5.23	4.12	6.25	6.16	6.97	0.65
	q1 q2	4.73	4.41	5.07	5.03	5.34	5.41	5.23	4.13	6.13	6.15	7.11	0.66
	42 03	4.55	4.55	5.34	5.50	5.54	5.60	5.50	4.07	6.40	6.34	6.99	0.66
	q3 q4	4.75	4.34	5.02	4.72	5.38	5.10	5.23	4.12	6.25	6.16	6.97	0.65
2000 2001	q1	5.09	5.59	6.22	6.38	5.98	6.16	6.10	3.91	7.14	7.07	8.29	0.69
	q2	5.54	5.68	6.01	6.18	5.72	5.96	5.96	3.74	7.21	7.05	8.45	0.68
	q3	5.58	6.05	5.79	5.86	5.58	5.78	5.82	3.64	7.07	7.09	8.20	0.67
	q4	5.57	6.09	5.54	5.46	5.56	5.62	5.67	3.48	7.10	7.15	8.03	0.65
	q1	4.96	4.64	5.44	5.01	5.76	5.45	5.69	3.41	7.05	7.18	7.74	0.65
	q2	4.36	4.42	5.78	5.40	5.95	5.77	6.00	3.56	7.25	7.40	7.93	0.65
	q3	3.64	3.10	5.48	4.84	5.82	5.44	5.80	3.67	7.13	7.24	7.64	0.64
2002	q4 a1	2.11	1.00	5.22	4.72	5.55	5.66	5.56	3.00	6.95	7.20	7.61	0.63
	a2	2.57	1.74	5.51	5.02	5.83	5.72	5.81	3.52	6.99	7.14	7.48	0.65
	q3	2.83	1.66	5.07	4.09	5.56	5.13	5.52	3.36	7.01	7.26	7.14	0.63
	q4	2.69	1.33	4.98	3.99	5.48	5.11	5.45	3.39	6.95	7.23	7.12	0.64
2003	q1	2.96	1.17	5.01	3.85	5.49	4.93	5.43	3.09	6.92	7.22	6.84	0.67
	q2	3.14	1.05	4.59	3.60	5.17	4.71	5.09	3.04	6.42	6.72	6.37	0.72
	q3	2.70	0.96	4.75	4.30	5.30	5.28	5.26	3.11	6.40	6.69	6.61	0.72
2004	q4	2.62	0.95	4.78	4.31	5.29	5.22	5.24	2.90	6.24	6.47	6.34	0.77
	q1 a2	2.12	0.94	4.41	4.00	5.09	4.96	4.99	2.50	5.92	6.17	6.06	0.76
	42 03	2.23	1.13	4.74	4.00	5.29	5.08	5.22	2.30	6.25	6.40	6.45	0.74
	q3 q4	2.53	2.11	4.40	4.22	4.92	4.93	4.87	2.18	5.90	6.09	5.95	0.83
2005	q1	2.47	2.67	4.27	4.33	4.72	4.70	4.69	2.05	5.67	5.86	5.72	0.82
	q2	2.46	3.01	3.93	4.05	4.39	4.36	4.35	1.86	5.23	5.59	5.43	0.81
	q3	2.73	3.50	3.88	4.21	4.20	4.39	4.19	1.75	5.15	5.32	5.49	0.84
	q4	3.25	4.00	4.07	4.49	4.19	4.63	4.21	1.59	5.22	5.36	5.82	0.85
2006	q1	3.70	4.57	4.18	4.65	4.23	4.70	4.25	1.53	5.31	5.43	5.92	0.87
	q2	4.17	4.84	4.51	5.11	4.54	5.19	4.57	1.81	5.69	5.75	6.41	0.90
	q3	4.14	5.00	4.14	4.79	4.21	4.91	4.23	1.67	5.37	5.47	6.09	0.89
	q4	4.17	5.00	4.00	4.59	4.07	4.70	4.06	1.00	5.21	5.27	5.79	0.87
Annual													
	1990	12.81	7.49	10.76	8.55	10.69	8.61	10.85		11.91	12.13	9.86	0.86
	1991	8.73	5.38	9.42	7.86	9.72	8.14	9.76		10.80	11.00	9.36	0.84
	1992	6.59	3.43	8.05	7.01	8.68	7.67	8.77	4.62	9.90	10.01	8.64	0.82
	1993	4.84	3.02	7.22	5.87	7.86	6.59	7.85	4.28	8.85	9.08	7.59	0.77
	1994	5.54	4.34	8.43	7.08	8.69	7.39	8.63	4.41	9.44	9.81	8.30	0.73
	1995	6.89	5.44	8.08	6.58	8.41	6.85	8.28	4.68	9.02	9.29	7.89	0.73
	1996	4.21	5.04	7.20	6.44	7.75	6.73	7.50	4.61	8.11	8.38	7.75	0.73
	1997	3.26	5.11	6.11	6.32	6.66	6.58	6.42	4.14	6.95	7.19	7.60	0.72
	1998	4.73	4.79	5.30	5.26	5.59	5.54	5.47	4.02	6.22	6.38 6.02	7.04	0.68
	1999	4.09	4./1	0.00	0.08	5.72	5.91	0.09	4.07	0.04	0.92	1.02	0.07
	2000	5.45	5.85	5.89	5.98	5.71	5.88	5.89	3.69	7.13	7.02	8.24	0.67
	2001	3.78 2.55	3.34	5.49 5.27	4.99	5.//	5.5U	5./6 5.65	3.59	1.09	1.25	1.13	0.65
	2002	2.86	1.03	4,78	4.02	5.31	5.03	5.05	3.04	6.50	6.78	6.54	0.72
	2004	2.21	1.44	4.55	4.27	5.11	5.08	5.05	2.34	6.06	6.28	6.14	0.77
	2005	2.73	3.29	4.04	4.27	4.38	4.52	4.36	1.81	5.32	5.53	5.62	0.83
	2006	4.16	4.95	4.22	4.83	4.27	4.93	4.29	1.72	5.42	5.50	6.10	0.89

¹⁷ Rates on new issues.
 ²⁰ 20-year constant maturities for 1974-1978; 30-year maturities, 1978-January 2002. Theoretical 30-year yield, February 2002 to January 2006.
 ³⁷ Terms to maturity of I0 years or more.
 ⁴⁶ Series is comprised of the CBRS Utilities Index through 1995; CBRS 30-year Utilities Index from 1996- August 2000;
 ⁴⁷ Series is comprised of the CBRS Utilities Index through 1995; CBRS 30-year Utilities Index from 1996- August 2000;

Source: Bank of Canada Review; CBRS; Globe and Mail; Annual Statistical Digest (Federal Reserve System); Federal Reserve Bulletin (various issues), U.S. Treasury website.
Government Securities Moody's U.S. Utility Exchange Rates Canada Bonds Canadian Scotia Capital Canadian T-BILLS Inflation A-Rated (Canadian dollars 10 Year Long-Term Over 10 Long-Term Long-Term U.S. 1/ U.S. 2/ Canadian Canadian U.S. Canadian Years ³ Indexed Bonds Utility Bonds 4/ A-Rated Bonds in U.S. funds) Year Corporates 2003 Jan 2.82 1 18 5.02 4 00 5 47 4 99 5.43 3 21 6.85 7 13 7.03 0.66 Feb 2.92 1.20 4.94 3.71 5.44 4.82 5.38 3.00 6.81 7.17 6.82 0.67 Mar 3.14 1.14 5.08 3.83 5.55 4.98 5.48 3.05 7.09 7.35 6.68 0.68 Apr 3 19 1 1 3 4 90 3.89 5 41 4 93 5 34 3 13 6 70 6 96 6 54 0.70 May 3.17 1.11 4.41 3.37 5.00 4.50 4.89 2.96 6.35 6.64 6.26 0.73 June 3.07 0.90 4.45 3.54 5.09 4.70 5.04 3.04 6.22 6.57 6.32 0.74 July 2.85 0.96 4.84 4.49 5.44 5.51 5.39 3.17 6.48 6.85 6.88 0.71 Aug 2.68 0.98 4.86 4.45 5.35 5.31 5.31 3.12 6.54 6.76 6.71 0.72 Sept 2.58 0.95 4.55 3.96 5.14 5.01 5.09 3.03 6.19 6.45 6.23 0.74 Oct 2.64 4.83 3.00 6.65 0.76 0.96 4.33 5.35 5.25 5.30 6.39 6.40 2.92 6.27 Nov 2.66 0.93 4.84 4.34 5.33 5.22 5.28 6.51 6.35 0.77 Dec 2.57 0.95 4.66 4.27 5.20 5.18 5.14 2.79 6.07 6.26 6.28 0.77 2004 Jan 6.03 2.25 0.92 4.53 4.16 5.17 5.07 5.09 2.59 6.26 6.11 0.76 Feb 2.12 0.96 4.36 3.99 5.05 4.95 4.94 2.52 5.87 6.13 6.08 0.75 Mar 1.98 0.95 4.33 3.86 5.04 4.87 4.94 2.39 5.85 6.11 6.01 0.76 1.92 0.98 4.62 4.53 5.24 5.36 5.15 2.46 6.15 6.41 6.46 0.73 Apr May 2 00 1.08 478 4 66 5.31 5 29 5 22 2 31 6 25 6 4 3 6 53 0.73 June 2.01 1.33 4.83 4.62 5.33 5.41 5.30 2.37 6.36 6.60 6.36 0.75 Jul 2.07 1.45 4 75 4.50 5 24 5.31 5.24 2.31 6.34 6 4 9 6.36 0.75 Aua 2.17 1.59 4.60 4.13 5.09 4 97 5.08 2.24 6 17 6.33 6.02 0.76 Sep 2.44 1.71 4.63 4.14 5.08 4.97 5.06 2.33 6.05 6.29 5.96 0.79 Oct 2.57 1.91 4.47 4.05 4.94 4.87 4.91 2.26 5.99 6.17 5.89 0.82 Nov 2.55 2.23 4.44 4.36 4.98 5.07 4.93 2.21 5.88 6.16 6.07 0.84 2 22 Dec 4.77 2.48 4.30 4 24 4 83 4.86 2 07 5.82 5.94 5 99 0.83 2005 Jan 4.14 4.71 4.62 4.67 2.03 5.66 5.84 5.65 0.81 2.43 2.51 4.21 Feb 2.46 2.76 4.28 4.36 4.75 4.71 4.71 2.09 5.62 5.86 5.76 0.81 Mar 2.52 2.73 4.32 4.50 4.71 4.76 4.68 2.03 5.73 5.87 5.75 0.83 2.45 2.90 4.14 4.21 4.58 4.53 4.54 1.90 5.04 5.79 5.54 0.80 Apr Mav 2.45 2.99 3.92 4.37 4.36 4.31 1.83 5.46 5.59 5.41 0.80 4.00 Jun 2.48 3.13 3.74 3.94 4.21 4 19 4.20 1.85 5.20 5.40 5.35 0.82 Jul 2.59 3.42 3.86 4.28 4.27 4.42 4.27 1.90 5.25 5.42 5.53 0.82 Aua 2.72 3.52 3.81 4.02 4.12 4.23 4.09 1.74 5.04 5.23 5.30 0.84 Sep 2 87 3 55 3.96 4 34 4 22 4 53 4 21 1.61 5 15 5 33 5.65 0.86 Oct 3.06 3.98 4.17 4.57 4.35 4.73 4.36 1.66 5.34 5.49 5.91 0.85 4.52 4.20 5.35 Nov 3.31 3.95 4.06 4.18 4.66 1.65 5.24 5.85 0.86 Dec 3 39 4 08 3 98 4 39 4 05 4 51 4 06 1.45 5.09 5 23 5 69 0.86 2006 Jan 3.51 4.47 4.17 4.53 4.26 4.69 4.26 1.53 5.30 5.43 5.84 0.88 Feb 3 74 4.62 4 55 4 17 4 51 4 17 1 47 5 27 5 37 5 77 412 0.88 Mar 3.86 4.61 4.26 4.86 4.26 4.89 4.32 1.58 5.37 5.49 6.14 0.86 Apr 4.04 4.65 4.51 5.07 4.52 5.17 4.57 1.72 5.67 5.70 6.37 0.89 May 4.18 4.86 4.45 5.12 4.50 5.21 4.51 1.83 5.60 5.68 6.43 0.91 Jun 4.30 5.01 4.58 5.15 4.61 5.19 4.63 1.88 5.81 5.86 6.43 0.90 Jul 4.15 5.10 4.31 4.99 4.37 5.07 4.39 1.73 5.60 5.62 6.29 0.88 Aug 4.12 5.02 4.11 4.74 4.19 4.88 4.20 1.62 5.33 5.42 6.07 0.90 Sep 4.16 4.89 3.99 4.64 4.08 4.77 4.09 1.67 5.18 5.30 5.90 0.89 Oct 4.17 5.08 4.02 4.61 4.08 4.72 4.10 1.69 5.33 5.28 5.84 0.89 4.17 1.60 5.11 5.18 5.68 Nov 5.03 3.90 4.46 3.99 4.56 4.00 0.88 Dec 4.15 5.02 4.08 4.71 4.14 4.81 4.15 1.75 5.18 5.34 5.95 0.86

TREND IN INTEREST RATES AND OUTSTANDING BOND YIELDS (Percent Per Annum)

1/ Rates on new issues.

^{2/} 20-year constant maturities for 1974-1978; 30-year maturities, 1978-January 2002. Theoretical 30-year yield, February 2002 to January 2006.

3/ Terms to maturity of I0 years or more.

^{4/} Series is comprised of the CBRS Utilities Index through 1995; CBRS 30-year Utilities Index from 1996- August 2000;

a series of liquid long-term utility bonds maintained by Foster Associates from September 2000 forward.

Note: Monthly data reflect rate in effect at end of month.

Source: Bank of Canada Review; CBRS; Globe and Mail; Annual Statistical Digest (Federal Reserve System); Federal Reserve Bulletin (various issues), U.S. Treasury website.

SELECTED INDICATORS OF ECONOMIC ACTIVITY (1989 = 100)

				Canada			United States						
	_	Gross Dome	estic Product		GDP	Consumer	Gross Dome	stic Product		Implicit	Consumer		
	_	Constant	Current	Industrial	Deflator	Price	Constant	Current	Industrial	Price	Price		
Year		Dollars	Dollars	Production	Index	Index	Dollars	Dollars	Production	Index a/	Index		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
1989		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
1990		100.2	103.4	97.2	103.2	104.8	101.9	105.8	101.0	103.9	105.4		
1991		98.1	104.2	93.5	106.2	110.7	101.7	109.3	99.5	107.5	109.8		
1992		99.0	106.5	94.5	107.6	112.3	105.1	115.6	102.4	110.0	113.2		
1993		101.3	110.6	98.8	109.2	114.4	107.9	121.4	105.8	112.5	116.5		
1994		106.1	117.2	105.1	110.4	114.6	112.2	129.0	111.6	114.9	119.5		
1995		109.1	122.7	109.9	112.9	117.1	115.0	134.9	117.2	117.3	122.9		
1996		110.9	126.8	111.8	114.7	118.9	119.3	142.5	122.2	119.5	126.5		
1997		115.6	133.5	118.0	116.1	120.8	124.7	151.4	131.1	121.5	129.5		
1998		120.3	139.2	122.2	115.6	122.0	129.9	159.5	139.1	122.8	131.5		
1999		127.0	149.4	129.8	117.6	124.1	135.7	169.0	145.6	124.6	134.4		
2000		133.6	163.5	139.6	122.5	127.5	140.6	179.0	152.2	127.3	138.9		
2001		136.0	168.5	134.6	123.9	130.8	141 7	184 7	146.9	130.4	142.8		
2002		140.0	175.3	137.5	125.2	133.7	143.9	190.9	146.9	132.6	145.1		
2003		142.5	184.5	137.8	129.4	137.4	147.6	199.9	148.5	135.4	148.4		
2004		147.2	196.2	140.3	133.3	139.9	153.3	213.6	152.2	139.3	152.3		
2005		151.6	208.5	140.0	137.5	143.0	158.3	210.0	157.1	143.5	157.5		
2000		101.0	200.0	141.0	107.0	140.0	100.0	227.1	107.1	140.0	101.0		
2001	1Q	135.7	169.6	137.1	125.0	129.4	141.5	182.7	150.0	129.2	141.7		
	2Q	135.8	169.8	136.2	125.0	131.5	141.9	184.7	147.9	130.2	143.2		
	3Q	135.6	167.6	133.3	123.6	131.6	141.4	184.8	145.8	130.7	143.4		
	4Q	136.8	167.0	132.0	122.1	130.5	141.9	186.5	143.9	131.4	143.0		
2002	1Q	138.4	170.2	135.5	122.9	131.3	142.9	188.4	144.9	131.8	143.5		
	2Q	139.3	174.3	138.1	125.2	133.3	143.7	190.1	147.1	132.3	145.0		
	3Q	140.6	176.7	138.5	125.7	134.7	144.5	192.0	148.0	132.8	145.6		
	4Q	141.6	180.0	137.8	127.2	135.4	144.6	193.1	147.8	133.6	146.1		
2003	1Q	142.3	183.9	137.4	129.3	137.2	145.0	195.2	148.7	134.6	147.6		
	2Q	141.8	182.1	136.2	128.5	137.0	146.3	197.5	147.5	135.0	148.1		
	3Q	142.4	185.0	137.8	130.0	137.6	148.9	202.1	148.4	135.7	148.8		
	4Q	143.7	186.8	139.7	130.1	137.8	149.9	204.6	149.5	136.5	148.9		
2004	1Q	145.1	190.6	139.7	131.4	138.4	151.3	208.4	150.7	137.7	150.2		
	2Q	146.7	195.3	140.6	133.1	140.0	152.9	212.4	151.7	139.0	152.4		
	30	148.2	198.4	140.9	133.9	140.3	154.0	215.1	152.4	139.7	152.9		
	4Q	149.0	200.6	140.0	134.7	140.9	155.0	218.3	154.0	140.8	153.8		
2005	10	149.8	202.6	140.0	135.3	141 4	156.3	222.0	155 7	142 0	154.8		
2000	20	151.0	205.6	141.0	136.1	142.7	157.6	225.1	156.8	142.9	156.9		
	30	152.2	210.8	142.3	138.4	144.0	159.2	229.3	157 1	144.0	158.8		
	40	153.2	215.0	143.3	140.3	144 1	159.9	232.1	158.9	145.2	159.6		
		100.2	210.0	140.0	140.0		100.0	202.1	100.0	1-10.2	100.0		
2006	1Q	154.6	217.0	142.7	140.3	144.8	162.1	237.2	160.9	146.3	160.4		
	2Q	155.4	217.8	141.3	140.2	146.4	163.1	240.6	163.4	147.5	163.1		
	3Q	156.1	219.1	141.9	140.4	146.5	163.9	242.9	165.1	148.2	164.1		

Note: Data are based on Chain Weighted Indexes.

Source: Statistics Canada,U.S. Bureau of Economic Analysis, Federal Reserve

TREND IN AFTER-TAX CORPORATE PROFITS IN CANADA AND THE UNITED STATES

		Car	nada	United States				
		Millions		Billions				
		of	As Percent	of	As Percent			
Year		Dollars ^{1/}	of GDP	Dollars	of GDP			
	-	(1)	(2)	(3)	(4)			
1989		41,095	6.3%	238	4.3%			
1990		28,102	4.1%	264	4.6%			
1991		17,905	2.6%	284	4.7%			
1992		18,131	2.6%	312	4.9%			
1993		24,839	3.4%	346	5.2%			
1994		46,122	6.0%	383	5.4%			
1995		54,132	6.7%	456	6.2%			
1996		54,096	6.5%	501	6.4%			
1997		55,682	6.3%	552	6.6%			
1998		55,332	6.0%	470	5.4%			
1999		71,359	7.3%	517	5.6%			
2000		87,803	8.1%	508	5.2%			
2001		71,359	8.2%	504	5.0%			
2002		87,803	8.6%	576	5.5%			
2003		106,629	8.7%	705	6.1%			
2004		128,724	9.9%	788	7.2%			
2005		140,941	10.3%	1,119	9.0%			
2001	1Q	99,592	8.9%	532	5.3%			
	2Q	97,376	8.7%	537	5.3%			
	3Q	85,728	7.8%	474	4.7%			
	4Q	80,188	7.3%	472	4.6%			
2002	1Q	90,276	8.1%	519	5.0%			
	2Q	98,724	8.6%	554	5.3%			
	3Q	103,984	8.9%	590	5.6%			
	4Q	104,948	8.9%	641	6.1%			
2003	10	111 800	0.2%	625	5.8%			
2005	20	08 420	9.2 /0	623	5.0%			
	20	102 028	0.2 /0 8 5%	673	5.7 /o 6 1%			
	40	103,920	0.0 /0	730	0.1%			
	40	108,304	0.070	739	0.076			
2004	1Q	119,796	9.6%	810	7.1%			
	2Q	129,608	10.1%	842	7.2%			
	3Q	128.840	9.9%	828	7.0%			
	4Q	130,520	9.9%	897	7.5%			
2005	1Q	132,684	10.0%	1,091	9.0%			
	2Q	136,060	10.1%	1,116	9.0%			
	3Q	143,060	10.3%	1,097	8.7%			
	4Q	151,960	10.7%	1,174	9.2%			
2000	10	145.040	10.00/	1 00 4	0.00/			
2006		145,848	10.2%	1,284	9.9%			
	20	140,764	10.2%	1,335	10.1%			
	30	150,724	10.5%	1,363	10.2%			

^{1/} Corporation profits before taxes less direct taxes (corporate and government business enterprises - Total).

Source: Statistics Canada, U.S. Bureau of Economic Analysis

HISTORIC EQUITY MARKET RISK PREMIUMS

		Canada (1947-2006)	
Average	Stock Return	Bond Return	Risk Premium
Arithmetic	12.4	6.9	5.5
Geometric	11.2	6.5	4.7
		United States (1947-2006)	
Average	Stock Return	Bond Return	Risk Premium
Arithmetic	13.2	6.2	7.0
Geometric	11.9	5.7	6.1
		United Kingdom (1947-2006)	
Average	Stock Return	Bond Return	Risk Premium
Arithmetic	15.0	8.7	6.3
Geometric	12.3	6.3	6.0

Source: Ibbotson Associates, <u>Stocks, Bonds, Bills and Inflation: 2006 Yearbook</u> <u>Market Results for 1926-2005;</u> Standardandpoors.com; U.S. Federal Reserve; Canadian Institute of Actuaries, <u>Report on Canadian Economic Statistics 1924-200</u>5; Bank of Canada; <u>TSX Revie</u>w, www.statistics.gov.uk

25-YEAR ROLLING AVERAGE MARKET RETURNS FOR CANADA AND THE U.S.

		Canada	U.S.					
	Stock	Long Government	Stock	Long Government				
	<u>Returns</u>	Bond Returns	<u>Returns</u>	Bond Returns				
1947-1971	12.7%	2.9%	13.7%	2.0%				
1948-1972	13.8%	2.8%	14.3%	2.3%				
1949-1973	13.3%	3.0%	13.5%	2.1%				
1950-1974	11.3%	2.7%	11.7%	2.0%				
1951-1975	10.1%	2.8%	11.9%	2.4%				
1952-1976	9.6%	3.7%	11.9%	3.2%				
1953-1977	10.1%	3.9%	10.8%	3.2%				
1954-1978	11.2%	3.8%	11.1%	3.0%				
1955-1979	11.4%	3.3%	9.8%	2.6%				
1956-1980	11.5%	3.4%	9.8%	2.5%				
1957-1981	10.6%	3.4%	9.4%	2.8%				
1958-1982	11.6%	4.9%	10.6%	4.1%				
1959-1983	11.8%	5.5%	9.8%	4 4%				
1960-1984	11.5%	6.3%	9.6%	5 1%				
1961-1985	12.4%	7.0%	10.8%	5.8%				
1962-1986	11.5%	7.3%	10.5%	6.7%				
1963-1987	12.0%	7.2%	11.1%	6.4%				
1964-1988	11.8%	7 4%	10.8%	6.7%				
1965-1989	11.6%	7.8%	11.4%	7.3%				
1966-1990	10.8%	7 9%	10.8%	7.5%				
1967-1991	11.5%	8.8%	12.4%	8.1%				
1968-1992	10.8%	9.4%	11.8%	8.8%				
1969-1993	11.2%	10.4%	11.0%	9.6%				
1070-1004	11.2%	10.0%	12.1%	9.4%				
1071-1005	11.270	10.2%	12.1%	10.2%				
1072-1006	12.7%	10.2%	13.8%	9.7%				
1072-1007	12.770	11 0%	14.4%	10.1%				
1074-1008	12.2%	11.5%	16.1%	10.6%				
1075-1000	14.5%	11.3%	18.0%	10.0%				
1976-2000	14.0%	11 7%	16.2%	10.6%				
1970-2000	13.1%	11.770	14 7%	10.0%				
1078-2001	10.170	11.170	14.770	10.1%				
1970-2002	12.270	11.5%	14.1%	10.0%				
1979-2003	12.0%	12.0%	14.7%	11 3%				
1900-2004	10.0%	12.076	14.7 /0	11.370				
1901-2005	10.0%	12.4%	13.0%	11.070				
1962-2006	11.7%	12.7%	14.5%	11.0%				
Min	9.6%	2.7%	9.4%	2.0%				
Max	14.5%	12.7%	18.0%	11.8%				
Mean	11.8%	7.6%	12.5%	6.8%				
Stdev.	1.1%	3.5%	2.1%	3.5%				
+1 Std	12.8%	11.0%	14.6%	10.3%				
-1 Std dev.	10.7%	4.1%	10.4%	3.4%				

Source: Ibbotson Associates; <u>Stocks, Bonds, Bills and Inflation: 2006 Yearbook</u> <u>Market Results for 1926-2005</u>, Standardandpoors.com; Canadian Institute of Actuaries, <u>Report on Canadian Economic Statistics 1924-2005</u>

CUMULATIVE AVERAGE MARKET RETURNS FOR CANADA AND THE U.S. (1947 Forward)

		Canada		U.S.
	Stock	Long Government	Stock	Long Government
	<u>Returns</u>	Bond Returns	<u>Returns</u>	Bond Returns
1947-1971	12.7%	2.8%	13.7%	2.0%
1947-1972	13.2%	2.8%	13.9%	2.1%
1947-1973	12.8%	2.6%	12.9%	2.0%
1947-1974	11.4%	2.6%	11.5%	2.1%
1947-1975	11.6%	3.2%	12.4%	2.3%
1947-1976	11.6%	3.3%	12.7%	2.8%
1947-1977	11.6%	3.2%	12.1%	2.7%
1947-1978	12.1%	3.0%	11.9%	2.6%
1947-1979	13.1%	3.0%	12.1%	2.5%
1947-1980	13.6%	2.8%	12.7%	2.3%
1947-1981	12.9%	3.9%	12.2%	2.3%
1947-1982	12.7%	4.1%	12.5%	3.3%
1947-1983	13.4%	4.4%	12.7%	3.2%
1947-1984	12.9%	4.9%	12.6%	3.6%
1947-1985	13.3%	5.2%	13.1%	4.3%
1947-1986	13.1%	5.1%	13.2%	4.8%
1947-1987	13.0%	5.2%	13.0%	4.6%
1947-1988	12.9%	5.5%	13.1%	4.7%
1947-1989	13.1%	5.4%	13.5%	5.0%
1947-1990	12.5%	5.9%	13.2%	5.0%
1947-1991	12.5%	6.0%	13.5%	5.4%
1947-1992	12.2%	6.4%	13.4%	5.4%
1947-1993	12.6%	6.0%	13.3%	5.7%
1947-1994	12.3%	6.4%	13.1%	5.4%
1947-1995	12.4%	6.6%	13.6%	6.0%
1947-1996	12.7%	6.8%	13.8%	5.8%
1947-1997	12.7%	7.0%	14.2%	6.0%
1947-1998	12.5%	6.7%	14.4%	6.1%
1947-1999	12.8%	6.8%	14.6%	5.9%
1947-2000	12.7%	6.8%	14.1%	6.1%
1947-2001	12.3%	6.8%	13.7%	6.1%
1947-2002	11.8%	6.8%	13.0%	6.3%
1947-2003	12.1%	6.9%	13.3%	6.2%
1947-2004	12.1%	6.9%	13.2%	6.3%
1047 2005	12.170	6.0%	10.270	6.3%
1947-2005	12.3%	0.9%	13.1%	0.3%
1947-2006	12.4%	6.9%	13.2%	6.2%
Min	11.4%	2.6%	11.5%	2.0%
Max	13.6%	7.0%	14.6%	6.3%
Mean	12.6%	5.2%	13.1%	4.4%
Stdev.	0.5%	1.6%	0.7%	1.6%
+1 Std	13.1%	6.8%	13.8%	6.1%
-1 Std dev.	12.0%	3.5%	12.4%	2.8%

Source: Ibbotson Associates; <u>Stocks, Bonds, Bills and Inflation: 2006 Yearbook</u> <u>Market Results for 1926-2005, Standardandpoors.com</u>; Canadian Institute of Actuaries, <u>Report on Canadian Economic Statistics 1924-2005</u>

CUMULATIVE AVERAGE MARKET RETURNS FOR CANADA AND THE U.S. (2006 Backward)

		Canada		U.S.
	Stock	Long Government	Stock	Long Government
	<u>Returns</u>	Bond Returns	<u>Returns</u>	Bond Returns
1947-2006	12.4%	6.9%	13.2%	6.2%
1948-2006	12.6%	7.0%	13.3%	6.4%
1949-2006	12.6%	7.1%	13.4%	6.4%
1950-2006	12.5%	7.2%	13.3%	6.4%
1951-2006	11.8%	7.3%	13.0%	6.5%
1952-2006	11.6%	7.5%	12.8%	6.7%
1953-2006	11.8%	7.6%	12.7%	6.8%
1954-2006	12.0%	7.7%	12.9%	6.9%
1955-2006	11.5%	7.6%	12.2%	6.9%
1956-2006	11.2%	7.8%	11.8%	7.1%
1957-2006	11.1%	8.0%	11.9%	7.3%
1958-2006	11.8%	8.1%	12.4%	7.3%
1959-2006	11.4%	8.4%	11.7%	7.6%
1960-2006	11.5%	8.6%	11.7%	7.8%
1961-2006	11.7%	8.7%	12.0%	7.7%
1962-2006	11.3%	8.6%	11.6%	7.8%
1963-2006	11.7%	8.8%	12.1%	7.8%
1964-2006	11.6%	8.9%	11.8%	8.0%
1965-2006	11.2%	8.9%	11.7%	8.1%
1966-2006	11.4%	9.1%	11.7%	8.3%
1967-2006	11.8%	9.3%	12.3%	8.4%
1968-2006	11.7%	9.6%	12.0%	8.8%
1969-2006	11.4%	9.9%	12.0%	9.1%
1970-2006	11.7%	10.2%	12.5%	9.5%
1971-2006	12.1%	9.9%	12.8%	9.4%
1972-2006	12.2%	9.8%	12.7%	9.3%
1973-2006	11.8%	10.1%	12.5%	9.4%
1974-2006	12.1%	10.3%	13.4%	9.7%
1975-2006	13.3%	10.7%	14.6%	9.9%
1976-2006	13.2%	10.9%	13.9%	9.9%
1977-2006	13.2%	10.7%	13.6%	9.7%
1978-2006	13.3%	10.8%	14.3%	10.0%
1979-2006	12.7%	11.2%	14.5%	10.4%
1980-2006	11.6%	11.7%	14.4%	10.9%
1981-2006	10.8%	12.1%	13.7%	11.4%
1982-2006	11.7%	12.7%	14.5%	11.8%
Min	10.8%	6.9%	11.6%	6.2%
Max	13.3%	12.7%	14.6%	11.8%
Mean	11.9%	9.2%	12.8%	8.4%
Stdev.	0.7%	1.5%	0.9%	1.5%
+1 Std	12.6%	10.7%	13.7%	9.9%
-1 Std dev.	11.3%	7.6%	11.9%	6.9%

Source: Ibbotson Associates; Stocks, Bonds, Bills and Inflation: 2006 Yearbook

Market Results for 1926-2005, Standardandpoors.com; Canadian Institute of Actuaries, Report on Canadian Economic Statistics 1924-2005

TSE 300 SUB-INDEX COMPOUND RETURNS AND BETAS

			Compoun	d Returns			Betas						
	<u>56-03</u>	<u>56-97</u>	<u>64-73</u>	<u>74-83</u>	<u>84-93</u>	<u>94-03</u>	<u>56-03</u>	<u>56-97</u>	<u>64-73</u>	<u>74-83</u>	<u>84-93</u>	<u>94-03</u>	
Metals/Minerals	0.08	0.08	0.07	0.11	0.07	0.07	1.15	1.23	1.14	1.22	1.37	0.87	
Gold/Precious Metals	0.10	0.10	0.16	0.16	0.11	-0.03	0.85	0.96	0.36	1.31	1.24	0.64	
Oil and Gas	0.10	0.08	0.15	0.12	0.05	0.15	1.06	1.20	1.25	1.40	0.98	0.52	
Paper/Forest Products	0.07	0.07	0.05	0.12	0.10	0.03	1.02	1.07	1.15	1.00	1.27	0.85	
Consumer Products	0.11	0.12	0.10	0.14	0.11	0.10	0.83	0.86	0.84	0.90	0.89	0.73	
Industrial Products	0.07	0.10	0.08	0.11	0.06	0.01	1.17	1.02	1.11	0.87	1.08	1.69	
Real Estate ^{1/}	0.05	0.05	0.01	0.17	-0.02	0.01	1.00	1.18	1.21	1.28	1.06	0.46	
Transportation/Environmental	0.10	0.11	0.13	0.18	0.03	0.09	0.94	1.04	0.94	1.08	1.22	0.62	
Pipelines	0.12	0.12	0.05	0.14	0.14	0.13	0.68	0.85	0.80	0.92	0.76	0.02	
Utilities	0.11	0.11	0.03	0.18	0.11	0.16	0.54	0.48	0.50	0.47	0.40	0.79	
Communications/Media	0.13	0.15	0.19	0.15	0.13	0.07	0.77	0.77	0.96	0.69	0.95	0.80	
Merchandising	0.10	0.11	0.11	0.12	0.09	0.07	0.78	0.86	0.93	0.84	0.83	0.46	
Finance	0.12	0.13	0.12	0.12	0.12	0.18	0.83	0.85	0.95	0.71	0.93	0.77	
Conglomerates	0.11	0.11	0.13	0.15	0.09	0.14	0.94	1.03	1.26	0.97	1.20	0.68	
Intercept							0.18	0.18	0.12	0.15	0.14	0.12	
Adjusted R Square							47%	44%	1%	1%	11%	9%	
Beta							-0.088	-0.082	-0.020	-0.008	-0.056	-0.053	

^{1/} Data only available starting July 1961

S&P/TSX COMPOSITE SECTOR COMPOUND RETURNS AND BETAS

	Com	pound Retu	rns ^{1/}	Betas					
	<u>88-06</u>	<u>88-97</u>	<u>97-06</u>	<u>88-06</u>	<u>88-97</u>	<u>97-06</u>			
Consumer Discretionary	0.086	0.102	0.078	0.787	0.904	0.731			
Consumer Staples	0.135	0.127	0.178	0.348	0.727	0.165			
Energy	0.129	0.084	0.167	0.656	0.765	0.580			
Financials	0.160	0.183	0.170	0.784	1.039	0.677			
Health Care	0.053	0.155	-0.056	0.871	0.807	0.955			
Industrials	0.066	0.083	0.061	0.969	1.131	0.864			
Information Technology	0.077	0.218	-0.021	1.799	1.213	2.167			
Materials	0.066	0.034	0.057	0.919	1.257	0.722			
Telecommunication Services	0.144	0.154	0.160	0.738	0.578	0.866			
Utilities	0.116	0.115	0.140	0.232	0.624	0.052			
Intercept				0.14	0.14	0.17			
Adjusted R Square Beta				23% -0.043	1% -0.017	45% -0.098			

^{1/} Data only available starting December 1987

FIVE-YEAR STANDARD DEVIATIONS OF MARKET RETURNS FOR 10 SECTOR INDICES OF S&P/TSX COMPOSITE FOR FIVE YEAR PERIODS ENDING:

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Average</u>
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
S&P / TSX Composite	3.57	4.68	4.84	5.40	5.87	5.83	4.97	4.59	4.04	3.24	4.70
10 Sector Indices											
Consumer Discretionary	3.69	4.36	4.62	4.99	5.38	5.73	5.35	5.00	4.35	3.69	4.72
Consumer Staples	3.57	4.01	3.70	4.04	4.17	4.76	4.45	4.37	4.05	3.88	4.10
Energy	5.60	6.16	7.31	7.97	8.30	8.10	6.98	5.72	5.56	5.46	6.72
Financials	4.27	5.89	5.92	6.22	6.17	6.06	4.58	4.23	3.77	3.36	5.05
Health Care	6.62	7.73	8.19	9.38	9.00	9.39	8.93	8.68	6.98	6.57	8.15
Industrials	4.13	4.93	4.69	5.12	6.50	7.18	6.92	6.87	6.48	5.16	5.80
Information Technology	7.99	9.17	10.35	12.27	15.16	17.12	16.64	17.09	15.81	13.36	13.50
Materials	5.87	6.98	7.22	7.29	7.40	7.25	5.89	5.65	5.67	5.88	6.51
Telecommunication Services	3.66	5.82	7.37	7.87	8.46	8.71	7.54	5.74	4.97	4.64	6.48
Utilities	3.12	3.80	4.00	4.80	5.06	4.88	4.49	4.09	3.36	3.13	4.07
Mean	4.85	5.89	6.34	7.00	7.56	7.92	7.18	6.75	6.10	5.51	6.51
Median	4.20	5.85	6.57	6.76	6.95	7.21	6.41	5.68	5.27	4.90	5.98
			Rat	ios of Stand	lard Deviatio	ons					
S&P/TSX Utilities Index as a Percen	nt of:										
10 Sector Indices (Mean)	0.64	0.65	0.63	0.69	0.67	0.62	0.63	0.61	0.55	0.57	0.62
10 Sector Indices (Median)	0.74	0.65	0.61	0.71	0.73	0.68	0.70	0.72	0.64	0.64	0.68

5-YEAR PRICE BETAS FOR S&P/TSX SECTOR INDICES

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Consumer Discretionary	0.91	0.81	0.82	0.82	0.80	0.73	0.69	0.68	0.73	0.74	0.80	0.83	0.86
Consumer Staples	0.75	0.68	0.65	0.62	0.60	0.44	0.23	0.10	0.08	-0.08	-0.07	0.07	0.37
Energy	0.68	0.93	0.92	0.97	0.85	0.90	0.66	0.49	0.43	0.26	0.17	0.48	1.03
Financials	1.14	0.93	1.02	0.94	1.12	1.00	0.78	0.66	0.66	0.38	0.39	0.56	0.68
Health Care	0.84	0.35	0.39	0.60	1.01	1.00	1.09	0.98	0.99	0.85	0.82	0.72	0.85
Industrials	1.15	1.20	1.10	0.97	0.93	0.78	0.72	0.82	0.86	0.91	1.05	1.13	1.06
Information Technology	1.12	1.26	1.36	1.57	1.41	1.55	1.78	2.13	2.28	2.74	2.87	2.68	2.07
Materials	1.26	1.39	1.27	1.32	1.12	1.04	0.74	0.60	0.57	0.43	0.41	0.77	1.32
Telecommunication Services	0.61	0.56	0.64	0.64	0.92	1.11	0.92	0.94	0.93	0.83	0.58	0.74	0.52
Utilities	0.63	0.67	0.65	0.53	0.55	0.30	0.14	-0.03	-0.06	-0.25	-0.13	0.00	0.25

BETAS FOR REGULATED CANADIAN UTILITIES

"Raw" Betas Five Year Period Ending:

COMPANY	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Canadian Utilities	0.46	0.54	0.48	0.55	0.63	0.62	0.54	0.38	0.27	0.19	0.05	0.03	0.20	0.32
Emera	na	na	na	0.52	0.40	0.55	0.41	0.27	0.20	0.15	-0.05	0.01	0.07	0.12
Enbridge	0.35	0.53	0.46	0.44	0.43	0.48	0.26	0.07	-0.10	-0.18	-0.37	-0.32	-0.19	0.22
Fortis	0.35	0.44	0.51	0.37	0.30	0.49	0.33	0.23	0.14	0.13	-0.06	0.01	0.21	0.48
PNG	0.51	0.56	0.42	0.30	0.39	0.55	0.47	0.44	0.42	0.44	0.37	0.49	0.54	0.54
Terasen Inc ^{1/}	0.40	0.53	0.59	0.53	0.46	0.48	0.36	0.25	0.18	0.12	0.02	-0.02	0.06	na
TransCanada Pipelines	0.40	0.57	0.56	0.52	0.36	0.55	0.21	0.15	-0.08	-0.09	-0.38	-0.16	-0.15	0.34
Mean	0.41	0.53	0.50	0.46	0.42	0.53	0.37	0.26	0.14	0.11	-0.06	0.01	0.11	0.34
Median	0.40	0.54	0.50	0.52	0.40	0.55	0.36	0.25	0.18	0.13	-0.05	0.01	0.07	0.33
TSE Gas/Electric Index S&P/TSX Utilities	0.42 0.55	0.48 0.63	0.52 0.67	0.52 0.65	0.46 0.53	0.55 0.55	0.38 0.30	0.21 0.14	0.17 -0.03	0.14 -0.06	NA -0.25	NA -0.13	NA 0.00	NA 0.25

Adjusted Betas^{2/}

Five Year Period Ending:														
COMPANY	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Canadian Utilities	0.64	0.69	0.65	0.70	0.75	0.75	0.69	0.58	0.51	0.46	0.37	0.35	0.47	0.54
Emera	NA	NA	NA	0.68	0.60	0.70	0.60	0.51	0.46	0.43	0.29	0.33	0.38	0.41
Enbridge	0.56	0.69	0.64	0.62	0.62	0.65	0.50	0.38	0.26	0.21	0.08	0.12	0.21	0.48
Fortis	0.57	0.62	0.67	0.58	0.53	0.66	0.55	0.48	0.42	0.41	0.29	0.34	0.47	0.65
PNG	0.67	0.71	0.61	0.53	0.59	0.70	0.65	0.63	0.61	0.63	0.58	0.66	0.69	0.69
Terasen Inc	0.60	0.69	0.72	0.69	0.64	0.65	0.57	0.50	0.45	0.41	0.35	0.32	0.37	na
TransCanada Pipelines	0.60	0.71	0.71	0.68	0.57	0.70	0.47	0.43	0.28	0.27	0.08	0.22	0.23	0.56
Mean	0.61	0.68	0.67	0.64	0.61	0.69	0.58	0.50	0.43	0.40	0.29	0.33	0.40	0.56
Median	0.60	0.69	0.66	0.68	0.60	0.70	0.57	0.50	0.45	0.41	0.29	0.33	0.38	0.55
TSE Gas/Electric Index	0.61	0.65	0.68	0.68	0.64	0.70	0.59	0.47	0.44	0.42	NA	NA	NA	NA
S&P/TSX Utilities	0.70	0.76	0.78	0.77	0.69	0.70	0.53	0.42	0.31	0.29	0.16	0.24	0.33	0.50

^{1/} Due to its purchase by Kinder Morgan, Terasen betas are calculated through November 2005.

^{2/} Adjusted beta = "raw" beta * 67% + market beta of 1.0 * 33%.

Source: Standard and Poor's Research Insight and TSX Review.

RECENT SUB-PERIOD BETAS FOR REGULATED CANADIAN UTILITIES

Including Nortel in the Market Index

					"Raw	" Betas					
	Jan 00 to June	July 00 to Dec	Jan 01 to June	July 01 to Dec	Jan 02 to June	July 02 to Dec	Jan 03 to June	July 03 to Dec	July 02 to Dec	July 02 to Dec	
	02	02	03	03	04	04	05	05	05	06	
Canadian Utilities	-0.09	-0.07	0.08	0.33	0.42	0.52	0.72	0.46	0.55	0.36	
Emera	-0.04	-0.01	0.00	0.06	0.13	0.16	0.48	0.20	0.20	0.14	
Enbridge	-0.52	-0.42	-0.46	0.13	0.28	0.35	0.33	0.38	0.30	0.25	
Fortis	-0.12	-0.06	0.06	0.17	0.33	0.44	0.46	0.70	0.64	0.53	
PNG	0.32	0.57	0.71	0.95	0.99	0.96	0.84	0.60	0.74	0.57	
Terasen Inc ^{1/}	-0.07	-0.11	-0.06	-0.02	0.17	0.18	0.41	0.30	0.25	0.25	
TransCanada Pipelines	-0.34	-0.08	-0.39	0.12	0.35	0.47	0.59	0.43	0.47	0.43	
Mean	-0.12	-0.03	-0.01	0.25	0.38	0.44	0.55	0.44	0.45	0.36	
Median	-0.09	-0.07	0.00	0.13	0.33	0.44	0.48	0.43	0.47	0.36	
S&P/TSX Utilities	-0.30	-0.16	-0.22	0.18	0.33	0.44	0.50	0.48	0.47	0.29	

					Adjus	ted Betas				
	Jan 00 to June	July 00 to Dec	Jan 01 to June	July 01 to Dec	Jan 02 to June	July 02 to Dec	Jan 03 to June	July 03 to Dec	July 02 to Dec	July 02 to Dec
	02	02	03	03	04	04	05	05	05	06
Concision Litilities	0.07	0.28	0.28	0.55	0.61	0.69	0.91	0.64	0.70	0.57
Emera	0.27	0.28	0.33	0.37	0.42	0.68	0.65	0.64	0.46	0.42
Enbridge	-0.02	0.05	0.02	0.41	0.52	0.56	0.55	0.59	0.53	0.50
Fortis	0.25	0.29	0.37	0.44	0.55	0.62	0.64	0.80	0.76	0.69
PNG	0.55	0.72	0.80	0.96	0.99	0.98	0.89	0.73	0.82	0.71
Terasen Inc ^{1/}	0.28	0.26	0.29	0.32	0.44	0.45	0.61	0.53	0.50	0.50
TransCanada Pipelines	0.10	0.28	0.07	0.41	0.56	0.65	0.72	0.61	0.65	0.62
Mean	0.25	0.31	0.32	0.50	0.58	0.62	0.70	0.62	0.63	0.57
Median	0.27	0.28	0.33	0.41	0.55	0.62	0.65	0.61	0.65	0.57
S&P/TSX Utilities	0.13	0.22	0.18	0.45	0.55	0.62	0.67	0.65	0.64	0.52

				Ex	cluding Nortel fr	om the Market I	ndex			
	Jan 00 to June	July 00 to Dec	Jan 01 to June	July 01 to Dec	Jan 02 to June	July 02 to Dec	Jan 03 to June	July 03 to Dec	July 02 to Dec	July 02 to Dec
			00	00	04	04	00	00	00	00
Canadian Utilities	0.06	0.14	0.18	0.37	0.41	0.45	0.57	0.38	0.51	0.31
Emera	0.00	0.03	0.02	0.09	0.15	0.18	0.40	0.17	0.21	0.15
Enbridge	-0.33	-0.16	-0.31	0.19	0.50	0.58	0.58	0.56	0.45	0.37
Fortis	-0.11	0.04	0.16	0.25	0.26	0.36	0.31	0.56	0.59	0.48
PNG	0.96	1.21	1.21	1.03	1.12	0.96	0.77	0.51	0.71	0.54
Terasen Inc ^{1/}	0.13	0.06	0.04	0.04	0.37	0.37	0.55	0.45	0.38	0.38
TransCanada Pipelines	-0.29	0.10	-0.28	0.16	0.48	0.57	0.66	0.51	0.53	0.47
Mean	0.06	0.21	0.14	0.31	0.47	0.50	0.55	0.45	0.48	0.39
Median	0.00	0.06	0.04	0.19	0.41	0.45	0.57	0.51	0.51	0.38
S&P/TSX Utilities	-0.14	0.06	-0.09	0.23	0.47	0.54	0.58	0.56	0.54	0.34

					Adjust	ed Betas				
	Jan 00 to June	July 00 to Dec	Jan 01 to June	July 01 to Dec	Jan 02 to June	July 02 to Dec	Jan 03 to June	July 03 to Dec	July 02 to Dec	July 02 to Dec
	02	02	03	03	04	04	05	05	05	06
Canadian Utilities	0.37	0.43	0.45	0.58	0.61	0.63	0.71	0.58	0.67	0.54
Emera	0.33	0.35	0.34	0.39	0.43	0.45	0.60	0.44	0.47	0.43
Enbridge	0.11	0.22	0.12	0.46	0.66	0.72	0.72	0.71	0.63	0.58
Fortis	0.26	0.36	0.44	0.50	0.51	0.57	0.53	0.70	0.72	0.65
PNG	0.97	1.14	1.14	1.02	1.08	0.97	0.84	0.67	0.80	0.69
Terasen Inc 1/	0.42	0.37	0.35	0.36	0.58	0.58	0.70	0.63	0.59	0.58
TransCanada Pipelines	0.14	0.40	0.14	0.44	0.65	0.71	0.77	0.68	0.69	0.64
Mean	0.37	0.47	0.43	0.53	0.65	0.66	0.70	0.63	0.65	0.59
Median	0.33	0.37	0.35	0.46	0.61	0.63	0.71	0.67	0.67	0.58
S&P/TSX Utilities	0.23	0.37	0.27	0.49	0.64	0.69	0.72	0.70	0.69	0.56

 $^{\prime\prime}$ Due to its purchase by Kinder Morgan, Terasen betas are calculated through November 2005.

Source: Standard and Poor's Research Insight and TSX Review

HISTORIC UTILITY EQUITY RISK PREMIUMS

		Canada (1956-2006)	
Average	Utilities Index Return	Bond Return	Risk Premium
Arithmetic	12.6	7.8	4.8
Geometric	11.5	7.8	3.7
		United States (1947-2006)	
	S&P/Moody's		
Average	Electric Index Return	Bond Return	Risk Premium
Arithmetic	11.4	6.2	5.2
Geometric	10.2	6.2	4.0
	S&P / Moody's Gas		
Average	Distribution Index Return	Bond Return	Risk Premium
Arithmetic	12.3	6.2	6.1
Geometric	11.1	6.2	4.9
Note:	The Canadian Utilities Index is based on the Gas/Electri	ic Index of the TSE 300 (from 1956 to 1987) a	nd on the S&P/TSX Utilities Index from 1988-2005.
	The S&P/Moody's Electric Index reflects S&P's Electric prices and dividends for the utilities included in Moody's Centerpoint Energy, CH Energy, Cinergy, Consolidated Exelon, FirstEnergy, IDACORP, Nisource, OGE Energy Xcel Energy.	Index from 1947 to 2001. The 2002 to 2006 d Electric Index as of the end of 2001. These u Edison, Constellation, Dominion Resources, I , Pepco Holdings, PPL, Progress Energy, Pub	ata were estimated using simple average of the tilities include American Electric Power, JPL, DTE Energy, Duke Energy, Energy East, lic Service Enterprise Grp., Southern Co., Teco and
	The S&P/Moody's Gas Distribution Index reflects S&P's index. The 1984-2001 data are for Moody's Gas index. averages of the prices and dividends for the utilities that Resources, Keyspan Corp., Laclede Group, Northwest I	Natural Gas Distributors Index from 1947 to 1 The index was terminated in July 2002. The 2 were included in Moody's Gas Index as of the Natural, Peoples Energy and WGL Holdings.	984, when S&P eliminated its gas distribution 2002-2006 returns were estimated using simple end of 2001. These LDCs include AGL
Sources:	<u>TSX Review</u> , Canadian Institute of A Standard & Poor's <u>Analysts' Handbo</u> <u>Yearbook</u> , Mergent Corporate News	ctuaries, <u>Report on Canadian I</u> <u>ok</u> , Ibbotson Associates <u>, Stock</u> Reports, and U.S. Federal Re	Economic Statistics 1924-2005, s, Bonds, Bills and Inflation: 2006 serve

25-YEAR ROLLING AVERAGE RETURNS FOR CANADIAN & U.S. UTILITIES AND GOVERNMENT BONDS

	Car	nada	U.S.					
			S&P/Moody's	S&P/Moody's Gas				
	S&P/TSX Utilities	Long Government	Electric	Distributors	Long Government			
	<u>Returns</u>	Bond Returns	<u>Returns</u>	<u>Returns</u>	Bond Returns			
1947-1971			9.7%	10.7%	2.0%			
1948-1972			10.3%	11.3%	2.3%			
1949-1973			9.5%	10.2%	2.1%			
1950-1974			7.5%	9.0%	2.0%			
1951-1975			9.3%	9.9%	2.4%			
1952-1976			9.6%	11.1%	3.2%			
1953-1977			9.1%	11.0%	3.2%			
1954-1978			8.6%	10.8%	3.0%			
1955-1979			7.7%	11.1%	2.6%			
1956-1980	12.3%	3.4%	7.5%	12.0%	2.5%			
1957-1981	10.9%	3.4%	8.2%	11.1%	2.8%			
1958-1982	12.3%	4.9%	9.2%	11.0%	4.1%			
1959-1983	11.5%	5.5%	8.2%	10.8%	4.4%			
1960-1984	11.7%	6.3%	9.0%	11.4%	5.1%			
1961-1985	11.6%	7.0%	9.1%	11.4%	5.8%			
1962-1986	11.4%	7.3%	9.1%	11.1%	6.7%			
1963-1987	12.3%	7.2%	8.8%	10.9%	6.4%			
1964-1988	12.3%	7.4%	9.0%	11.3%	6.7%			
1965-1989	12.2%	7.8%	9.7%	12.6%	7.3%			
1966-1990	11.0%	7.9%	9.7%	12.6%	7.5%			
1967-1991	11.7%	8.8%	11.1%	13.9%	8.1%			
1968-1992	11.3%	9.4%	11.4%	14.3%	8.8%			
1969-1993	11.4%	10.4%	11.6%	14.2%	9.6%			
1970-1994	12.2%	10.0%	11.6%	14.4%	9.4%			
1971-1995	11.6%	10.2%	12.4%	14.3%	10.2%			
1972-1996	12.2%	10.3%	12.3%	14.7%	9.7%			
1973-1997	13.4%	11.0%	13.2%	15.0%	10.1%			
1974-1998	14.1%	11.5%	14.8%	15.6%	10.6%			
1975-1999	13.1%	11.3%	15.2%	15.5%	10.1%			
1976-2000	14.3%	11.7%	15.5%	15.6%	10.6%			
1977-2001	13.4%	11.1%	14.4%	13.6%	10.1%			
1978-2002	12.9%	11.3%	13.6%	13.4%	10.8%			
1979-2003	13.3%	11.5%	14.5%	14.3%	10.9%			
1980-2004	12.5%	12.0%	15.1%	13.4%	11.3%			
1981-2005	13.1%	12.4%	15.1%	12.0%	11.8%			
1982-2006	13.7%	12.7%	15.1%	13.4%	11.8%			
Min	10.9%	3.4%	7.5%	9.0%	2.0%			
Мах	14.3%	12.7%	15.5%	15.6%	11.8%			
Mean	12.4%	9.0%	11.0%	12.5%	6.8%			
Stdev	0.9%	2.7%	2.6%	1.8%	3.5%			
+1 Std	13.3%	11.7%	13.6%	14.3%	10.3%			
-1 Std dev.	11.4%	6.3%	8.4%	10.7%	3.4%			

Sources:

<u>TSX Review</u>, Canadian Institute of Actuaries, <u>Report on Canadian Economic Statistics 1924-2005</u>, Standard & Poor's <u>Analysts' Handbook</u>, Ibbotson Associates, <u>Stocks</u>, <u>Bonds</u>, <u>Bills and</u> <u>Inflation: 2006 Yearbook</u>, Mergent Corporate News Reports, Standard and Poor's Research Insight and U.S. Federal Reserve

CUMULATIVE AVERAGE RETURNS FOR **CANADIAN & U.S. UTILITIES AND GOVERNMENT BONDS**

(Forward)

	Canada			.S.		
				S&P/Moody's	S&P/Moody's Gas	
	S&P/TSX Utilities	Long Government		Electric	Distributors	Long Government
	Returns	Bond Returns		Returns	Returns	Bond Returns
			1947-1971	9.7%	10.7%	2.0%
			1947-1972	9.4%	10.8%	2.1%
			1947-1973	8.4%	9.7%	2.0%
			1947-1974	7.2%	9.4%	2.1%
			1947-1975	8.7%	9.9%	2.3%
			1947-1976	9.2%	11.2%	2.8%
			1947-1977	9.2%	11.2%	2.7%
			1947-1978	8.8%	10.7%	2.6%
			1947-1979	8.5%	11.5%	2.5%
1956-1980	12.3%	3.4%	1947-1980	8.5%	12.1%	2.3%
1956-1981	10.9%	3.1%	1947-1981	8.8%	11.5%	2.3%
1956-1982	12.3%	4.6%	1947-1982	9.6%	11.1%	3.3%
1956-1983	11.5%	4.8%	1947-1983	9.7%	11.7%	3.2%
1956-1984	11.7%	5.1%	1947-1984	10.1%	11.9%	3.6%
1956-1985	11.6%	5.8%	1947-1985	10.5%	12.0%	4.3%
1956-1986	11.4%	6.2%	1947-1986	10.9%	12.4%	4.8%
1956-1987	12.3%	6.0%	1947-1987	10.4%	11.9%	4.6%
1956-1988	12.3%	6.1%	1947-1988	10.6%	12.1%	4.7%
1956-1989	12.2%	6.4%	1947-1989	11.1%	12.8%	5.0%
1956-1990	11.0%	6.3%	1947-1990	10.9%	12.5%	5.0%
1956-1991	11.7%	6.8%	1947-1991	11.4%	12.7%	5.4%
1956-1992	11.3%	7.0%	1947-1992	11.3%	12.8%	5.4%
1956-1993	11.4%	7.4%	1947-1993	11.3%	12.9%	5.7%
1956-1994	12.2%	7.0%	1947-1994	10.8%	12.0%	5.4%
1956-1995	11.6%	7.5%	1947-1995	11.2%	12.4%	6.0%
1956-1996	12.2%	7.6%	1947-1996	11.2%	12.7%	5.8%
1956-1997	13.4%	7.0%	1947-1997	11.3%	12.7%	6.0%
1956-1998	14.1%	8.0%	1947-1998	11.5%	12.5%	6.1%
1056-1000	13.1%	7.7%	10/7-1000	11.0%	12.3%	5.9%
1956-2000	14.3%	7.8%	1947-2000	11.0%	12.5%	6.1%
1956-2000	13.0%	7.0%	1947-2000	11.5%	12.3%	6.1%
1956-2001	12.9%	7.8%	1947-2001	11.576	12.0%	6.3%
1956-2002	12.9%	7.0%	1947-2002	11.170	12.270	6.3%
1956-2003	12.5%	7.0%	1947-2003	11.3%	12.3%	6.2%
1950-2004	12.070	7.0%	1947-2004	11.3%	12.3%	0.3%
1950-2005	13.170	7.9%	1947-2005	11.3%	12.1%	0.3%
1950-2000	13.7 %	1.076	1947-2000	11.4 %	12.5%	0.276
Min	10.9%	3.1%	Min	7.2%	9.4%	2.0%
Max	14.3%	8.0%	Max	11.8%	12.9%	6.3%
Mean	12.4%	6.6%	Mean	10.3%	11.9%	4.4%
Stdev.	0.9%	1.4%	Stdev.	1.2%	0.9%	1.6%
+1 Std	13.3%	8.0%	+1 Std	11.5%	12.8%	6.1%
-1 Std dev.	11.4%	5.2%	-1 Std dev.	9.1%	10.9%	2.8%

TSX Review, Canadian Institute of Actuaries, Report on Canadian Economic Statistics 1924-Sources: 2005, Standard & Poor's Analysts' Handbook, Ibbotson Associates, Stocks, Bonds, Bills and Inflation: 2006 Yearbook, Mergent Corporate News Reports, Standard and Poor's Research Insight and U.S. Federal Reserve

CUMULATIVE AVERAGE RETURNS FOR CANADIAN & U.S. UTILITIES AND GOVERNMENT BONDS

(2006 Backward)

	Can	ada	U.S.				
			S&P/Moody's	S&P/Moody's	Long		
	S&P/TSX Utilities	Long Government	Electric	Gas Distributors	Government		
	<u>Returns</u>	Bond Returns	<u>Returns</u>	<u>Returns</u>	Bond Returns		
1947-2006			11.4%	12.3%	6.2%		
1948-2006			11.8%	12.5%	6.4%		
1949-2006			12.0%	12.6%	6.4%		
1950-2006			11.8%	12.2%	6.4%		
1951-2006			11.9%	12.4%	6.5%		
1952-2006			11.8%	12.3%	6.7%		
1953-2006			11.7%	12.3%	6.8%		
1954-2006			11.7%	12.5%	6.9%		
1955-2006			11.5%	12.2%	6.9%		
1956-2006	12.6%	7.8%	11.5%	12.2%	7.1%		
1957-2006	12.3%	8.0%	11.6%	12.2%	7.3%		
1958-2006	12.5%	8.1%	11.7%	12.5%	7.3%		
1959-2006	12.2%	8.4%	11.1%	11.9%	7.6%		
1960-2006	12.2%	8.6%	11.2%	12.1%	7.8%		
1961-2006	11.9%	8.7%	11.0%	12.0%	7.7%		
1962-2006	11.9%	8.6%	10.6%	11.5%	7.8%		
1963-2006	12.5%	8.8%	10.8%	11.8%	7.8%		
1964-2006	12.6%	8.9%	10.8%	11.9%	8.0%		
1965-2006	12.7%	8.9%	10.7%	11.9%	8.1%		
1966-2006	12.2%	9.1%	10.9%	12.2%	8.3%		
1967-2006	12.9%	9.3%	11.3%	12.8%	8.4%		
1968-2006	12.8%	9.6%	11.6%	12.9%	8.8%		
1969-2006	12.6%	9.9%	11.7%	12.8%	9.1%		
1970-2006	13.3%	10.2%	12.4%	13.6%	9.5%		
1971-2006	13.2%	9.9%	12.4%	13.1%	9.4%		
1972-2006	13.3%	9.8%	12.7%	13.4%	9.3%		
1973-2006	13.5%	10.1%	12.9%	13.4%	9.4%		
1974-2006	14.3%	10.3%	13.9%	14.4%	9.7%		
1975-2006	14.8%	10.7%	15.1%	14.8%	9.9%		
1976-2006	14.6%	10.9%	14.0%	14.5%	9.9%		
1977-2006	14.1%	10.7%	13.7%	13.3%	9.7%		
1978-2006	13.9%	10.8%	13.8%	13.4%	10.0%		
1979-2006	13.8%	11.2%	14.4%	14.0%	10.4%		
1980-2006	13.2%	11.7%	15.0%	13.2%	10.9%		
1981-2006	12.9%	12.1%	15.3%	12.5%	11.4%		
1982-2006	13.7%	12.7%	15.1%	13.4%	11.8%		
Min	11.9%	7.8%	10.6%	11.5%	6.2%		
Мах	14.8%	12.7%	15.3%	14.8%	11.8%		
Mean	13.1%	9.8%	12.3%	12.7%	8.4%		
Stdev.	0.8%	1.3%	1.4%	0.8%	1.5%		
+1 Std	13.9%	11.0%	13.7%	13.5%	9.9%		
-1 Std dev.	12.2%	8.5%	10.9%	11.9%	6.9%		

Sources: <u>TSX Review</u>, Canadian Institute of Actuaries, <u>Report on Canadian Economic</u> <u>Statistics 1924-2005</u>, Standard & Poor's <u>Analysts' Handbook</u>, Ibbotson Associates, <u>Stocks</u>, <u>Bonds</u>, <u>Bills and Inflation: 2006 Yearbook</u>, Mergent Corporate News Reports, Standard and Poor's Research Insight and U.S. Federal Reserve

DCF-BASED EQUITY RISK PREMIUM STUDY FOR BENCHMARK US ELECTRIC AND GAS UTILITIES (Quarterly Averages of Monthly Data)

		Expected Dividend	I/B/E/S EPS Growth	DCF Cost of	Long Treasury	Rick Promium
	-	riela	Forecast	Equity	rieid	RISK Freinlum
1993	q1	5.5	4.7	10.2	7.0	3.2
	q2	5.4	4.7	10.1	6.9	3.3
	q3	5.2	4.8	9.9	6.3	3.7
	q4	5.4	4.5	9.9	6.2	3.7
1994	q1	5.8	4.2	10.1	6.7	3.3
	q2	6.1	4.3	10.4	7.3	3.1
	q3	6.2	4.3	10.5	7.6	2.9
1005	q4	6.4	4.0	10.4	7.9	2.5
1995	q1	6.2	3.9	10.1	7.6	2.5
	q2	6.1 E.O	4.0	10.0	6.9	3.1
	43 a4	5.9	3.9	9.9	6.7	3.1
1006	q4 q1	5.0	4.0	9.5	6.4	3.3
1990	ч1 а2	5.7	4.0	9.4	7.0	2.0
	42 a3	5.7	4.0	9.8	7.0	2.0
	43 a4	5.5	4.1	9.6	6.6	2.0
1007	4 4 a1	5.5	4.1	9.8	6.9	2.0
1007	۹۲ a2	5.0	4.3	10.0	6.9	3.1
	42 a3	5.4	4.3	97	6.5	3.3
	q0 q4	4.8	4.3	91	6.0	3.1
1998	α1	4.6	4 4	9.0	5.9	31
	۹. a2	4.6	4.6	9.2	5.8	3.4
	a3	4.7	4.6	9.4	5.4	4.0
	a4	4.4	4.5	9.0	5.1	3.9
1999	q1	5.1	4.6	9.8	5.4	4.3
	q2	5.0	4.7	9.7	5.8	3.9
	q3	5.0	4.8	9.9	6.1	3.7
	q4	5.4	4.9	10.3	6.4	3.9
2000	q1	5.8	4.9	10.7	6.2	4.5
	q2	5.7	5.1	10.9	6.0	4.9
	q3	5.6	5.4	11.0	5.8	5.2
	q4	4.9	5.4	10.2	5.6	4.6
2001	q1	4.9	5.4	10.3	5.4	4.9
	q2	4.9	5.9	10.8	5.8	5.0
	q3	5.0	5.5	10.6	5.4	5.1
	q4	4.9	5.7	10.6	5.3	5.3
2002	q1	4.8	5.8	10.6	5.7	4.9
	q2	4.6	5.8	10.4	5.7	4.7
	q3	5.1	5.7	10.8	5.1	5.7
	q4	4.9	5.6	10.6	5.1	5.5
2003	q1	5.1	5.5	10.6	4.9	5.7
	q2	4.7	5.2	9.9	4.7	5.2
	q3	4.7	4.9	9.6	5.3	4.3
2004	q4 q1	4.5	4.7	9.3	5.2	4.0
2004	41 a2	4.4	4.5	0.9	5.0	4.0
	d3	4.0	4.5	9.1	5.4	3.0
	43 a4	4.5	4.5	9.0	J.1 4 9	3.9
2005	47 a1	4.3	4.5	87	4.5	4.0
2000	۹۲ a2	4.1	4.4	84	4.4	4.0
	۹ <u>–</u> a3	3.9	4.2	8.1	4.4	3.7
	q0 q4	4.2	4.6	8.8	4.6	4.2
2006	α1	4.2	4.9	9.2	47	4.5
	q2	4.4	5.0	9.4	5.2	4.2
	q3	4.1	4.9	9.1	4.9	4.2
	q4	3.9	4.6	8.6	4.7	3.9
Means for Long	Treasu	ury Yields:				
Under 5.0		4.3	4.7	9.0	4.7	4.3
5.0-5.99		4.8	5.1	9.9	5.4	4.5
6.0-6.99		5.4	4.4	9.9	6.4	3.4
i.u and above		6. 0	4.2	10.2	7.4	2.8
1993-2006		5.1	4.7	9.8	5.9	3.9
1998-2006		4.7	5.0	9.7	5.3	4.4

 $^{1\prime}$ Dividend Yield is adjusted for half of I/B/E/S/ growth

Source: Standard & Poor's Research Insight, I/B/E/S and U.S. Federal Reserve

INDIVIDUAL COMPANY RISK DATA FOR BENCHMARK SAMPLE OF US ELECTRIC AND GAS UTILITIES

		Value Line									S & P		Moody's Avera	Average
				Forecast Forecast Forecast	Forecast Return On Average	Dividend Payout		Long-Term	Research	Common Equity				Market/ Book
		Earnings	Financial	Ratio	Common Equity	Forecast		Earnings	Insight	Ratio	Business	Debt	Debt	Ratio
	Safety	Predictability	Strength	2009-2011	2009-2011	2009-2011	Beta	Growth	Beta ^{1/}	2005	Profile	Rating	Rating ^{2/}	1994-2005
AGL Resources	2	75	B++	51.5%	11.8%	60.3%	0.95	4.0	0.57	41.2%	4	A-	A3	1.75
Consol. Edison	1	85	A++	50.0%	9.2%	78.0%	0.75	2.0	0.43	46.5%	2	А	A2	1.49
FPL Group	1	80	A+	53.0%	12.7%	46.7%	0.85	8.5	0.68	44.5%	4	А	A2	1.86
New Jersey Resources	1	100	А	67.5%	12.4%	50.7%	0.80	4.5	0.36	47.0%	2	A+	A1	2.19
NICOR Inc.	3	80	А	69.0%	12.5%	72.1%	1.30	4.0	0.94	42.0%	3	AA	A3	2.27
Northwest Nat. Gas	1	75	А	53.0%	11.4%	59.6%	0.75	7.0	0.42	47.2%	1	AA-	A3	1.53
NSTAR	1	95	А	51.5%	14.9%	60.0%	0.80	7.5	0.65	34.0%	1	A+	A2	1.69
Piedmont Natural Gas	2	80	B++	55.0%	12.9%	66.9%	0.80	6.0	0.57	51.9%	2	А	A3	1.98
SCANA Corp.	2	90	А	53.0%	11.4%	58.5%	0.85	3.5	0.66	42.1%	4	A-	A3	1.64
Southern Co.	1	95	А	43.5%	14.0%	72.0%	0.70	3.5	0.29	40.7%	4	А	A3	2.05
Vectren Corp.	2	70	А	48.5%	11.1%	73.2%	0.90	3.0	0.66	42.4%	4	A-	Baa1	1.92
WGL Holdings Inc.	1	60	А	61.0%	11.3%	63.0%	0.85	1.5	0.51	56.0%	3	AA-	A2	1.72
WPS Resources	2	70	B++	52.5%	9.9%	58.8%	0.85	2.0	0.58	52.4%	5	А	A1	1.62
Mean	2	81	Α	54.5%	12.0%	63.1%	0.86	4.4	0.56	45.2%	3	Α	A2	1.82
Median	1	80	Α	53.0%	11.8%	60.3%	0.85	4.0	0.57	44.5%	3	Α	A2	1.75

Calculated using monthly data against the S&P 500 (60 months ending December 2006); adjusted towards the market mean of 1.0.
 Rating for WGL Holdings is Washington Gas Light.

Source: Standard and Poor's Research Insight, Value Line (December 2006), www.Moodys.com and

Standard and Poor's, Issuer Ranking: U.S. Utility And Power Ranking (January 27, 2007).

DCF COST OF EQUITY FOR BENCHMARK SAMPLE OF **US ELECTRIC AND GAS UTILITIES** (BASED ON ANALYSTS' EARNINGS GROWTH FORECASTS)

	Annualized	Average Daily			DCF
	Last Paid	Closing Prices	Expected	I/B/E/S	Cost of
<u>Company</u>	Dividend	February 2007	Dividend Yield ^{1/}	Long-Term EPS Forecasts	Equity ^{2/}
	(1)	(2)	(3)	(4)	(5)
AGL Resources	1.48	41.57	3.7	4.1	7.8
Consol. Edison	2.30	48.81	4.9	3.0	7.8
FPL Group	1.50	59.10	2.7	8.1	10.8
New Jersey Resources	1.52	48.75	3.3	5.3	8.6
NICOR Inc.	1.86	46.58	4.1	3.6	7.7
Northwest Nat. Gas	1.42	42.52	3.5	4.9	8.4
NSTAR	1.86	34.37	5.7	5.7	11.4
Piedmont Natural Gas	0.96	26.33	3.8	4.2	8.0
SCANA Corp.	1.68	42.03	4.2	4.4	8.5
Southern Co.	1.55	36.33	4.5	4.4	8.8
Vectren Corp.	1.26	28.37	4.6	4.0	8.6
WGL Holdings Inc.	1.35	32.05	4.4	3.5	7.9
WPS Resources	2.30	55.70	4.3	5.0	9.3
Mean	1.62	41.73	4.1	4.6	8.7
Median	1.52	42.03	4.2	4.4	8.5

^{1/} Expected Dividend Yield = (Col (1) / Col (2)) * (1 + Col (4)) ^{2/} Expected Dividend Yield (Col (3)) + I/B/E/S Growth Forecast (Col (4))

Source: Standard and Poor's Research Insight, Yahoo.com and I/B/E/S (February 2007)

DCF COST OF EQUITY FOR BENCHMARK SAMPLE OF US ELECTRIC AND GAS UTILITIES (TWO STAGE MODEL)

	Annualized	Average Daily		Stage 2	DCF
	Last Paid	Closing Prices	I/B/E/S	GDP	Cost of
<u>Company</u>	Dividend	February 2007	Long-Term EPS Forecasts	Growth 1/	Equity ^{2/}
	(1)	(2)	(3)	(4)	(5)
AGL Resources	1.48	41.57	4.1	5.3	8.7
Consolidated Edison Inc.	2.30	48.81	3.0	5.3	9.7
FPL Group	1.50	59.10	8.1	5.3	8.1
New Jersey Resources	1.52	48.75	5.3	5.3	8.4
Nicor Inc.	1.86	46.58	3.6	5.3	9.1
Northwest Natural Gas	1.42	42.52	4.9	5.3	8.6
NSTAR	1.86	34.37	5.7	5.3	11.1
Piedmont Natural Gas	0.96	26.33	4.2	5.3	8.8
SCANA Corp.	1.68	42.03	4.4	5.3	9.2
Southern Co.	1.55	36.33	4.4	5.3	9.5
Vectren Corp.	1.26	28.37	4.0	5.3	9.6
WGL Holdings Inc.	1.35	32.05	3.5	5.3	9.3
WPS Resources	2.30	55.70	5.0	5.3	9.5
Mean	1.62	41.73	4.6	5.3	9.2
Median	1.52	42.03	4.4	5.3	9.2

^{1/} Consensus forecast nominal rate of GDP growth, 2008-17
 ^{2/} Internal Rate of Return: I/B/E/S EPS forecast growth rate applies for first 5 years; GDP growth thereafter.

Source: Standard and Poor's Research Insight, Yahoo.com, Blue Chip *Economic Indicators* (October 2006) and I/B/E/S (January 2007)

ESTIMATE OF MARKET VALUE CAPITAL STRUCTURES FOR CANADIAN UTILITIES

Company	Stock Price (Average Monthly High/Low 7/2002-12/2006) (1)	Book Value Per Share Average 2002-2005 (2)	Market/Book Ratio (3) = (1)/(2)	Book Value Permanent Capital Common Equity Ratio 2002-2005 (4)	Market Value Common Equity Ratio (Debt at Par) (5)=[(4)*(3)]/[(4)*(3)+(1-(4))]	Market Value Debt Ratio 1.0-Col.(7)
CANADIAN UTILITIES -CL A	32.27	16.01	2.02	37.4%	54.6%	45.4%
EMERA INC	18.24	12.29	1.48	46.1%	55.9%	44.1%
ENBRIDGE INC	29.08	10.61	2.74	34.1%	58.7%	41.3%
FORTIS INC	17.77	9.86	1.80	34.4%	48.6%	51.4%
PNG	18.09	20.29	0.89	45.2%	42.4%	57.6%
TERASEN INC 1/	24.47	13.62	1.80	39.9%	54.4%	45.6%
TRANSCANADA CORP	29.14	13.58	2.15	38.2%	57.0%	43.0%
Mean				39.3%	53.1%	46.9%

1/ Terasen price is through November 2005 due to Kinder Morgan acquisition.

Sources: Standard & Poor's Research Insight

Book Value Stock Price **Permanent Capital** Market Value Market Value (Average Daily Closing **Book Value Per Share Common Equity Ratio Common Equity Ratio Debt Ratio** February 2007) (End 2006)^{1/} Market/Book Ratio 2005 (Debt at Par) Company (1) (2) (3) = (1)/(2)(4) $(5)=[(4)^{*}(3)]/[(4)^{*}(3)+(1-(4))]$ 1.0-Col.(7) AGL Resources 48.81 2.39 20.40 48.1% 69.0% 31.0% Consolidated Edison Inc. 47.92 30.65 1.56 48.9% 59.9% 40.1% FPL Corp. 54.95 23.65 2.32 51.4% 71.1% 28.9% New Jersey Resources 47.24 2.10 74.4% 22.50 58.0% 25.6% Nicor Inc. 45.40 19.35 2.35 62.5% 79.6% 20.4% Northwest Natural Gas 41.04 22.10 53.0% 67.6% 1.86 32.4% NSTAR 33.69 14.80 2.28 38.6% 58.8% 41.2% Piedmont Natural Gas 26.34 11.90 2.21 58.6% 75.8% 24.2% SCANA Corp. 40.70 46.6% 59.1% 40.9% 24.65 1.65 Southern Co. 36.60 15.10 2.42 44.3% 65.8% 34.2% Vectren Corp. 27.95 15.30 1.83 48.8% 63.5% 36.5% WGL Holdings Inc. 31.70 18.25 1.74 59.3% 71.7% 28.3% WPS Resources 53.78 35.95 1.50 58.7% 68.0% 32.0% 52.1% Mean 68.0% 32.0%

ESTIMATE OF MARKET VALUE CAPITAL STRUCTURES FOR BENCHMARK SAMPLE OF US ELECTRIC AND GAS UTILITIES

^{1/}Value Line 2006 estimate.

Sources: Schedule 19 for stock prices, Standard & Poor's Research Insight and Value Line (December 2006)

Schedule 23 Page 1 of 2

QUANTIFICATION OF IMPACT ON EQUITY RETURN REQUIREMENT FOR DIFFERENCE BETWEEN MARKET VALUE AND BOOK VALUE CAPITAL STRUCTURES CANADIAN UTILITIES

Formula for After-Tax Weighted Average Cost of Capital:

WACC_{AT} = (Debt Cost)(1-tax rate)(Debt Ratio) + (Equity Cost)(Equity Ratio)

APPROACH 1:

The after-tax weighted average cost of capital (WACC_{AT}) is invariant to changes in the capital structure. The cost of equity rises as leverage (debt ratio) rises, but the WACC_{AT} stays the same.

WACC _{AT(LL)}	=	WACC _{AT(ML)}
	Where $LL = les$	s levered (lower debt ratio)
	ML = mc	ore levered (higher debt ratio)

ASSUMPTIONS:

Debt Cost	=	Current Cost of Long Term Debt for A rated utility
	=	6.00%[1]
Equity Cost	=	Cost of Equity[2]
	=	9.625%
Tax Rate	=	36.0%[3]

STEPS:

1.	Estimate WACCAT for the less l	evered sa	mple (average market value common equity ratio of 53%)
	WACCAT	=	(6.00%)(136)(47%) + (9.625%)(53%)
		=	6.91%
2.	Estimate Cost of Equity for same	ple at 39%	% book value common equity ratio with $WACC_{AT}$ unchanged at 6.91%
	WACC _{AT}	=	(Debt Cost)(1-tax rate)(Debt Ratio) + (Equity Cost)(Equity Ratio)
	6.910%	=	(6.00%)(136)(61%)+(X)(39%)
	Cost of Equity at 39% Equity Ratio	=	11.70%
3.	Difference between Equity Retu 11.70% - 9.625%	rn at 39% =	5 and 53% common equity ratios: 2.08% (208 basis points)

[1] Forecast Long Canada plus spread on A-rated utility debt.

[2] Based on the mid-point of Equity Risk Premium and DCF tests.

[3] Combined Federal/Ontario tax rate.

APPROACH 2:			
	After-Tax Cost of Capital D	eclines as D	ebt Ratio Rises; Cost of Equity Rises
	WACC _{AT(ML)}	=	$WACC_{AT(LL)} x$ (1-t D_{ML})
			(1-tD _{LL})
	W	here LL,ML	as before
		t = tax r	ate
		D = deb	ot ratio
ASSUMPTIONS:			
	Debt Cost	=	Current Cost of Long Term Debt for A rated utility
		=	6.00%
	Equity Cost	=	Cost of Equity
		=	9.625%
	Tax Rate	=	36.00%
STEPS:			
	1. Estimate $WACC_{AT}$ for less	levered samp	ple (average market value common equity ratio of 53%)
	WACC _{AT}	=	(6.00%)(136)(47%) + (9.625%)(53%)
		=	6.91%
	2. Estimate $WACC_{AT}$ for more	e levered firi	n (book value common equity ratio of 39%)
	$WACC_{AT(ML)} = V$	VACC _{AT(LL)}	x (1-t x Debt $Ratio_{ML}$)/(1-t x Debt $Ratio_{LL}$)
	$WACC_{max} = 6$	91% v	$(1 - 36 \times 61\%)$
	WRECAI(ML) 0	.)1/0 A	$(1 - 36 \times 479)$
			(130×4776)
	$WACC_{AT(ML)} = 6$.49%	
	3. Estimate Cost of Equity at r	new WACC _A	T for more levered firm:
	$WACC_{AT(ML)} = (1)$	Debt Cost)(1	-tax rate)(Debt Ratio _{MI}) + (Equity Cost)(Equity Ratio _{MI})
	6.4	19% =	(6.00%)(136)(61%) + (X)(39%)
	Cost of Equity at 39% equit	y ratio = 10.	627%
	4. Difference between Equity	Return at 399	% and 53% common equity ratios:
	10.627% - 9.62	25% =	1.00% (100 basis points)
	ESTIMATE OF IMPACT OF	CHANGE	IN CAPITAL STRUCTURE ON COST OF EQUITY
		100 - 1	208 BASIS POINTS
1			

QUANTIFICATION OF IMPACT ON EQUITY RETURN REQUIREMENT FOR DIFFERENCE BETWEEN MARKET VALUE AND BOOK VALUE CAPITAL STRUCTURES BENCHMARK LOW RISK U.S. GAS & ELECTRIC UTILITIES

Formula for After-Tax Weighted Average Cost of Capital:

WACC_{AT} = (Debt Cost)(1-tax rate)(Debt Ratio) + (Equity Cost)(Equity Ratio)

APPROACH 1:

The after-tax weighted average cost of capital (WACC_{AT}) is invariant to changes in the capital structure. The cost of equity rises as leverage (debt ratio) rises, but the WACC_{AT} stays the same.

WACC _{AT(LL)}	=	WACC _{AT(ML)}
	Where $LL = les$	s levered (lower debt ratio)
	ML = mc	ore levered (higher debt ratio)

ASSUMPTIONS:

Debt Cost	=	Current Cost of Long Term Debt for A rated utility
	=	6.00%[1]
Equity Cost	=	Cost of Equity[2]
	=	9.625%
Tax Rate	=	36.0%[3]

STEPS:

1.	Estimate WACCAT for the less le	evered sar	nple (average market value common equity ratio of 68%)
	WACCAT	=	(6.00%)(136)(32%) + (9.625%)(68%)
		=	7.77%
2.	Estimate Cost of Equity for samp	ole at 52%	b book value common equity ratio with $WACC_{AT}$ unchanged at 7.77%
	WACC _{AT}	=	(Debt Cost)(1-tax rate)(Debt Ratio) + (Equity Cost)(Equity Ratio)
	7.77%	=	(6.00%)(136)(48%)+(X)(52%)
	Cost of Equity at 52% Equity Ratio	=	11.41%
3.	Difference between Equity Retur 11.41% - 9.625%	rn at 52% =	and 687% common equity ratios: 1.78% (178 basis points)

[1] Forecast Long Canada plus spread on A-rated utility debt.

[2] Based on the mid-point of Equity Risk Premium and DCF tests.

[3] Combined Federal/Ontario tax rate.

APPROACH 2:			
	After-Tax Cost of Capital De	eclines as D	ebt Ratio Rises; Cost of Equity Rises
	WACC _{AT(ML)}	=	$WACC_{AT(LL)} x$ (1-tD _{ML})
			$(1-tD_{LL})$
	Wh	ere LL,ML	as before
		t = tax r	ate
		D = deb	ot ratio
ASSUMPTIONS:			
	Debt Cost	=	Current Cost of Long Term Debt for A rated utility
		=	6.00%
	Equity Cost	=	Cost of Equity
		=	9.625%
	Tax Rate	=	36.00%
STEPS:			
	1. Estimate WACCAT for less l	evered samp	ple (average market value common equity ratio of 67%)
	WACCAT	=	(6.00%)(136)(32%) + (9.625%)(68%)
	AI	=	7 77%
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	2. Estimate WACC _{AT} for more	e levered firi	m (book value common equity ratio of 52%)
	$WACC_{AT(ML)} = W$	ACC _{AT(LL)}	x (1-t x Debt $Ratio_{ML}$)/(1-t x Debt $Ratio_{LL}$)
	$WACC_{ATOMIN} = 7.$	77% x	$(1-36 \times 48\%)$
			$(1 - 36 \times 323\%)$
			(1.50 x 52570)
	$WACC_{AT(ML)} = 7.$	274%	
	3. Estimate Cost of Equity at n	ew WACC _A	T for more levered firm:
	$WACC_{AT(ML)} = (\Gamma$	Debt Cost)(1	-tax rate)(Debt Ratio _{MI}) + (Equity Cost)(Equity Ratio _{MI})
	7.27	4% =	(6.00%)(136)(48%) + (X)(52%)
	Cost of Equity at 52% equity	v ratio = 10.	43%
	1. 5 1. 5	,	
	4. Difference between Equity F	Return at 52	% and 67% common equity ratios:
	10.43% - 9.62	5% =	.81% (81 basis points)
1	ESTIMATE OF IMPACT OF	CHANGE	IN CAPITAL STRUCTURE ON COST OF EOUITY
		81 -1	78 BASIS POINTS
1			

RISK MEASURES FOR 17 LOW RISK CANADIAN INDUSTRIALS

				E	Beta	2005 Equity Ratio	
		Debt Ratings	CBS Stock	Five Years	Based On		
Company Name	<u>S&P</u>	DBRS	Rating	Raw Adjusted		Total Capital	
ALGOMA CENTRAL CORP			Average	0.26	0.50	87.7%	
ARBOR MEMORIAL SERVICES-CL B			Conservative	0.26	0.50	69.4%	
ASTRAL MEDIA INC -CL A			Conservative	0.88	0.92	100.0%	
CANADA BREAD CO LTD			Conservative	0.44	0.63	94.3%	
CANADIAN TIRE CORP -CL A	BBB+	A(low)	Very Conservative	0.69	0.79	64.6%	
EMPIRE CO LTD -CL A		BBB	Very Conservative	0.54	0.69	68.3%	
FINNING INTERNATIONAL INC	BBB+	BBB(high)	Conservative	0.65	0.76	53.4%	
LEON'S FURNITURE LTD			Average	0.29	0.53	99.8%	
LOBLAW COMPANIES LTD	A-	A	Very Conservative	0.35	0.57	55.0%	
MAPLE LEAF FOODS INC			Very Conservative	0.31	0.54	46.6%	
REITMANS (CANADA) -CL A			Average	0.31	0.54	95.8%	
THOMSON CORP	A-	A(low)	Very Conservative	0.50	0.66	69.2%	
TORSTAR CORP -CL B		BBB	Very Conservative	0.26	0.50	71.2%	
TRANSCONTINENTAL INC -CL A	BBB	BBB(high)	Very Conservative	0.51	0.67	69.1%	
TVA GROUP INC -CL B			Average	0.72	0.82	61.4%	
UNI-SELECT INC			Average	0.33	0.55	79.4%	
WESTON (GEORGE) LTD	BBB+	A(low)	Very Conservative	0.35	0.57	34.9%	
Mean	BBB+	A(low)/BBB(high)	Conservative	0.45	0.63	71.8%	
Median	A-/BBB+	A(low)/BBB(high)	Conservative	0.35	0.57	69.2%	

Source: Standard and Poor's Research Insight, DBRS and The Blue Book of CBS Stock Reports.

RETURNS ON AVERAGE COMMON STOCK EQUITY FOR 17 LOW RISK CANADIAN INDUSTRIALS

Company Name	1004	1005	1006	1007	1009	1000	2000	2001	2002	2002	2004	2005	Average
	1994	122	1990	50 7	05	20	2000	1/ 0	2002	2003	2004	2005	1994-2003
	19.0	13.3	12.5	52.7	0.0	3.0	7.1	14.0	9.5	4.7	9.2	11.2	13.3
ARBOR MEMORIAL SERVICES-CL B	8.1	7.1	7.3	7.5	7.0	2.2	7.5	5.1	14.5	19.7	13.0	10.6	9.2
ASTRAL MEDIA INC -CLA	7.0	1.3	-9.5	7.1	7.8	6.4	4.4	8.2	10.0	10.0	10.9	12.1	6.3
CANADA BREAD COLID	14.5	12.6	12.8	14.2	1.3	2.7	7.4	8.6	13.9	9.6	14.3	14.5	10.5
CANADIAN TIRE CORP -CL A	0.5	10.2	10.4	11.4	13.0	11.2	10.6	11.5	11.9	12.8	13.6	13.9	10.9
EMPIRE CO LTD -CL A	9.4	3.9	11.9	17.9	21.7	13.3	69.1	16.4	11.4	11.6	11.4	16.2	17.8
FINNING INTERNATIONAL INC	14.9	16.3	16.0	16.2	0.5	8.7	10.5	14.1	15.5	14.0	10.1	12.0	12.4
LEON'S FURNITURE LTD	15.3	14.0	13.4	15.1	16.7	21.1	19.3	17.3	17.1	16.5	18.9	19.2	17.0
LOBLAW COMPANIES LTD	12.4	13.3	14.2	15.3	12.8	13.7	15.7	16.8	18.9	19.1	19.1	13.2	15.4
MAPLE LEAF FOODS INC	7.5	-6.7	14.8	14.7	-6.3	17.9	8.0	10.3	12.2	4.8	13.0	9.9	8.3
REITMANS (CANADA) -CL A	9.0	6.2	0.8	8.9	9.4	30.1	10.2	12.6	10.5	15.4	22.0	23.5	13.2
THOMSON CORP	14.6	22.4	14.2	12.9	34.7	8.0	17.9	10.2	7.3	8.8	10.3	9.3	14.2
TORSTAR CORP -CL B	7.9	6.7	11.3	38.4	-0.7	12.8	5.4	-14.6	21.3	17.8	14.6	14.5	11.3
TRANSCONTINENTAL INC -CL A	8.1	9.3	0.8	10.6	11.2	11.4	13.7	4.0	18.9	17.5	13.9	13.3	11.1
TVA GROUP INC -CL B	0.3	9.2	10.4	15.0	20.5	19.8	16.4	-49.5	27.0	23.7	20.9	12.9	10.6
UNI-SELECT INC	24.7	21.4	19.9	20.7	20.6	18.7	15.2	16.1	16.7	19.2	15.5	16.3	18.8
WESTON (GEORGE) LTD	8.7	12.9	15.1	14.5	37.3	14.0	17.4	18.5	18.3	19.4	10.2	16.2	16.9
Mean	10.7	10.2	10.4	17.3	12.7	12.7	14.7	7.1	15.0	14.4	14.2	14.1	12.8
Median	9.0	10.2	12.3	14.7	11.2	12.8	10.6	11.5	14.5	15.4	13.6	13.3	12.4
Average of Annual Medians													12.7

Source: Standard and Poor's Research Insight.

RISK MEASURES FOR 159 LOW RISK US INDUSTRIALS

	_	Value Line		Researc	h Insight	
						2005 Equity
						Ratio Based
	S&P Debt			"Raw"	Adjusted	on
Company Name	Rating	Safety	<u>Beta</u>	Beta	<u>Beta</u>	Total Capital
AARON RENTS INC		3	0.70	0.30	0.53	76.3%
ABM INDUSTRIES INC		3	0.80	0.81	0.87	100.0%
ALAMO GROUP INC		3	0.60	0.72	0.81	88.3%
ALBANY INTL CORP -CL A		3	1.00	0.87	0.91	70.6%
ALBERTO-CULVER CO	BBB+	1	nmf	0.16	0.43	91.5%
ALEXANDER & BALDWIN INC	A-	3	0.95	0.84	0.89	78.7%
AMERON INTERNATIONAL CORP		3	1.05	1.06	1.04	74.9%
AMPCO-PITTSBURGH CORP		3	0.75	1.01	1.01	90.6%
ANDERSONS INC		3	0.65	0.31	0.54	42.3%
APOGEE ENTERPRISES INC		3	1.05	0.88	0.92	83.5%
APPLEBEES INTL INC		3	0.85	0.67	0.78	93.3%
APPLIED INDUSTRIAL TECH INC		3	1.05	0.64	0.76	81.4%
ARCHER-DANIELS-MIDLAND CO	A	3	0.80	0.81	0.87	57.6%
AVERY DENNISON CORP	A-	2	0.95	0.48	0.65	56.1%
BADGER METER INC		3	0.85	0.56	0.71	63.0%
BALDOR ELECTRIC CO		2	1.00	0.54	0.69	73.2%
BARNES GROUP INC		3	0.90	0.64	0.76	56.1%
BELO CORP -SER A COM	BBB-	3	1.00	0.73	0.82	58.2%
BLACK & DECKER CORP	BBB	3	0.95	0.67	0.78	52.8%
BLOCK H & R INC	BBB+	3	1.10	0.15	0.43	65.2%
BOB EVANS FARMS		3	0.85	0.68	0.79	71.7%
BOEING CO	A+	2	0.95	0.73	0.82	48.1%
BRINKS CO	BBB+	3	1.10	0.67	0.78	73.4%
BROWN-FORMAN -CL B	A	1	0.75	0.33	0.55	67.5%
BRUNSWICK CORP	BBB+	3	1.15	0.90	0.94	69.8%
BURLINGTON NORTHERN SANTA FE	BBB+	2	0.95	0.83	0.89	58.8%
CARLISLE COS INC	BBB	2	1.00	0.75	0.83	68.6%
CASEYS GENERAL STORES INC		3	0.90	0.85	0.90	75.7%
CATO CORP -CL A		3	1.00	0.59	0.73	90.6%
CHURCHILL DOWNS INC		3	0.75	0.52	0.68	49.5%
CIRCUIT CITY STORES INC		3	1.30	0.43	0.62	99.4%
CLAIRES STORES INC		3	1.10	0.72	0.81	100.0%
CLARCOR INC		2	0.95	0.64	0.76	94.6%
COACHMEN INDUSTRIES INC	•	3	1.30	0.79	0.86	83.6%
COCA-COLA ENTERPRISES INC	A	3	0.70	0.40	0.60	32.6%
CONAGRA FOODS INC	BBB+	2	0.70	0.41	0.60	52.1%
	BBB	3	1.05	0.34	0.56	47.8%
	BBB	3	0.95	0.98	0.98	48.2%
		3	1.35	0.96	0.98	78.6%
	۸.	3	0.80	0.22	0.48	62.7%
	A+	2	0.95	0.68	0.78	77.4%
DARDEN RESTAURANTS INC	BBB+	3	0.85	0.42	0.61	00.2%
		3	0.80	0.36	0.57	100.0%
	DDD	2	1.00	0.29	0.52	90.4% 86 10/
	- 000 - 000	ა ი	0.05	0.70	1.01 0 20	60.170
EDO COPP	DDD+	2	0.90	0.70	0.00	09.1% 60.6%
		ა ი	0.90	0.02	0.10	57 Q0/
		ა ი	0.10	0.74	0.02	67 0%
EW SCRIPPS -CL A	А	2	0.80	0.48	0.65	79.7%
JOINI 10 0E/N	/ \	-	0.00	0.10	0.00	/ .

RISK MEASURES FOR 159 LOW RISK US INDUSTRIALS

	_	<u>Value</u>	<u>Line</u>	Rese	arch Insight	
				"D"		2005 Equity Ratio
Compone Name	S&P Debt	Cofety	Pata	<u>"Raw"</u> Bete	Adjusted Date	Based on
	Kaung	<u>Salety</u>		0.44	Aujusieu deia	
		3	0.05	0.44	0.02	100.0%
FARMER BROSCO		3	0.05	0.71	0.00	100.0%
FASTENAL CO		3	1 15	0.10	0.40	100.0%
FEDEX CORP	BBB	3	1.10	0.70	0.68	77.4%
	000	3	0.40	0.52	0.00	79.3%
FLUOR CORP	Δ_	3	1 20	0.01	0.04	73.7%
	BBB	1	0.75	0.00	0.33	62.0%
FRANKLIN ELECTRIC CO INC	000	3	0.70	0.00	0.80	94.0%
		3	1 10	0.70	0.00	92.7%
FRISCH'S RESTAURANTS INC		3	0.60	0.01	0.61	69.6%
		3	1.05	0.42	0.65	67.1%
	Δ_	1	0.85	0.40	0.57	63.9%
	Δ	1	0.05	0.00	0.78	68.6%
		1	1 15	0.00	0.88	23.0%
		1	0.85	0.02	0.00	23.070
		2	1.05	0.09	0.79	100.0%
	A A 1	2	1.05	0.01	0.87	00.5%
	AA+	2	0.70	0.70	0.04	99.0% 72.10/
	Δ.	3 2	0.70	-0.01	0.32	73.1%
	A+	3	0.00	0.91	0.94	11.3%
		ו ס	0.90	0.55	0.57	90.3%
		3 2	0.00	0.56	0.72	93.2%
	^	2	0.00	0.04	0.76	99.4% 70.00/
	A	1	0.75	0.37	0.57	70.0%
	A+	2	1.10	0.99	0.99	76.0%
	AA	1	1.00	0.88	0.92	87.2%
		3	0.65	1.08	1.06	99.8%
	BBB-	3	0.05	0.14	0.43	70.1%
	A-	2	0.95	0.73	0.62	00.1%
	DDD-	ა ი	1.20	0.31	0.54	00.7%
		3	1.15	0.81	0.87	95.0%
	AA-	1		0.40	0.60	00.4%
		1	0.80	0.16	0.44	100.0%
		3	0.80	0.60	0.73	83.0%
		3	0.95	0.05	0.76	99.1%
	Δ.	2	0.80	0.61	0.74	80.4%
	A+	2	0.95	0.95	0.97	00.3%
	BBB	3	1.20	0.47	0.05	58.1%
		3	0.75	1.11	1.07	78.5%
		2	1.00	0.98	0.99	11.5%
	חחח	3	0.80	0.67	0.78	100.0%
	BBB	1	0.90	0.79	0.86	77.0%
	BBB+	1	0.80	-0.21	0.19	57.8%
LONGS DRUG STORES CORP	Α.	3	0.75	0.60	0.73	81.5%
LOWE'S COMPANIES INC	A+	2	0.95	0.77	0.84	75.8%
		3	1.20	0.71	0.80	91.8%
MARCUS CORP		3	0.90	0.54	0.69	71.3%
MASCOCORP	BBB+	2	1.00	0.91	0.94	56.0%
MATTEL INC	RRR-	3	0.75	0.68	0.78	79.4%
MATTHEWS INTL CORP -CL A		3	0.80	0.32	0.54	81.4%
MCCLATCHY CO -CL A	BBB	1	0.75	0.21	0.47	84.2%
MCCORMICK & COMPANY INC	A	2	0.50	0.46	0.64	58.2%
MCGRAW-HILL COMPANIES		1	0.85	0.49	0.65	99.8%
MDC HOLDINGS INC	BBB-	3	1.25	0.77	0.84	61.7%
MEDIA GENERAL -CL A	BBB-	3	0.90	0.74	0.83	68.9%

RISK MEASURES FOR 159 LOW RISK US INDUSTRIALS

S&P Debt "Raw" Adjusted on Company Name Rating Safety Beta Beta Beta Total Capital MEREDITH CORP 2 0.60 0.51 0.67 91.9% MIRE SAFET VAPLIANCES CO 3 0.00 0.92 0.95 87.7% MINES SAFET VAPLIANCES CO 3 1.00 0.92 0.95 87.7% MINES NAFET VAPLIANCES CO 3 1.00 0.44 0.63 65.9% NITOMAL PRESTO INDS INC BBB+ 3 0.95 0.72 0.81 40.1% NICK INC -CL B A+ 1 0.85 0.57 0.71 88.1% NORDOSON CORP 3 1.00 0.74 0.82 51.5% NORTHOCO REMUMANA CORP BBB+ 3 0.00 0.38 75.2% PENTAMERICAS INC A 3 0.85 0.67 100.0% RAVTHENON CO BBB+ 3 0.85 0.61 0.74 69.3% RAVTHENON CO BBB			Value	Value Line Research Insight			
SPE Dat Team Adjust Safety Beta Beta Deta Teal Capital MEREDITH CORP 1 0.75 0.46 0.64 66.2% MET-PRO CORP 2 0.60 0.51 0.67 91.9% MINE SAFETY APPLIANCES CO 3 0.95 0.72 0.81 100.0% NEW YORK TIMES CO -CL BBB+ 1 0.95 0.72 0.81 40.0% NEW YORK TIMES CO -CL BBB+ 3 0.95 0.72 0.81 40.1% NRE INC -CL B A+ 1 0.85 0.90 68.8% NORFOLK SOUTHENN CORP BBB+ 3 1.00 0.64 0.88 53.7% PENTAIR INC BBB+ 3 0.05 0.66 63.8% 75.2% PENTAIR INC BBB+ 3 0.05 0.66 63.7% RAVEN INDUSTRIES INC 3 0.80 0.68 63.8% RAVEN INDUSTRIES INC 3 0.85 0.61 0.77 6.5% </th <th></th> <th>-</th> <th colspan="2"></th> <th></th> <th></th> <th>2005 Equity</th>		-					2005 Equity
S&P Debt. Fraw Adjusted on MEREDITH CORP Bata Bata Bata Total Capitul MET-PRO CORP 2 0.60 0.51 0.67 91.9% MIRE SAFETY APPLIANCES CO 3 0.00 0.92 0.95 87.7% MINES AFETY APPLIANCES CO 3 1.00 0.92 0.95 87.7% MINES AFETY APPLIANCES CO 3 1.00 0.44 0.63 85.3% MOVADO GROUP INC BBB+ 1 0.90 0.61 0.74 56.69% NEW LOR UBBERMADI INC BBB+ 3 1.00 0.85 0.90 68.6% NORTBOCK CORP BBB+ 2 0.80 0.63 0.68 68.3% PEPSIAMERICAS INC A 3 1.00 0.86 68.3% PEPSIAMERICAS INC BBB+ 2 0.80 0.63 0.66 67.2% ROBINS & METES INC 3 0.80 0.64 0.74 69.3% PESIAMERICAS INC 3 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>Ratio Based</th>							Ratio Based
Company Name Rating Safety Beta Beta Beta Eta Teta Teta Calability MREPORT CORP 1 0.75 0.76 0.46 0.67 91.9% MIRE SAFETY APPLIANCES CO 3 0.95 0.75 0.72 0.81 1.9% MINE SAFETY APPLIANCES CO 3 1.00 0.92 0.95 87.6% NATICMAL, PRESTO INDS INC BBB+ 3 0.95 0.72 0.81 40.1% NKE INC - CL B A+ 1 0.85 0.71 0.81 84.1% NORTOLK SOUTHENN CORP BBB+ 3 1.05 0.85 0.90 66.8% NORTOLK SOUTHENN CORP BBB+ 3 1.00 0.84 0.89 66.3% NORTOLK SOUTHENN CORP BBB+ 3 0.80 0.63 0.63 76.5% RAVEN INDUSTRIES INC A 3 0.80 0.64 0.69 99.9% RAVEN INDUSTRIES INC 3 0.85 0.71 0.81 <th></th> <th>S&P Debt</th> <th></th> <th></th> <th>"Raw"</th> <th>Adjusted</th> <th>on</th>		S&P Debt			"Raw"	Adjusted	on
MEREPRIVE CORP 1 0.75 0.46 0.64 66.2% MINE SAPETY APPLIANCES CO 3 0.95 0.44 0.63 85.3% MOVADO GROUP INC 3 0.75 0.72 0.81 100.0% NATIONAL PRESTO INDS INC 3 0.75 0.72 0.81 40.1% NEW YORK TIMES CO - CL A BBB+ 1 0.90 0.61 0.74 56.9% NEWELL RUBBERMAID INC BBB+ 3 1.05 0.85 0.90 68.6% NORFOCK CORP 3 1.05 0.85 0.90 68.6% NORTHOCY RUMMAN CORP BBB+ 3 1.00 0.74 0.82 51.5% NORTHOCY RUMMAN CORP BBB+ 3 0.80 0.36 0.87 66.3% PENJAMERICAS INC 3 0.80 0.36 0.72 0.81 62.5% ROBINS & MYERS INC 3 0.80 0.36 0.67 16.93% RAYTHEN INC 3 0.80 0.36 0.71	Company Name	Rating	Safety	Beta	Beta	Beta	Total Capital
MET-PRO CORP 2 0.60 0.51 0.67 91.9% MINE SAFETY APPLIANCES CO 3 0.55 0.44 0.63 85.3% MOVADO GROUP INC 3 0.75 0.72 0.81 100.0% NEW YORK TIMES CO -CL A BBB+ 1 0.95 0.72 0.81 40.1% NEW NORK TIMES CO -CL B A+ 1 0.85 0.90 68.6% NORDSON CORP A+ 1 0.85 0.90 68.6% NORFOLK SOUTHERN CORP BBB+ 2 0.80 0.72 0.81 60.3% PENTAR INC BBB 3 1.05 0.85 0.90 68.6% NORTINCO SUTHERN CORP BBB+ 2 0.80 0.83 0.88 66.3% PENTAR INC BBB+ 3 0.80 0.53 0.66 67.2% ROBINS & MTERS INC 3 0.80 0.36 0.57 100.0% RUYTHEON CO BBB+ 3 1.15 0.57 0.71	MEREDITH CORP		1	0.75	0.46	0.64	66.2%
NINE SAFETY APPLIANCES CO 3 0.95 0.44 0.63 85.3% NATIONAL PRESTO INDS INC 3 0.75 0.72 0.81 100.0% NATIONAL PRESTO INDS INC 3 0.75 0.72 0.81 100.0% NEW VORK TIMES CO -CL BBB+ 1 0.95 0.71 88.1% NORDSON CORP B 1.05 0.85 0.90 68.6% NORTHCOR PRUMMAN CORP BBB+ 1.00 0.74 0.62 51.5% NORTHCOR PRUMMAN CORP BBB+ 1.00 0.80 0.86 58.3% RAVEN INDUSTRIES INC 3 0.80 0.86 67.2% 80.036 67.2% ROBINS & MYERS INC 3 0.85 0.81 0.72 0.81 62.5% RULLINS INC 3 0.85 0.81 0.72 0.81 62.5% ROBINS & MYERS INC 3 0.85 0.81 0.74 69.3% RULLINS INC 3 0.85 0.81 0.74 69.3%	MET-PRO CORP		2	0.60	0.51	0.67	91.9%
MOVADO GROUP INC 3 1.00 0.92 0.95 87.6% NATIONAL PRESTO INDS INC 3 0.75 0.72 0.81 100.0% NEW YORK TIMES CO -CL A BBB+ 1 0.90 0.61 0.74 0.81 40.0% NEW LORD BBB+ 3 0.95 0.85 0.90 68.6% NORFOLK SOUTHERN CORP BBB+ 3 1.05 0.85 0.90 68.6% NORTINC C BBB 3 1.00 0.74 0.82 51.5% NORTINC C BBB 3 1.00 0.80 0.38 66.3% PENTAR INC BBB 3 0.80 0.36 0.66 99.9% RAVTINON 3 0.80 0.36 0.57 100.0% 80.99.9% RAVEN INDUSTRIES INC 3 0.80 0.36 0.57 100.0% 80.99.9% RUDDICK CORP 3 0.80 0.36 0.57 100.0% 80.99.9% SIMITI (A O) CORP	MINE SAFETY APPLIANCES CO		3	0.95	0.44	0.63	85.3%
NATIONAL PRESTO INDS INC 3 0.75 0.72 0.81 100.0% NEW YORK TIMES CO -CL A BBB+ 1 0.95 0.72 0.81 40.1% NKE INC - CL B A+ 1 0.85 0.72 0.81 40.1% NORDSON CORP A+ 1 0.85 0.90 68.6% NORFOLK SOUTHERN CORP BBB+ 2 0.80 0.82 51.5% NORTHCOR GRUMMAN CORP BBB+ 2 0.80 0.86 58.3% RAVEN INDUSTRIES INC A 3 0.80 0.66 67.2% ROBEINS & MYERS INC 3 0.85 0.79 0.86 67.2% ROBEINS & MYERS INC 3 0.85 0.61 0.74 69.3% RULINS INC 3 0.85 0.61 0.74 69.3% RUBUCK CORP 3 0.85 0.61 0.74 69.3% RUBUCK CORP 3 0.80 0.42 0.61 0.74 69.3% SERVICEMASTEN INC<	MOVADO GROUP INC		3	1.00	0.92	0.95	87.6%
NEW YORK TIMES CO - CL A BBB+ 1 0.90 0.61 0.74 56.9% NIKE INC - CL B A+ 1 0.85 0.72 0.81 40.1% NNE INC - CL B A+ 1 0.85 0.72 0.81 40.1% NORDSON CORP 3 1.05 0.85 0.90 68.6% NORTINC OCRP BBB+ 3 1.00 0.74 0.82 51.5% NORTINC ORP BBB+ 2 0.80 0.38 0.66 99.9% RAYTHEON CO BBB+ 3 0.80 0.53 0.66 99.9% RAYTHEON CO BBB+ 3 0.95 0.72 0.81 62.5% ROBINS & MYERS INC 3 0.80 0.36 0.67 100.0% RUEL NSINC 3 0.86 0.71 0.81 55.2% SERVICEMASTER CO BBB+ 3 0.155 0.66 0.71 100.0% SYSTEM INC BBB- 3 0.90 0.86 <td>NATIONAL PRESTO INDS INC</td> <td></td> <td>3</td> <td>0.75</td> <td>0.72</td> <td>0.81</td> <td>100.0%</td>	NATIONAL PRESTO INDS INC		3	0.75	0.72	0.81	100.0%
NEWELL RUBBERMAID INC BBB+ 3 0.95 0.72 0.81 40.1% NORDSON CORP 3 1.05 0.85 0.97 0.71 88.1% NORDSON CORP 3 1.05 0.85 0.97 0.71 88.1% NORTOLK SOUTHERN CORP BBB+ 2 0.80 0.88 0.83 75.2% PENTAIR INC BBB 3 1.05 0.84 0.89 66.3% PENTAIR INC BBB 3 1.00 0.80 0.86 67.2% ROBINS & MYERS INC 3 0.80 0.85 0.79 0.86 67.2% ROBINS & MYERS INC 3 0.85 0.81 0.71 68.3% RUDICK CORP 3 0.85 0.81 0.71 69.3% RUDICK CORP 3 0.85 0.81 0.71 65.2% SHEWINHULANS CO A- 1.00 0.92 0.95 69.1% SHEWINHULANS CO A- 1.00 0.82 0.86	NEW YORK TIMES CO -CL A	BBB+	1	0.90	0.61	0.74	56.9%
NIKE INC - CL B A+ 1 0.85 0.57 0.17 88.1% NORFOCK SOUTHERN CORP BBB+ 3 1.05 0.86 0.90 68.8% NORFOCK SOUTHERN CORP BBB+ 3 1.05 0.84 0.89 66.3% PEPSIAMERICAS INC A 3 0.60 0.63 0.68 53.3% RAVTHEON CO BBB+ 2 0.95 0.79 0.86 67.2% RAVEN INDUSTRIES INC 3 0.95 0.72 0.81 62.5% ROLLINS INC 3 0.95 0.72 0.81 62.5% RUDIC CORP BBB+ 3 0.15 0.77 6.93% RUDIC CORP 3 0.85 0.80 0.87 76.5% STAVICE CORP 3 0.95 0.41 69.3% SWULINE CORP 3 0.80 0.42 0.61 67.8% SMUCKER (M) CO 2 0.70 0.24 0.49 77.8% SMUCKER (M) CO	NEWELL RUBBERMAID INC	BBB+	3	0.95	0.72	0.81	40.1%
NORBSON CORP 3 1.05 0.85 0.90 68.8% NORFOLK SOUTHERN CORP BBB+ 2 0.80 0.08 0.82 51.5% NORTHROP GRUMMAN CORP BBB 3 0.65 0.64 0.89 66.3% PENTAIR INC A 3 0.80 0.53 0.68 58.3% RAVEN INDUSTRIES INC 3 1.00 0.80 0.86 67.2% ROBINS & MYERS INC 3 0.95 0.79 0.86 67.2% ROBINS & MYERS INC 3 0.95 0.61 0.74 69.3% RUDICK CORP 3 0.85 0.80 0.87 70.0% SERVICEMASTER INC BBB+ 3 0.85 0.71 0.81 55.2% SHEWININULLANS CO A 2 1.00 0.92 0.95 69.1% SKYLINE CORP 3 0.80 0.42 0.61 67.8% SMICKER (IN) CO 2 0.70 0.24 0.49 77.8%	NIKE INC -CL B	A+	1	0.85	0.57	0.71	88.1%
NORTHROP GRUMMAN CORP BBB+ BB+ BB+ BBB+ BBB+ BBB+ BBB+ BBB+	NORDSON CORP		3	1.05	0.85	0.90	68.6%
NORTIFICOL GRUMMAR CORP BBB+ 2 0.80 0.08 0.38 75.2% PENTAR INC A 3 0.80 0.53 0.68 53.3% RAVEN INDUSTRIES INC 3 1.00 0.80 0.88 59.9% RAYTHEON CO BBB+ 2 0.95 0.79 0.86 67.2% ROBINS & MYERS INC 3 0.95 0.72 0.81 62.5% ROLLINS INC 3 0.95 0.61 0.74 69.3% RUDDICK CORP 3 0.85 0.80 0.87 74.5% SERVICEMASTER CO BBB-3 0.85 0.71 0.81 52.% SHERWIN-WILLIAMS CO A 2 0.00 0.68 0.78 100.0% SMTIT (A O) CORP 3 0.80 0.42 0.61 67.8% SMUCKER (JM) CO 2 0.70 0.24 0.49 77.8% STALEY WORKS A 3 0.90 0.93 0.95 6.76% SUPERIOR INDUS	NORFOLK SOUTHERN CORP	BBB+	3	1.00	0.74	0.82	51.5%
PENJANK INC BBB 3 1.05 0.84 0.89 06.3% RAVEN INDUSTRIES INC 3 1.00 0.80 0.86 99.9% RAYTHEON CO BBB+ 2 0.95 0.79 0.86 67.2% ROBBINS & MYERS INC 3 0.95 0.72 0.81 62.5% ROLLINS INC 3 0.85 0.72 0.81 62.5% RUBY TUESDAY INC 3 0.85 0.80 0.87 76.5% RYDER SYSTEM INC BBB+ 3 1.15 0.57 0.71 45.9% SERVICEMASTER CO BBB+ 3 0.85 0.71 0.81 52.2% SMUCKER (JM) CO A 2 1.00 0.92 0.95 69.1% SMUCKER (JM) CO 2 0.70 0.24 0.61 67.8% STANDEX INTERNATIONAL CORP 3 0.90 0.68 0.71 100.0% SUPERIOR UNIFORM GROUP INC 3 0.95 0.54 0.79 78.6% <	NORTHROP GRUMMAN CORP	BBB+	2	0.80	0.08	0.38	75.2%
PERSIMATENCIAS INC A 3 0.50 0.53 0.00 305.3% RAVTEN INDUSTRIES INC 3 1.00 0.80 0.86 67.2% ROBBINS & WERS INC 3 0.95 0.72 0.81 62.5% ROLLINS INC 3 0.95 0.72 0.81 62.5% RUDDICK CORP 3 0.85 0.61 0.74 69.3% RUDDICK CORP 3 0.85 0.71 0.83 52.5% SHERWIN-WILLIAMS CO A- 2 1.00 0.92 0.95 69.1% SKYLINE CORP 3 0.80 0.42 0.61 67.8% 100.0% SMITH (A.0) CORP 3 0.90 0.68 0.78 100.0% SMITH (A.0) CORP 3 0.90 0.84 0.89 59.9% STANDEX INTERNATIONAL CORP 3 0.95 0.84 0.89 59.9% STAILEY WORKS A 3 0.90 0.93 0.95 67.6% STAILEY WORKS A 3 0.95 0.84 0.89 58.5% <		BBB	3	1.05	0.84	0.89	00.3% 59.2%
NAVEN INDUST RESINC 3 1.00 0.00 0.00 99.3% RATTHEOR CO BBB+ 2 0.95 0.72 0.81 62.5% ROBBINS & MYERS INC 3 0.80 0.36 0.57 100.0% RUBY TUESDAY INC 3 0.85 0.61 0.74 69.3% RUDDICK CORP 3 0.85 0.80 0.87 76.5% RVDER SYSTEM INC BBB- 3 0.85 0.71 0.81 55.2% SHERWIN-WILLIAMS CO A- 2 1.00 0.92 0.95 69.1% SKYLINE CORP 3 0.80 0.42 0.41 67.8% SMUCKER (MN CO 2 0.70 0.24 0.49 77.8% STANDEX INTERNATIONAL CORP 3 0.95 0.35 0.57 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.36 0.57 100.0% SUP		A	2	1.00	0.00	0.00	00.0%
NATH ILLON CO DDF 2 0.33 0.173 0.00 0.012/b ROBLINS INC 3 0.95 0.72 0.81 62.5% ROLINS INC 3 0.95 0.61 0.74 66.3% RUBY TUESDAY INC 3 0.95 0.61 0.74 66.3% RUDDICK CORP 3 0.85 0.80 0.87 76.5% RYDER SYSTEM INC BBB+ 3 1.15 0.57 0.71 45.9% SHERWIN-WILLIAMS CO A- 2 1.00 0.92 0.95 69.1% SKYLINE CORP 3 0.80 0.42 0.61 67.8% SMUCKER (JM) CO 2 0.70 0.24 0.49 77.8% STANLEY WORKS A 3 0.90 0.93 0.95 67.6% STAILEY WORKS A 3 0.95 0.55 0.57 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.56 0.57 10.0.4 SUP		BBB+	2	0.05	0.00	0.80	99.970 67.2%
NOLLING INFOR 3 0.30 0.72 0.71 0.61 0.23% RUENY TUESDAY INC 3 0.80 0.36 0.57 100.0% RUDDICK CORP 3 0.85 0.80 0.87 76.5% RYDER SYSTEM INC BBB- 3 0.85 0.71 0.81 55.2% SERVICEMASTER CO BBB- 3 0.85 0.71 0.81 55.2% SHERWIN-WULLIAMS CO A 2 1.00 0.92 0.95 68.1% SKYLINE CORP 3 0.90 0.68 0.78 100.0% SITMUE WORKS A 3 0.90 0.84 0.89 59.9% STAILEY WORKS A 3 0.90 0.93 0.95 67.6% STRIDE RITE CORP 3 0.70 0.56 0.71 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR UNIFORM GROUP INC 3 0.75 0.73 0.82 85		DDD+	2	0.95	0.79	0.80	62.5%
NOLLING INC 3 0.00			3	0.95	0.72	0.01	100.0%
NOD NOD S 0.35 0.81 0.87 0.53% RUDDICK CORP 3 0.85 0.80 0.87 76.5% RYDER SYSTEM INC BBB- 3 0.85 0.711 0.81 55.2% SERVICEMASTER CO BBB- 3 0.80 0.42 0.61 67.8% SMUCKER (JM) CORP 3 0.80 0.42 0.61 67.8% SMUCKER (JM) CO 2 0.70 0.24 0.49 77.8% STANDEX INTERNATIONAL CORP 3 0.90 0.93 0.95 67.6% STRIDE RITE CORP 3 0.70 0.56 0.71 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.84 0.89 58.5% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TONDISTRIES INTC 1 0.75 0.73 0.82 85.1% TONDISC ROLLINDUSTRIES INC 1 0.75 0.73 0.82 85.1% TONDOS INC -CLA </td <td></td> <td></td> <td>3</td> <td>0.00</td> <td>0.50</td> <td>0.37</td> <td>69.3%</td>			3	0.00	0.50	0.37	69.3%
NOBLOCOL BBB+ 3 0.50 0.60 0.67 0.71 45.9% SERVICEMASTER CO BBB- 3 0.85 0.71 0.81 55.2% SHERWIN-WILLIAMS CO A- 2 1.00 0.92 0.95 69.1% SKYLINE CORP 3 0.90 0.68 0.78 100.0% SMICKER (M) CO 2 0.70 0.24 0.49 77.8% STANDEX INTERNATIONAL CORP 3 0.95 0.84 0.89 59.9% STAILEY WORKS A 3 0.90 0.35 0.57 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR UNIFORM GROUP INC 3 0.65 0.25 0.50 92.3% TELEFLEX INC 2 1.05 0.73 0.82 85.5% TENDR INTE 3 0.95 0.62 0.74 82.3% TELEFLEX INC 1 0.75 0.73 0.89 58.5%			3	0.85	0.80	0.87	76 5%
INDECODERASTER CO BBB- SHAUCEMASTER CO BBB- A 3 0.85 0.71 0.81 55.2% SHERVIN-WILLIAMS CO A- 2 1.00 0.92 0.95 69.1% SKYLINE CORP 3 0.80 0.68 0.78 100.0% SMUTH (A O) CORP 3 0.80 0.42 0.61 67.8% STANLEY WORKS A 3 0.90 0.93 0.95 67.6% STANLEY WORKS A 3 0.90 0.93 0.95 67.6% SUPERIOR INDUSTRIES INTL 3 0.95 0.57 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.57 100.0% SUPERIOR UNIFORM GROUP INC 2 1.05 0.84 0.89 58.5% TENNANT CO 3 0.95 0.62 0.74 82.3% TWIN DISC INC 1 0.75 0.73 0.82 85.1% TORO CO BBB- 3 0.70 0.63 0.75 73.3% UNIFIRST CORP 3 0.70 0.63 0.75 73.3% UNIFIRST CORP		BBB+	3	1 15	0.00	0.07	45.9%
SHERWIN-WILLIAMS CO A- 2 1.00 0.92 0.95 69.1% SKTUNE CORP 3 0.90 0.68 0.78 100.0% SMITH (A O) CORP 3 0.80 0.42 0.61 67.8% SMUCKER (M) CO 2 0.70 0.24 0.49 77.8% STANDEX INTERNATIONAL CORP 3 0.95 0.84 0.89 59.9% STANLEY WORKS A 3 0.90 0.95 67.6% SUPERIOR INDUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR UNIFORM GROUP INC 3 0.65 0.25 0.50 92.3% TELEFLEX INC 2 1.075 0.73 0.82 85.5% TORO CO BBB- 2 0.95 0.70 0.80 69.2% TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TVIN DISC INC 3 0.70 0.63 0.77 73.3% TYSON FOODS INC -CL A BBB- <td>SERVICEMASTER CO</td> <td>BBB-</td> <td>3</td> <td>0.85</td> <td>0.37</td> <td>0.81</td> <td>55 2%</td>	SERVICEMASTER CO	BBB-	3	0.85	0.37	0.81	55 2%
SIXTUNE CORP 1 <t< td=""><td>SHERWIN-WILLIAMS CO</td><td>A-</td><td>2</td><td>1.00</td><td>0.92</td><td>0.95</td><td>69.1%</td></t<>	SHERWIN-WILLIAMS CO	A-	2	1.00	0.92	0.95	69.1%
SMITH (A O) CORP 3 0.80 0.42 0.61 67.8% SMUCKER (IM) CO 2 0.70 0.24 0.49 77.8% STANDEX INTERNATIONAL CORP 3 0.95 0.84 0.89 59.9% STANLEY WORKS A 3 0.90 0.33 0.95 6.7.6% STRIDE RITE CORP 3 0.70 0.56 0.71 100.0% SUPERIOR INDUSTRIES INTL 3 0.65 0.25 0.50 92.3% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TORO CO BBB- 0.95 0.70 0.80 69.2% TREDEGAR CORP 3 0.75 0.10 0.34 67.3% UNIFOR ARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNIFED FARCEL SERV	SKYLINE CORP		3	0.90	0.68	0.78	100.0%
SIMUCKER (JM) CO 2 0.70 0.24 0.49 77.8% STANDEX INTERNATIONAL CORP 3 0.95 0.84 0.89 59.9% STANLEY WORKS A 3 0.90 0.93 0.95 67.6% STRIDE RITE CORP 3 0.70 0.56 0.71 100.0% SUPERIOR INJUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR UNIFORM GROUP INC 3 0.95 0.84 0.89 58.5% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TORO CO BBB- 2 0.95 0.70 0.80 69.2% TORO CO BBB- 0.95 0.70 0.80 69.2% 73.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.63 0.75 73.3% UNION PACIFIC CORP BBB 0.90 0.69 0.79 60.9% UNIFIRST CORP A 1 0.75 0.42 0.61 78.6%	SMITH (A O) CORP		3	0.80	0.42	0.61	67.8%
STANDEX INTERNATIONAL CORP 3 0.95 0.84 0.89 59.9% STANLEY WORKS A 3 0.90 0.93 0.95 67.6% STRIDE RITE CORP 3 0.70 0.56 0.71 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR UNIFORM GROUP INC 3 0.66 0.25 0.50 92.3% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TENNANT CO 3 0.95 0.88 0.92 95.2% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOND CO BBB- 2 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.61 0.75 73.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.61 78.6% <t< td=""><td>SMUCKER (JM) CO</td><td></td><td>2</td><td>0.70</td><td>0.24</td><td>0.49</td><td>77.8%</td></t<>	SMUCKER (JM) CO		2	0.70	0.24	0.49	77.8%
STANLEY WORKS A 3 0.00 0.93 0.95 67.6% STRIDE RITE CORP 3 0.70 0.56 0.71 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.25 0.50 92.3% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 3 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.63 0.75 73.3% UNIFIRST CORP BBB 3 0.70 0.61 66.9% UNIFIRST CORP A 1 0.00 65 0.76 71.5% UNIVERSAL CORP/VA	STANDEX INTERNATIONAL CORP		3	0.95	0.84	0.89	59.9%
STRIDE RITE CORP 3 0.70 0.56 0.71 100.0% SUPERIOR INDUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR UNIFORM GROUP INC 3 0.65 0.25 0.50 92.3% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TENNANT CO 3 0.95 0.88 0.92 95.2% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TORO CO BBB- 2 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.63 0.75 73.3% UNIFOR PACEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNITED PARCEL SERVICE INC AAA 1 0.75 0.39 0.59 96.7% VINTED FECHNOLOGIES CORP A 1 1.00 0.65 0.76 <td>STANLEY WORKS</td> <td>А</td> <td>3</td> <td>0.90</td> <td>0.93</td> <td>0.95</td> <td>67.6%</td>	STANLEY WORKS	А	3	0.90	0.93	0.95	67.6%
SUPERIOR INDUSTRIES INTL 3 0.95 0.35 0.57 100.0% SUPERIOR UNIFORM GROUP INC 3 0.65 0.25 0.50 92.3% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TENNANT CO 3 0.95 0.88 0.92 95.2% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.61 0.67 56.1% UNIFIRST CORP BBB 3 0.75 0.01 0.34 67.3% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A 1 0.75 0.57 0.71 61.1% <t< td=""><td>STRIDE RITE CORP</td><td></td><td>3</td><td>0.70</td><td>0.56</td><td>0.71</td><td>100.0%</td></t<>	STRIDE RITE CORP		3	0.70	0.56	0.71	100.0%
SUPERIOR UNIFORM GROUP INC 3 0.65 0.25 0.50 92.3% TELEFLEX INC 2 1.05 0.84 0.89 58.5% TENNANT CO 3 0.95 0.88 0.92 95.2% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TORO CO BBB- 2 0.95 0.70 0.80 69.2% TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.51 0.67 56.1% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNITED TECHNOLOGIES CORP A 1 0.75 0.42 0.61 78.6% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 71.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.71 61.1% <td>SUPERIOR INDUSTRIES INTL</td> <td></td> <td>3</td> <td>0.95</td> <td>0.35</td> <td>0.57</td> <td>100.0%</td>	SUPERIOR INDUSTRIES INTL		3	0.95	0.35	0.57	100.0%
TELEFLEX INC 2 1.05 0.84 0.89 58.5% TENNANT CO 3 0.95 0.88 0.92 95.2% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TORO CO BBB- 2 0.95 0.70 0.80 69.2% TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.63 0.75 73.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.51 0.67 56.1% UNIFIRST CORP 3 0.75 0.01 0.34 67.3% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.57 0.71 61.1% WASHINGTON POST -CL B A+ 1 0.70 0.80 71.0% <	SUPERIOR UNIFORM GROUP INC		3	0.65	0.25	0.50	92.3%
TENNANT CO 3 0.95 0.88 0.92 95.2% TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TORO CO BBB- 2 0.95 0.70 0.80 69.2% TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.63 0.75 73.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.51 0.67 56.1% UNIFIRST CORP BBB 1 0.90 0.69 0.79 60.9% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WASTE MANAGEMENT INC BBB 3 0.95 <	TELEFLEX INC		2	1.05	0.84	0.89	58.5%
TOOTSIE ROLL INDUSTRIES INC 1 0.75 0.73 0.82 85.1% TORO CO BBB- 2 0.95 0.70 0.80 69.2% TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.63 0.75 73.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.51 0.67 56.1% UNIFIRST CORP 3 0.75 0.01 0.34 67.3% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNITED TECHNOLOGIES CORP A 1 1.00 0.65 0.76 71.5% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.57 0.71 61.1% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 0.67	TENNANT CO		3	0.95	0.88	0.92	95.2%
TORO CO BBB- 2 0.95 0.70 0.80 69.2% TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.63 0.75 73.3% TYSON FOODS INC -CL A BBB- 3 0.75 0.01 0.34 67.3% UNIERST CORP 3 0.75 0.01 0.34 67.3% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.57 0.71 61.1% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATTS WATER TECHNOLOGIES INC BBB 3 0.95	TOOTSIE ROLL INDUSTRIES INC		1	0.75	0.73	0.82	85.1%
TREDEGAR CORP 3 0.95 0.62 0.74 82.3% TWIN DISC INC 3 0.70 0.63 0.75 73.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.51 0.67 56.1% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNION PACIFIC CORP BBB 1 0.90 0.69 0.779 60.9% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.57 0.71 61.1% WALMART STORES AA 1 0.75 0.57 0.71 61.1% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC	TORO CO	BBB-	2	0.95	0.70	0.80	69.2%
TWIN DISC INC 3 0.70 0.63 0.75 73.3% TYSON FOODS INC -CL A BBB- 3 0.70 0.51 0.67 56.1% UNIFIRST CORP 3 0.75 0.01 0.34 67.3% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNIVED TECHNOLOGIES CORP A 1 1.00 0.65 0.76 71.5% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WEIS MARKETS INC 3 1.10 <td>TREDEGAR CORP</td> <td></td> <td>3</td> <td>0.95</td> <td>0.62</td> <td>0.74</td> <td>82.3%</td>	TREDEGAR CORP		3	0.95	0.62	0.74	82.3%
TYSON FOODS INC -CL A BBB- 3 0.70 0.51 0.67 56.1% UNIFIRST CORP 3 0.75 0.01 0.34 67.3% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNITED TECHNOLOGIES CORP A 1 1.00 0.65 0.76 71.5% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WEYCO GROUP INC 3 <td>TWIN DISC INC</td> <td></td> <td>3</td> <td>0.70</td> <td>0.63</td> <td>0.75</td> <td>73.3%</td>	TWIN DISC INC		3	0.70	0.63	0.75	73.3%
UNIFIRST CORP 3 0.75 0.01 0.34 67.3% UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNITED TECHNOLOGIES CORP A 1 1.00 0.65 0.76 71.5% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WERNER E NTERPRISES INC 3 1.10 0.85<	TYSON FOODS INC -CL A	BBB-	3	0.70	0.51	0.67	56.1%
UNION PACIFIC CORP BBB 1 0.90 0.69 0.79 60.9% UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNITED TECHNOLOGIES CORP A 1 1.00 0.65 0.76 71.5% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASHINGTON POST -CL B A+ 1 0.70 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WEYCO GROUP INC 3 0.95 <td>UNIFIRST CORP</td> <td></td> <td>3</td> <td>0.75</td> <td>0.01</td> <td>0.34</td> <td>67.3%</td>	UNIFIRST CORP		3	0.75	0.01	0.34	67.3%
UNITED PARCEL SERVICE INC AAA 1 0.75 0.42 0.61 78.6% UNITED TECHNOLOGIES CORP A 1 1.00 0.65 0.76 71.5% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WATTS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WEYCO GROUP INC 3 0.95 0.90 100.0% WCVCO GROUP INC 3 0.90 0.93 91.3% <td>UNION PACIFIC CORP</td> <td>BBB</td> <td>1</td> <td>0.90</td> <td>0.69</td> <td>0.79</td> <td>60.9%</td>	UNION PACIFIC CORP	BBB	1	0.90	0.69	0.79	60.9%
UNITED TECHNOLOGIES CORP A 1 1.00 0.65 0.76 71.5% UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASHINGTON POST -CL B A+ 1 0.70 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WERNER ENTERPRISES INC 3 1.10 0.85 0.90 100.0% WEYCO GROUP INC 3 0.95 0.90 0.93 91.3% WOLVERINE WORLD WIDE 2 0.80 0.93 0.96<	UNITED PARCEL SERVICE INC	AAA	1	0.75	0.42	0.61	78.6%
UNIVERSAL CORP/VA BBB- 2 0.80 0.65 0.77 37.1% VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASHINGTON POST -CL B A+ 1 0.70 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATCS OINC 3 0.95 1.04 1.02 87.0% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WEYCO GROUP INC 3 0.95 0.67 0.78 72.6% WOLVERINE WORLD WIDE 3 0.95 0.90 100.0% Werage A- 2 0.80 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2%	UNITED TECHNOLOGIES CORP	A	1	1.00	0.65	0.76	71.5%
VF CORP A- 2 0.90 0.70 0.80 71.0% WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASHINGTON POST -CL B A+ 1 0.70 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATCO INC 3 0.95 1.04 1.02 87.0% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78	UNIVERSAL CORP/VA	BBB-	2	0.80	0.65	0.77	37.1%
WALGREEN CO A+ 1 0.75 0.39 0.59 96.7% WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASHINGTON POST -CL B A+ 1 0.70 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WASTE MANAGEMENT INC BBB 3 0.95 1.04 1.02 87.0% WATSS O INC 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2%	VF CORP	A-	2	0.90	0.70	0.80	71.0%
WAL-MART STORES AA 1 0.75 0.57 0.71 61.1% WASHINGTON POST -CL B A+ 1 0.70 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WATTS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%	WALGREEN CO	A+	1	0.75	0.39	0.59	96.7%
WASHINGTON POST -CL B A+ 1 0.70 0.31 0.54 82.9% WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WATSTS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WERNER ENTERPRISES INC 3 1.10 0.85 0.90 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%	WAL-MART STORES	AA	1	0.75	0.57	0.71	61.1%
WASTE MANAGEMENT INC BBB 2 0.90 0.85 0.90 41.1% WATSCO INC 3 0.95 1.04 1.02 87.0% WATSTS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WERNER ENTERPRISES INC 3 1.10 0.85 0.90 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%	WASHINGTON POST -CL B	A+	1	0.70	0.31	0.54	82.9%
WATSCO INC 3 0.95 1.04 1.02 87.0% WATS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WERNER ENTERPRISES INC 3 1.10 0.85 0.90 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%	WASTE MANAGEMENT INC	BBB	2	0.90	0.85	0.90	41.1%
WATTS WATER TECHNOLOGIES INC BBB 3 0.95 0.67 0.78 72.6% WEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WERNER ENTERPRISES INC 3 1.10 0.85 0.90 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%		000	3	0.95	1.04	1.02	87.0%
VVEIS MARKETS INC 1 0.80 0.37 0.58 100.0% WERNER ENTERPRISES INC 3 1.10 0.85 0.90 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.91.3% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%		BBB	3	0.95	0.67	0.78	12.0%
WENNER ENTERPRISES INC 3 1.10 0.85 0.90 100.0% WEYCO GROUP INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%			1	0.80	0.37	0.58	100.0%
WE FOO GROOF INC 3 0.80 -0.17 0.21 91.3% WOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%			చ ం	1.10	0.85	0.90	100.0%
WOOLVERINE WORLD WIDE 3 0.95 0.90 0.93 91.3% WOODWARD GOVERNOR CO 2 0.80 0.93 0.96 80.2% Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%			3	0.80	-0.17	0.21	91.3%
Average A- 2 0.89 0.62 0.74 75.7% Median BBB+ 3 0.90 0.67 0.78 75.8%			3	0.90	0.90	0.93	91.3% 80.2%
AverageA-20.890.620.7475.7%MedianBBB+30.900.670.7875.8%			2	0.00	0.93	0.90	00.2%
Median BBB+ 3 0.90 0.67 0.78 75.8%	Average	Δ_	2	0 80	0.62	0 74	75 7%
	Median	BBB+	3	0.90	0.67	0.78	75.8%

Note: Value Line betas as of January 26, 2007 and Research Insight betas for 5 years ending December 2006.

Source: Standard & Poor's Research Insight and Value Line

RETURNS ON AVERAGE COMMON STOCK EQUITY FOR 159 LOW RISK US INDUSTRIALS

													Average
0	4004	4005	4000	4007	4000	4000		0004			0004	0005	1994-
	1994	1995	1996	1997	1998	1999	12.0	2001	2002	2003	2004	2005	2005
	10.0	11.2	10.0	10.4	15.1	14.0	13.9	0.C	12.5	12.1	15.1	14.3	13.4
	12.5	13.3	13.9	14.0	15.4	15.2	14.0	9.0	12.0	21.0	0.9	7.0	13.0
	20.0	10.5	9.3	13.4	3.9	5.7	9.7	9.1	5.I 15.2	5.9	0.0	10	9.5
	9.3	15.0	15.4	14.0	9.7	9.4	11.7	10.4	15.3	11.3	1.9	12.0	11.4
ALBERTO-CULVER CO	14.1	15.1	15.8	18.5	16.1	15.6	17.1	16.1	17.2	16.9	11.9	14.8	15.8
ALEXANDER & BALDWIN INC	12.2	8.7	9.8	11.6	4.4	9.2	11.5	15.8	8.1	10.6	11.8	13.1	10.6
AMERON INTERNATIONAL CORP	9.0	9.6	11.0	13.0	13.0	12.9	14.1	14.3	13.5	12.8	5.0	11.3	11.6
AMPCO-PITTSBURGH CORP	8.3	8.4	10.7	13.3	11.5	10.3	10.3	-0.6	3.4	-1.5	-1.9	11.1	6.9
ANDERSONS INC	25.4	15.5	9.2	5.6	12.6	10.0	11.5	9.8	10.7	10.6	15.3	17.8	12.8
APOGEE ENTERPRISES INC	10.9	13.5	16.9	-36.2	21.0	9.1	10.5	16.4	17.1	-3.2	9.6	12.6	8.2
APPLEBEES INTL INC	19.2	18.3	16.9	16.9	17.3	19.7	23.6	21.6	23.1	22.0	23.2	22.4	20.4
APPLIED INDUSTRIAL TECH INC	8.9	10.7	13.2	13.7	12.0	6.8	10.5	9.2	4.8	6.5	9.7	15.1	10.1
ARCHER-DANIELS-MIDLAND CO	9.8	14.6	11.6	6.2	6.4	4.4	4.9	6.2	7.8	6.5	6.7	12.9	8.2
AVERY DENNISON CORP	15.1	18.6	21.4	24.5	26.7	26.2	34.6	27.7	25.9	22.6	19.5	14.8	23.1
BADGER METER INC	11.6	12.1	14.9	16.7	18.5	21.4	16.1	7.8	16.0	14.7	16.2	19.3	15.4
BALDOR ELECTRIC CO	15.3	16.3	17.1	18.2	17.6	16.5	17.6	8.6	8.9	9.2	12.9	14.8	14.4
BARNES GROUP INC	20.4	23.3	22.8	23.9	18.7	15.5	18.7	9.6	13.3	12.5	10.1	16.5	17.1
BELO CORP -SER A COM	18.9	17.3	23.1	9.8	5.0	13.5	11.0	-0.2	9.6	8.6	8.3	8.1	11.1
BLACK & DECKER CORP	12.1	21.2	15.2	13.3	-63.8	43.7	37.8	15.0	34.0	40.5	37.9	35.3	20.2
BLOCK H & R INC	15.4	20.5	4.7	33.5	17.9	22.1	23.1	34.2	38.2	39.6	32.4	23.9	25.5
BOB EVANS FARMS	14.4	7.3	8.7	10.4	12.4	11.8	11.5	13.8	13.9	12.1	5.8	8.1	10.8
BOEING CO	9.2	4.0	10.5	-1.5	8.9	19.4	18.9	25.9	25.0	9.1	19.3	22.9	14.3
BRINKS CO	14.0	21.5	20.9	21.2	18.8	8.6	-33.3	3.3	5.8	6.7	20.8	19.6	10.7
BROWN-FORMAN -CL B	30.1	27.5	25.1	24.2	23.5	22.2	20.9	18.3	22.8	26.8	25.7	22.3	24.1
BRUNSWICK CORP	15.0	13.0	16.6	12.0	14.2	2.9	-8.1	7.8	9.4	11.2	17.8	20.9	11.1
BURLINGTON NORTHERN SANTA FE	23.2	5.1	16.1	13.8	15.8	14.3	12.5	9.6	9.6	9.5	8.9	16.3	12.9
CARLISLE COS INC	15.2	16.9	19.2	21.5	22.5	21.6	18.7	4.6	13.2	15.0	12.0	14.9	16.3
CASEYS GENERAL STORES INC	13.5	13.9	12.3	13.5	14.2	12.9	10.8	8.9	10.2	8.6	8.1	12.4	11.6
CATO CORP -CL A	13.5	8.3	4.7	11.2	14.5	18.7	19.7	19.5	18.2	13.5	17.2	19.9	14.9
CHURCHILL DOWNS INC	15.6	14.0	17.1	18.1	17.7	14.7	11.3	10.5	9.3	9.6	3.6	28.5	14.2
CIRCUIT CITY STORES INC	21.1	18.5	10.6	7.1	8.5	10.2	6.9	7.9	4.3	-3.9	2.9	7.0	8.4
CLAIRES STORES INC	21.5	22.5	26.0	26.1	22.0	24.7	16.3	4.9	17.2	20.3	20.6	21.2	20.3
CLARCOR INC	18.6	17.7	18.0	17.0	17.9	17.8	17.8	16.2	15.8	15.9	16.0	16.8	17.1
COACHMEN INDUSTRIES INC	21.8	21.2	21.1	13.8	16.7	14.1	1.0	-1.9	4.8	3.5	7.0	-12.6	9.2
COCA-COLA ENTERPRISES INC	53	59	7.5	10.6	6.8	21	8.2	-0.8	16.1	17.6	12.2	9.3	8.4
CONAGRA FOODS INC	20.0	7.6	26.0	23.9	12.6	13.2	19.9	18.9	17.3	17.5	13.3	11.2	16.8
CON-WAY INC	64	67	3.1	19.4	18.2	20.9	12.8	-48.8	14.9	11.8	-16.8	27.5	63
CSX CORP	18 Q	15.5	18.5	14.9	9.2	0.9	9.6	4.8	7.6	3.0	5 1	15.5	10.3
CUBIC CORP	15	34	6.8	7 1	0.5	79	0.4		14.6	15.6	13.3	39	72
CURTISS-WRIGHT CORP	12.9	11.0	9.0	14.4	13.4	16.0	15.0	19.6	11 9	11 7	12.3	12.4	13.3
DANAHER CORP	19.4	20.4	30.0	18.0	16.1	17.1	17.8	14.3	17.7	16.1	18.0	18.5	18.6

RETURNS ON AVERAGE COMMON STOCK EQUITY FOR 159 LOW RISK US INDUSTRIALS

													Average
Common Name	4004	4005	4000	4007	4000	4000	2000	0004	0000	0000	0004	0005	1994-
	1994	1995	1996	1997	1998	1999	17.0	2001	2002	2003	19.0	10 5	2005
	19.4	20.4	30.0	10.0	10.1	10.1	17.0	14.3	20.0	10.1	18.0	10.0	10.0
	4.1	0.2	-7.9	9.7	14.2	10.4	19.7	22.0 15.0	20.0	19.2	23.7	27.0	14.7
	-2.8	-5.1	-5.1	0.7	10.1	23.0	19.6	15.9	15.1	7.0	9.6	15.7	10.0
	24.0	25.9	27.0	9.7	2.3	0.0	66.0	16.5	15.4	13.1	2.3	22.5	19.7
DOLLAR GENERAL CORP	25.9	23.1	24.9	26.5	27.3	26.4	7.9	21.8	22.7	21.0	21.1	20.6	22.4
DONNELLEY (R R) & SONS CO	14.1	14.4	-8.3	8.1	20.4	25.3	22.5	2.4	15.8	18.6	7.4	3.6	12.0
EDO CORP	-106.5	11.5	19.2	24.7	21.7	2.6	0.8	12.3	8.2	8.3	14.5	11.6	2.4
ELKCORP	18.2	10.7	10.5	12.1	15.4	19.2	20.0	5.4	8.9	12.9	10.0	19.3	13.5
ENNIS INC	31.2	25.2	16.9	12.5	17.1	17.6	14.7	16.0	15.8	17.3	12.0	14.2	17.5
EW SCRIPPS -CL A	12.6	11.7	14.7	15.8	12.4	13.2	13.4	10.5	13.1	16.2	15.5	11.4	13.4
EXPEDITORS INTL WASH INC	14.0	15.9	18.9	24.8	24.4	23.7	25.8	25.0	24.0	20.9	21.5	25.4	22.0
FAMILY DOLLAR STORES	17.9	14.9	14.2	15.8	19.2	22.1	23.1	21.6	20.5	20.1	19.5	15.7	18.7
FARMER BROS CO	5.3	9.5	10.4	7.0	12.8	10.3	12.5	11.1	8.5	6.4	4.0	-2.0	8.0
FASTENAL CO	31.8	33.8	29.5	28.0	27.6	26.2	25.2	17.9	16.2	15.6	20.8	22.7	24.6
FEDEX CORP	14.3	12.8	13.0	14.5	14.6	14.6	10.9	11.7	12.0	10.9	16.4	17.1	13.6
FLEXSTEEL INDS	9.3	7.2	6.1	8.1	9.9	13.0	14.3	5.4	6.6	9.1	10.4	5.9	8.8
FLUOR CORP	17.0	17.5	17.3	8.6	14.4	6.7	7.8	1.6	19.6	17.1	15.4	15.3	13.2
FORTUNE BRANDS INC	16.5	12.8	13.2	2.7	7.2	-26.2	-5.7	18.3	23.9	23.1	26.8	18.4	10.9
FRANKLIN ELECTRIC CO INC	32.3	21.3	23.9	26.5	26.9	28.5	20.9	22.7	23.3	19.9	17.8	18.3	23.5
FREDS INC	7.5	2.4	4.9	7.9	6.6	7.6	9.7	10.4	12.0	12.5	9.2	8.0	8.2
FRISCH'S RESTAURANTS INC	3.7	3.6	1.8	7.9	8.4	11.2	13.9	13.5	14.9	14.1	17.1	9.4	10.0
G&K SERVICES INC -CL A	15.5	16.7	17.5	18.7	17.5	17.1	14.9	11.8	11.9	9.4	8.8	8.9	14.1
GANNETT CO	25.0	24.1	37.2	22.2	26.8	22.3	35.3	15.3	18.3	15.8	15.9	15.8	22.8
GENERAL DYNAMICS CORP	19.1	22.3	16.5	17.4	17.6	32.7	25.8	22.6	18.9	18.1	18.7	19.1	20.7
GENERAL ELECTRIC CO	18.1	23.5	24.0	25.0	25.4	26.3	27.4	26.8	25.5	21.8	17.7	14.9	23.0
GENUINE PARTS CO	19.4	19.5	19.5	19.1	18.2	17.9	17.4	12.9	16.4	15.9	16.3	16.7	17.4
GORMAN-RUPP CO	15.7	14.7	14.2	14.1	14.5	14.9	14.3	14.0	8.1	8.6	7.8	8.8	12.5
GRAINGER (W W) INC	13.0	16.9	15.8	16.8	18.5	13.1	12.8	11.1	14.4	12.9	14.7	15.9	14.7
HARLAND (JOHN H.) CO	26.5	21.6	-6.8	9.2	-11.6	25.8	16.9	20.9	24.1	22.9	20.8	25.4	16.3
HARLEY-DAVIDSON INC	27.5	24.2	28.7	23.4	23.0	24.4	27.1	27.7	29.1	29.3	28.8	30.5	27.0
HARTE HANKS INC	24.9	24.9	19.4	82.2	12.0	12.6	14.5	14.4	16.7	16.1	17.3	20.2	22.9
HEICO CORP	5.6	94	27.6	13.9	16.5	15.8	17.0	8.8	77	57	8.8	8.8	12.0
HNI COBP	20.0	20.0	20.1	27.4	25.2	18.0	19.8	12.8	14.7	14.5	16.5	21.8	20.7
	10.2	17.3	10.5	13.8	17.2	10.1	10.0	10.5	17.0	15.7	17.5	17.0	17.1
	19.2	10.1	20.1	16.6	20.2	17.0	17.0	6.4	14.7	14.6	17.5	17.0	16.6
	10.5	19.1	20.1	10.0	20.3	20.6	10.0	0.4	14.7	14.0	17.4	10.7	10.0
	19.0	22.4	22.5	ZZ.0 5 1	21.9	20.6	10.0	14.1	14.7	14.1	17.3	19.7	19.0
	1.3	12.4	0.0	0.1	10.0	0.Z	I.∠ E.4	3.1 0.0	0.0	2.3 15.6	0.0	10.0	0.2
	23.0	23.9	20.5	10.0	13.9	8.9 40.0	5.4	0.0	12.8	15.0	19.4	10.0	15.7
	13.9	14.9	10.1	17.7	18.4	19.0	19.4	17.2	18.0	17.7	17.4	10.1	17.3
	-10.6	10.5	12.1	31.6	10.7	8.0	11.4	3.5	-10.7	6.5	-4.0	4.7	6.1
KELLY SERVICES INC -CLA	14.9	15.3	14.7	15.0	15.4	15.2	14.5	2.7	3.0	0.8	3.4	5.9	10.1

Average

RETURNS ON AVERAGE COMMON STOCK EQUITY FOR 159 LOW RISK US INDUSTRIALS

													1994-
Company Name	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2005
KIMBERLY-CLARK CORP	21.2	1.1	34.5	20.5	27.3	36.6	33.2	28.2	29.8	27.3	26.9	25.9	26.0
LANCASTER COLONY CORP	27.9	27.4	25.3	25.7	24.7	23.1	23.9	20.6	19.1	21.5	14.1	15.9	22.4
LANCE INC	11.2	-3.2	12.9	16.2	14.8	13.5	12.4	13.5	11.1	10.1	13.0	9.2	11.2
LAWSON PRODUCTS	15.1	16.6	15.9	15.9	13.8	16.3	18.2	5.5	7.7	9.6	12.1	14.6	13.4
LEE ENTERPRISES INC	21.9	21.1	14.3	19.9	19.5	20.2	22.3	58.3	11.5	10.1	10.3	8.5	19.8
LEGGETT & PLATT INC	20.2	19.8	18.3	19.7	19.0	18.8	15.4	10.3	12.1	10.1	12.9	11.0	15.6
LENNAR CORP	13.6	12.3	13.5	14.9	25.0	21.6	21.7	28.9	28.0	27.4	25.8	29.1	21.8
LIFETIME BRANDS INC	17.1	11.8	14.0	12.5	14.6	4.4	4.2	3.8	2.9	10.2	9.5	12.1	9.8
LINCOLN ELECTRIC HLDGS INC	28.4	23.5	20.6	20.6	20.2	15.7	17.4	17.7	14.4	12.0	15.3	19.9	18.8
LINDSAY MANUFACTURING CO	18.2	17.1	22.7	24.5	26.4	14.7	16.5	10.0	12.4	13.2	8.6	4.4	15.7
LIZ CLAIBORNE INC	8.4	12.9	15.5	19.0	17.8	20.4	21.3	20.3	19.7	19.5	18.5	16.6	17.5
LOCKHEED MARTIN CORP	26.4	11.8	22.8	-10.5	17.7	11.8	-6.3	-14.9	8.1	16.7	18.4	24.5	10.6
LONGS DRUG STORES CORP	9.5	8.8	10.9	10.1	10.4	10.3	6.5	6.7	4.4	4.2	5.1	9.9	8.1
LOWE'S COMPANIES INC	19.5	14.7	15.1	14.8	16.8	17.2	15.9	16.8	19.6	20.2	19.9	21.4	17.7
LSI INDUSTRIES INC	19.2	23.1	16.1	14.5	17.2	18.9	15.6	8.1	10.6	5.9	6.8	11.0	13.9
MARCUS CORP	11.8	18.2	11.7	9.8	7.5	7.1	6.6	6.5	5.7	6.4	22.4	7.1	10.1
MASCO CORP	9.4	-23.4	16.9	18.8	19.2	19.4	18.0	5.3	14.5	15.0	16.4	18.3	12.3
MATTEL INC	26.4	30.0	27.7	17.1	17.8	-4.6	-25.6	19.8	26.0	25.6	24.9	18.6	17.0
MATTHEWS INTL CORP -CL A	21.2	19.5	21.4	19.0	21.6	22.9	23.1	23.4	23.5	20.5	19.8	18.5	21.2
MCCLATCHY CO -CL A	11.3	7.4	9.2	12.9	8.9	9.8	9.7	5.9	12.8	13.2	11.8	10.7	10.3
MCCORMICK & COMPANY INC	12.8	19.3	10.3	23.3	26.6	26.8	37.1	35.7	34.1	31.6	26.1	25.4	25.8
MCGRAW-HILL COMPANIES	23.4	23.3	41.4	20.8	22.9	26.3	27.3	20.9	28.7	29.1	27.3	27.7	26.6
MDC HOLDINGS INC	10.5	8.7	9.9	10.9	19.5	26.0	28.3	27.4	23.0	23.4	32.1	30.0	20.8
MEDIA GENERAL -CL A	41.9	15.0	17.3	12.3	15.8	97.6	4.3	1.6	4.8	6.2	7.0	7.9	19.3
MEREDITH CORP	10.0	16.0	21.5	32.4	23.6	25.3	19.2	17.2	19.1	18.1	20.3	20.7	20.3
MET-PRO CORP	12.5	14.6	16.2	16.9	15.9	15.7	17.0	12.7	11.1	10.9	7.8	11.2	13.5
MINE SAFETY APPLIANCES CO	5.9	7.4	9.4	9.2	7.6	6.8	10.0	13.4	13.1	22.1	20.9	21.7	12.3
MOVADO GROUP INC	16.9	9.8	11.2	12.7	13.4	8.7	13.5	10.3	9.8	8.9	8.9	8.3	11.1
NATIONAL PRESTO INDS INC	9.0	7.7	6.0	6.8	7.8	8.2	6.1	2.6	3.7	6.4	6.2	7.3	6.5
NEW YORK TIMES CO -CL A	13.6	8.6	5.2	15.6	17.6	20.8	29.1	36.6	24.8	22.7	21.0	18.2	19.5
NEWELL RUBBERMAID INC	18.6	18.3	18.4	18.1	21.8	4.1	16.4	10.8	13.9	-2.3	-6.1	14.8	12.2
NIKE INC -CL B	21.6	25.2	28.5	12.5	13.7	17.9	17.8	18.2	18.9	21.6	23.2	23.3	20.2
NORDSON CORP	22.8	23.7	22.3	21.5	9.6	21.8	23.3	9.6	8.3	12.4	18.0	21.3	17.9
NORFOLK SOUTHERN CORP	14.4	15.0	15.7	13.8	12.9	4.0	2.9	6.3	7.3	6.2	12.3	14.8	10.5
NORTHROP GRUMMAN CORP	2.7	18.3	13.0	17.1	7.1	15.8	16.9	7.2	4.3	5.7	6.7	8.4	10.3
PENTAIR INC	13.2	17.0	14.3	15.9	16.6	12.5	5.7	3.2	12.3	11.9	12.6	12.3	12.3
PEPSIAMERICAS INC	19.3	22.6	22.0	0.7	14.3	-1.2	6.2	1.3	9.0	10.5	11.4	12.2	10.7
RAVEN INDUSTRIES INC	14.1	13.1	14.5	13.6	10.0	11.6	12.5	17.7	20.3	22.2	27.0	32.2	17.4
RAYTHEON CO	14.5	19.3	17.1	7.0	8.1	4.2	1.3	-6.8	-1.3	4.0	3.8	8.2	6.6

RETURNS ON AVERAGE COMMON STOCK EQUITY FOR 159 LOW RISK US INDUSTRIALS

Company Name	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Average 1994-2005
ROBBINS & MYERS INC	11.6	18.6	25.2	26.7	22.7	7.8	11.2	10.8	6.3	52	3.3	-0.1	12.5
ROLLINS INC	28.0	19.3	11.3	0.9	5.8	9.4	12.7	20.6	30.8	31.2	38.0	30.6	19.9
RUBY TUESDAY INC	26.6	-1.3	11.9	13.3	16.8	16.2	23.0	18.8	23.6	23.6	18.9	18.5	17.5
RUDDICK CORP	11.2	12.9	12.9	13.1	11.8	11.9	11.1	-0.2	11.5	12.6	12.4	11.8	11.1
RYDER SYSTEM INC	14.5	13.1	-2.7	16.2	14.8	36.9	7.2	1.5	9.6	11.1	15.1	15.1	12.7
SERVICEMASTER CO	46.9	32.6	31.8	24.7	25.7	16.1	15.6	13.3	13.6	-22.1	36.6	19.4	21.2
SHERWIN-WILLIAMS CO	17.9	17.7	17.5	17.4	16.5	17.8	1.0	17.8	22.0	23.7	25.3	27.4	18.5
SKYLINE CORP	8.8	10.8	11.6	11.1	13.6	7.8	5.8	6.3	3.1	3.1	2.8	7.4	7.7
SMITH (A O) CORP	19.7	17.9	16.4	37.3	11.1	10.2	6.8	3.2	10.7	9.6	6.1	7.7	13.1
SMUCKER (JM) CO	14.7	11.0	10.9	12.2	12.1	8.3	11.3	11.7	13.7	9.5	8.9	8.4	11.1
STANDEX INTERNATIONAL CORP	22.6	30.5	23.0	19.5	14.0	20.3	16.9	14.8	11.6	8.3	6.5	13.9	16.8
STANLEY WORKS	17.6	8.0	12.8	-6.0	21.6	21.4	26.4	20.2	20.4	11.7	35.3	20.2	17.5
STRIDE RITE CORP	6.7	-3.0	0.9	7.9	8.7	10.7	10.1	7.4	9.4	9.8	10.0	9.6	7.3
SUPERIOR INDUSTRIES INTL	29.9	24.7	19.5	20.6	17.5	21.3	21.2	13.1	16.0	13.1	7.5	-1.2	16.9
SUPERIOR UNIFORM GROUP INC	14.5	5.4	12.1	12.0	10.0	11.2	9.0	7.9	6.5	6.9	6.3	1.5	8.6
TELEFLEX INC	14.2	14.7	15.0	16.1	16.5	16.7	16.9	15.3	14.8	11.1	0.9	12.3	13.7
TENNANT CO	17.5	18.7	17.3	18.4	19.1	14.9	19.3	3.0	5.4	8.9	7.9	12.5	13.6
TOOTSIE ROLL INDUSTRIES INC	16.8	15.7	16.1	18.3	18.1	17.2	17.0	13.6	12.8	12.2	11.6	13.0	15.2
TORO CO	14.2	20.7	18.2	16.1	1.6	12.9	15.2	15.3	17.0	20.3	24.7	29.0	17.1
TREDEGAR CORP	22.7	14.1	23.5	24.1	23.6	15.4	25.6	2.0	-0.5	-5.8	6.3	3.4	12.9
TWIN DISC INC	6.9	8.1	8.8	10.4	12.0	-1.4	5.2	9.0	3.5	-4.4	10.4	11.0	6.6
TYSON FOODS INC -CL A	-0.2	15.9	5.8	11.7	1.4	11.2	7.0	3.2	10.9	8.9	9.8	8.3	7.8
UNIFIRST CORP	13.4	13.0	13.7	14.1	14.3	9.6	7.5	8.3	9.0	9.1	9.6	11.1	11.1
UNION PACIFIC CORP	10.9	16.5	12.4	5.3	-8.1	10.5	10.1	10.6	13.3	11.4	4.8	7.8	8.8
UNITED PARCEL SERVICE INC	22.0	21.3	20.7	15.2	26.3	9.0	26.4	24.3	28.7	21.2	21.3	23.3	21.6
UNITED TECHNOLOGIES CORP	15.3	18.6	21.0	24.8	28.9	26.1	24.0	23.8	26.4	23.3	21.7	20.4	22.9
UNIVERSAL CORP/VA	9.7	6.7	17.7	22.7	27.8	23.4	22.0	21.5	18.7	14.8	12.1	1.0	16.5
VF CORP	16.5	8.8	15.8	18.0	19.4	17.0	12.1	6.1	19.3	21.9	21.2	19.4	16.3
WALGREEN CO	19.1	19.1	19.4	19.7	20.6	19.7	20.1	18.8	17.8	17.5	17.6	18.3	19.0
WAL-MART STORES	22.8	19.9	19.2	19.8	22.4	23.8	22.0	20.1	21.6	21.8	22.1	21.9	21.4
WASHINGTON POST -CL B	15.3	16.5	17.6	22.4	30.0	15.2	9.5	14.4	12.2	12.3	14.8	12.4	16.1
WASTE MANAGEMENT INC	17.2	11.8	4.2	14.4	-21.9	-9.0	-2.1	9.9	15.4	13.2	16.1	19.6	7.4
WATSCO INC	12.7	14.2	14.8	10.6	10.1	10.2	6.3	7.8	8.8	10.1	12.6	16.4	11.2
WATTS WATER TECHNOLOGIES INC	11.8	11.9	-13.9	15.8	15.1	9.4	7.7	11.0	12.0	9.1	10.1	10.8	9.2
WEIS MARKETS INC	10.2	10.2	9.8	9.4	9.6	8.8	7.9	6.8	11.0	9.7	10.0	10.8	9.5
WERNER ENTERPRISES INC	13.9	12.4	12.3	13.0	13.7	12.8	9.3	8.5	10.0	10.9	11.8	12.0	11.7
WEYCO GROUP INC	10.1	11.0	13.1	14.4	14.9	16.6	15.3	13.1	16.7	18.7	18.6	15.1	14.8
WOLVERINE WORLD WIDE	13.5	14.3	14.8	15.9	14.3	10.2	3.2	12.7	12.9	12.9	14.8	16.2	13.0
WOODWARD GOVERNOR CO	-1.6	6.1	10.9	8.7	10.0	13.3	18.2	17.9	13.4	3.5	8.4	13.7	10.2
Average	15.3	14.9	15.5	15.7	14.9	15.5	14.5	12.5	14.3	13.4	14.1	15.1	14.6
Median	15.1	15.0	15.6	15.4	15.8	15.2	14.8	11.7	13.6	12.5	13.2	15.0	13.7
Average of Annual Medians													14.4

Source: Standard & Poor's Research Insight
JTBrowne Consulting

Newfoundland Power

Regulatory Accounting Issues Related to 2007 Rate Application

May 4, 2007

Costing & Regulatory Consulting

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Exhibits:

JTBC-1:	Resume – John T. Browne
JTBC-2:	Regulatory Principles
JTBC-3:	Changes to Rate Base & Invested Capital

INTRODUCTION

Newfoundland Power ("NP") is making an application to the Newfoundland & Labrador Board of Commissioners of Public Utilities ("Board") for new rates to be effective on January 1, 2008.

As part of its application, NP is proposing a number of changes to its regulatory accounting policies and presenting an estimate of its cash working capital. NP has asked me as a Chartered Accountant and economist with experience in addressing regulatory issues¹ to address, from a regulatory perspective, a number of questions concerning the appropriateness of these changes and the calculation of its cash working capital. These questions deal with the following six issues which can be grouped into three categories:

Future Employee Benefits:

- Recovery of Other Post Employment Benefits (OPEBs)
- Tax Effecting Future Employee Benefits

Amortization of Deferrals and Reserves:

- Amortization of Regulatory Deferrals
- Amortization of Reserve Balances

Transition to Asset Rate Base Method:

- Adjustments to Rate Base
- Cash Working Capital

In addressing NP's questions, I will be referring to established regulatory principles. A discussion of the relevant regulatory principles is presented in Exhibit JTBC-2.

In preparing this report, I have relied on financial data and other information about NP that was provided to me by the utility. My mandate dealt solely with accounting and regulatory principles and policies and the application of those principles and policies. As a result, I was not asked, and did not perform, any audit or other verification procedures on data and information provided to me by NP.

The following sections address the questions related to each of the six issues noted above. In each section, the underlying issues and the relevant background are set out, the utility's proposal is summarized and analysed, and a response is provided.

¹ A copy of my resume has been attached as Exhibit JTBC-1.

RECOVERY OF OTHER POST EMPLOYMENT BENEFITS

INTRODUCTION

NP's future employee benefits include both pensions and other post employment benefits ("OPEBs"). The latter are composed of health, medical and life insurance for retirees and their dependents, as well as employee retirement allowances. For regulatory purposes, NP recognizes its pension expense on an accrual basis but its OPEB expense on a cash basis.

Beginning on January 1, 2008, NP is proposing to recognize its OPEB expense on an accrual basis for regulatory purposes. It is also proposing that treatment of its OPEB Regulatory Asset (i.e., the cumulative difference between the OPEB costs accrued under GAAP and what it has been allowed to recover under the cash basis) be deferred until a future date.

NP has asked me if its proposal to adopt accrual accounting for its OPEB expense and defer treatment of its OPEB Regulatory Asset at December 31, 2007 is consistent with established regulatory principles and appropriate in the context of NP.

BACKGROUND

Section 3461 of the CICA Handbook "Employee Future Benefits" sets out how companies must report their future employee benefit costs for financial reporting purposes². Prior to the issuance of Section 3461, there was no specific guidance in Canada on how to account for future employee benefits other than pensions. Many companies applied the pay-as-you-go, or cash approach, whereby the cost of the benefits is expensed as the payments are made.

Section 3461 replaced Section 3460. Whereas Section 3460 dealt only with pensions, Section 3461 deals with all future employee benefits. Section 3461 is applicable to fiscal years beginning on or after January 1, 2000.

With Section 3461, companies must account for the cost of OPEBs in the same way as they account for pensions. The expense must be accrued and can no longer be recognized on a cash basis, at least for financial reporting purposes. The accrual method results in a better matching of costs to the periods for which the costs were incurred. With the cash basis, costs may be recognized years, if not decades, after the period for which they were incurred.

² For general purpose financial reporting, companies must follow generally accepted accounting principles ("GAAP"). In setting regulatory accounting policies, regulators often follow GAAP but are usually not required to do so.

As a result of Section 3461, a number of utilities and their regulators have reviewed the method for recovering OPEB costs and switched from the cash to the accrual method.³

Where the OPEBs are provided through a defined benefit plan, as is the case with NP, Section 3461 requires that the calculation of the OPEB expense include:

- the current service cost;
- plus interest on the accrued benefit obligation;
- less the return on any plan assets that have been invested to fund the future liability;
- plus / less the amortization of any actuarial gain or loss; and
- plus / less the amortization of any transitional asset or obligation.⁴

The current service cost is the present value of the future OPEB payments as a result of employee services provided in the current period - i.e., the amount that if invested today would grow with interest to equal the future OPEB payments as a result of services provided in the current period.

The accrued benefit obligation is the present value of the future OPEB payments as a result of past employee services. The current service cost plus the future interest on the related accrued benefit obligation are intended to accumulate to an amount equal to the future OPEB payments due to current service.

Unlike pension plans, companies generally do not fund their OPEB plans. As a result, they have no interest income on plan assets and tend to have an accrued benefit liability. This liability represents the difference between what has been expensed and what has been paid out.

Actuarial gains and losses arise because the expense for a defined benefit plan is based on assumptions. Where actual results differ from what was assumed or there is a change in assumptions related to past periods, the result is recognized as an actuarial gain or loss.

Adoption of Section 3461 usually resulted in a transitional obligation. Before amortization, it would have equalled the cumulative difference between what should have been expensed in the past under Section 3461 and what was actually expensed⁵. For NP

³ This is supported by a survey completed by NP and discussed in the Company's "Application And Company Evidence" under Section 3.6 "Employee Future Benefits"

⁴ Section 3461 sets out other potential components of the expense for a defined benefit plan. However, they are not applicable to NP's OPEBs.

⁵ The definition of a "transitional obligation" is set out in the CICA Handbook in paragraph 034 of Section 3461 "Future Employee Benefits".

and most other utilities, it equalled the cumulative difference between the accrual and cash basis at the time they adopted Section 3461 for financial reporting purposes.

For financial reporting purposes, NP adopted Section 3461 as of January 1, 2000. It applied the new section prospectively, amortizing the resulting transitional obligation on a straight-line basis over almost 18 years, the expected average remaining service period of the plan members at that time.

It should be noted that Section 3461 establishes what is required under GAAP which sets out financial statement accounting and reporting requirements. However GAAP is designed for financial reporting purposes, not rate setting. Although it often provides useful guidance for regulators in setting rates, regulators can and do deviate from GAAP where they believe it is appropriate in setting just and reasonable rates.

Although NP adopted accrual accounting for financial reporting purposes in accordance with GAAP, it continued to recognize its OPEB expense on a cash basis for regulatory purposes. The main reason for maintaining the cash basis was the impact on rates from a change to the accrual method.

In a report prepared for NP's last general rate application ("GRA"), I wrote:

From the perspective of the principle of intergenerational equity, the accrual method for recovering OPEB costs is preferable to the pay-as-you-go method proposed by NP. However, the NP proposal is a practical approach that recognizes the impact of dealing with the transition from one method to the other.⁶

In its decision following that application, the Board accepted the continued use of the cash basis:

To avoid rate impact on consumers the Board is prepared to accept NP's proposal to continue with using the cash basis for recognizing expenses for other employee future benefits.⁷

At least one other regulator has recognized the need to consider the impact on rates of a change from the cash to the accrual basis. In a 2003 decision, the British Columbia Utilities Commission ("BCUC") approved the continued use of the accrual method for BC Gas while noting that it had approved the "pay-as-you-go" method for two other utilities to avoid rate shock.

While the Commission has approved the "pay-as-you-go" method for Pacific Northern Gas Ltd. and Aquila Networks Canada (British Columbia) Ltd., it did so to

⁶ John T Browne; <u>Newfoundland Power - Accounting and Regulatory Issues Related to Future Employee</u> <u>Benefits and the Hydro Production Equalization Reserve</u>; October 11, 2002; pg. 13.

⁷ Newfoundland & Labrador Board Of Commissioners Of Public Utilities; <u>Order No. P.U. 19 (2003)</u>; June 20, 2003; pg. 83.

avoid rate shock at the time of the Orders. This situation does not exist for BC Gas. The Commission accepts the continuation of the accrual basis of accounting for OPEB for the 2003 Revenue Requirements.⁸

Although the Board accepted NP's continued use of the cash basis, in its 2003 decision it went on to require NP to develop a plan for moving towards the accrual method:

The Board is concerned about the potential liability for employee future benefits and is of the view that NP should explore using the accrual method of accounting for these benefits. The Board recognizes that there are significant transitional obligations associated with this change in accounting policy but once the transitional obligation has been met these costs should decrease. ... The Board will direct NP to propose a plan at its next general rate application for moving towards the accrual method of accounting for employee future benefits as recommended by CICA. The Board emphasizes such a plan should be presented to the Board as an alternative to the existing method and should address the transitional impact with a view to fulfilling NP's obligation to its employees while at the same time moderating its impact on rates...⁹

Since it has been expected that the Board will allow NP to recover in future rates the difference between its GAAP expense for OPEBs (i.e., determined in accordance with Section 3461) and what it was allowed to recover in rates, NP has recognized a regulatory asset for financial reporting purposes equal to the cumulative difference (i.e., OPEB Regulatory Asset).

NP'S PROPOSAL

For rate setting purposes, NP is proposing to adopt the accrual basis for recognizing its OPEB costs, beginning on January 1, 2008. With this proposal, NP's OPEB expense for regulatory purposes would be exactly the same as the expense determined under GAAP.

The change to the accrual basis raises the issue of how to deal with the transitional costs - i.e., the cumulative difference between the costs that would have been expensed in the past under the accrual basis and the costs that were actually expensed under the cash basis. If NP were to continue with the cash basis, these costs would be recoverable in the period in which payment is made. It should be noted that the lower expense in past periods due to the use of the cash basis did not benefit NP but its customers who paid lower rates.

The transitional costs fall into two categories with some overlap: the transitional obligation and the OPEB Regulatory Asset. The first amount arose from adoption of

⁸ BCUC; <u>BC Gas Utility Ltd. 2003 Revenue Requirements Application</u>; February 4, 2003; pg. 37.

⁹ Newfoundland & Labrador Board Of Commissioners Of Public Utilities; <u>Order No. P.U. 19 (2003)</u>; June 20, 2003; pg. 83.

Section 3461 while the second arose from the continued use of the cash basis for regulatory purposes.

- The transitional obligation was determined at the time NP adopted Section 3461 for financial reporting purposes (i.e., January 1, 2000). It equals the cumulative difference between what NP would have expensed under the accrual method in accordance with Section 3461 and the actual amount it had expensed under the cash basis. Consistent with Section 3461, this amount is being amortized for financial reporting purposes on a straight-line basis over 17.6 years the estimated remaining service life of the covered employees at the time Section 3461 was adopted. At January 1, 2000, the transitional obligation was \$25.1 million. At January 1, 2008, the amount of the transitional obligation that will have been amortized and included in the OPEB Regulatory Asset will be \$11.4 million, leaving an unamortized balance of \$13.7 million
- The OPEB Regulatory Asset represents the cumulative difference between what NP has accrued for financial reporting purposes in accordance with GAAP and what it has recognized for regulatory purposes using the cash basis. Since NP was using the cash basis for financial reporting purposes prior to 2000, this difference has arisen over the period since January 1, 2000. At December 31, 2007, the OPEB Regulatory Asset is expected to be \$34.1 million, which will include the \$11.4 million of the transitional obligation that will have been amortized for financial reporting purposes.

In the case of the transitional obligation that has not been amortized for financial reporting purposes at January 1, 2008 (i.e., \$13.7 million), NP is proposing to recover this amount in rates through the use of the GAAP expense. The GAAP expense includes amortization of the transitional obligation – about 1/18 of the original balance each year.

In the case of the OPEB Regulatory Asset, which includes the portion of the transitional obligation that will have been accrued for financial reporting purposes on January 1, 2008, NP is proposing that the decision on its amortization be deferred until a future date. This is being done to enhance rate stability.

As discussed in a later section, NP is also proposing to tax effect it future employee benefit expenses, including its OPEB expense. This will reduce the impact on rates of changing from the cash to the accrual method.

Table 1 sets out the impact of NP's proposal on its revenue requirement in 2008. With the accrual method, NP's OPEB expense is expected to be \$7.5 million.

Adopting the accrual method will affect NP's rate base. The OPEB expense, and the amount NP is allowed to recover from customers, will exceed its current OPEB payments. The cumulative difference will equal the difference between its OPEB Liability and its OPEB Regulatory Asset. As discussed in a later section, where NP is allowed to recover costs prior to payment, the amounts should be deducted from rate base

Impact on Revenue Requirement of Recognizing OPEB Expense on Accrual Basis 2008 (\$ million)			
OPEB Expense - Accrual Basis	7.5		
Reduction in Allowed Return	(0.3)		
	7.2		
Recovery of Additional Taxes	3.3		
Rev. Req. W/O Tax Effecting	10.5		
Impact of Tax Effecting			
Decrease in Tax Expense	(3.1)		
Increase in Financing Costs	0.1		
	(3.0)		
Total Revenue Requirement	7.5		
OPEB Expense - Cash Basis	<u> </u>		
Increase in Revenue Requirement	6.4		

Table 1

until payment is made. Accordingly, NP is proposing to reduce its rate base by what NP is referring to as its Accrued OPEB Liability¹⁰ – this amount will equal the cumulative difference between the amount of OPEBs NP has expensed and what it has paid out on account of its OPEBs (i.e., the amount by which the OPEB Liability in its financial statements exceeds the OPEB Regulatory Asset in its financial statements).

The reduction in rate base will reduce NP's financing costs. In 2008, this decrease is estimated to be \$0.3 million. NP's Accrued Benefit Liability is expected to rise in future years resulting in further reductions in its rate base and financing costs.

¹⁰ This issue is addressed in the section "Adjustments to Rate Base".

NP currently uses the flow-through method in recognizing the tax deductions related to future employee benefits. With this method, the change to the accrual basis for recognizing OPEB expense would increase the amount included in NP's revenue requirement to cover its income taxes. There are three components to this net increase

- NP receives a tax deduction for only the cash payments it makes on account of OPEBs. Since the revenue required to cover the accrual expense is greater than its cash payments, NP's taxable income will increase by the difference.
- A portion of NP's allowed return consists of return on equity which is taxable. Reducing NP's allowed return will reduce its equity return and the associated income taxes.
- Increasing rates to cover an increase in income tax costs will further increase NP's taxable income resulting in a further increase in its income tax costs.

It is expected that the net effect would be an increase in its income tax costs of \$3.3 million in 2008.

NP's proposal to tax effect its post employment benefit expenses will result in a decrease in the amount of tax it recovers through current rates on account of its OPEB expense. Since this will reduce taxable income, there will be a further reduction in NP's revenue requirement. The overall impact is expected to be a reduction in revenue requirements of about \$3.1 million in 2008.

Tax effecting NP's OPEB expense will tend to increase its financing costs. With tax effecting, NP will pay more in taxes than it recovers in current rates with the expectation that it will recover the difference through future rates. The difference must be financed until NP has an opportunity to recover the costs from customers, and therefore, should be included it its rate base. This will result in an increase in the allowed return included in its revenue requirement. Since a portion of the allowed return consists of equity return that is taxable, this will result in a further increase in the income tax cost included in its revenue requirement. In 2008, the overall impact will be small and is expected to be \$0.1 million.

Considering all of the above, under the accrual basis, the total revenue requirement due to OPEBs will be \$7.5 million in 2008

Under the cash basis, the impact of OPEBs on NP's revenue requirement would equal its OPEB payments less the amount capitalized, which are expected to be \$1.1 million in 2008. Therefore the net effect on NP's revenue requirement from changing to the accrual basis is forecast to be \$6.4 million in 2008.

As noted above, changing to the accrual basis will have impacts on NP's rate base. The impacts are set out in Table 2.

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Impact on Rate Base of Recognizing OPEB Expense on Accrual Basis 2008 (\$ million)		
Accrued OPEB Liability	(6.3)	
Future Tax Asset	2.0	
Capital Assets	(0.1)	
Change in Rate Base	(4.4)	
Change in Average Rate Base	(2.2)	

Table 2

At January 1, 2008, both the OPEB Regulatory Asset and the OPEB Liability will be \$34.1 million. However, with OPEB expense exceeding OPEB payments, the OPEB liability will increase over time while the OPEB Regulatory Asset will remain the same¹¹. The difference will represent the amount that NP has had an opportunity to recover in rates on account of future payments. The net effect (i.e., the Accrued OPEB Liability) will be a decrease in rate base of \$6.3 million in 2008.

Tax effecting the OPEB expense will result in a future tax asset that is expected to be \$2.0 million in 2008.

The overall impact for 2008 is expected to be a decrease of \$4.4 million in NP's year-end rate base and \$2.2 million in its average rate base.

ANALYSIS

In determining whether to shift to the accrual method for recognizing OPEBs, the key regulatory principles are the cost of service standard, the principle of intergenerational equity and the principle of rate stability and predictability. Other factors to consider are general regulated utility practice and consistency in the treatment of future employee benefits.

¹¹ Until such time as the Board decides that it should be amortized and recovered through rates.

Cost of Service

Consistent with the cost of service standard, NP's proposal will allow it to recover only its cost of service.

NP's proposal changes the period in which it recognizes its OPEB costs, but not the amount. By advancing the recovery of OPEB costs, it will reduce its financing costs, but NP is proposing that the net reduction in its financing costs be used to reduce its revenue requirement.

Intergenerational Equity

The principle of intergenerational equity supports the use of the accrual method. Consistent with this principle, the accrual method results in a better matching of costs to the periods for which the costs are incurred. It results in current customers paying for the future OPEB costs resulting from providing service in the current period. With the cash method, customers pay for the OPEB costs as they are incurred, even though those costs may result for providing service to customer years, or even decades, earlier.

This principle has been recognized by other regulatory tribunals in approving the accrual basis for recognizing OPEB's. For example, in a 2004 decision dealing with BC Hydro, the British Columbia Utilities Commission ("BCUC") stated:

The Commission Panel finds that the accrual method does provide a better matching of costs to the period in which the service was provided. The Commission Panel further notes that the requested change from the cash basis to the accrual basis of accounting for post retirement benefits will not, in this instance, have a significant affect on rates. ... The Commission Panel approves the accounting change from the cash method to the accrual method for post-retirement benefits.¹²

In a 2001 decision dealing with Union Gas, the Ontario Energy Board stated:

The Board recognizes that Union's proposal to change from a cash basis to an accrual basis for accounting for pensions and post-retirement benefits reflects a change in GAAP that has been adopted by the CICA and accomplishes the objective of matching the costs to the period in which the obligations arose. There was limited opposition to this change and further, in the Board's view, this may remove some potential variation in this expense. The Board accepts this changed practice for rate-making purposes.¹³

¹² BCUC; <u>British Columbia Hydro And Power Authority 2004/05 to 2005/06 Revenue Requirements</u> <u>Application and British Columbia Transmission Corporation Application for Deferral Accounts</u>; October 29, 2004; pg. 168.

¹³ Ontario Energy Board; Decision With Reasons - RP-1999-0017; July 21, 2001; pg. 69.

Changing to the accrual method will result in transitional costs which raises issues of intergenerational equity. The transitional costs must be recovered prospectively although they relate to services provided in past periods.

Intergenerational equity would normally require that costs related to past periods be recovered as quickly as is reasonable so that the customers that eventually pay for the costs are the same as those that benefited from their incurrence.

In the case of the transitional costs associated with the transitional obligation, the costs accumulated over a long period ending on December 31, 1999. In this case, many of the customers of the periods that gave rise to the costs are no longer around and intergenerational equity is better met by spreading the cost over an extended period so as to minimize the burden placed on the customers of any one period.

NP's treatment of the transitional obligation that will be unamortized for financial reporting purposes on January 1, 2008, is consistent with the above. The balance will be amortized on a straight-line basis over a ten-year period – i.e., approximately 1/18 of the transitional obligation will be amortized in each year. Before considering the impact on financing costs, it will increase NP's revenue requirement by \$2.2 million per year (\$1.4 million of amortization plus the effect on income taxes).

In the cases of the costs associated with the OPEB Regulatory Asset less the amortization of the transitional obligation, the costs arose over a relatively recent period. Accordingly, the principle of intergenerational equity would require that they be recovered as soon as is practical. However, as discussed below, consideration should be given to the impact on rates and the principle of rate stability and predictability.

Rate Stability & Predictability

NP's reluctance to implement the accrual method at an earlier date has been due to concerns over rate stability. Although NP is proposing to change to the accrual method and to begin to deal with the transitional costs, it is still concerned about rate stability and the impact on customers. As a result it is proposing that amortization of the OPEB Regulatory Asset be deferred until a future date.

NP's proposal will require a rate increase of 5.3%. With inflation in the range of 2% to 2.5%, the proposed increase is higher than inflation, but not unduly. However, further deferring the shift to the accrual method will increase the OPEB Regulatory Asset and the amount of deferred costs that will have to be recovered from future customers.

If NP were to amortize the OPEB Regulatory Asset over the remaining period that the transitional obligation is being amortized (i.e., 10 years), it would require an additional \$3.2 million in revenue before considering the impact on taxes, and \$5.0 million after¹⁴. This translates into an additional rate increase of almost one percentage point.

¹⁴ Both amounts reflect a small decrease in financing costs.

Also, with the accrual method, the OPEB expense will exceed the OPEB payments resulting in a reduction in rate base and the cost of financing the rate base. Primarily due to the decrease in financing costs, the impact of OPEBs on NP's revenue requirement is expected to fall by about a half million dollars per year. These decreases will help to create room to deal with the OPEB Regulatory Asset in the future.

Industry Practice

A noted above, with the issuance of section 3461 and the requirement to recognize OPEB costs on an accrual basis for financial reporting purposes, several Canadian utilities have adopted the accrual basis for rate setting purposes.

Consistency

NP's proposal will result in all of its future employee benefits being treated on a consistent basis – i.e., OPEBs and pension costs.

CONCLUSION

NP's proposal to change from cash to the accrual basis in recognizing OPEB costs for regulatory purposes is consistent with the cost of service standard since it will allow NP to recover its costs of providing service, but only its costs of providing service.

The change from the cash to the accrual basis results in a better matching of costs to the periods in which the related services are provided. The change is therefore supported by the principle of intergenerational equity.

A change to the accrual method gives rise to transitional costs: the unamortized transitional obligation and the OPEB Regulatory Asset. Amortizing the remaining unamortized transitional obligation over approximately 10 years is consistent with the principle of intergenerational equity. On its own, the principle of intergenerational equity would support the amortization of most of the OPEB Regulatory Asset over a short period. However, this would have a significant impact on rates. In addition, the impact of changing to the accrual method will decrease over time, making it easier to accommodate the amortization of the OPEB Regulatory Asset at a future date. NP's proposal to defer the amortization of its OPEB Regulatory Asset is a practical solution that recognizes the principle of rate stability and predictability.

Although there are utilities that still use the cash basis, a significant number of the major Canadian utilities now employ the accrual basis. Also, adopting the accrual basis will result in a consistent treatment of all NP's future employee benefits.

Therefore, NP's proposal to adopt accrual accounting for its OPEB expense but defer treatment of its OPEB Regulatory Asset at December 31, 2007 is consistent with established regulatory principles and appropriate in the context of NP.

TAX EFFECTING POST EMPLOYMENT BENEFITS

With both NP's pension and OPEB expense, the associated tax deduction (and related impact on income taxes) is currently recognized for regulatory purposes when it is received and used to reduce NP's tax payments (i.e., flow-through method). This occurs when the cash is paid to fund or pay the future employee liabilities.

NP is proposing to tax effect its post employment expenses effective January 1, 2008. This means that it would recognize the tax savings associated with the future employee benefits on an accrual basis, i.e., when the related expense is recognized.

NP has asked me if its proposal to tax effect its future employee benefits is consistent with established regulatory principles and appropriate in the context of NP.

BACKGROUND

The tax authorities do not always recognize revenues and expenses in the same period as accountants. For example, capital cost allowance (i.e., depreciation for tax purposes) is usually recognized on a different basis than depreciation. Capital cost allowance ("CCA") is usually higher than depreciation in the early years of an asset's life, but this is offset by lower CCA in the later years. The total amount deducted for both CCA and depreciation is the same, what is different is the amount deducted in a given period.

With these timing differences, a portion of taxable income is recognized in a different period than the associated accounting income, resulting in some taxes being payable in a period other than the period in which the related income is considered earned for accounting purposes.

Even though the total amount expensed for tax and accounting purposes is the same, timing difference produce a financial benefit or cost. Where the payment of taxes is deferred, a utility has the use of the funds it would otherwise pay in taxes until the taxes are actually paid. This decreases its financing costs. Where the payment of taxes is accelerated, a utility's funding requirements are increased over the period that payment is accelerated. This increases its financing costs.

Under GAAP, most companies must report their income tax expense on an accrual basis. This means that companies report their income tax expense related to the income earned in the current period, regardless of when the taxes become payable. For example, where CCA on a new asset exceeds the current depreciation expense, current taxable income and the related taxes are reduced but this is offset by an increase in future taxable income and related taxes. Under the accrual method, the increase in future income taxes is recognized as a liability and expensed in the current period.

It is a common practice for Canadian energy utilities to employ the flow-through method for recognizing their income tax expense for regulatory purposes. With this method, income tax expense is recognized in the period that it becomes payable, regardless of the period to which it relates.

Although energy utilities tend to use the flow-through method, there are cases where Canadian energy utilities use, or partially use, the accrual method. Also the Canadian Radio-television and Telecommunications Commission ("CRTC") held the view that the telecommunications companies regulated by it should use the accrual method. The CRTC had considered the flow-through method, but rejected it¹⁵.

NP currently uses a combination of the accrual and the flow-through methods. It uses the flow-through method except that it recognizes timing differences related to:

- its reserves; and
- capital assets, excluding GEC, so long as the timing differences do not result in a tax asset.

At the current time, the CICA Handbook allows regulated utilities to uses the flowthrough method for financial reporting purposes where they use that method in setting rates and certain conditions are met. It is expected that this exception will soon be removed and all companies will have to use the accrual method for financial reporting purposes. However, this change will not affect reported income. Utilities currently using the flow through method for financial reporting purposes will recognize a regulatory asset equal to their future income tax liability arising from the accrual method, or a regulatory liability equal to their future income tax asset¹⁶.

NP'S PROPOSAL

NP is proposing to tax effect its future employee benefit expenses - i.e., apply the accrual method to the recognition of income tax savings related to its pension and OPEB expenses. On a going forward basis, tax deductions would be recognized in the same period the related future employee benefit expenses are recognized.

There is the issue of past timing differences that have not been recognized and that have not yet reversed. NP is proposing that the impact of these past timing differences on future income taxes recoverable be recognized as they normally would under the flow through method - i.e., they would be recovered on the same basis as they would under the current accounting policy.

On a going forward basis, where an expense is less than the related income tax deduction due to a timing difference, current income taxes payable would be less that the current income tax expense – i.e., NP would pay less for income tax than it had an opportunity to

¹⁵ CRTC; Telecom Decision CRTC 89-9 - Deferred Tax Liability; July 17, 1989.

¹⁶ At the current time, utilities essentially net their future income tax liabilities and future income tax assets against their related regulatory assets and liabilities.

recover from customers in that period. This difference would be credited to its future tax liability (an increase) or future tax asset (a decrease) as appropriate.

Where the expense exceeds the deduction due to a timing difference, current income taxes payable would exceed the current income tax expense – i.e., NP would pay more income tax than it had an opportunity to recover from customers in that period. This difference would be debited to its future tax liability (a decrease) or future tax asset (an increase) as appropriate.

Any future tax liability would equal the amount NP had an opportunity to collect from customers to pay for future income taxes. It would represent funds supplied by customers that were available to finance NP's rate base. Accordingly, the future tax liability would be deducted in determining NP's rate base. Any future tax asset would represent a cost paid by NP that it had not yet had an opportunity to recover from customers. Accordingly, it would be added in determining NP's rate base.

Table 3 sets out the expected impact in 2008 from tax effecting NP's future employee benefits.

In the case of pensions, the expense will be less than the current deduction. Therefore, NP's proposal will increase its revenue requirement related to pensions. The increase is expected to be \$0.5 million. Since the recovery of future income taxes will increase its current taxable income, there will be a further increase in its tax expense of \$0.3 million. It will also contribute to the build up of its future income tax liability that will reduce its rate base and financing costs. This will result in a reduction of \$30,000.

In the case of the OPEBs, the expense will exceed the current tax deduction. Therefore, NP's proposal will reduce its revenue requirement related to OPEBs. The reduction is expected to be \$2.0 million before considering income taxes and \$3.1 million after. It will also result in a build-up of a future income tax asset which will increase its rate base and financing costs. This will result in an increase of \$0.1 million.

The overall impact on NP's revenue requirement in 2008 is expected to be a decrease of \$2.2 million.

Impact on Revenue Requirement Tax Effecting Future Employee Benefits 2008 (\$ million)		
Pension Costs		
Future Income Taxes	0.5	
Tax effects	0.3	
	0.8	
Impact on Financing Costs	(0.0)	
	0.8	
OPEB Costs		
Future Income Taxes	(2.0)	
Tax effects	(1.1)	
	(3.1)	
Impact on Financing Costs	0.1	
	(3.0)	
Total Revenue Requirement	(2.2)	

Table 3

ANALYSIS

In considering NP's proposal to employ the accrual method for recognizing income taxes related to its future employee benefits, the key regulatory principles are the cost of service standard, the principle of intergenerational equity and the principle of rate stability and predictability.

Cost of Service

The accrual method for recognizing income taxes is consistent with the cost of service standard – at least where the future tax assets and liabilities are included in the determination of rate base.

With the accrual method, a utility is allowed the opportunity to recover only its estimated income taxes.

With the accrual method, there may be additional financing costs, or reductions in financing costs, that should be passed on to customers in accordance with the cost of service standard.

- Where the tax expense that a utility is allowed to recover through rates is less than the expected tax payments, the utility will have to fund the difference until it is able to collect the difference from customers. This will increase the utility's investment and financing costs.
- Where the tax expense that a utility is allowed to recover through rates exceeds the expected tax payments, the utility will have the use of the difference until it has to pay the difference. This will decrease the utility's investment and financing costs.

By adding any future tax asset to its rate base and deducting any future tax liability, NP's proposal will result in any change in estimated financing costs being passed on to ratepayers in accordance with the cost of service standard.

Intergenerational Equity

The principle of intergenerational equity supports the use of the accrual method for recognizing income taxes. With the accrual method, tax savings are matched with their associated expense and reduce the net cost in the period that the related service is provided, regardless of the period in which the expense is deducted for tax purposes. With the flow-through method, the tax savings may be passed on to customers years before, or after, the period in which the related service is provided and the expense is recovered from customers.

Rate Stability & Predictability

NP's proposal to employ the accrual method for recognizing income taxes related to its post employment benefits will help to enhance rate stability and predictability. The resulting reduction in current income tax expense will help to offset the increase in revenue requirement required by adopting the accrual method for recognizing OPEB costs.

Counter Argument

It appears that the main reason for using the flow-through method is the belief that deferred taxes can be deferred indefinitely. For example, in "Principles of Public Utility Rates (Second Edition)", Bonbright et al. state:

The main argument for a commission's refusal to make any deferred-tax allowance in a rate case – for the flow-through principle – is that, as long as the tax law remains unchanged and as long as additions to depreciable corporate assets exceed

retirements, the tax deferment will be continuous and hence amount, in effect to a permanent tax savings. ¹⁷

It should be noted that a tax deferral associated with a particular cost is not indefinite. For example, in the case of the accelerated write off of capital assets for tax purposes, the CCA exceeds depreciation expense in the early years, but this will be reversed over the life of the asset¹⁸. The tax deferral can only be extended by acquiring new assets – i.e., offsetting the increase in taxes with deductions related to a new cost.

Even if it is accepted that future taxes can be permanently deferred, there is the issue of how the resulting benefits should be allocated to periods. Consider the case of the accelerated write-off of capital costs for tax purposes. With the flow-through method, the benefits flow to the customers only in the earlier years of an asset's life and only if there is a net increase in deferred taxes. In the later years of the asset's life, or over the life of the assets that are required to maintain the deferral, there is no benefit. This point was recognized by Bonbright et al.:

But under flow-through, the major benefit of the tax reduction would go to the earlier ratepayers, in the years in which the tax payments have been reduced, instead of being apportioned among ratepayers more nearly in proportion to their relative responsibility for payments for services resulting in eventual tax liabilities.

A claimed advantage for the flow-through method is that it tends to result in lower rates, at least as long as the timing differences result in the tax deductions exceeding the associated expense. However, in the case of the OPEB expense, the expense will exceed the tax deduction for the foreseeable future. As a result, the flow-through method will result in higher rates, at least as it relates to OPEBs.

CONCLUSION

Tax effecting future employee benefit expenses (i.e., the accrual basis) is consistent with the cost of service standard, the principle of intergenerational equity and the principle of rate stability and predictability.

The flow-through method for recognizing income taxes is widely used in setting the rates for Canadian rate regulated entities, especially energy utilities. However, this method is not universally applied and there are a number of examples where the accrual method has been used.

Therefore, NP's proposal to tax effect its future employee benefits is consistent with established regulatory principles and appropriate in the context of NP.

¹⁷ Bonbright et al.; <u>Principles of Public Utility Rates (Second Edition)</u>; (Public Utilities Reports, Inc.; Arlington Virginia; 1988); Pg. 288-289.

¹⁸ CCA is usually calculated on a declining balance basis. As a result, a portion of the timing difference will extend beyond the life of the asset.

AMORTIZATION OF REGULATORY DEFERRALS

NP is proposing to amortize certain deferred revenues and deferred costs ("Specified Deferrals") over a period of five years.

NP has asked me if its proposed amortization of the Specified Deferrals set out in Table 4 is consistent with established regulatory principles and is appropriate in the context of NP.

BACKGROUND

At the end of 2007, NP is expected to have the deferred revenues and deferred costs (i.e., the Specified Deferrals), which are set out in Table 4.

Deferred Revenues & Costs December 31, 2007 (\$ million)	
Deferred Revenues	
Unrecognized 2005 Unbilled Revenue	16.4
Municipal Tax Liability	4.1
	20.5
Deferred Costs	
Depreciation True-up Deferral	11.6
Replacement Energy Cost Deferral	1.1
	12.7
Net	

Table 4

The two deferred revenue balances are being treated as amounts collected from customers to meet future revenue requirements, and in effect, timing differences¹⁹. Instead of flowing to the benefit of shareholders, these amounts have been recognized as regulatory liabilities. The two deferred cost amounts represent costs of providing service that NP has not yet had an opportunity to recover from customers.

Unrecognized 2005 Unbilled Revenue

In 2005, the Board approved a change in NP's revenue recognition policy, from the billed to the accrual method²⁰, effective January 1, 2006. As a result of this change in policy, NP recognized its unbilled revenue at the end of 2005 ("UUR") as revenue collected to meet future revenue requirements. By the end of 2007, the unamortized UUR (i.e., the amount of the UUR that will not have been used to offset NP's revenue requirements) is expected to be \$16.4 million.

NP had also used the billed method for tax purposes. As a result of an agreement with the Canadian Revenue Agency ("CRA"), NP was required to adopt the accrual basis for tax purposes effective January 1, 2006. As part of the agreement with CRA, NP was required to recognize its unbilled revenue at December 2005 as taxable income in equal instalments over a three year period beginning in 2006. The last instalment in 2008 is expected to require additional tax payments of \$2.6 million.

Most of the UUR that will have been amortized by the end of 2007 will have been recognized to cover the income taxes related to the UUR.

Municipal Tax Liability

The municipal tax liability ("MTL") represents revenues collected on account of municipal taxes that are being treated as amounts collected from customers to meet future revenue requirements. These amounts are currently being used to reduce NP funding requirements and the related financing costs that are passed on to ratepayers.

Depreciation True-up Deferral

At NP's last GRA proceeding, it was determined that there was a depreciation reserve variance of \$17.2 million. In Order No. P.U. 19 (2003), the Board approved the amortization of this variance over a three year period beginning in 2003, resulting in an annual reduction in NP's depreciation expense of \$5.8 million per year. With the end of the amortization period, the Board allowed NP to defer recovery in each of 2006 and 2007 of the amount of depreciation previously covered by the amortization of the

¹⁹ The amounts are timing differences in that the costs to be covered by the revenues will be incurred in a different period than the one in which the revenues where recovered.

²⁰ Newfoundland & Labrador Board Of Commissioners Of Public Utilities; <u>Order No. P.U. 40(2005)</u>; December 23, 2005; pg. 8.

depreciation reserve variance. By the end of 2007, these two deferrals will amount to \$11.6 million.

Replacement Energy Cost Deferral

As a result of the refurbishment of the Rattling Brook hydroelectric plant in 2007, NP has estimated that it will have to spend an additional \$1.8 million in purchasing power from Newfoundland & Labrador Hydro ("Hydro"), with an after-tax impact of \$1.1 million. This additional costs had not been contemplated when NP's existing rates were set. As a result, in Order No. P.U. 39 (2006), the Board approved the deferred recovery of \$1.1 million in after-tax replacement energy costs associated with the Rattling Brook hydroelectric plant.

NP'S PROPOSAL

NP is proposing that \$2.6 million of the UUR be used to offset the income taxes payable in 2008 as a result of the UUR. It is proposing that the remaining deferred revenue and deferred cost balances discussed above be amortized in equal amounts over a five-year period beginning in 2008.

Excluding the amount of the UUR that will be used to offset income taxes in 2008, the net amortization will amount to \$1 million per year. After considering the income taxes effects, this will decrease NP's revenue requirement in each of the five years by \$1.2 million.²¹

ANALSYSIS

The key regulatory principles related to the treatment of the Specified Deferrals are the cost of service standard, the principle of intergenerational equity, and the principle of rate stability and predictability. Consideration should also be given to the impact of any amortization on NP's financial integrity.

Cost of Service

The cost of service standard requires that a utility be given the opportunity to recover its costs for providing regulated service, including a fair return on its investment devoted to regulated operations – no more, no less.

In the case of the deferred revenue balances, the amounts are being treated as revenue collected to meet future revenue requirements. Therefore, using these balances to reduce the cost of service recoverable from rates is consistent with the cost of service standard.

²¹ These savings will be partially offset by an increase in financing costs. The net effect of the amortizations will be to increase NP's rate base, and therefore, its financing costs.

In the case of the deferred cost balances, by January 1, 2008, the balances will represent costs that NP has incurred but not yet had an opportunity to recover, Therefore, in accordance with the cost of service standard, NP should be given an opportunity to recover these costs.

Intergenerational Equity

The principle of intergenerational equity helps to determine when costs should be recovered. It requires that customers in a given period should pay only the costs necessary to provide them with service in that period. If costs cannot be recovered in the period for which they were incurred, they should generally be recovered as close to the period for which they were incurred as is reasonable.

Where costs are not recovered in the period for which they were incurred, recovery within a period of three to five years is often viewed as reasonable. With three to five years, the customers who pay for the costs tend to be the same as those you benefited from the incurrence of the costs. It tends to mitigate the impact on rate stability and predictability (discussed below). It also spreads the burden over a number of periods. Since the costs apply to a past period, it may be deemed more equitable to spread the burden over several periods. Similar reasoning applies to an amortization period of three to five years for deferred revenues.

In 2008, NP must pay \$2.6 million in taxes related to the UUR. Therefore it is consistent with the principle of intergenerational equity for NP to match part of the UUR with that payment and amortize an amount sufficient to cover it.

In the case of the remaining UUR, the amounts were built up over an extended period going back decades²². In the case the MTL, the effective timing difference arose almost 20 years ago. Since many of the customers who paid for the build-up of these deferred revenues are no longer customers, the issue of intergenerational equity is not as important as it would be if the build up were more recent. As a result, there could be an argument for a longer deferral and greater weight should be given the principle of rate stability and predictability; however, amortization over a three to five year period would not be inconsistent with the principle of intergenerational equity.

The deferred costs will be recent costs in 2008, having arisen in 2006 and 2007. Therefore, amortization over a three to five year period would be consistent the principle of intergenerational equity.

²² The revenue available to cover future revenue requirements due to the use of the billed method arose over the entire period that the billed method was used. Within each year, the net increase in the revenue available to meet future revenue requirements was equal to the difference between the unbilled revenue at the beginning and the unbilled revenue at the end of the year.

Rate Stability

The principle of rate stability and predictability requires that rates should be stable and predictable, at least to the extent practical.

The amortization of a portion of the UUR to cover taxes on the UUR would tend to enhance rate stability and predictability. It would offset a cost related to the UUR.

NP proposed amortization of the remaining net balance of the deferrals over a five year period beginning in 2008 would amount to about \$1 million a year before taxes. After considering taxes, the impact would be \$1.2 million, or 0.2% of NP's total revenue requirement. Therefore it would not have a material effect on rates during the amortization period nor require a significant increase in rates at the end of the amortization period.

Financial Integrity

Financial integrity is important not only for a utility but also its customers. Where it is reduced, a utility's cost of capital may rise, a cost that in accordance with cost of service standard should be passed on to customers. A reduction may even jeopardize a utility's ability to raise capital required to provide regulated services. A factor affecting a utility's financial integrity is its cash flow.

The net impact of NP's proposal will be a reduction in cash from rates. When a deferred revenue is amortized, part of a utility's revenue requirement is met through the amortization, which does not produce any cash, rather than rates charged to customers. The amortization of NP's deferred revenue balances will be partially offset by the amortization of the deferred cost balances. However, the net effect will be a reduction in its cash flow.

As set out in the evidence of the Company, NP believes that its proposals will allow it to maintain a reasonable level of financial integrity.

CONCLUSION

NP's proposed amortization of the Specified Deferrals (UUR, MTL, Depreciation Trueup, and Replacement Energy Costs) is consistent with the cost of service standard, the principle of intergenerational equity, and the principle of rate stability and predictability. It is also expected that it will not have a material impact on its financial integrity.

Therefore, NP's proposed amortization of the Specified Deferrals is consistent with established regulatory principles and is appropriate in the context of NP.

AMORTIZATION OF RESERVE BALANCES

INTRODUCTION

At December 31, 2006, NP's Degree Day Normalization Reserve ("Degree Day Component") had a debit balance of \$6.8 million and its Purchased Power Unit Cost Variance Reserve ("Unit Cost Reserve") had a credit balance of \$1.3 million. NP is proposing to amortize these amounts over five years.

NP has asked me whether its proposed amortization of the balances in the Degree Day Component and the Unit Cost Reserve over a five-year period is consistent with generally accepted regulatory principles and appropriate in the context of NP.

BACKGROUND

Both the Degree Day Component and the Unit Cost Reserve reduce the variability in NP's income, and therefore the risk that the utility faces. This tends to reduce NP's cost of capital, which is passed on to customers through allowed rates.

Degree Day Normalization Reserve

The Weather Normalization Reserve reduces the volatility in NP's earnings due to variations in hydrology and weather, factors that are outside of NP's control. It has two components:

- the Hydro Production Equalization Reserve adjusts NP's purchase power costs for variations in hydro production due to precipitation levels that are either above or below normal in any given year; and
- the Degree Day Component adjusts NP's revenue and purchase power costs for the effects of abnormal weather conditions.

The intention is that the transfers to and from each of the reserves will net to zero over time; however, this may not be the case.

In 2005 there was a change in the pricing structure for the power that NP purchases from Hydro and more recently there was an increase in the marginal cost of that power. As a result of these changes, the Company believes that it is likely that the balance in the Degree Day Component will not reverse. Should the conditions that would normally result in a reversal arise, NP believes that it is likely that the balance would actually increase

In its last GRA, NP presented evidence that \$5.6 million in its Hydro Production Equalization Reserve would not reverse. The Board accepted NP proposal to amortize the \$5.6 million over five years, resulting in an annual amortization charge of \$1.1 million. This five-year amortization period ends in 2007.

In accepting NP's proposed amortization period of five years, the Board stated:

... the Board accepts that five years is a reasonable recovery period which will allow NP to recover its costs while minimizing the impact on consumers. The Board is reluctant to extend recovery of any outstanding balance longer than necessary....²³.

Purchased Power Unit Cost Variance Reserve

As noted above, in 2005 there was a change in the pricing structure for the power NP purchases from Hydro. Instead of a single energy charge rate, NP now pays a demand charge and a two-tier energy rate. The second tier rate is paid on energy purchases above a set level and reflects Hydro's marginal cost of production.

With this pricing structure, NP's cost of power per kwh can vary due to variations in both energy purchased and peak demand from the estimates used in setting NP's rates. This tends to increase the variability in NP's earnings and the risk that it faces. As a result of the change in pricing structure, the Board approved a reserve (i.e., the Unit Cost Reserve)²⁴.

The Unit Cost Reserve is charged with, or credited with, the energy cost variance in excess of a deadband. The energy cost variance is equal to the normalized actual amount of energy purchased in kwhs times the difference between the forecast cost of purchased power per kwh and the actual normalized cost.

At the end of 2006, there was a credit in the reserve account of \$1.3 million. The entire balance arose in 2006.

NP'S PROPOSAL

NP believes that the Degree Day Component is still relevant and will tend to reverse itself on a going forward basis. However, due to changes in the rates charged by Hydro, the balance of \$6.8 million in the reserve at the end of 2006 is not likely to reverse. It is therefore proposing to amortize this \$6.8 million over a five-year period beginning in 2008. Five years was chosen because it is consistent with the amortization period that the Board approved for the amortization of the non-reversing portion of the Hydro Production Equalization Reserve.

NP is also proposing to amortize the credit balance in the Unit Cost Reserve of \$1.3 million over five years.

Under NP's proposal, the net amount to be amortized for these two reserves would be \$5.5 million (i.e., \$6.8 million - \$1.3 million = \$5.5 million) and the net amount

²³ Newfoundland & Labrador Board of Commissioners of Public Utilities; <u>Order No. P.U. 19 (2003)</u>; June 20, 2003; pg. 79.

²⁴ Newfoundland Board of Commissioners of Public Utilities; P.U. 44(2004; pg. 13.

amortized each year would be \$1.1 million a year. After accounting for income taxes, the impact on NP's revenue requirements would be \$1.7 million per year.

The net addition to revenue requirements from the above amortizations would be offset by the end to the amortization related to the Hydro Production Equalization Reserve, which ends in 2007. This amortization is essentially equal to the net amount of the proposed amortizations (i.e., \$1.7 million)

ANALYSIS

The key principles related to NP's proposed amortization of the balances in the Degree Day Component and the Unit Cost Reserve are the cost of service standard, the principle of intergenerational equity, and the principle of rate stability and predictability.

Cost of Service Standard

Rates are normally set prospectively. Consistent with the cost of service, rates are set so that a utility will have an opportunity to recover its expected costs.

Since rates are set prospectively, a utility normally bears the risk that actual costs may vary from what was expected in setting rates. However, as long as the possibility of recovering more than its costs is offset by the possibility of recovering less, and the utility is adequately compensated for the resulting risk, the cost of service standard is met.

Higher risk results in a higher cost of capital that should be passed on to customers in accordance with the cost of service standard. Therefore regulators often create variance accounts such as the Degree Day Component and the Unit Cost Reserve. The variances captured by these accounts, whether positive or negative, are included in the determination of future rates. This does not change the expected earnings of the utility, (other than reductions due to lower risk) but reduces the variability of its earnings and the risk that it bears.

Where costs are subject to a variance account, rates are set on the basis that any variance (or the portion of the variance covered by the account) will be recovered from or returned to customers. In return for avoiding the impact of a negative variance, a utility forgoes the opportunity to benefit from a positive variance. The inclusion of variances in the determination of future rates is part of the overall opportunity to recover the cost of service. Therefore, if a utility is not allowed an opportunity to recover charges to a variance account, it will not have an opportunity to recover its cost of service. Similarly, if a utility is allowed to retain a credit balance in a variance account for the benefit of its shareholders, it will have an opportunity to recover more than its cost of service.

The balance in the Degree Day Component represents a cost of providing regulated service that NP has not yet had an opportunity to recover. It was expected that the balance would be offset by credits in other periods; however, due to changes outside NP's control, it is now expected that \$6.8 million in charges will not reverse. Presumably, if there were a non-reversing credit balance in the account, NP would not be

allowed to flow the benefit through to its shareholders. In accordance with the cost of service standard, NP should have a reasonable opportunity to recover the balance through allowed rates.

The balance in the Unit Cost Reserve represents a positive variance and rates were set on the basis that any positive variance would be returned to customers. Therefore, consistent with the cost of service standard, the balances should be refunded to customers²⁵.

The issue is in what period should it recover the non-reversing amount in the Degree Day Component and refund the balance in the Unit Cost Reserve?

Intergenerational Equity

The non-reversing amount in the Degree Day Component represents costs of providing service in previous periods, with most of the build up of the reserve balance occurring in the last few years. Since it is not possible to adjust past rates, it would normally be appropriate to recover the balance through rates over as short a period as is reasonable, such as within a period of three to five years, so that the customers who eventually pay the additional costs are largely the same as those who benefited from the incurrence of the costs.

However, consideration of equity between periods would also support amortization of the balance in the Degree Day Component over a period greater than one or two years. The charges and credits to the reserve were expected to balance out. However, NP has found that there is a need for an adjustment. Although there may be a need for other adjustments in the future, these types of adjustments would tend to occur periodically and not annually. Since these types of adjustments are expected to occur only periodically, it would be more consistent with maintaining equity between the customers of different periods to spread the adjustments (whether a charge or a credit) over a period of time rather than having the full amount of the adjustment reflected in the rates for the customers of a single period.

The balance in the Unit Cost Reserve arose in 2006. Consistent with the principle of intergenerational equity, the amount should be returned to customers as quickly as is reasonable, which would normally be within a period of three to five years.

Therefore, NP's proposed amortization of the two amounts over five years is consistent with the principle of intergenerational equity.

²⁵ This assumes that the possibility of refunding a positive balance and the possibility of recovering a negative balance where offsetting, at least under prudent management.

In allowing the Unit Cost Reserve, the Board stated that it would "retain the discretion to determine the disposition of the reserve, taking into account NP's response to the demand and energy rate to reduce system peak". However, it is assumed that it was expected that any variance would be charged to or returned to customers as long as NP acted prudently.

Rate stability & Predictability

NP is proposing to amortize the debit balance of \$6.8 in the Degree Day Component and the credit balance in the Unit Cost Reserve of \$1.3 million over a five-year period starting in 2008. After considering the impact on income taxes, this will result in an increase in revenue requirements of \$1.7 million in each of the five years – about 0.3% of total revenue requirements, and this increase will be offset by the end of the amortization related to the Hydro Production Equalization Reserve. Moreover, the end of the amortization is unlikely to have a material impact on rates. Therefore, even considering the overall rate increase NP is seeking, NP proposals is consistent with the principle of rate stability and predictability.

CONCLUSION

NP's proposed amortization of the non-reversing balance in the Degree Day Component and the balance in the Unit Cost Reserve over a five-year period is consistent with the cost of service standard, the principle of intergenerational equity and the principle of rate stability and predictability.

Therefore, NP's proposed amortization of the balance in the Degree Day Component and the Unit Cost Reserve over a five-year period is consistent with generally accepted regulatory principles and appropriate in the context of NP.

ADJUSTMENTS TO RATE BASE

INTRODUCTION

In 2008, NP will complete its transition to a return on rate base methodology. Consistent with this change, NP is proposing to make a number of adjustments to the determination of its rate base.

NP has asked me if its proposed adjustments to the determination of its rate base are consistent with established regulatory principles and appropriate in the context of NP.

BACKGROUND

NP is moving to an asset rate base methodology from what was essentially a return on investment capital methodology.

With a return on rate base methodology, a utility's allowed return is calculated as its rate base times its weighted average cost of capital (i.e., allowed rate of return). If it is to have an opportunity to earn a fair return in accordance with the cost of service standard, the utility's rate base should reflect its investment in regulated operations²⁶. This investment is essentially equal to the net amount of cash that the utility has had to pay out to provide regulated service but has not yet had an opportunity to recover through rates²⁷.

Under the old methodology for determining NP's allowed return, changes to rate base that were not reflected in invested capital had no impact on NP's return. For example, any increase in rate base was offset by a corresponding decrease in its allowed rate of return on rate base. At least this was the case where the allowed rate of return was being established for a test year within a general rate application ("GRA")²⁸.

In a 2003 decision related to NP's last GRA, the Board decided that NP should move to an asset rate base method:

The Board finds that the Asset Rate Base method should replace the Invested Capital approach currently used to calculate NP's rate base. The move to the Asset Rate Base method will begin in 2003 by incorporating deferred charges in rate base.^{29,30}

²⁶ Where this is not the case, adjustment must be made to the allowed rate of return if a utility is to have an opportunity to earn a fair return.

²⁷ The rate base may also include allowed equity returns that the utility has not yet had an opportunity to recover through rates. For example, the cost of equity in the allowance for funds used during construction ("AFUDC") is included in the cost of the associated assets.

²⁸ For other years, this may not have been the case.

²⁹ Newfoundland and Labrador Board of Commissioners of Public Utilities; <u>Order No. P.U. 19 (2003) -</u> <u>Newfoundland Power Inc. 2003 General Rate Application</u>; June 20, 2003; pg. 71.

NP PROPOSAL

NP is proposing to add the assets in Table 5 to its rate base and to subtract the liabilities in Table 5. These adjustments are necessary if NP's rate base is to equal the net investment that it must finance.

2008 Adjustments to Average Rate Base (\$ million)	
Assets	
Customer Finance Program Receivables	1.7
Liabilities	
Accrued OPEB Liability	3.2
Accrued Pension Liability	3.0
Customer Security Deposits	0.7
Municipal Tax Liability	3.7
	<u>10.6</u>
Net	<u>(8.9)</u>

Table 5

The description of the amounts in Table 5 is as follows:

Customer Finance Program Receivables:

These receivables result from loans to customers related to energy management/conservation programs.

³⁰ Although not specifically defined in the decision, the "Asset Rate Base method" is assumed to be the return on rate base methodology described above.

Accrued OPEB Liability:

This is the cumulative amount of OPEBs that NP will have expensed in excess of OPEB payments and is equal to the difference between the OPEB Regulatory Asset³¹ and the OPEB Liability³² appearing on NP's financial statements.

Accrued Pension Liability:

This is the cumulative amount of pension costs that have been expensed for NP's pension uniformity plan ("PUP") and supplementary employee retirement plan (SERP") in excess of the related payments.

Customer Security Deposits:

This is the amount of customer security deposits received from customers in accordance with the NP's Schedule of Rates, Rules and Regulations.

Municipal Tax Liability:

This is the MTL discussed in the previous section. It represents amounts recognized as revenue collected to meet future revenue requirements.

In addition, NP is proposing that its unamortized Deferred Debt Issue Costs be removed from the determination of its rate base, and instead, be subtracted from the amount of debt used in calculating its average cost of debt. These costs arose in connection with the issuance of NP's debt and the amortization of these costs is currently included in the determination of the NP's cost of debt and WACC. NP is making this change so that the debt related amounts are consolidated.

ANALYSIS OF PROPOSAL

NP's proposed adjustments are consistent with the cost of service standard. With the return on rate base methodology, the allowed return is determined by multiplying the utility's rate base by its allowed rate of return. To meet the cost of service standard, the rate base must reflect what the utility must finance, unless there is an offsetting adjustment to the allowed rate of return.

As of January 1, 2008, the OPEB Regulatory Asset and the OPEB Liability will be the same. However, going forward, the amount by which the OPEB Liability exceeds the OPEB Regulatory Asset (i.e., the Accrued OPEB Liability) will represent that amount

³¹ The OPEB Regulatory Asset is cumulative amount of OPEB costs that has been accrued for financial reporting purposes (in accordance with GAAP) in excess of what has been expensed for regulatory purposes.

³² The OPEB Liability is the cumulative amount that has been accrued for financial reporting purposes (in accordance with GAAP) in excess of OPEB payments.

that NP has had an opportunity to recover from its customers for OPEBs in excess of what it has paid out. It will therefore represent amounts available to finance its operations and should be deducted in determining its rate base.

The Customer Finance Program Receivables represents amounts that NP has paid out but not yet recovered from customers. Accordingly, it represents an amount that must be financed by NP and should be added to rate base.

The Accrued Pension Liability, Customer Security Deposits and the Municipal Tax Liability represent amounts that NP has had the opportunity to recover from its customers to cover costs that it has not yet paid out. They represent amounts that are available to finance its operations and therefore should be subtracted in determining NP's rate base.

The Deferred Debt Issue Costs are a cost of financing NP's operations. Until the costs are amortized and NP has an opportunity to recover them from customers, they must be funded by NP. Therefore it is appropriate to include the unamortized balance in its rate base. However, removing the unamortized balance from both rate base and the debt used in calculating the weighted average cost of capital has essentially the same effect on NP's allowed return³³. It reduces the rate base on which the allowed return is calculated but this is offset by an increase in WACC.

CONCLUSION

NP's proposed adjustments are consistent with the cost of service standard. Except for the deferred issuance costs, the adjustments either add to rate base amounts NP has paid but not had an opportunity to collect from customers or subtract amounts NP has had an opportunity to collect from customers but has not yet had to pay out. These adjustments are necessary if NP's rate base is to reflect the amounts that must be financed to provide regulated service.

In the case of Deferred Debt Issue Costs, removing the unamortized amounts from both rate base and the amount of debt included in the calculation of WACC should have no material impact on its revenue requirement.

Therefore, NP's proposed adjustments to the determination of its rate base are consistent with established regulatory principles and appropriate in the context of NP.

³³ Where rate base is the same as invested capital, the effect would be exactly the same. This is demonstrated using an example in Exhibit JTBC-3.

CASH WORKING CAPITAL

INTRODUCTION

NP has included an allowance for cash working capital in its rate base. To support the determination of this allowance, it completed a lead-lag study based on 2005 data.

NP has asked me whether the methodology it employed for establishing its cash working capital allowance is consistent with established regulatory practice and appropriate in the context of NP.

BACKGROUND

Cash working capital is part of a utility's investment in regulated operations. In most cases, a utility must pay for its cash operating expenses before it collects from customers the revenues intended to cover those costs. From the time the cash is paid out till the time a utility recovers the related revenues, the amount of the costs must be financed by the utility. Therefore it is appropriate to include an allowance for cash working capital in a utility's rate base³⁴.

In discussing the calculation of working capital, Bonbright et al. state:

None of the methods for calculating the working capital allowance will produce a result that is precisely correct. The purpose of the calculation should be to arrive at an amount that is reasonable and contains no obvious defects, and which is not so time consuming to compute that the costs exceeds the benefit. To determine working capital in a retail rate case, a utility may combine cash working capital determined by a lead-lag study, plus average balances of the investment in materials and supplies³⁵

As traditionally defined, a utility's working capital allowance considers only cash working capital plus inventories³⁶, where cash working capital is defined as the investment required to finance cash operating expenses from the time they are paid until the time they are recovered from customers. As a result, it considers only payables associated with cash operating expenses and receivables associated with the revenues intended to recover these costs. Although not a cash operating expenses, it is common practice to consider the financing related to sales taxes such as the HST.

³⁴ Where the revenues related to a cost are recovered before payment is made for the costs, there is a reduction in the net investment in regulated operations. This net reduction should be subtracted in determining a utility's rate base.

³⁵ Bonbright et al.; <u>Principles of Public Utility Rates (Second Edition)</u>; (Public Utilities Reports, Inc.; Arlington Virginia; 1988); pg. 243-244.

³⁶ There may be some other miscellaneous items. For example, where appropriate, there may be an allowance for minimum cash balances.

Most major utilities use a lead-lag study to establish their cash working capital. Other approaches include the balance sheet method and the formula approach, but they are generally viewed as less accurate measurements of the net investment in cash working capital.

With the lead-lag method, a utility determines the average time from payment of cash operating expenses to the time those costs are recovered from customers. This time period is usually broken down into two periods: the revenue lag – which represents the time from the provision of service to the time the related revenues are collected from customers; and the expense lag – which represents the time from the provision of service to the time the related for. The difference between these two periods is divided by 365 to establish the average amount of cash working capital required per dollar of cash operating expense. The result is applied to the estimated amount of cash operating expenses to determine the cash working capital that should be included in the utility's rate base.

NP'S PROPOSAL

NP is proposing to include \$9.3 million in its rate base on account of cash working capital. This amount reflects the traditional definition of cash working capital and is based on a lead-lag study.

NP completed a lead-lag study using data from 2005, the last year for which complete financial data was available. Before calculating the leads and lags, it removed non-recurring and non cash items. It then applied the resulting leads and lags to the estimated revenues, cash operating expenses and HST for 2008 to establish its cash working capital for 2008.

ANALYSIS

My mandate was to review the methodology employed in establishing NP's cash working capital allowance and did not include a review of the related calculations and studies supporting the calculations (e.g., the review of invoice payments). As a result, the review on which my conclusion is based consisted of, and was limited to, the methodology that NP stated that it employed.

CONCLUSION

Based my review as noted above, the methodology described by NP in establishing its cash working capital allowance is consistent with established regulatory practice and appropriate in the context of NP.
Summary:	John Browne has been providing costing and regulatory consulting services to utilities and telecommunications companies for 23 years.						
	He has directed and worked on a wide range of studies for regulated companies dealing with accounting and cost allocation principles, cost of service determination, product costing/pricing, rate of return, capital structure, and methods of regulation.						
	He has appeared as an expert witness on accounting, costing and financial issues before the following regulatory tribunals: Canadian Radio-television and Telecommunications Commission, Canadian Transport Commission, the Alberta Public Utilities Board / the Alberta Energy and Utilities Board, the Manitoba Public Utilities Board, Newfoundland and Labrador Board of Commissioners of Public Utilities and the Nova Scotia Board of Commissioners of Public Utilities.						
Education /	Bachelor of Commerce - Queen's University						
Professional Qualifications:	 Master of Arts (Economics) - Queen's University 						
Quanneations.	 completed the course work and comprehensive exam requirements of the doctorate program in economics 						
	Chartered Accountant						
Committees/ Publications	Mr. Browne was Chairman of the Canadian Institute of Chartered Accountants ("CICA") Study Group that produced the CICA research report "Financial Reporting By Rate Regulated Enterprises". He also co- authored the CA Magazine articles "A Matter Of Principles - Part I" and "A Matter Of Principles - Part II" that dealt with accounting by rate- regulated enterprises.						
	He co-authored the Deloitte & Touche publication "Basics of Canadian Rate Regulation" and authored the Deloitte & Touche monograph "The Contractual Pitfalls of Relying on GAAP".						
	He wrote and distributed the monograph "Fundamentals of Rate Regulation", an update of "Basics of Canadian Rate Regulation" and has written and distributed a number of comment papers dealing with various regulatory issues.						
Key Clients:	Mr. Browne's major clients have included: Newfoundland Power Inc., Nova Scotia Power Inc., New Brunswick Power Corporation, Hydro Quebec, Ontario Hydro, Manitoba Hydro, SaskPower, Edmonton Power/EPCOR, Enmax, Ottawa Hydro, Canadian Electricity Association,						

Ontario Energy Board, Atco Gas, Enbridge, Newfoundland Telephone Company Ltd., Bell Canada, Manitoba Telephone System, Saskatchewan Telecommunications, AGT/TELUS, Teleglobe, Telesat Canada, Southwestern Bell Telephone Company, New York Telephone and The Telecommunication Authority of Singapore.

Selected Assignments: • Completed a survey of Canadian regulators to determine what they viewed as their objectives and how they interpreted those objectives.

- Provided a one-day workshop on regulatory issues to an electric utility with both distribution and transmission operations. The key focus was on performance-based regulation and affiliate transactions.
- Advised an electric utility on issues related to the calculation of cash working capital.
- Prepared and delivered a half day seminar on accounting for the effects of rate regulation for a Canadian electric utility.
- Assisted Hydro-Québec by researching issues related to the determination of rate base for a first time rate application and preparing a report that recommended how the utility's rate base should be established at its initial rate hearing.
- Researched and analysed the issue of a deferral plan for the introduction of a new plant into rate base. Prepared evidence on the issue for Nova Scotia Power and appeared as an expert witness. Subsequently prepared evidence and appeared as an expert witness on changes to the deferral of the costs on the plant due to changes in circumstances.
- Assisted Newfoundland Power by providing an opinion on regulatory accounting policies including: relationship of regulatory accounting policies to GAAP, the use of the accrual vs. billed method for recognizing revenue, the treatment of unrecognized unbilled revenue and policies related to the utility's transition to an asset rate base methodology. The opinion was submitted to the utility's regulator and expert testimony was provided.
- Prepared a report for Hydro-Québec TransÉnergie that addressed regulatory issues related to the transfer of assets into the utility's regulated rate base.

- Researched and analysed the methodology for calculating working capital for Edmonton Power. Prepared evidence on the issue and appeared as an expert witness.
- Researched, analysed and presented a recommendation that an electric utility should be allowed to defer tax costs so that the utility could avoid a rate increase followed by a rate decrease.
- Reviewed various regulatory issues as part of the due diligence for the Altalink's purchase of TransAlta's transmission assets in Alberta.
- Provided a written opinion for Nova Scotia Power on its regulatory treatment of amounts related to an income tax dispute. The report dealt with past taxes that had not been recovered in allowed rates and future taxes that may not be payable.
- Prepared a report for SaskPower, an integrated electric utility, that addressed the issues related to including or excluding non-core operations from the scope of rate regulation and the regulatory implications for any dealings between these types of operations and its core regulated operations.
- Provided a written opinion for Newfoundland Power on accounting and regulatory issues related to future employee benefits and the company's hydro production equalization reserve. The opinion was included in the company's rate submission.
- Reviewed a utility's lead-lag study to determine whether the methodology was reasonable and adequately supported the net cash working capital that should be included in its rate base.
- Researched and analysed the issues of phase-in and risk sharing for Edmonton Power's Genesee plant and prepared a recommendation that was submitted to the utility's regulator. Expert testimony was also provided.
- Completed a study for New Brunswick Power that identified and evaluated the options for restructuring the electric power industry in New Brunswick and privatizing all or part of the Company. As part of the assignment, reviewed the developments occurring throughout the world with a focus on North America.

- Provided a written opinion for Nova Scotia Power that addressed whether its proposal to change from market value to market related value in determining its pension expense was consistent with generally accepted accounting principles and established regulatory principles.
- Assisted a diversified energy company by reviewing its transfer prices to and from regulated operations and recommending changes.
- Assisted a telecommunications company in developing and supporting a position on working capital for a regulatory hearing.
- Prepared evidence for a hearing before the Newfoundland Board of Commissioners of Public Utilities that dealt with regulatory control, regulatory reporting, return for a public sector utility and the accounting issues of inter-corporate charges and employee future benefits.
- Prepared a report that dealt with the corporate charges from a parent company to a regulated gas utility. The report evaluated the consistency of the charges with the past decisions of the OEB and its Affiliate Relationships Code for Gas Distributors. The report was submitted to the OEB.
- Assisted Ontario Hydro Services Company (now Hydro One), in understanding its regulatory options by researching and providing advice on a number of regulatory issues related to transfer pricing, structural organization, accounting for income taxes, relationships with affiliated companies, performance-based regulation, etc.
- Researched and evaluated options for the regulation of Nova Scotia Power. A recommendation was submitted to the utility's regulator and expert testimony provided.
- Analysed the issue of the appropriate accounting and regulatory treatment of Nova Scotia Power's defeasance program. Prepared evidence and appeared as an expert witness on the issue.
- Researched and evaluated the appropriateness of Newfoundland Power Inc.'s inter-corporate charges. A recommendation with support was submitted to the Newfoundland and Labrador Board of Commissioners of Public Utilities.
- Prepared an opinion for SaskPower on the proper accounting for its capital reconstruction charge that recognized its position as an electric utility with rates set on a cost recovery basis.

- Assisted the Ontario Energy Board Staff in identifying the parameters for a costing study to be completed by a gas distribution utility regulated by the Board.
- Assisted New Brunswick Electric Power in addressing various accounting issues related to its first rate hearing.
- Researched, analysed and prepared a recommendation on the issue of whether Nova Scotia Power should recover a purchase premium paid by the utility on the purchase of a distribution utility.
- Completed a study and prepared a report for Edmonton Power recommending an appropriate capital structure for regulatory purposes that formed part of the utility's 1996 submission to the Alberta Energy and Utility Board.
- Advised Manitoba Hydro on the development of appropriate financial targets and prepared evidence on the issue for submission to the utility's regulator. The assignment required researching and analysing the issue of appropriate financial targets for a government owned utility.
- Researched and analysed various issues dealing with the introduction of price-cap regulation for a telecommunications company and prepared position papers for the company.
- Analysed and recommended an appropriate capital structure for Ottawa Hydro (a municipally owned utility) in the context of the restructuring of the Ontario electric power industry.
- Advised the business unit of a major telecommunications company on the appropriate basis for establishing the transfer prices to be charged to other business units within the company.
- Assessed the feasibility of a co-generation power project proposed by one of Ontario Hydro's customers. The study was required before the utility could offer discounted rates to the customer to dissuade it from proceeding with the project.
- Evaluated the ability of a telecommunications company's existing costing systems to meet CRTC Phase III costing requirements and provided an opinion on whether the methodology would be defensible.

REGULATORY PRINCIPLES

Regulators must review and set rates in accordance with their empowering legislation. However, this legislation seldom contains detailed guidance on how to set rates and often states little more than that rates must be just and reasonable.

The lack of detailed guidance means that regulatory boards not only have the opportunity to exercise a significant amount of judgment in setting or approving rates, they are required to do so. To assist them in exercising their judgment, they frequently refer to established regulatory principles to guide them in determining what is appropriate in a particular case.

No single authority sets regulatory principles. Instead, principles become established through their general acceptance by regulators, and in some cases, reflect court decisions. Unfortunately, the principles may sometimes be in conflict and tradeoffs are required.

In the context of the issues on which NP has requested an opinion, the following principles are relevant:

- just and reasonable;
- cost of service standard;
- prudence standard;
- fair return;
- intergenerational equity; and
- rate stability and predictability.

JUST & REASONABLE

The primary regulatory principle, and the one most likely to be incorporated into regulatory legislation, is that rates should be just and reasonable. "Just and reasonable" applies to both ratepayers and regulated entities. It requires a weighting of the legitimate interests of both parties.

This principle is consistent with the declared policy of the Province of Newfoundland and Labrador. For example, paragraph 3 of the "Electric Power Control Act, 1994" states that it is the declared policy of the province that the rates to be charged, either generally or under specific contracts, for the supply of power within the province should be reasonable and not unjustly discriminatory.

Unfortunately, "just and reasonable" is a vague and subjective concept. It provides an overall direction to regulators but little specific guidance.

COST OF SERVICE STANDARD

At the heart of rate regulation is the cost of service standard, sometimes referred to as the revenue requirement standard.

Under this standard, a regulated entity is permitted to set rates that allow it the opportunity to recover its costs for regulated operations, including a fair rate of return on its investment devoted to regulated operations – no more, no less.

This standard does not require that a regulated entity be guaranteed a fair return, only that it have an opportunity to earn it. In most cases, rates are set prospectively, based on estimated future costs. If the entity over-recovers, it normally keeps the excess. If it under-recovers, it bears the deficiency.

The opportunity to earn a fair return implies that the possibilities of under and overearning are offsetting. Using more technical language, allowed rates should provide an expected rate of return equal to the fair rate of return, where the expected rate of return is equal to the average of the possible rates of return weighted by the probability of their occurrence¹.

The cost of service standard is consistent with what is expected to occur in a competitive market, where the prices for goods and services tend to equal the cost of providing them, including a fair return. This is important since it is often argued that rate regulation is a proxy for competition² and it tends to be withdrawn where there is adequate competition to protect ratepayers.

The standard also reflects fairness and the necessity to offer adequate incentives for providing regulated services:

- In fairness, an entity's investors should have the opportunity to recover their costs, including a fair return, just as they would if they were to invest in a non-regulated entity of similar risk. However, ratepayers should not have to provide investors with the opportunity to earn more than they could expect from investing in non-regulated operations of similar risk.
- From an incentive viewpoint, unless investors have a reasonable opportunity to recover their costs, it will be difficult to attract the investment necessary to provide regulated operations. However, the opportunity to recover costs, including a fair return, should provide an adequate incentive to attract those funds.

¹ For example, if there is a 40% probability of an 8% return, and a 60% probability of a 12% return, the expected return is 10.4%: $(8\% \times 40\%) + (12\% \times 60\%) = 10.4\%$.

² For example, in a 2001 decision the Ontario Energy Board ("OEB") stated: *The Board notes that the general role of the regulator is to act as a proxy for competition*.... (OEB; ; <u>RP-2001-0032</u>; December 13, 2002 para. 5.11.49)

The cost of service standard is applicable to all regulatory methodologies, including performance-based methods such as price cap regulation. A regulated utility may earn more or less than a fair return, and performance based methods increase the possibility of realized earnings deviating from a fair return. However, the issue is that a regulated entity should have a reasonable opportunity to earn a fair return, which implies that the possibilities of under and over earning are offsetting.

PRUDENCE STANDARD

The prudence standard modifies the cost of service standard. Under this standard, ratepayers should be charged only for prudently incurred costs. This recognizes the fact that regulated entities have a responsibility to manage themselves in a prudent manner.

Prudency is determined by considering whether management decisions were consistent with what a reasonable person with appropriate competence might have decided in a similar situation. This should not be done in hindsight. A regulated entity's management can be expected to rely only on information reasonably available to it when it makes its decisions. In addition, it is generally assumed that management has acted prudently unless evidence exists to the contrary.

In a recent decision, the Ontario Energy Board ("OEB") set out four principles that are reflective of the common interpretation of the prudence standard:

- Decisions made by the utility's management should generally be presumed to be prudent unless challenged on reasonable grounds.
- To be prudent, a decision must have been reasonable under the circumstances that were known or ought to have been known to the utility at the time the decision was made.
- Hindsight should not be used in determining prudence, although consideration of the outcome of the decision may legitimately be used to overcome the presumption of prudence.
- Prudence must be determined in a retrospective factual inquiry, in that the evidence must be concerned with the time the decision was made and must be based on facts about the elements that could or did enter into the decision at the time.³

³ OEB; <u>Enbridge Consumers Gas Distribution Inc., RP-2001-0032</u>; December 13, 2001; para. 3.12.2.

FAIR RATE OF RETURN

Under the cost of service standard, a regulated entity should have an opportunity to recover its costs for regulated operations, including a fair rate of return. To be considered fair, the return must be:

- Commensurate with returns on investments of similar risk;
- Sufficient to assure financial integrity; and
- ➢ Sufficient to attract necessary capital.

The first standard is consistent with the economic definition of the cost of equity and the goal of treating equity investors fairly. From an economic perspective, the cost of making an investment is the return foregone by not investing in an alternative investment of similar risk. In fairness, investors should have the opportunity to earn a return commensurate with what they could expect to earn from non-regulated investments of similar risk.

The second and third standards reflect both investor and customer interests. A regulated entity must be financially viable and have adequate returns to attract necessary capital if it is to be able to service ratepayers. Generally, if the first standard is met, so will the others.

The basis for these criteria is found in two US Supreme Court decisions frequently quoted in regulatory proceedings:

- Bluefield Water Works & Improvement Company v. Public Service Commission of the State of West Virginia et al. (262 US 679, 1923); and
- Federal Power Commission et al. v. Hope Natural Gas Co. (320 US 591, 1944).

The first standard was also set out by the Supreme Court of Canada (in Northwestern Utilities Limited v. The City of Edmonton and Alberta Public Utilities Board; 1929, SCR 186, 193), which defined a fair return as meaning:

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.

INTERGENERATIONAL EQUITY

The principle of intergenerational equity deals with how the cost of service should be recovered from ratepayers. Under this principle, ratepayers in a given period should pay only the costs necessary to provide them with service in that period. They should not

JT BROWNE	Exhibit JTBC-2
CONSULTING	Page 5

have to pay for any costs incurred to provide service to ratepayers in another period. This principle is consistent with setting just and reasonable rates within each period.

For example, a regulated entity is usually not allowed to earn a return on projects under construction. It's incurring this cost to provide service to future ratepayers, not ratepayers in the current period. Instead, the return is capitalized and recovered through depreciation over the period in which the assets are used to provide service.

Combined with the cost of service standard, the principle of intergenerational equity requires that rates within a period should cover the costs of providing service in that period.

This principle's importance depends on the periods involved. Customers in one year tend to be the same as those in the next and their relative usage generally doesn't vary that much from year to year. Having customers in one year pay more as a result of costs incurred to provide service in the previous year would not be as serious a breach of this principle as it would be if they had to pay more because of service provided to customers 10 years earlier. In the first case, it is more likely that the costs will be borne by those that benefited from their incurrence, and in proportion to the benefits they received.

If costs can't be recovered in the period for which they were incurred, it's generally best to recover them in a period as close as possible to the one for which they were incurred.

RATE STABILITY AND PREDICTABILITY

Another principle that deals with how the cost of service should be recovered is the principle of rate stability and predictability. It requires rates to remain stable and predictable – at least to the extent practical.

This principle recognizes that it is usually easier for ratepayers to deal with gradual and predictable rate increases. It may justify smoothing out changes in rates to avoid sharp rate climbs or temporary fluctuations.

The principle's intent is to establish only when costs are recovered, not the amount actually recovered. In practice, it does affect the amounts recovered because the timing of cost recovery affects financing costs. Where costs are deferred, the deferred amount must be financed, and regulated entities are entitled to recover the additional financing costs under the cost of service standard.

The principle of rate stability and predictability may require costs to be collected from ratepayers in periods other than those for which they were incurred. Therefore, it is inconsistent with the principle of intergenerational equity. Despite that, it's justified because it recognizes the adverse consequences where ratepayers must adjust to significant rate increases or short-term rate fluctuations.

JT BROWNE	Exhibit JTBC-2
Consulting	Page 6

As time passes, the makeup and usage of a customer group changes. Therefore, the longer the period that costs are deferred, the more serious the breach of the intergenerational equity principle. As a result, when the principle of rate stability and predictability is applied, cost deficiencies should be recovered over as short a period as is reasonable, so the customer group that eventually pays for the costs is similar to the one benefiting from the costs. Similarly, if, to avoid a sharp rate increase, costs are recovered before a period for which they will be incurred, the intervening period should also be as short as reasonably possible.

CHANGES TO RATE BASE & INVESTED CAPITAL

The following demonstrates that, where invested capital equals rate base, reducing both invested capital and rate base by the same amount will have not impact on a utility's allowed return.

In the example presented below, invested capital and rate base are both initially equal to \$1,000 and the return on rate base is equal to the total financing costs of \$100. After reducing both invested capital and rate base by \$150, the return on rate base is still \$100. Although there is a reduction in rate base, this is offset by an increase in the weighted average cost of capital ("WACC").

Impact of Reducing Both Rate Base and Invested Capital								
Basic Assumptions:								
Financing costs:	\$100							
Initial:								
Invested Capital	\$1,000							
Initial Rate Base	\$1,000							
With \$150 Reduction:								
Invested Capital	\$1,000 - \$150 = \$850							
Initial Rate Base	\$1,000 - \$150 = \$850							
Initial Return on Rate Base:								
WACC	\$100 / \$1,000 = 10%							
Return on Rate Base	10% * \$1,000 = \$100							
Return on Rate Base With Reductions:								
WACC	\$100 / \$850 = 11.765%							
Return on Rate Base	11.765% * \$850 = \$100							

Depreciation Study Calculated Annual Depreciation Accruals Related to Electric Plant at December 31, 2005 NEWFOUNDLAND POWER INC. ST. JOHN'S, NEWFOUNDLAND

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2005



Harrisburg, Pennsylvania

Calgary, Alberta

Valley Forge, Pennsylvania

NEWFOUNDLAND POWER INC. St. John's, Newfoundland

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO ELECTRIC PLANT

AT DECEMBER 31, 2005

GANNETT FLEMING, INC. - VALUATION AND RATE DIVISION

Harrisburg, Pennsylvania



GANNETT FLEMING, INC. P.O. Box 67100 Harrisburg, PA 17016-7100

Location: 207 Senate Avenue Camp Hill, PA 17011

Office: (717)763-7212 Fax: (717) 763-4590 www.gannettileming.com

August 31, 2006

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

Attention Robert Meyers, Treasurer

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the electric plant of Newfoundland Power Inc. as of December 31, 2005. The attached report presents a description of the methods used in the estimation of depreciation and the summary of annual and accrued 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, INC. VALUATION AND RATE DIVISION

oh F. Kednager

JOHN F. WIEDMAYER, CDP Project Manager, Depreciation Studies

JFW:krm

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PART I. INTRODUCTION

NEWFOUNDLAND POWER INC.

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2005

PART I. INTRODUCTION

PLAN OF REPORT

This report sets forth the results of the depreciation study for Newfoundland Power Inc., to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of electric plant at December 31, 2005. Part I Introduction, contains statements with respect to the plan of the report, the basis of the study, the study and a brief summary of the study results. Part II Methods Used in the Estimation of Depreciation, presents the methods used in the estimation of average service lives, survivor curves and salvage and in the calculation of depreciation. Part III Results of Study, presents summaries by depreciable group of annual and accrued depreciation. The statistical analyses of service live and net salvage and the detailed tabulations of annual and accrued depreciation are set forth in a separately bound volume "Appendices to Depreciation Study."

BASIS OF THE STUDY

For most accounts, the annual and accrued depreciation were calculated by the straight line method using the equal life group procedure. For certain General and Communication Plant accounts, the annual and accrued depreciation are based on amortization accounting. Both types of calculations were based on original cost, attained ages, and estimates of service lives and 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 equal life group method has been used by the Company for a number of years and we recommend 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 for these accounts is appropriate because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. Many electric utilities in North America have received approval to adopt amortization accounting for these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page II-33 of the report.

The service life and salvage estimates used in the depreciation and amortization calculations were based on judgment which incorporated analyses of available historical data, a review of policies and outlook with management, a general knowledge of the electric utility industry, and comparisons of the service life and salvage estimates from

I-3

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 electric plant. Iowa type survivor curves were used to depict the estimated survivor curves. For life span groups, 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.

CHANGES SUBSEQUENT TO THE PRIOR DEPRECIATION STUDY REPORT

The depreciation calculations included in the prior depreciation study report submitted to the Board were based on electric plant in service as of December 31, 2001. The depreciation calculations included with this report are based on electric plant in service as of December 31, 2005. 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, 2005 is \$475.9 million and the book accumulated depreciation is \$476.9 million, a difference of \$1 million or .21 percent. 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 current reserve variance of approximately \$1.0 million

or .21 percent is among the smallest variance that I've encountered in the twenty years of conducting depreciation studies for electric utilities. The reserve variance that exceeds the 5 percent tolerance threshold is approximately \$0.7 million and is set forth on Schedule 2, column 7 in Part III of the report. Gannett Fleming recommends that Newfoundland Power 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 II-34 of the report.

SUMMARY

Summaries of the study results by plant account are presented in the schedules in Part III of the report. The continued use of annual accrual rates and the maintenance and monitoring of the accumulated depreciation reserve by plant account is appropriate for Newfoundland Power.

The following summary of composite whole life accrual rates at the functional level is provided only for purposes of comparing the results of the current and previous study. The amortization of the reserve variance has not been incorporated in the rates below.

	Composite Annual Accrual Rates						
<u>Function</u>	2000 Study	Previous Study	<u>Current</u>				
	0.00	0.00	0.47				
Hydro Production	2.03	2.03	2.17				
Other Production	3.75	3.91	4.73				
Substation	2.58	2.60	2.63				
Transmission	3.25	3.27	3.28				
Distribution	3.27	3.29	3.14				
General							
Computer - Hardware	20.00	20.00	20.00				
Computer - Software	10.00	10.00	10.00				
Transportation	9.30	9.44	10.28				
Other	3.03	2.99	2.94				
Communications	6.44	7.16	6.18				

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

PART II. METHODS USED IN THE ESTIMATION OF DEPRECIATION

DEPRECIATION

Depreciation, as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric 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 the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authority.

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.

The calculation of annual depreciation based on the straight line method requires the estimation of average life and salvage. These subjects are discussed in the sections which follow.

SERVICE LIFE AND NET SALVAGE ESTIMATION

Average Service Life

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. A discussion of the general concept of survivor curves is presented. Also, the Iowa type survivor curves are reviewed.

Survivor Curves

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 years is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. 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 and is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

II-3



Figure 1. A Typical Survivor Curve and Derived Curves

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 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 of retirement 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 numerical subscripts represent the relative heights of the modes of the frequency curves within each family.

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, which constitutes











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



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

three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.¹ These type curves have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."² In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis³ 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 or for which aged accounting experience is developed by statistically aging unaged amounts 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,"⁴ "Engineering Valuation and Depreciation,"⁵ and "Depreciation Systems."⁶

¹Winfrey, Robley. <u>Statistical Analyses of Industrial Property Retirements.</u> Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

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

³Couch, Frank V. B., Jr. "Classification of Type O Retirement Characteristics of Industrial Property." Unpublished M.S. thesis (Engineering Valuation). Library, Iowa State College, Ames, Iowa. 1957.

⁴Winfrey, Robley, Supra Note 1.

⁵Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

⁶Wolf, Frank K. and W. Chester Fitch. <u>Depreciation Systems</u>. Iowa State University Press. 1994

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 on pages II-12 and II-13. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table, and illustrations of smoothing the stub survivor curve.

Schedules of Annual Transactions in Plant Records. The property group used to illustrate the retirement rate method is observed for the experience band 1992-2001 during which there were placements during the years 1987-2001. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Tables 1 and 2 on pages II-12 and II-13. In Table 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 1987 were retired in 1992. 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

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TABLE 1. RETIREMENTS FOR EACH YEAR 1996 -2005 SUMMARIZED BY AGE INTERVAL

Experience Band 1996-2005

Placement Band 1991-2005

				Re	tirements	<u>, Thousa</u>	<u>ands of E</u>	<u>Dollars</u>				
Year					Duri	<u>ng Year</u>				<u> </u>	Total During	Age
<u>Placed</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>Age Interval</u>	Interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1991	10	11	12	13	14	16	23	24	25	26	26	131⁄2-141⁄2
1992	11	12	ຸ 13	15	16	18	20	21	22	19	44	121⁄2-131⁄2
1993	11	12	13	14	16	17	19	21	22	18	64	111⁄2-121⁄2
1994	8	9	10	11	11	13	14	15	16	17	83	101⁄2-111⁄2
1995	9	10	11	12	13	14	16	17	19	20	93	91⁄2-101⁄2
1996	4	9	10	11	12	13	14	15	16	20	105	81⁄2-91⁄2
1997		5	11	12	13	14	15	16	18	20	113	7½-8½
1998			6	12	13	15	16	17	19	19	124	6½-7½
1999				6	13	15	16	17	19	19	131	51⁄2-61⁄2
2000					7	14	16	17	19	20	143	41⁄2-51⁄2
2001						8	18	20	22	23	146	31⁄2-41⁄2
2002							9	20	22	25	150	21⁄2-31⁄2
2003								11	23	25	151	11/2-21/2
2004									11	24	153	1/2-11/2
2005										<u>13</u>	80	0-½
Total	<u>53</u>	<u>68</u>	<u>86</u>	<u>106</u>	<u>128</u>	<u>157</u>	<u>196</u>	<u>231</u>	<u>273</u>	<u>308</u>	<u>1,606</u>	

TABLE 2. OTHER TRANSACTIONS FOR EACH YEAR 1996-2005 SUMMARIZED BY AGE INTERVAL

Experience Band 1996-2005

Placement Band 1991-2005

·					Acqu	isitions, Thousa	Transfer nds of Do	s, and Sal Ilars	es,			
Year					Du	ring Yea	ar		· ·		Total During	Age
<u>Placed</u>	<u>1996</u>	<u>1997</u>	1998	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	Age Interval	<u>Interval</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1991	-	-	-	~	-	-	60a	-	-		-	131⁄2-141⁄2
1992	-	-	-	-	-	-	-	-	-	-		121⁄2-131⁄2
1993	-	-	-	-	-		-	-	-	-		111/2-121/2
1994	-		-	-	-	-	-	(5) ^b	-	-	60	10½-11½
1995	-	-	-	-	-	-	-	6 a	-	-	-	9½-10½
1996		-	-	-	-	-	-	-	-	-	(5)	81⁄2-91⁄2
1997		-	-	-	-	-	-	-	-	-	6	71⁄2-81⁄2
1998			-	-	-	-	-	-	-	-	-	61⁄2-71⁄2
1999				-	-	-	-	(12) ^b	-	-	-	5½-6½
2000					-	-	-	-	22a	-	-	41⁄2-51⁄2
2001						-	-	(19) ^b	-	-	10	31⁄2-41⁄2
2002							-	-	-	-	-	21⁄2-31⁄2
2003								-	-	(102) ^c	(121)	11⁄2-21⁄2
2004									-	-	-	1⁄2-11⁄2
2005	_		_	—	—	—	-	-	-		<u> </u>	0-1⁄2
Total	-	-	-	-	-		<u>60</u>	(<u>30</u>)	<u>22</u>	(<u>102</u>)	(<u>50</u>)	

^a Transfer Affecting Exposures at Beginning of Year ^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

Parentheses denote Credit amount
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 Table 1 immediately above the stairstep line drawn on the table beginning with the 1992 retirements of 1987 installations and ending with the 2001 retirements of the 1996 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.

In Table 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.

<u>Schedule of Plant Exposed to Retirement</u>. The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Table 3 on page II-15.

The surviving plant at the beginning of each year from 1992 through 2001 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 Table 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net

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TABLE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1 OF EACH YEAR 1985-1994 SUMMARIZED BY AGE INTER VAL

Experience Band 1996-2005

Placement Band 1991-2005

·					Expo	sures, Th	nousand	s of Dolla	rs			
											Total at	
Year			Ann	<u>ual Surviv</u>	<u>ors at th</u>	<u>e Beginn</u>	<u>ing of th</u>	<u>e Year</u>			Beginning of	Age
Placed	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	Age Interval	<u>interval</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	- (13)
1991	255	245	234	222	209	195	239	216	192	167	167	131⁄2-141⁄2
1992	279	268	256	243	228	212	194	174	153	131	323	121⁄2-131⁄2
1993	307	296	284	271	257	241	224	205	184	162	531	111/2-121/2
1994	338	330	321	311	300	289	276	262	242	226	823	10½-11½
1995	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
1996	420ª	416	407	397	386	374	361	347	332	316	1,503	81⁄2-91⁄2
1997		460ª	455	444	432	419	405	390	374	356	1,952	71⁄2-81⁄2
1998			510ª	504	492	479	464	448	431	412	2,463	61⁄2-71⁄2
1999				580ª	574	561	546	530	501	482	3,057	51⁄2-61⁄2
2000					660ª	653	639	623	628	609	3,789	41⁄2-51⁄2
2001						750ª	742	724	685	663	4,332	31⁄2-41⁄2
2002							850°	841	821	799	4,955	21/2-31/2
2003								960ª	949	926	5,719	11/2-21/2
2004									1,080ª	1,069	6,579	1/2-11/2
2005	_					. <u></u>		<u> </u>		<u>1.220</u> ª	7,490	0-1⁄2
Total	<u>1.975</u>	<u>2,382</u>	<u>2,824</u>	<u>3,318</u>	<u>3,872</u>	<u>4,494</u>	<u>5,247</u>	<u>6.017</u>	<u>6,852</u>	<u>7,799</u>	<u>44,780</u>	

^aAdditions during the year.

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entries shown on Tables 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being <u>exposed</u> to retirement in this group <u>at the beginning of the year</u> in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the <u>beginning of the gear</u>. 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 1997 are calculated in the following manner:

Exposures at age 0 = amount of addition= \$750,000Exposures at age $\frac{1}{2}$ = \$750,000 - \$8,000= \$742,000Exposures at age $\frac{11}{2}$ = \$742,000 - \$18,000= \$724,000Exposures at age $\frac{21}{2}$ = \$724,000 - \$20,000 - \$19,000= \$685,000Exposures at age $\frac{31}{2}$ = \$685,000 - \$22,000= \$663,000

For the entire experience band 1992-2001, 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 $4\frac{1}{2}$ -5 $\frac{1}{2}$, is obtained by summing:

255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.

Original Life Table. The original life table, illustrated in Table 4 on page II-17, is developed from the totals shown on the schedules of retirements and exposures, Tables 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 corresponding age interval of the age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age

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

Experience Band 1996-2005

Placement Band 1991-2005

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of <u>Interval</u> (1)	Exposures at Beginning of <u>Age Interval</u> (2)	Retirements During Age <u>Interval</u> (3)	Retirement <u>Ratio</u> (4)	Survivor <u>Ratio</u> (5)	Percent Surviving at Beginning of <u>Age Interval</u> (6)
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 Table 3, Column 12, Plant Exposed to Retirement. Column 3 from Table 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.

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 41/2	=	88.15				
Exposures at age 4½	=	3,789,000				
Retirements from age 4½ to 5½	=	143,000				
Retirement Ratio	=	143,000	÷	3,789,000 =	0.	0377
Survivor Ratio	=	1.000	-	0.0377 =	0.	9623
Percent surviving at age 5½	=	(88.15)	Х	(0.9623) =	8	34.83

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

The original survivor curve is plotted from the original life table (column 6, Table 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.

<u>Smoothing the Original Survivor Curve</u>. 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 Table 4 is compared with the L, S, and R Iowa 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 the best fit and appears to be 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 factors external to the analysis of historical data.

Service Life Considerations

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during field reviews of the property and other 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

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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
364.10, 364.11, 364.20, 364.30 and 364.40	Line Transformers - All Ratings, Voltage Regulators Capacitor Banks and Reclosers
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
378.31 and 378.4	Transportation Equipment - Cab and Chassis and Large Trucks with Line and Stake Bodies

For most of the mass plant accounts and subaccounts, the statistical analyses resulted in good to excellent indications of complete survivor patterns. 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.

HYDRO PRODUCTION

- 321 Roads, Trails and Bridges
- 323 Canals, Penstocks, Surge Tanks and Tailraces
- 324 Dams and Reservoirs
- 325 Prime Movers, Generators and Auxiliaries
- 326 Switching, Metering and Control Equipment

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
- 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
- 366.1 Meters Watt-Hour
- 366.2 Meters Demand
- 366.3 Meters Instrument Transformers
- 366.4 Meters Metering Tanks
- 367.2 Underground Switches and Switchgear

GENERAL PROPERTY

- 371.1 Buildings and Structures Small
- 378.1 Transportation Sedans and Station Wagons
- 378.2 Transportation Pick-Up Trucks, Window Vans
- 378.31 Transportation Cab and Chassis
- 378.32 Transportation Equipment
- 378.4 Transportation Trucks with Line and Stake Bodies
- 378.5 Transportation Miscellaneous

COMMUNICATIONS

382 Radio Sites

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 2005. 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 and pole relocations. That is, poles are 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 Iowa 40-R2.5 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. This means stronger and longer lasting lines are being built. The survivor curve estimate for these accounts is the Iowa 44-R2.5 and is based on the statistical indication for the period 1975 through 2005. The Iowa 44-R2.5 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 50 years for transmission poles and fixtures.

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 2005. The statistical support for the interim rates of retirement for other production plant accounts are set forth in Appendix A.

The life span estimates for power generating stations 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	1975	2016	41
Wesleyville Gas Turbine	1969/2003	2026	57/23
Portable Gas Turbine	1974/2003	2026	52/23
Port Union Diesel	1972	2006	34
Port Aux Basques Diesel	1969	2016	47
Mobile Diesel #3	2004	2036	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.

Salvage Analysis

The estimates of net salvage were based in part on historical data compiled for the years 1976 through 2005. 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 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 1995 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	O/H Conductors - Bare Copper, Weather-Proof Copper,
and 361.3	Aerial Cable and Special Insulated Copper Cable
361.12, 361.13 and	O/H Conductors - Bare Aluminum, Weather-Proof
361.15	Aluminum and Duplex, Triplex and Quadruplex

Account Number	Account Description							
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							
378.31 and 378.4	Transportation Equipment - Trucks with Derricks - Cab and Chassis and Transportation Equipment - Trucks with Line and Stake Bodies							

Net Salvage Considerations

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

- 361.12 Overhead Conductors Bare Aluminum
- 361.13 Overhead Conductors Weather-Proof Aluminum
- 361.15 Overhead Conductors Duplex, Triplex, and Quadruplex
- 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

DISTRIBUTION

- 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
- 378.31 Transportation Cab and Chassis
- 378.4 Transportation Trucks with Line and Stake Bodies
- 378.5 Transportation Miscellaneous

Account 361.12, Overhead Conductors - Bare Aluminum, 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 1976 through 2005. These data include the retirements, cost of removal and salvage.

Discussions with management indicated that overhead conductors are removed for a variety of reasons based on their age, condition and capacity. The removed overhead lines are mostly sold for scrap although at times can be reused. The previous estimate of net salvage for Account 361.12, Overhead Conductors - Bare Aluminum was negative 20 percent. The range of typical net salvage estimates for overhead conductors and devices is negative 20 percent to negative 50 percent.

The net salvage estimate for Account 361.12, Overhead Conductors - Bare Aluminum, is negative 30 percent and is based on the experienced net salvage data for the years 1976 through 2005. The three-year moving average for cost of removal remained fairly level during the period 1976 through 2005 ranging from negative 30 percent to negative 60 percent while the three-year moving average for gross salvage ranged from positive 5 percent to positive 25 percent. The midpoint of these two ranges, i.e., negative 45 percent for cost of removal and positive 15 percent for gross salvage, results in net salvage of negative 30 percent. The overall net salvage percent experienced by Newfoundland Power during the

period 1976 through 2005 was negative 29 percent as shown in the tabulation in Appendix B. The net salvage estimate of negative 30 percent is appropriate for Account 361.12, Overhead Conductors - Bare Aluminum, since it is consistent with company experience and is within typical industry range.

The net salvage estimates for production 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 by the Company's engineering department. The Company's decommissioning cost estimates were stated in current (2005) 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 2005 and the projected retirement date to develop the net salvage percent estimate as shown in the table on the following page. Amortization accounting is used for certain General and Communication Plant accounts. 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, 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.

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Summary of the Calculation of Net Salvage Percent Related to Production Plant Facilities

<u>Plant</u> (1)	Decommissioning Costs Stated in <u>2005 Dollars</u> (2)	Average Remaining Life (3)	Inflation <u>Factor</u> (4)	Decommissioning Costs Inflated to the Probable <u>Retirement Date</u> (5) = (2)*(4)	Original Cost at <u>12/31/05</u> (6)	Net Salvage Percent (7)=(5)/(6)
Hydroelectric Plant	(13,898,050)	40.7	2.24	(31,131,520)	112,581,622	(27.65)
Diesel Plants	(156,800)	9.1	1.20	(188,160)	891,817	(21.10)
Gas Turbines	(513,000)	14.3	1.33	(682,290)	15,075,886	(4.53)

Column (4) = $(1.0 + .02)^{**}$ Column (3)

II-32

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:

Composite Remaining Life =
$$\frac{(\frac{Book \ Cost}{Life} \times Remaining \ Life)}{\frac{Book \ Cost}{Life}}$$
.

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 = <u>Whole Life Future Accruals</u> Whole Life Annual Accruals

or

Composite Remaining Life = Book Cost Calc. Reserve Whole Life Annual Accrual

PART III. RESULTS OF STUDY

PART III. 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 and the accrued depreciation were calculated in accordance with the straight line equal life group method of depreciation based on estimates which reflect considerations of current historical evidence and expected future conditions.

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 STATISTICAL SUPPORT

The service life and salvage estimates were based on judgment which incorporated statistical analyses of retirement data, discussions with management, the previous estimates used for Newfoundland Power and consideration of estimates made for other electric utility companies. The results of the statistical analyses 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

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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 analyses of salvage data are presented 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 five-year average. Data are shown in dollars and as percentages of original costs retired.

DESCRIPTION OF DEPRECIATION TABULATIONS

Summaries of the results of the study, as applied to the original cost of electric plant at December 31, 2005, are presented on pages III-4 through III-17 of this report. Schedules 1 through 2 present the study results. Schedule 1 is a summary of the calculated annual and accrued depreciation by account based on the straight line whole life method of depreciation. Schedule 2 compares the calculated accrued depreciation with the book depreciation reserve and calculates amortization amounts that correct the variance.

The tables of the calculated annual and accrued depreciation 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.

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	Depreciable Group	Probable Retirement Year	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/05	Annual Accrual Amount	Annual Accrual Rate	Calculated Accrued Depreciation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
DEPRE	CIABLE PLANT							
Steam I	Production				0	0		0
Hydro F	Production							
320	Land and Land Clearing		75 - R2.5	O	993,693	14,618	1.47	299,107
321	Roads, Trails, and Bridges		55 - R3	(10)	2,733,792	57,508	2.10	999,032
322	Buildings and Structures		75 - R2.5	(20)	6,531,660	114,359	1.75	2,555,826
323	Canals, Penstocks, Surge Tanks & Tailraces		60 - L2.5	(20)	40,812,268	920,126	2.25	13,416,377
324	Dams and Reservoirs		70 - S0.5	(20)	27,053,440	547,615	2.02	9,849,287
325	Prime Movers, Generators and Auxiliaries		70 - R2	(20)	25,805,687	515,766	2.00	8,396,904
326	Switching, Metering and Control Equipment		45 - S0.5	(20)	8,249,961	264,472	3.21	2,775,768
327	Miscellaneous Power Plant Equipment		50 - R2	(20)	401,122	9,272	2.31	283,788
	Total Hydro Production				112,581,622	2,443,736	2.17	38,576,089
Other P	roduction							
331	Buildings and Structures							
	St. John's Diesel							
	Salt Pond Diesel							
	Gander Diesel							
	Aguathuna Diesel							
	Port Aux Basques Diesel	6-2016	60 - SO	(25)	234,847	10,040	4.28	194,643
	Portable Gas Turbine							
	Green Hill Gas Turbine	6-2016	60 - SO	(3)	317,773	14,171	4.46	186,412
	Salt Pond Gas Turbine							
	Wesleyville Gas Turbine	6-2026	60 - SO	(3)	73,725	2,677	3.63	27,673
	Total Account 331				626,345	26,888		408,728

Probable Estimated Net Original Annual Annual Calculated Retirement Survivor Salvage Cost at Accrual Accrual Accrued **Depreciable Group** Year Curve Percent 12/31/05 Amount Rate Depreciation (1) (2) (3) (4) (5) (6) (7)=(6)/(5) (8) 332 Electrical Plant St. John's Diesel Salt Pond Diesel Port Union Diesel Gander Diesel Aquathuna Diesel Port Aux Basques Diesel 6-2016 92,626 70 - LO (25)108,312 4,360 4.03 Green Hill Gas Turbine 6-2016 70 - LO (3) 667,974 46,794 7.01 227,711 Salt Pond Gas Turbine Wesleyville Gas Turbine (3) 6-2026 70 - LO 1,952,839 116,281 5.95 91.345 Mobile Diesel #3 6-2036 70 - LO 0 1,355,188 57,460 4.24 86,190 Total Account 332 4,084,314 224,895 497,872 333 Prime Movers, Generators and Auxiliaries St. John's Diesel Salt Pond Diesel 0 0 0 Port Union Diesel 6-2006 50 - L1 (25) 52,594 1,728 3.29 64,806 Gander Diesel 0 0 0 Aguathuna Diesel 0 0 0 Port Aux Basques Diesel 6-2016 50 - L1 (25)455,975 21,589 4.73 360,256 Portable Diesel #1 Portable Gas Turbine 6-2026 50 - L1 0 2,367,719 106,968 4.52 465,500 Green Hill Gas Turbine 6-2016 50 - L1 (3) 5,860,378 259,756 4.43 3,507,025 Portable Diesel #2 Salt Pond Gas Turbine Wesleyville Gas Turbine 6-2026 50 - L1 (3) 5,555,641 256,337 4.61 1,166,154 Mobile Diesel #3 6-2036 0 50 - L1 615,295 24,527 3.99 39,329 Total Account 333 14,907,602 670,905 5,603,070

	Depreciable Group	Probable Retirement Year	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/05	Annual Accrual Amount	Annual Accrual Rate	Calculated Accrued Depreciation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
						•		
334	Fuel Holders							
	St. John's Diesel							
	Salt Pond Diesel							
	Port Union Diesel	6-2006	Square	(25)	17,545	1,687	9.62	21,088
	Gander Diesel							
	Aguathuna Diesel							
	Port Aux Basques Diesel	6-2016	Square	(25)	15,646	1,012	6.47	8,934
	Green Hill Gas Turbine	6-2016	Square	(3)	446,145	27,379	6.14	172,022
	Salt Pond Gas Turbine							
	Wesleyville Gas Turbine	6-2026	Square	(3)	201,410	7,990	3.97	43,808
	Total Account 334			•	680,746	38,068		245,852
335	Miscellaneous Power Plant Equipment							
	St. John's Diesel							
	Salt Pond Diesel				0	0		0
	Gander Diesel				0	0		0
	Aguathuna Diesel				. 0	D		0
	Port Aux Basques Diesel	6-2016	Square	(25)	6,898	148	2.15	7,071
	Total Account 335				6,898	148		7,071
	Total Other Production				20,305,905	960,904	4.73	6,762,593
Substati	on							
341	Buildings and Structures		50 - R2.5	(10)	5.012.381	116.567	2.33	2.275.205
342	Equipment		46 - R2	(10)	116.985.533	3.092.270	2.64	45,942,987
				()		010321010	,	
	Total Substation				121,997,914	3,208,837	2.63	48,218,192

	Depreciable Group	Probable Retirement Year	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/05	Annual Accrual Amount	Annual Accrual Rate	Calculated Accrued Depreciation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
Transmis	sion							
350	Land and Land Rights		65 - S2.5	0	10,084,113	165,133	1.64	4,216,047
353.1	Overhead Conductors		53 - R3	(35)	19,030,163	507,021	2.66	10,632,870
353.2	Underground Cables		50 - SQ	(15)	965,569	22,208	2,30	618,700
355.1	Poles		44 - R2.5	(35)	19,668,680	639,379	3.25	10,791,677
355.2	Pole Fixtures		44 - R2.5	(35)	20,678,571	672,936	3.25	11,117,177
355.3	Insulators		31 - S0.5	(35)	18,341,840	901,248	4.91	9,032,302
	Total Transmission				88,768,936	2,907,925	3.28	46,408,773
Distributi	on							
360.0	Land and Land Rights		65 - R5	Ο	905,599	13,998	1.55	526,819
	Overhead Conductors and Underground Cables							
361.1	Bare Copper		45 - R1.5	(45)	892,247	24,240	2.72	898,894
361.11	Weather-Proof Copper		39 - S1.5	(45)	1,880,404	54,438	2.90	2,202,324
361.12	Bare Aluminum		50 - R2.5	(30)	85,049,356	2,436,778	2.87	35,371,501
361.13	Weather-Proof Aluminum		31 - R1.5	(30)	22,379,473	990,636	4.43	12,859,911
361.14	Aerial Cable		25 - R1	(45)	698,066	37,044	5.31	565,032
361.15	Duplex, Triplex, and Quadruplex		39 - S1.5	(30)	2,857,126	104,279	3.65	1,270,695
361.2	Underground Cables		40 - R3	ົດ໌	17,604,685	459,700	2.61	7,309,606
361.3	Special Insulated Copper Cable		25 - R1	(45)	102,076	4,541	4.45	108.915
361.4	Submarine Cable		40 - R3	ο΄	3,447,631	90,107	2.61	1,510,510
	Total Account 361				134,911,064	4,201,763		62,097,388
	Poles and Fixtures							
362.1	Wood - Under 35 ft.		45 - R1.5	(10)	71.894.576	1.951.299	2.71	28,729,905
362.2	Wood - 35 ft. and Over		45 - R1.5	(10)	263.622.864	7.387.753	2.80	95,478,359
362.3	Concrete and Steel		37 - R2.5	(20)	5.727.061	195.623	3.42	2.874,598
362.4	Steel Towers		45 - R3	òÓ	184.774	4.102	2.22	104.601
	Total Account 362				341,429,275	9,538,777		127,187,463

		Probable Retirement	Estimated Survivor	Net Salvage	Original Cost at	Annual Accrual	Annual Accrual	Calculated Accrued
	Depreciable Group	Year	Curve	Percent	12/31/05	Amount	Rate	Depreciation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
363	Street Lights		16 - 01	(5)	17,994,589	1,054,609	5.86	10,978,290
364.1	Transformers and Mountings							
	Up to and Including 15 kVA		36 - S0	5	8,292,964	255,164	3.08	2,791,225
	Over 15 kVA		36 - S0	5	73,414,339	2,318,682	3.16	22,684,654
	Total Account 364.1				81,707,303	2,573,846		25,475,879
364.2	Voltage Regulators		36 - S0	5	3,017,551	79,199	2.62	1,433,172
364.3	Capacitor Banks		36 - SO	5	203,002	6,505	3.20	57,250
364.4	Reclosers		36 - SO	5	982,527	33,145	3.37	230,920
365.1	Services Overhead		39 - S1.5	(60)	62,038,069	2,740,744	4.42	40,002,504
365.2	Services Underground		45 - R3	(5)	5,368,041	134,003	2.50	1,916,497
	Meters							
366.1	Watt-hour		32 - S0.5	0	12,940,503	435,824	3.37	5,416,616
366.2	Demand		25 - S0.5	0	4,773,756	194,777	4.08	2,277,033
366.3	Instrument Transformers		35 - R3	Ó	1,861,926	53,756	2.89	916,129
366.4	Metering Tanks		35 - R3	0	1,107,351	30,889	2.79	649,174
	Total Account 366				20,683,536	715,246		9,258,952
367.1	Underground Ducts and Manholes		60 - R4	0	4,879,037	84,342	1.73	1,876,744
367.2	Underground Switches and Switchgear		40 - R3	0	1,664,226	45,876	2.76	345,492
	Total Distribution				675,783,819	21,222,053	3.14	281,387,370

	Depreciable Group	Probable Retirement Year	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/05	Annual Accrual Amount	Annual Accrual Rate	Calculated Accrued Depreciation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
General I	Property							
371.1	Buildings and Structures - Small		35 - SO	(5)	1,782,475	48,803	2.74	1.072.290
371.2	Buildings and Structures - Large		00	(-)	11.021110			.12, 21222
	Topsail Road - Former System Control Center							
	Topsail Road - Transformer Storage	6-2026	70 R1	0	1,173,734	38,144	3.25	483.640
	Topsail Road - System Control Center	6-2054	70 - R1	ō	1.146.382	28,568	2.49	174,269
	Kenmount Road	6-2046	70 - R1	0	6.068.367	121.096	2.00	2.356.517
	Duffy Place	6-2060	70 - R1	ō	11.342 182	225,208	1.99	3 044 268
	O'Learv Avenue	0 2000	10	-	11,014,104		1120	0,0,1,1,200
	Carbonear - Office/Warehouse	6-2030	70 - R1	0	1 777 920	45 463	2.56	797 853
	Whitbourne	6-2033	70 - R1	õ	591 322	13 742	2.32	266 601
	Salt Pond	6-2023	70 - R1	õ	702 711	21 781	3 10	355 704
	Clarenville Regional Building	6-2042	70 - R1	ő	1 877 894	42 396	2.26	635 973
	Gander	6-2023	70 - R1	0	1,414,735	49,431	3.49	622 187
	Grand Falls Office Building	6-2006	70 - R1	48	380 428	.0,.01	0.00	197 823
	Grand Falls Service Building	6-2041	70 - R1	, C	814 324	16 973	2.08	331 368
	Corner Brook - West Street Office	6-2009	70 - R1	ő	762 112	33,807	4 44	645 041
	Corner Brook - Maple Valley Service Buildings	6-2034	70 - R1	ñ	767 820	18 773	2 44	315 061
	Stephenville Office and Service Build	6-2028	70 - R1	n	1 018 990	27 747	2 72	469 340
	Port Aux Basques	6-2026	70 - R1	n n	269 706	6 844	2 54	142 940
	Total Account 371.2	- 1010			30,108,627	689,973	2,24	10,838,585

Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Annual Depreciation Related to Original Cost of Electric Plant at December 31, 2005

		Probable Retirement	Estimated Survivor	Net	Original Cost at	Annual	Annual	Calculated
	Depreciable Group	Year	Curve	Percent	12/31/05	Amount	Rate	Depreciation
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
372	Office Equipment		25 - SQ	0	6,774,948	268,951	4.00 *	3,344,346
373	Store Equipment		25 - SQ	0	644,129	25,602	4.00 *	344,438
374	Shop Equipment		25 - SQ	0	711,921	28,374	4.00 *	344,846
375	Laboratory and Testing Equipment		25 - SQ	0	4,996,803	196,460	4.00 *	2,165,437
376	Miscellaneous Equipment		15 - SQ	0	2,044,719	123,066	6.67 *	886,586
377	Engineering Equipment		25 - SQ	0	295,645	10,542	4.00 *	221,267
	Transportation							
378.1	Sedans and Station Wagons		5 - R1.5	16	349,640	69,247	19.81	97.080
378.2	Pick-up Trucks, Window Vans		6 - S2.5	17	5,032,267	711,445	14.14	1.899.072
	Large Trucks with Hydraulic Derricks					•		
378.31	Cab and Chassis		10 - S1.5	10	4,380,567	419.009	9.57	1.608.705
378.32	Equipment		10 - S1.5	10	5.933.427	547.536	9.23	2,474,492
378.4	Large Trucks with Line and Stake Bodies		10 - S1.5	10	3,591,036	318.633	8.87	1.599.641
378.5	Miscellaneous		18 - L1	20	1,480,913	68.252	4.61	555.353
	Total Account 378				20,767,849	2,134,122		8,234,343
379.1	Computers - Hardware		5 - SQ	a	11.030.634	1,717 477	20.00 *	6 655 242
379.2	Computers - Software		10 - SQ	Ō	27.375.730	2,686,796	10.00 *	12 475 204
	Total General Property		· -		400 520 470	7 000 400		
	Total General Froheity				100,533,479	7,930,166	7.44	46,582,584

1

	Depreciable Group	Probable Retirement Year (2)	Estimated Survivor Curve (3)	Net Salvage <u>Percent</u> (4)	Original Cost at 12/31/05 (5)	Annual Accrual Amount (6)	Annual Accrual Rate (7)=(6)/(5)	Calculated Accrued Depreciation (8)
	(7)	(-/	(0)	((0)	(-)	() (-)(-)	(-)
Telecom	munications							
381.1	Mobile Radios		15 - SQ	0	412,784	23,577	6.67 *	221,077
381.2	Portable Radios		15 - SQ	0	234,774	12,340	6.67 *	155,173
381.3	Base Stations		15 - SQ	0	102,131	5,001	6.67 *	96,646
382.1	Radio Sites - Roads		30 - R4	O	109,734	3,519	3.21	77,668
382.2	Radio Sites - Buildings		30 - R4	(5)	385,914	13,190	3.42	276,203
383	Radio Equipment		15 - SQ	0	1,587,869	106,024	6.67 *	1,070,128
384	Communication Cables		25 - R3	(10)	2,411,613	110,341	4.58	1,101,724
386	SCADA Equipment		14 - L2	0	5,793,071	377,060	6.51	3,447,827
389.1	Telephone and Data Collection Equipment		10 - L2,5	0	1,339,030	118,744	8.87	949,999
389.2	Fax Machines							
389.3	Telephone Equipment							
390	Power Line Carrier		15 - SQ	Q	21,848	589	6,67 *	19,199
391	Communication Test Equipment		15 - R3	O	721,543	40,231	5.58	593,777
	Total Telecommunications				13,120,310	810,616	6.18	8,009,421
	TOTAL DEPRECIABLE PLANT				1,139,091,986	39,484,237		475,945,022
	TOTAL NONDEPRECIABLE PLANT				9,516,842			
	TOTAL ELECTRICAL PLANT				1,148,608,828			

Schedule 1. Summary of Service Life and Net Salvage Estimates and Calculated Annual Depreciation Related to Original Cost of Electric Plant at December 31, 2005

* Amortization Rate applicable to vintages that are not fully amortized. (Amortization Rate=1/Amortization Period, Years)

Schedule 2. Calculated Accrued Depreciation, Book Accumulated Depreciation and Determination of Reserve Variance Amortizations Related to Original Cost of Electric Plant at December 31, 2005 ..

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		Oricinal	Calculated	Book	Accur	nulated Res Variance	BLVG	Probable	Reserve
	Depreciable Group	Cost at 12/31/05	Accrued Depreciation	Accumulated Depreciation	Amount	Percent	Amount > Threshold	Remaining Life	Variance Amortization
	(1)	(2)	(2)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	{7}=(3)-{4} {e}	(8)	(8)/(9)=(6)
DEPRECIAE	<u> 3LE PLANT</u>								
Steam Prod	uction	0	0	18,285	(18,265)				0 (a)
Hydro Prod 320 321	uction Land and Land Cleating Roads Trails and Ridoes	993,693 7-733,792	299,107 999,032	309,052 1.000,520	(8,945) (1,488)	(3.3) (0.1)		47,5 34,9	(q) 0
322	Buildings and Structures Conter Destructures Conter Destructures Tanks and Taikenes	6,531,660	2,555,826 13 A16 377	2,421,069	134,757		134,757	46.2	2,917 26 367
324	Callers, relations, sugger rains and rain acco Dams and Reservoirs	27,053,440	9,849,267	10,154,770	(305,483)	(j) () ()		41.3	(q) (p)
326 326 327	Prime Movers, teenerators and Auxilianes Switching, Metering and Control Equipment Miscellaneous Power Plant Equipment	23,803,687 8,249,961 401,122	6,396,904 2,775,768 283,788	7,620,094 2,111,245 306,373	/ 16,810 664,523 (22,585)	5.9 9.65 9.03)	//º,810 664,523 (22,585)	26.9 21.3 21.3	24,703 24,703 (1.060 <u>)</u>
	Total Hydro Production	112,581,623	38,576,089	36,319,089	2,257,000		2,573,916		70,662
Other Produ 331	uction Buildings and Shuctures								
	St. John's Diese! Salt Pond Diese!			(3,612) 0	3,612 0		3,612		722 (d)
	Gander Diesel			0	. 0				
	Aguathuna Diesel			0	Ċ				
	Port Aux Basques Dlesel	234,847	194,643	190,132	4,511	2.3	Ģ	8.8	(q) 0
	Portable Gas Turbine Green Hill Gas Turbine	317 773	1RG A13	0 181 042	0 5 370	90	C	8	(4) U
	Salt Pond Gas Turbine			98,017	(98,017)	ļ	(98,017)	1	(18,603) (d)
	Wesleyville Gas Turbine	73,725	27,673	44,390	(16,717)	(60.4)	(16,717)	16,0	(626)
	Total Account 331	626,345	408,728	509,969	(101,241)		(111,122)		(19,810)
332	Electrical Plant St. John's Diased			14 565V	7 646 1				147 240
	Saft Pond Diesel				0		2021		
	Port Union Diesel			9,790	(06,790)		(062,6)		(1,958) (d)
	Gander Diesel Amerikanse Pissel			B, B24 5	(B,B24)		(8,824)		(1,765) (ď)
	Aguatituita Ulesei Port Aux Basoves Diesel	108.312	92,626	U 83.246	0 9.360	101	082 0	80	957
	Green Hill Gas Turbine	667,974	227,711	123,751	103,960	45.7	103,960	8.6	10.608
	Salt Pond Gas Turbine			(13,152)	13,152		13,152		2,630 (d)
	Wesleyville Gas Turbine	1,952,839	91,345 60 400	73,278	18,067 (10 012)	19.B	18,067	16,5	1,095
	Woolle trieser #3	981.005,1	021.02	202,88	(ZLN'ZL)	(6.61)	(210,21)		(544)
	I OTAL ACCOUNT 332	4,004,515	471,012	515,515	116,450		178,494		77,936

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Schedule 2. Calculated Accrued Depreciation, Book Accumulated Depreciation and Determination of Reserve Variance Amortizations Related to Original Cost of Electric Plant at December 31, 2005

					Accu	mulated Res	erve		
		Original	Calculated	Book		Variance		Probable	Reserve
	Depreciable Group	12/31/05	Depreciation	Deprectation	Amount	Percent	Amount > Threshold	Kematning Life	Variance Amortization
	(1)	(2)	(E)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) (e)	(8)	(8)/(5)=(6)
333	Prime Movers, Generators and Auxiliaries								
	St. John's Diesel Soli Boord Piscol			11,974	(11,974)		(11,974)		(2,395) (d)
	טפון דטווע טומטכן סבע ואניבה הנהבין							t	
	Condor Diaraf	52,544	04 , 800	990°,/0	1,237	11.2	7,237	0,5	1,447 (c)
	Aquathuna Diasel			192,152	(281,85) n		(281,86)		(1,434) (0)
	Port Aux Basques Diesel	455,975	360.256	326.434	33.822	9.4	33 822	ц 7	3.487
	Portable Diesel #1			17.309	(17.309)	5	(17,309)		(3 462) (d)
	Portable Gas Turbine	2,367,719	465.500	373.523	51.977	19.8	91.977	17.8	5.167
	Green Hill Gas Turbine	5,860,378	3,507,025	3,260,883	226,142	6.4	226.142	9.7	23.314
	Portable Diesel #2				0		-		
	Saft Pond Gas Turbine			0	a				
	Westeyville Gas Turbine	5,555,641	1,166,154	932,928	233,226	20,0	233,226	17.8	13,103
	Mobile Diesej #3	615,295	39,329	31,410	7,919	20.1	7,919	23.5	337
	Total Account 333	14,907,602	5,603,070	5,071,222	531,848		531,848	•	33,160
334	Fuel Holders								
	St. John's Diese! Seik maart Maard			5,516	(5,516)		(5,516)		(1,103) (d)
	Salt Fond Diesel			•					
	Port Union Liesel Genter Discel	17,545	21,088	17,592 î	3,496	16.6	3,496	0.5	(c) 688
	Galiue) Liese Aniiafhiina Diasal								
	Dort Any Bacallee Diesel	140.14				l		4	ļ
	Cross Will Car Turtion	040'C1	455'Q	0'A11	2,123	23.8	2,123	10.5	202
	Clean The Gas Lundles Sat Dond Das Turkins	C.41.044	112,022	7/0'0L	161,950 52,025	94.1	161,950	10.5	15,424
	Wasterwitte Gas Turkine Wasterwitte Gas Turkine	904 A10	000 C.Y	(c76'nc)	576'NG	(F 8 F)	525°03		10,185 (d)
	Total Account 224		43,000		(000,0)	(10.4)	(aan'a)	c.U2	(384)
	I DIGI Account 334	bdU, /4b	245,852	40,942	204,910		204,910		25,013
335	Miscellaneous Power Plant Equipment								
	st. Jonn's Liese			•	0				
	adi runu utasti Gander Diesel				0 0				
	Aprethuna Diesel								
	Port Aux Basques Diesel	6,898	7.071	6.448	623	8.8	623	40.5 2	5
	Total Account 335	6,898	120'2	6,448	623	•	623		59
	Total Other Production	20,305,904	6,762,593	6,007,955 2	754,638		744,757		50,358
Substation				v					
341 342	Bulldings and Structures Equipment	5,012,381 116,985,533	2,275,205 45,942,987	2,411,535 46,139,223	(136,330) (196,236)	(6.0) (0.4)	(136,330) 0	27.8 26.8	(4,904) 0 (b)
	Total Substation	121,997,914	48,218,192	48,550,758	(332,566)		(136,330)		(4,904)
							•		

Schedule 2. Calculated Accrued Depreciation, Book Accumulated Depreciation and Determination of Reserve Variance Amortizations Related to Original Cost of Electric Plant at December 31, 2005

					Accut	nulated Res	erve		
		Original	Calculated	Book		Variance		Probable	Reserve
		Cost at	Accrued	Accumulated		Ē	Amount >	Remaining	Variance
			Uepreciation	Lepreclation	Amount	Percent	Inresnoid		Amortization
	(1)	(2)	(2)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) {e}	(8)	(8)=(2)/(8)
Transmissior	-								
350	Land and Land Rights	10,084,113	4,216,047	4,487,561	(271,514)	(6.4)	(271,514)	35.5	(7,648)
353.1	Overhead Conductors	19,030,163	10,632,870	10,148,483	484 387	4.6	0	29.7	(q) 0
353.2	Underground Cables	965,569	618,700	623,173	(4,473)	(0.7)	0	22.1	(q) 0
355.1	Poles	19,668,680	10,791,677	11,067,624	(275,947)	(2,6)	0	24.7	(q) 0
355.2	Pole Fixtures	20,678,571	11,117,177	11,786,766	(669,589)	(6.0)	(669,589)	25.0	(26,784)
355.3	Insulators	18,341,840	9,032,302	B,221,104	811,198	9.0	811,198	17.5	46,354
	Total Transmission	88,768,936	46,408,773	46,334,711	74,062		(129,905)		11,922
Distribution									
360.0	Land and Land Rights	905.599	526.819	628 275	(101 456)	(203)	(101 456)	171	(PPZ E)
	Overhead Conductors and Underground Cables								
361.1	Bare Copper	892.247	898.894	781.238	117.656	13.1	117.656	16.3	7.218
361.11	Weather-Proof Copper	1,680,404	2.202.324	2.408.571	(206,247)	(8.4)	(206,247)	9.6	(21,484)
361.12	Bare Aluminum	85,049,356	35,371,501	35.628.110	(256,609)	(0.7)		30.9	(p) (p)
361.13	Weather-Proof Aluminum	22,379,473	12,859,911	11, 231, 968	1 627 943	101	1 627 943	16.4	44 265
361.14	Aerial Cable	698.066	565.032	611.305	(46.274)	(H 2)	(46.274)	1 1 1	(3 824)
361.15	Duplex. Triplex. and Quadruplex	2,857,126	1 270 695	1 363.045	(42,350)		(92,350)	A EC	
361.2	Underground Cables	17,604,685	7.309.606	7.447.527	(137,921)			22.4	(H) (H)
361.3	Special Insulated Copper Cable	102.076	108.915	118 124	(8, 209)	(8.5)	(802.8)	9.6	(1 07 1)
361.4	Submarine Cable	3,447,631	1,510,510	1,487,579	22,931	1.0	•	21.5	(q) 0
	Total Account 361	134,911,064	62,097,388	61,077,468	1,019,920		1,391,519	•	76, 157
	Poles and Fixtures								
362,1	Waad - Under 35 A.	71,894,576	28,729,905	27,785,863	944,042	3.3		25,8	(q) 0
362.2	Wood - 35 ft. and Over	263,622,864	95,478,359	95,811,312	(332,953)	(0.3)	o	26,3	(q) 0
362,3	Concrete and Steel	5,727,061	2,874,598	3,101,422	(226,824)	(6.7)	(226,824)	20.4	(11,119)
362.4	Steel Tawers	184,774	104,601	105,010	(409)	(0,4)	0	19.5	(q) 0
	Total Account 362	341,429,275	127, 187, 463	126,803,607	383,856		(226,824)	•	(11, 119)
363	Street Lights	17,994,589	10,978,290	9,100,224	1,878,066	17.1	1,878,066	7,5	250,409
364.1	Transformers and Mountings Up to and Including 15 KVA	A 207 064	9 701 975	CC7 103 C	(10 AG7)	14.07	đ		
	Over 15 KVA	73,414,339	22,684,654	23,450,714	(766,060)	(3.4) (3.4)	00	20,3	() (A) 0
	Total Account 364.1	81,707,303	25,475,879	26,252,436	(776,557)	•	0	•	0
Schedule 2. Calculated Accrued Depreciation, Book Accumulated Depreciation and Determination of Reserve Variance Amortizations Related to Original Cost of Electric Plant at December 31, 2005

		Original	Calculated	Book	Accui	rrulated Res Variance	erve	Probable	Reserve
		Cost at	Accrued	Accumulated			Amount >	Remaining	Variance
	Depreciable Group	12/31/05	Depreciation	Depreciation	Amount	Percent	Threshold	Life	Amortization
	(1)	(3)	(E)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) (e)	(8)	(8)/(9)=(6)
364.2	Voltage Regulators	3,017,551	1,433,172	1,354,019	79,153	5.5	79,153	18.1	4,373
364,3	Capacitor Banks	203,002	57,250	66,038	(8,786)	(15.4)	(8,788)	20.9	(420)
364,4	Reclosers	982,527	230,920	141,612	89.308	38.7	89,308	21,2	4,213
365.1	Services Overhead	62,038,069	40,002,504	45,791,371	(5,788,867)	(14.5)	(5,788,867)	21.6	(268,003)
365.2	Services Underground	5,368,041	1,916,497	2,169,656	(253,159)	(13.2)	(253,159)	27.8	(8,106)
	Meters								
366.1	Watt-hour	12,940,503	5,416,616	4,676,391	740,225	13.7	740,225	17.3	42,768
366.2	Demand	4,773,756	2,277,033	2,609,618	(332,565)	(14.6)	(332,585)	12.8	(25,983)
366.3	Instrument Transformers	1,861,926	916,129	933,734	(17,605)	(1.9)	•	17.6	(q) (
366.4	Metering Tanks	1,107,351	649,174	653,988	(4, B14)	(0.7)	•	14.8	(q) 0
	Total Account 366	20, 683, 536	9,258,952	8,873,731	385,221		407,640	•	16,805
367.1 367 3	Underground Ducts and Manholes Linderarcound Switches and Switcheser	4,879,037 1 664 926	1,876,744 346,403	1,855,328 313 753	21,416 131 730	1.1 1.1	064 764	35.6 26 9	(q) (b)
4.100	סוומנים האויניונפג מויס מאוינים הוואס הוואסים.	ויםםאיצינים	754'040	CC/CI7	80/101	20.1	501,101		4/2/4
	Total Distribution	675,783,819	281,387,370	284,327,518	(2,940,148)		(2,401,669)		64,139
General Pro	operty								
1.17E	Buildings and Structures - Small Buildings and Structures - Lame	1,782,475	1,072,290	960,183	112,107	10.5	112,107	16.4	6,836
	Topsail Road - Former System Control Center			90,419	(80.419)		(90.419)		(18.084) (d)
	Topsail Road - Transformer Storage	1,173,734	483,640	550,484	(66.844)	(13.8)	(66,844)	18.1	(3,693)
	Topsail Road - System Control Center	1,146,362	174,269	161,128	13 141	7.5	13,141	34,0	387
	Kenmount Road	6,068,367	2,356,517	2,511,923	(155,406)	(8.6)	(155,406)	30.7	(2'062)
	Duffy Place	11,342,182	3,044,268	2,731,773	312,495	10.3	312,495	36,9	8,469
	O'Leary Avenue			0	Đ				
	Carbonear + Office/Warehouse	1,777,920	797,853	965,180	(167,327)	(21.0)	(167,327)	21.6	(7,747)
	Whitbourne	591,322	266,601	301,881	(35,280)	(13.2)	(35,280)	23,6	(1,495)
	Salt Pond	702,711	355,704	435,543	(79,839)	(22.4)	(79,639)	15.9	(5,021)
	Clarenville Regional Building	1,677,894	635,973	594,493	41,480	9'2 9	41,480	29.3	1,416
	Gander	1,414,735	622,187	810,946	(188,759)	(30.3)	(188,759)	16,0	(11,797)
	Grand Falls Office Building	380,428	197,623	198,096	(573)	(0.1)	o	0,0	(q) 0
	Grand Falls Service Building	B14,324	331,368	692,551	(361,183)	(109.0)	(361,183)	28.5	(12,673)
	Corner Brook - West Street Office	762,112	645,041	630,278	14,763	2.3	D	3.5	(q) 0
	Comer Brook - Maple Valley Service Buildings	767,820	315,061	301,732	13,329	4,2	D	24.1	(q) 0
	Stephenville Office and Service Building	1,018,990	469,340	491,328	(21,988)	(4.7)	0	19.8	(q) 0
		269,706	142,940	160,804	(17,864)	(12.5)	(17,864)	18,5	(9966)
	Total Account 371.2	30, 108, 627	10,838,585	11,628,559	(789,974)		(795,805)		(56,266)

Schedule 2. Calculated Accrued Depreciation, Book Accumulated Depreciation and Determination of Reserve Variance Amortizations Related to Original Cost of Electric Plant at December 31, 2005

					Accu	mulated Res	erve		
		Original	Calculated	Book		Variance		Liopaple	Reserve
		Cost at	Accrued	Accumulated			Amount >	Remaining	Variance
	Depreciable Group	12/31/05	Depreciation	Depreciation	Amount	Percent	Threshold	Life	Amortization
	(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) (e)	(8)	(9)=(5)/(8)
372	Office Equipment	6,774,948	3,344,346	3,330,215	14,131	0.4	o	12.8	0 (b)
373	Store Equipment	644,129	344,438	340,768	3,670	1.1	0	11.7	0 (b)
374	Shop Equipment	711,921	344,846	360,370	(15,524)	(4.5)	0	12.9	О (Б)
375	Laboratory and Testing Equipment	4,996,803	2,165,437	2,059,633	105,804	4.9	0	14.4	0 (b)
376	Miscellaneous Equipment	2,044,719	866,586	836,117	50,469	5,7	50,469	9.4	5,369
377	Engineering Equipment	295,645	221,267	202,724	18,543	8.4	18,543	7.1	2,612
	Transportation								
378.1	Sedans and Station Wagons	349,640	97,080	72,103	24,977	25.7	24,977	2,8	4,995 (c)
378.2	Pick-up Trucks, Window Vens	5,032,267	1,899,072	2,166,086	(267,014)	(14.1)	(267,014)	3,2	(53,403) (c)
	Large Trucks with Hydraulic Demicks	, ,	· ·		. ,				
378,31	Cab and Chassis	4,380,567	1,608,705	2,093,283	(484,578)	(30.1)	(484,576)	5,6	(66,532)
378,32	Equipment	5,933,427	2,474,492	2,058,944	415,548	16.8	415,54B	5.2	79,913
378,4	Large Trucks with Line and Stake Bodies	3,591,036	1,599,641	1,258,751	340,890	21.3	340,890	5.1	66,841
378.5	Miscellaneous	1,480,913	555,353	490,954	64,399	11.6	64,399	9,2	7,000
	Total Account 378	20,767,850	8,234,343	8,140,121	94,222		94,222		18,814
379.1	Computers - Hardware	11,030,634	6,655,242	6,789,334	(134,092)	(2.0)	0	2.6	0 (b)
379.2	Computers - Software	27,375,730	12,475,204	11,691,898	583,306	4.7	0	5.6	(b)
	Total General Property	106,533,481	46,582,584	46,539,922	42,662		(520,464)		(22,635)

Schedule 2. Calculated Accrued Depreciation, Book Accumulated Depreciation and Determination of Reserve Variance Amortizations Related to Original Cost of Electric Plant at December 31, 2005

					Accu	mulated Res	erve		
		Original	Calculated	Book		Variance		Probable	Reserve
		Cost at	Accrued	Accumulated			Amount >	Remaining	Variance
	Depreciable Group	12/31/05	Depreciation	Depreciation	Amou <u>nt</u>	Percent	Threshold	Life	Amortization
	(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)=(5)/(3)	(7)=(3)-(4) (0)	(8)	(9)=(5)/(8)
Telecommu	nications								
381.1	Mobile Radios	412,784	221,077	212,820	8,257	3.7	0	8.1	0 (b)
381.2	Portable Radios	234,774	155,173	162,663	(7,490)	(4.8)	Ø	6,5	0 (b)
381.3	Base Stations	102,131	96,646	96,688	(42)	0.0	Ø	1.1	0 (b)
382.1	Radio Sites - Roads	109,734	77,668	80,169	(2,501)	(3.2)	0	9.1	0 (b)
382.2	Radio Sites - Buildings	385,914	276,203	279,656	(3,453)	(1.3)	0	9,B	Q (b)
383	Radio Equipment	1,587,869	1,070,128	1,069,496	632	D.1	٥	4.9	0 (b)
384	Communication Cables	2,411,613	1,101,724	791,522	310,202	26.2	310,202	14.1	22,000
386	SCADA Equipment	5,793,071	3,447,627	4,747,007	(1,299,180)	(37.7)	(1,299,180)	6.2	(209,545)
389.1	Telephone and Data Collection Equipment	1,339,030	949,999	739,966	210,033	22.1	210,033	3,3	42,007 (c)
389.2	Fax Machines			0	0				
389.3	Telephone Equipment			0	0				
390	Power Line Carrier	21,848	19,199	(21,802)	41,001	213.6	41,001	4.5	8,200 (c)
391	Communication Test Equipment	721,543_	593,777	681,058	(87,281)	(14.7)	(87,281)	3,2	(17,456) (c)
	Total Telecommunications	13,120,311	8,009,421	8,839,243	(829,822)		(825,225)		(154,794)
	TOTAL DEPRECIABLE PLANT	1,139,091,988	475,945,022	476,937,482	(992,459)		(694,920)		14,748

- (a) Future dismantling costs expected. No reserve variance amortization incurred.
 (b) No reserve variance amortization calculated when reserve variance is less than five percent.
 (c) Reserve variance is allocated over five years for those accounts with a composite remaining life of less than 5 years.
 (d) No assets remain in this account and no future dismantling costs expected. Reserve variance is amortized over 5 years.
 (e) The reserve variance for accounts that exceed the 5% tolerance threshold are listed.

ST. JOHN'S, NEWFOUNDLAND

APPENDICES TO

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO ELECTRIC PLANT AT DECEMBER 31, 2005



Harrisburg, Pennsylvania

Calgary, Alberta

Valley Forge, Pennsylvania

APPENDIX A — SERVICE LIFE STATISTICS





ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1924-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	2,025,842 1,981,468 1,937,563 1,774,292 1,774,722 1,802,172 1,709,355 1,733,757 1,778,737 1,075,619		0.0000 0.0000 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	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	1,112,319 1,117,974 1,117,974 1,106,259 971,611 967,746 967,146 967,161 963,161 913,330	18,445 600 2,994 4,000 6,105	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0167\\ 0.0000\\ 0.0006\\ 0.0031\\ 0.0041\\ 0.0000\\ 0.0067\end{array}$	1.0000 1.0000 0.9833 1.0000 0.9994 0.9969 0.9959 1.0000 0.9933	100.00 100.00 100.00 98.33 98.33 98.27 97.97 97.57 97.57
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	914,762 909,152 903,133 886,490 927,280 926,060 915,985 915,985 915,985 915,985	7,000 1,571 1,220 20,900	0.0000 0.0077 0.0000 0.0018 0.0013 0.0000 0.0000 0.0000 0.0000 0.0000 0.0228	1.0000 0.9923 1.0000 0.9982 0.9987 1.0000 1.0000 1.0000 1.0000 0.9772	96.92 96.92 96.17 96.17 96.00 95.88 95.88 95.88 95.88 95.88
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	895,085 897,781 897,781 832,140 832,140 830,235 828,235 823,823 842,540 826 762	1,104 8,825 2,000 4,412 610 15,778	0.0012 0.0098 0.0000 0.0000 0.0024 0.0053 0.0007 0.0187 0.0000	0.9988 1.0000 0.9902 1.0000 1.0000 0.9976 0.9947 0.9993 0.9813 1.0000	93.69 93.58 93.58 92.66 92.66 92.66 92.44 91.95 91.89 90.17

ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

PLACEMENT	BAND 1924-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 45.5 46.5 47.5 48.5	824,806 800,894 783,849 696,956 601,040 601,040 599,142 500,480 457,500 446,218	23,912 15,530 95,916 251 9,316 2,000	0.0290 0.0194 0.0000 0.1376 0.0000 0.0004 0.0155 0.0040 0.0000 0.0000	0.9710 0.9806 1.0000 0.8624 1.0000 0.9996 0.9845 0.9960 1.0000 1.0000	90.17 87.56 85.86 85.86 74.05 74.05 74.02 72.58 72.58
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	425,818 391,990 265,563 229,680 196,024 158,965 154,865 153,875 145,788 145,788	15,000 30,517 4,100 990	0.0000 0.0383 0.0000 0.1557 0.0258 0.0064 0.0000 0.0000 0.0000	$\begin{array}{c} 1.0000\\ 0.9617\\ 1.0000\\ 1.0000\\ 0.8443\\ 0.9742\\ 0.9936\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\end{array}$	72.58 72.58 69.80 69.80 58.93 57.41 57.04 57.04 57.04
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	140,478 140,478 140,478 108,375 97,164 74,679 74,679 74,679 74,679 74,679	1,500	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0201 \end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9799	57.04 57.04 57.04 57.04 57.04 57.04 57.04 57.04 57.04 57.04 57.04
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5	73,179 69,379 69,379 69,379 69,379 51,434 51,434 51,434 34,107 34,107		$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	55.89 55.89 55.89 55.89 55.89 55.89 55.89 55.89 55.89 55.89 55.89

ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

PLACEMENT	BAND	1924-	-2005			EXPERIEN	ICE	BAND	1948-	2005
AGE AT BEGIN OF INTERVAL	EXPOS BEGIN AGE I	URES INING INTERV	AT OF JAL	RETIREM DURING INTERV	IENT AGE VAL	S RETMT RATIO	S R	URV ATIO	PCT BEGI INTE	SURV IN OF ERVAL
79.5 80.5 81.5		34,10 34,10)7)7			0.0000 0.0000	1. 1.	0000	55 55 55	5.89 5.89 5.89



ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1904-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENT DURING AGE	S RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0 0.5 1.5	3,686,027 3,527,244 3,399,159	17,199 648	0.0000 0.0049 0.0002	1.0000 0.9951 0.9998	100.00 100.00 99.51
2.5 3.5	3,281,311 3,123,226	2,702	0.0000 0.0009	1.0000 0.9991	99.49 99.49
4.5	3,019,871	3,966	0.0013	0.9987	99.40
5.5 6.5 7.5	2,666,140 3,048,984 3 111 935	1,200 741	0.0005 0.0002	0.9995	99.27 99.22 99.20
8.5	3,257,987	5,159	0.0016	0.9984	99.20
9.5	3,331,130	108	0.0000	1.0000	99.04
10.5 11.5	3,326,139	75	0.0000	1.0000	99.04 99.04
12.5	3,324,956		0.0000	1.0000	99.04
13.5	3,332,364	4,245	0.0013	0.9987	99.04
14.5	3,263,533	4,571	0.0014	0.9986	98.91
16.5	3,313,968	308	0.0001	0.9943 0.9999	98.21
17.5	3,242,748	3,095	0.0010	0.9990	98.20
18.5	3,205,110	13,791	0.0043	0.9957	98.10
19.5	3,251,188	27,227	0.0084	0.9916	97.68
20.5	3,176,090	12,100	0.0038	0.9962	96.86
22.5	2,922,012	9,426	0.0014 0.0042	0.9958	96.35
23.5	2,416,410	6,500	0.0027	0.9973	95.95
24.5	2,325,838	11,535	0.0050	0.9950	95.69
25.5	2,238,079	484	0.0002	0.9998	95.21
26.5	2,205,590 2 192 974	17,435 5 000	0.0079	0.9921	95.19
28.5	2,171,685	16,242	0.0075	0.9925	94.22
29.5	2,152,852	2,227	0.0010	0.9990	93.51
30.5	2,143,135	362	0.0002	0.9998	93.42
31.5	2,118,370	32,360	0.0153	0.9847	93.40
33.5	2,111,773	1,992	0.0009	0.9991	91.94
34.5	2,109,306	50	0.0000	1.0000	91.86
35.5	2,108,361	17,040	0.0081	0.9919	91.86
36.5	2,115,321	47,705	0.0226	0.9774	91.12
37.5 38.5	2,067,025 2,005,756	6⊥,269 200	0.0296	0.9704 0.9999	89.06 86.42

ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

PLACEMENT	BAND 1904-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENI DURING AGE INTERVAL	S 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	2,005,431 2,002,841 1,926,040 1,868,248 1,881,352 1,883,989 1,882,259 1,405,642 1,318,744 1,198,410	17,350 6,250 2,950 2,942 3,500 4,100 500 2,700 3,100	0.0000 0.0087 0.0032 0.0016 0.0019 0.0022 0.0004 0.0020 0.0026	1.0000 0.9913 0.9968 0.9984 0.9984 0.9981 0.9978 0.9996 0.9980 0.9974	86.41 86.41 85.66 85.39 85.25 85.11 84.95 84.76 84.73 84.56
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	1,106,110 1,106,110 803,676 803,676 803,676 700,344 691,504 691,504 691,504 690,004	3,000 3,500 8,840 1,500 4,138	$\begin{array}{c} 0.0000\\ 0.0027\\ 0.0000\\ 0.0000\\ 0.0044\\ 0.0126\\ 0.0000\\ 0.0000\\ 0.0022\\ 0.0060\\ \end{array}$	1.0000 0.9973 1.0000 1.0000 0.9956 0.9874 1.0000 1.0000 0.9978 0.9940	84.34 84.11 84.11 84.11 83.74 82.68 82.68 82.68 82.68
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	631,956 617,560 638,433 626,733 616,483 430,146 424,180 424,180 418,780 418,114	13,982 1,027 300 5,966 5,400 4,858	0.0221 0.0017 0.0000 0.0005 0.0139 0.0000 0.0127 0.0000 0.0116	0.9779 0.9983 1.0000 1.0000 0.9995 0.9861 1.0000 0.9873 1.0000 0.9884	82.01 80.20 80.06 80.06 80.02 78.91 78.91 77.91 77.91
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5	413,256 410,956 409,956 405,256 389,005 293,883 293,883 273,383 272,883 272,383	2,300 1,000 4,700 14,940 4,000 500 500	0.0056 0.0024 0.0115 0.0000 0.0384 0.0000 0.0136 0.0018 0.0018 0.0018	0.9944 0.9976 0.9885 1.0000 0.9616 1.0000 0.9864 0.9982 0.9982 1.0000	77.01 76.58 76.40 75.52 75.52 72.62 72.62 71.63 71.50 71.37

ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

PLACEMENT	BAND 1904-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	CS 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	272,383 272,383 86,070 41,150 41,150 35,139 34,639 34,639 34,639 16,500	500	0.0000 0.0000 0.0000 0.0000 0.0142 0.0000 0.0000 0.0000 0.0000 0.0000	$\begin{array}{c} 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 0.9858\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\end{array}$	71.37 71.37 71.37 71.37 71.37 71.37 70.36 70.36 70.36 70.36
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	16,500 16,500 16,500 16,500 16,500 16,500 16,500 16,500 16,500 15,500	1,000	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0606\\ 0.0000\end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9394 1.0000	70.36 70.36 70.36 70.36 70.36 70.36 70.36 70.36 70.36 66.10
99.5 100.5 101.5	15,500 15,500		0.0000 0.0000	1.0000 1.0000	66.10 66.10 66.10



ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS, & TAILRACES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1913-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENT DURING AGE	S RETMT PATTO	SURV	PCT SURV BEGIN OF
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	50,663,016 50,569,057 48,087,552 46,918,896 44,121,248 42,004,355 38,481,255 34,305,387 21,366,608 21,695,196	31,906 167,543 45,818 96,939 47,796 27,399	0.0000 0.0006 0.0035 0.0010 0.0000 0.0023 0.0012 0.0000 0.0013 0.0000	1.0000 0.9994 0.9965 0.9990 1.0000 0.9977 0.9988 1.0000 0.9987 1.0000	100.00 100.00 99.94 99.59 99.49 99.49 99.26 99.14 99.14 99.01
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	21,954,979 21,894,806 21,826,270 21,501,237 21,760,791 21,146,345 17,976,155 16,234,205 16,235,255 15,287,382	52,793 139,426 2,534 74,904 316,329 10,983 4,122	0.0000 0.0024 0.0064 0.0000 0.0001 0.0035 0.0176 0.0000 0.0007 0.0003	1.0000 0.9976 0.9936 1.0000 0.9999 0.9965 0.9824 1.0000 0.9993 0.9997	99.01 99.01 98.77 98.14 98.14 98.13 97.79 96.07 96.07 96.00
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	15,257,449 13,267,791 12,689,664 11,804,556 12,245,444 9,917,107 9,810,007 9,289,799 9,270,663 9,172,151	2,000 2,166 9,819 98,896 162,400	0.0000 0.0002 0.0000 0.0000 0.0000 0.0000 0.0002 0.0011 0.0107 0.0177	$\begin{array}{c} 1.0000\\ 0.9998\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 0.9998\\ 0.9989\\ 0.9893\\ 0.9823 \end{array}$	95.97 95.95 95.95 95.95 95.95 95.95 95.95 95.93 95.82 94.79
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	9,030,023 9,030,023 8,893,460 8,906,160 8,957,740 8,586,561 8,463,164 8,463,029 8,451,441 8,451,441	134,900 73,550 342,275 135 11,588 225,183	0.0000 0.0149 0.0000 0.0083 0.0382 0.0000 0.0000 0.0014 0.0000 0.0266	1.0000 0.9851 1.0000 0.9917 0.9618 1.0000 1.0000 0.9986 1.0000 0.9734	93.11 93.11 91.72 91.72 90.96 87.49 87.49 87.49 87.37 87.37

ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS, & TAILRACES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,226,258	472	0.0001	0.9999	85.05
40.5	7,540,017	5,832	0.0008	0.9992	85.04
41.5	7,548,608	1,834	0.0002	0.9998	84.97
42.5	7,060,055	84,060	0.0119	0.9881	84.95
43.5	6,975,995	251,039	0.0360	0.9640	83.94
44.5	6,723,773	336,074	0.0500	0.9500	80.92
45.5	6,381,388	411,103	0.0644	0.9356	76.87
46.5	4,425,464	854,714	0.1931	0.8069	71.92
47.5	3,427,125	100,981	0.0295	0.9705	58.03
48.5	3,356,377	123,646	0.0368	0.9632	56.32
49.5	2,864,880	219,900	0.0768	0.9232	54.25
50.5	2,644,980	19,078	0.0072	0.9928	50.08
51.5	1,712,608	13,350	0.0078	0.9922	49.72
52.5	1,728,538	4,000	0.0023	0.9977	49.33
53.5	1,890,124	1,910	0.0003	0.9997	49.22
54.5	1,392,247		0.0000	1.0000	49.21
55.5	1,378,407		0.0014	0.9986	49.21
56.5 57.5 58.5	1,376,497 1,193,674 1,192,074	1,600 68,137	0.0000 0.0013 0.0572	1.0000 0.9987 0.9428	49.14 49.14 49.08
59.5	1,042,687	100,283	0.0962	0.9038	46.27
60.5	942,404	500	0.0000	1.0000	41.82
61.5	942,404		0.0005	0.9995	41.82
62.5	661,204		0.0000	1.0000	41.80
63.5 64.5	572,114 308,819		0.0000	1.0000	41.80 41.80
65.5 66.5	308,819 308,819	7,518	0.0000	1.0000	41.80 41.80
67.5	301,301 299,291	1,626	0.0054 0.0167	0.9946 0.9833	40.78
69.5	294,291	1,475	0.0000	1.0000	39.88
70.5	294,291		0.0050	0.9950	39.88
71.5	279,362	1 345	0.0000	1.0000	39.68
72.5	278,092		0.0000	1.0000	39.68
73 5	276 588		0.0049	0 9951	39.68
74.5 75.5	170,881 144,751	19,208	0.1124	0.8876	39.49 35.05
76.5	144,751	9,000	0.0000	1.0000	35.05
77.5	144,751		0.0622	0.9378	35.05
78.5	135,751		0.0000	1.0000	32.87

ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS, & TAILRACES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-2005 EXPERIENCE BAND 1948-2005 AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 0.00001.000032.870.00001.000032.870.00001.000032.870.00001.000032.870.00001.000032.870.00001.000032.870.00001.000032.870.100001.000032.87 135,751 0.0000 1.0000 79.5 135,751 135,751 74,726 74,726 74,726 74,726 74,726 72,326 80.5 81.5 82.5 83.5 0.0000 1.0000 32.87 0.0000 1.0000 32.87 9,750 0.1348 0.8652 32.87 84.5 85.5 62,576 0.0000 1.0000 28.44 86.5 0.0000 1.0000 28.44 0.0000 1.0000 28.44 87.5 62,576 33,500 88.5 0.0000 1.0000 28.44 0.0000 1.0000 28.44 0.0000 1.0000 28.44 89.5 33,500 33,500 90.5 33,500 91.5 92.5 28.44



ACCOUNT 324.00 - DAMS AND RESERVOIRS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1904-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT: DURING AGE INTERVAL	S 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	20,962,304 20,238,122 19,983,423 19,183,349 19,194,742 19,171,602 18,490,442 17,224,147 17,088,851 17,653,231	31,087 8,892 37,579 40,000 89,175	0.0000 0.0015 0.0000 0.0005 0.0000 0.0022 0.0000 0.0052 0.0000	1.0000 0.9985 1.0000 0.9995 1.0000 0.9980 0.9978 1.0000 0.9948 1.0000	100.00 100.00 99.85 99.85 99.80 99.80 99.60 99.38 99.38 99.38 98.86
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	17,511,300 15,988,706 15,263,360 14,443,673 11,930,072 11,864,561 11,353,402 11,035,325 10,406,067 9,941,552	44,252 10,380 84,902 32,644 50,924 53,822 41,639 12,379 127,071 43,762	0.0025 0.0006 0.0056 0.0023 0.0043 0.0045 0.0037 0.0011 0.0122 0.0044	0.9975 0.9994 0.9944 0.9977 0.9957 0.9955 0.9963 0.9989 0.9878 0.9956	98.86 98.61 98.55 98.00 97.77 97.35 96.91 96.55 96.44 95.26
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	9,603,255 9,072,308 8,843,856 8,466,957 7,505,351 7,317,407 7,025,241 6,943,126 6,803,220 6,883,220	68,076 63,783 10,976 140,718 8,886 41,079 90,904 19,940 3,000 29,533	0.0071 0.0070 0.012 0.0166 0.0012 0.0056 0.0129 0.0029 0.0029 0.0004 0.0043	0.9929 0.9930 0.9988 0.9834 0.9988 0.9944 0.9871 0.9971 0.9996 0.9957	94.84 94.17 93.51 93.40 91.85 91.74 91.23 90.05 89.79 89.75
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	6,853,432 6,905,797 6,865,393 6,800,468 6,782,212 6,893,383 6,855,136 6,943,440 6,934,619 6,896,468	$\begin{array}{r} 49,977\\ 107,000\\ 76,789\\ 38,143\\ 899\\ 38,247\\ 24,696\\ 122,201\\ 38,151\\ 53,112\end{array}$	0.0073 0.0155 0.0112 0.0056 0.0001 0.0055 0.0036 0.0176 0.0055 0.0077	0.9927 0.9845 0.9888 0.9944 0.9999 0.9945 0.9964 0.9824 0.9824 0.9945 0.9923	89.36 88.71 87.33 86.35 85.87 85.86 85.39 85.08 83.58 83.58

ACCOUNT 324.00 - DAMS AND RESERVOIRS

PLACEMENT	BAND 1904-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	TS E 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	6,842,765 6,558,406 6,460,703 5,897,406 5,732,796 5,726,772 5,656,703 4,668,849 4,714,163 3,498,980	232,641 46,902 26,507 87,945 27,384 81,936 81,007 6,958 250,430 6,543	$\begin{array}{c} 0.0340 \\ 0.0072 \\ 0.0041 \\ 0.0149 \\ 0.0048 \\ 0.0143 \\ 0.0143 \\ 0.0143 \\ 0.0015 \\ 0.0531 \\ 0.0019 \end{array}$	0.9660 0.9928 0.9959 0.9851 0.9952 0.9857 0.9857 0.9985 0.9469 0.9981	82.48 79.68 79.11 78.79 77.62 77.25 76.15 75.06 74.95 70.97
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	3,132,676 3,116,770 2,031,958 1,941,421 1,883,205 1,736,775 1,714,166 1,702,009 1,695,254 1,715,183	5,000 9,500 90,120 16,510 5,730 21,690 12,157 2,455 7,071 8,800	0.0016 0.0030 0.0444 0.0085 0.0030 0.0125 0.0071 0.0014 0.0042 0.0051	0.9984 0.9970 0.9556 0.9915 0.9970 0.9875 0.9929 0.9986 0.9958 0.9949	70.84 70.73 70.52 67.39 66.82 66.62 65.79 65.32 65.23 64.96
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	1,639,683 1,628,226 1,460,546 1,240,556 1,198,056 935,950 931,246 930,324 919,458 829,253	11,457 10,480 21,000 10,000 2,824 922 10,866 11,626 1,160	0.0070 0.0064 0.0144 0.0000 0.0083 0.0030 0.0010 0.0117 0.0126 0.0014	0.9930 0.9936 0.9856 1.0000 0.9917 0.9970 0.9990 0.9883 0.9874 0.9986	64.63 64.18 63.77 62.85 62.85 62.33 62.14 62.08 61.35 60.58
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5	828,093 828,093 784,608 784,608 774,002 435,296 432,776 325,046 261,351 261,351	28,835 5,000 56,725 2,520 19,412 550 20,017	$\begin{array}{c} 0.0000\\ 0.0348\\ 0.0000\\ 0.0064\\ 0.0733\\ 0.0058\\ 0.0449\\ 0.0017\\ 0.0000\\ 0.0766\end{array}$	1.0000 0.9652 1.0000 0.9936 0.9267 0.9942 0.9551 0.9983 1.0000 0.9234	60.50 60.50 58.39 58.02 53.77 53.46 51.06 50.97 50.97

ACCOUNT 324.00 - DAMS AND RESERVOIRS

PLACEMENT	BAND 1904-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	241,334 241,334 86,579 86,579 86,579 62,923 49,375 49,375 29,356 22,000		$\begin{array}{c} 0.0000\\ 0.000\\ 0$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	$\begin{array}{c} 47.07\\ 47$
89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5	22,000 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 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	$\begin{array}{c} 47.07\\ 47$
99.5 100.5 101.5	22,000 22,000		0.0000 0.0000	1.0000 1.0000	47.07 47.07 47.07



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ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENTS DURING AGE	S RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	24,965,028 23,622,978	34,600	0.0014	0.9986 1.0000	100.00 99.86
1.5	21,638,794	32,026	0.0015	0.9985	99.86
2.5	18,636,507	4,306	0.0002	0.9998	99.71
3.5	16,546,002	38,255	0.0023	0.9977	99.69
4.5	16,343,685 15 709 250	52,446	0.0032	0.9968	99.46
6.5	15,708,250	35,513	0.0012	0.9977	99.02
7.5	15,660,371	115,234	0.0074	0.9926	98.79
8.5	14,870,747	200	0.0000	1.0000	98.06
9.5	14,113,412	150	0.0000	1.0000	98.06
10.5	13,902,731	2 540	0.0000	1.0000	98.06
11.5 12 5	13,109,957 12 951 207	3,540	0.0003	0.9997	98.06
13.5	12,746,525	108,824	0.0085	0.9915	98.03
14.5	12,333,849	,	0.0000	1.0000	97.20
15.5	11,906,341	95,296	0.0080	0.9920	97.20
16.5	11,920,314	24,326	0.0020	0.9980	96.42
17.5	11,811,818	15,309	0.0013	0.9987	96.23
18.5	11,469,750	24,661	0.0022	0.9978	96.10
19.5	9,391,570	8,821	0.0009	0.9991	95.89
20.5	8,842,019	62,075	0.0070	0.9930	95.80
∠⊥.5 22 5	7,375,179 5 043 142	13,952	0.0019	1 0000	95.13 94 95
23.5	5,093,824	9,580	0.0019	0.9981	94.95
24.5	5,084,244	19,070	0.0038	0.9962	94.77
25.5	4,678,275	5,000	0.0011	0.9989	94.41
26.5	4,633,863	7,500	0.0016	0.9984	94.31
27.5	4,626,363	49,000	0.0106	0.9894	94.16
28.5	4,558,3/1	15,141	0.0033	0.9967	93.16
29.5	4,536,925	46,087	0.0102	0.9898	92.85
30.5	4,490,838	1,500	0.0003	0.9997	91.90
31.5 32 5	4,468,959 4 463 959	5,000	0.0011	0.9989	91.87 91 77
33.5	4,539,721	23,597	0.0052	0.9948	91.74
34.5	4,507,460	60,930	0.0135	0.9865	91.26
35.5	4,369,355	5,872	0.0013	0.9987	90.03
36.5	4,341,029	163,802	0.0377	0.9623	89.91
37.5	4,266,591	89,413	0.0210	0.9790	86.52
38.5	4,143,710	125,150	0.0302	0.9698	84.70

ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2005 EXPERIENCE BAND 1948-2005 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 4,018,486 17,100 0.0043 0.9957 82.14 29,600 0.0073 0.9927 1,500 0.0004 0.9996 40.5 4,075,171 81.79 41.5 4,224,375 81.19 42.5 3,765,787 56,282 0.0149 0.9851 81.16 1,858 0.0005 0.9995 43.5 3,604,666 79.95 36,068 0.0100 0.9900 3,599,663 44.5 79.91 14,500 0.0041 0.9959 45.5 3,555,355 79.11 46.5 2,507,835 160,381 0.0640 0.9360 78.79 47.5 2,641,338 7,990 0.0030 0.9970 73.75 16,882 0.0066 0.9934 48.5 2,558,403 73.53 49.5 2,440,921 13,777 0.0056 0.9944 73.04 50.5 2,427,144 60,304 0.0248 0.9752 72.63 0.0039 0.9961 51.5 1,903,265 7,500 70.83 0.0155 0.9845 52.5 1,935,765 30,081 70.55 1,905,491 15,000 53.5 0.0079 0.9921 69.46 1,566,134 1,566,134 68.91 54.5 30,000 0.0188 0.9812 55.5 0.0000 1.0000 67.61 1,566,134 1,560,534 5,600 0.0036 0.9964 56.5 67.61 57.5 1,560,534 0.0000 1.0000 67.37 1,000 0.0006 0.9994 58.5 1,560,534 67.37 59.5 1,559,534 27,400 0.0176 0.9824 67.33 1,532,134 0.0003 0.9997 66.14 60.5 400 33,540 0.0219 0.9781 66.12 61.5 1,531,734 0.0118 0.9882 62.5 1,498,194 17,648 64.67 7,000 0.0049 0.9951 63.5 1,434,956 63.91 0.0000 1.0000 64.5 1,063,921 1,063,921 1,032,389 1,063,921 63.60 65.5 0.0000 1.0000 63.60 63.60 66.5 0.0000 1.0000 63.60 67.5 1,032,389 0.0000 1.0000 1,032,389 18,900 0.0183 0.9817 68.5 63.60 69.5 1,013,489 15,000 0.0148 0.9852 62.44 200 0.0002 0.9998 200 0.0002 0.9998 70.5 998,489 61.52 998,489 71.5 61.52 998,489 2,274 0.0023 0.9977 72.5 61.51 961,615 0.0000 1.0000 73.5 61.37 74.5 869,286 0.0000 1.0000 61.37 75.5 869,286 0.0000 1.0000 61.37 61.37 76.5 869,286 0.0000 1.0000 61.37 77.5 869,286 0.0000 1.0000 869,286 77,572 0.0892 0.9108 61.37 78.5

ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2005 EXPERIENCE BAND 1948-2005 PCT SURV AGE AT EXPOSURES AT RETIREMENTS BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 0.0000 1.0000 791,714 791,714 583,696 583,696 583,696 583,696 583,696 583,696 583,696 583,696 522,076 79.5 791,714 55.90
 0.0000
 1.0000
 55.90

 0.0000
 1.0000
 55.90

 0.0000
 1.0000
 55.90

 0.0000
 1.0000
 55.90
 80.5 81.5 82.5 83.5 0.0000 1.0000 55.90 0.00001.000055.900.00001.000055.900.00001.000055.900.00001.000055.900.00001.000055.900.00001.000055.90 84.5 85.5 86.5 87.5 88.5 522,0760.00001.000055.90522,0763820.00070.999355.90521,6940.00001.000055.86495,9760.00001.000055.86495,9760.00001.000055.86429,4940.00001.000055.86429,4940.00001.000055.86429,4940.00001.000055.86429,4940.00001.000055.86417,5840.00001.000055.86 89.5 90.5 91.5 92.5 93.5 94.5 95.5 96.5 97.5 98.5 417,5840.00001.000055.86417,5840.00001.000055.86417,5840.00001.000055.86417,5840.00001.000055.86417,5840.00001.000055.86417,5840.00001.000055.86417,5840.00001.000055.86417,5840.00001.000055.86 99.5 100.5 101.5 102.5 103.5 55.86 105.5



ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1918-2005 EXPERIENCE BAND 1948-2005

AGE AT	EXPOSURES AT	RETIREMENT	S		PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RA'I'IO	RA'I'IO	INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5	7,591,927 6,830,593 5,049,486 5,425,311 5,801,355 5,293,608 5,247,975 5,409,826 5,275,018	7,728 24,225 9,125 3,067 18,373 22,779 2,355 18,672	$\begin{array}{c} 0.0000\\ 0.0011\\ 0.0048\\ 0.0017\\ 0.0005\\ 0.0035\\ 0.0043\\ 0.0004\\ 0.0035\end{array}$	1.0000 0.9989 0.9952 0.9983 0.9995 0.9965 0.9957 0.9996 0.9996	100.00 100.00 99.89 99.41 99.24 99.19 98.84 98.41 98.37
8.5	5,315,919	42,561	0.0080	0.9920	98.03
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	5,157,515 4,957,255 4,882,120 4,809,250 4,527,219 4,267,964 4,270,552 3,864,562 3,515,210 3,167,073	38,620 28,747 21,362 14,137 37,347 7,838 147,799 244,668 15,496 121,138	$\begin{array}{c} 0.0075\\ 0.0058\\ 0.0044\\ 0.0029\\ 0.0082\\ 0.0018\\ 0.0346\\ 0.0633\\ 0.0044\\ 0.0382 \end{array}$	0.9925 0.9942 0.9956 0.9971 0.9918 0.9982 0.9654 0.9367 0.9956 0.9618	97.25 96.52 95.96 95.54 95.26 94.48 94.31 91.05 85.29 84.91
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	2,701,550 2,497,193 2,213,719 1,625,677 1,620,149 1,591,149 1,435,009 1,416,799 1,251,778 896,295	138,681 22,195 3,996 5,271 3,200 31,645 12,867 6,647 13,045 4,578	0.0513 0.0089 0.0018 0.0032 0.0020 0.0199 0.0090 0.0047 0.0104 0.0051	0.9487 0.9911 0.9982 0.9968 0.9980 0.9801 0.9910 0.9953 0.9896 0.9949	81.67 77.48 76.79 76.65 76.40 76.25 74.73 74.06 73.71 72.94
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	891,717 884,348 904,783 870,284 760,012 755,763 761,763 736,786 714,700 699,850	4,657 4,465 27,180 1,142 1,149 400 24,977 22,715 14,850 32,545	0.0052 0.0050 0.0300 0.0013 0.0015 0.0005 0.0328 0.0308 0.0208 0.0465	0.9948 0.9950 0.9700 0.9987 0.9985 0.9995 0.9672 0.9692 0.9792 0.9535	72.57 72.19 71.83 69.68 69.59 69.49 69.46 67.18 65.11 63.76

ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1918-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	667,305 652,875 634,386 553,780 520,270 516,290 483,362 305,748 279,168 245,356	1,980 18,000 8,964 11,000 3,800 34,527 600 30,490 7,750 4,350	0.0030 0.0276 0.0141 0.0199 0.0073 0.0669 0.0012 0.0997 0.0278 0.0177	0.9970 0.9724 0.9859 0.9801 0.9927 0.9331 0.9988 0.9003 0.9722 0.9823	60.80 60.62 58.95 58.12 56.96 56.54 52.76 52.70 47.45 46.13
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	201,136 192,376 81,064 79,253 74,453 18,324 18,208 18,208 18,208 18,208	8,760 1,960 600 4,800 28,437	$\begin{array}{c} 0.0436 \\ 0.0102 \\ 0.0074 \\ 0.0606 \\ 0.3819 \\ 0.0000 \\ 0.0000 \\ 0.0000 \\ 0.0000 \\ 0.0000 \\ 0.0000 \\ 0.0000 \end{array}$	0.9564 0.9898 0.9926 0.9394 0.6181 1.0000 1.0000 1.0000 1.0000 1.0000	45.31 43.33 42.89 42.57 39.99 24.72 24.72 24.72 24.72 24.72 24.72 24.72 24.72
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	18,208 18,208 18,208 18,208 18,208 15,077 15,077 15,077 15,077 6,307	716 8,770	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0393\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.5817\\ 0.0000 \end{array}$	$\begin{array}{c} 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 0.9607\\ 1.0000\\ 1.0000\\ 1.0000\\ 0.4183\\ 1.0000\end{array}$	24.72 24.72 24.72 24.72 23.75 23.75 23.75 23.75 23.75 9.93
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5	6,307 6,307 6,307 6,307 6,307 5,200 5,200 5,200 5,200	5,200	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 1.0000\\ 1.0000\end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000	9.93 9.93 9.93 9.93 9.93 9.93 9.93 9.93



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ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1918-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF	EXPOSURES AT BEGINNING OF	RETIREMENT: DURING AGE	S RETMT	SURV	PCT SURV BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5	1,431,720 1,465,311 1,435,928 829,244 825,587 825,587 775,596 538,349 521,704 553,099	1,328 832 3,118 6,868 337 5,083 2,245 651 1,492	0.0009 0.0006 0.0022 0.0083 0.0004 0.0062 0.0029 0.0012 0.0029 0.0029	0.9991 0.9994 0.9978 0.9917 0.9996 0.9938 0.9971 0.9988 0.9971 1.0000	100.00 99.91 99.85 99.63 98.80 98.76 98.15 97.87 97.75 97.47
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	521,819 523,590 523,589 521,516 520,739 520,739 498,127 497,877 469,309 460,509	2,188 2,073 93 7,313 724 229 88	$\begin{array}{c} 0.0042 \\ 0.0000 \\ 0.0040 \\ 0.0002 \\ 0.0000 \\ 0.0140 \\ 0.0015 \\ 0.0005 \\ 0.0000 \\ 0.0002 \end{array}$	0.9958 1.0000 0.9960 0.9998 1.0000 0.9860 0.9985 0.9995 1.0000 0.9998	97.47 97.06 97.06 96.67 96.65 96.65 95.30 95.16 95.11 95.11
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	454,320 421,619 417,983 316,772 317,972 285,596 273,397 260,991 259,584 249,255	32,701 3,636 960 551 700 2,862 474	$\begin{array}{c} 0.0720\\ 0.0086\\ 0.0023\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0020\\ 0.0027\\ 0.0110\\ 0.0019 \end{array}$	0.9280 0.9914 0.9977 1.0000 1.0000 1.0000 0.9980 0.9973 0.9890 0.9981	95.09 88.24 87.48 87.28 87.28 87.28 87.28 87.28 87.11 86.87 85.91
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	243,263 235,956 221,888 221,888 224,608 221,623 220,955 215,316 213,940 192,044	6,588 300 1,047 623 3,600 1,376 21,896	0.0271 0.0013 0.0000 0.0000 0.0047 0.0028 0.0163 0.0064 0.1023 0.0000	0.9729 0.9987 1.0000 1.0000 0.9953 0.9972 0.9837 0.9936 0.8977 1.0000	85.75 83.43 83.32 83.32 82.93 82.70 81.35 80.83 72.56

ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1918-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	213,302 211,918 212,562 194,797 193,230 192,469 189,341 104,714 100,616 64,814	171 1,074 5,700 1,159	$\begin{array}{c} 0.0008\\ 0.0051\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0567\\ 0.0179 \end{array}$	0.9992 0.9949 1.0000 1.0000 1.0000 1.0000 1.0000 0.9433 0.9821	72.56 72.50 72.13 72.13 72.13 72.13 72.13 72.13 72.13 72.13 68.04
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	63,655 62,571 22,794 19,580 18,380 18,379 18,379 18,379 11,690 11,690	8,883 1,200	$\begin{array}{c} 0.0000\\ 0.1420\\ 0.0000\\ 0.0613\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\end{array}$	1.0000 0.8580 1.0000 0.9387 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	66.82 57.33 57.33 53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82
59.5 60.5 61.5 62.5 63.5 64.5 65.5 65.5 67.5 68.5	6,120 6,120 6,120 6,120 4,920 4,920 4,920 4,920 4,920 4,920 4,920		$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5	4,920 4,920 4,920 2,200 2,200 2,200 2,200 2,200 2,200 2,200 2,200 2,200	2,000	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.9091\\ 0.0000 \end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0909 1.0000	53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82 53.82 4.89

ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

PLACEMENT	BAND 1918-2005	EXI	PERIENCE	BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE H INTERVAL H	RETMT S RATIO F	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5	200 200	0	.0000 1. .0000 1.	.0000 .0000	4.89 4.89 4.89



ACCOUNT 331.00 - BUILDING AND STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1946-2004		EXPERIEN	CE BAND	1952-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	'S 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	1,394,751 1,348,162 1,402,337 1,474,737 1,504,058 1,473,228 1,466,953 1,452,730 1,396,071 1,396,071	2,795 25,142	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0019\\ 0.0167\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	1.0000 1.0000 0.9981 0.9833 1.0000 1.0000 1.0000 1.0000 1.0000	100.00100.00100.0099.8198.1498.1498.1498.1498.14
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	1,088,162 1,039,707 976,619 976,619 946,619 896,790 857,826 857,115 838,703 828,004	30,000 3,758 20,945	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0307\\ 0.0000\\ 0.0000\\ 0.0044\\ 0.0000\\ 0.0000\\ 0.0253 \end{array}$	$\begin{array}{c} 1.0000\\ 1.0000\\ 1.0000\\ 0.9693\\ 1.0000\\ 1.0000\\ 0.9956\\ 1.0000\\ 1.0000\\ 0.9747\end{array}$	98.14 98.14 98.14 95.13 95.13 95.13 94.71 94.71 94.71
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	828,420 784,118 780,164 708,882 696,295 696,295 661,726 661,726 659,726	340 40,935 34,569 2,000	0.0000 0.0004 0.0525 0.0000 0.0496 0.0000 0.0030 0.0000 0.0000 0.0000	1.0000 0.9996 0.9475 1.0000 1.0000 0.9504 1.0000 0.9970 1.0000 1.0000	92.31 92.31 92.27 87.43 87.43 87.43 83.09 83.09 83.09 82.84 82.84
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	656,726 499,338 499,338 499,338 499,338 465,192 456,071 438,885 332,875 265,701	31,864 1,178 1,500	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0638\\ 0.0000\\ 0.0000\\ 0.0027\\ 0.0027\\ 0.0045\\ 0.0000\end{array}$	1.0000 1.0000 1.0000 0.9362 1.0000 1.0000 0.9973 0.9955 1.0000	82.84 82.84 82.84 82.84 82.84 77.55 77.55 77.55 77.55 77.34 76.99

ACCOUNT 331.00 - BUILDING AND STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1946-2004		EXPERIEN	CE BAND	1952-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	TS E 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	217,483 217,483 170,160 170,060 170,060 170,060 170,060 170,060 170,060 170,060	100 5,000	0.0000 0.0006 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0294	1.0000 1.0000 0.9994 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9706	76.99 76.99 76.99 76.94 76.94 76.94 76.94 76.94 76.94 76.94 76.94 76.94
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	165,060 165,060 137,000 35,780 35,780 35,780 35,630 35,630 35,630	101,220 150	0.0000 0.7388 0.0000 0.0000 0.0000 0.0042 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 0.2612 1.0000 1.0000 0.9958 1.0000 1.0000 1.0000	74.68 74.68 74.68 19.51 19.51 19.51 19.51 19.43 19.43 19.43

59.5

19.43


A-33

ACCOUNT 332.00 - ELECTRICAL PLANT

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1945-2005		EXPERIEN	CE BAND	1951-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5 2.5 3.5 4.5	3,604,325 2,419,074 960,666 833,547 819,840 480,129	1,060	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0011\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	1.0000 1.0000 0.9989 1.0000 1.0000 1.0000	100.00 100.00 100.00 99.89 99.89 99.89
5.5 6.5 7.5 8.5	483,139 463,938 453,419 410,815	2,509 5,468 25,352	0.0000 0.0054 0.0121 0.0617	0.9946 0.9879 0.9383	99.89 99.89 99.35 98.15
9.5 10.5 11.5 12.5 13.5 14.5	379,523 379,323 381,918 327,378 261,749 247,858	200 4,700	$\begin{array}{c} 0.0005 \\ 0.0000 \\ 0.0000 \\ 0.0144 \\ 0.0000 \\ 0.0000 \end{array}$	0.9995 1.0000 1.0000 0.9856 1.0000 1.0000	92.09 92.04 92.04 92.04 92.04 90.71 90.71
15.5 16.5 17.5 18.5	247,858 247,858 245,989 240,989	18,669 161	0.0000 0.0753 0.0000 0.0007	1.0000 0.9247 1.0000 0.9993	90.71 90.71 83.88 83.88
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	246,821 248,831 248,831 242,644 238,275 238,275 235,246 235,246 235,246 234,767	170 440 3,029 479	0.0000 0.0007 0.0018 0.0000 0.0127 0.0000 0.0000 0.0020 0.0020	1.0000 1.0000 0.9993 0.9982 1.0000 0.9873 1.0000 1.0000 0.9980 1.0000	83.82 83.82 83.82 83.76 83.61 83.61 82.55 82.55 82.55 82.38
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	234,767 209,007 209,007 206,219 206,219 190,157 150,221 110,212 110,212 110,212	200 2,540	0.0009 0.0122 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.9991 1.0000 0.9878 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	82.38 82.31 82.31 81.31 81.31 81.31 81.31 81.31 81.31 81.31 81.31

ACCOUNT 332.00 - ELECTRICAL PLANT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1945-2005		EXPERIEN	CE BAND	1951-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	106,495 104,575 100,335 100,335 95,074 94,574 94,574 29,749 29,749 29,749	242 500	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0024\\ 0.0053\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	1.0000 1.0000 0.9976 0.9947 1.0000 1.0000 1.0000 1.0000 1.0000	81.31 81.31 81.31 81.11 80.68 80.68 80.68 80.68 80.68 80.68
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	29,749 29,749 27,154 11,370 11,370 11,370 11,370 11,370 11,370 11,370 9,670	15,785	0.0000 0.0000 0.5813 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	$\begin{array}{c} 1.0000\\ 1.0000\\ 0.4187\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ \end{array}$	80.68 80.68 33.78 33.78 33.78 33.78 33.78 33.78 33.78 33.78 33.78

59.5

33.78



A-36

ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1941-2004 EXPERIENCE BAND 1948-2005

AGE AT Regin of	EXPOSURES AT	RETIREMENTS	S permr	QUIDV	PCT SURV
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	18,940,275	230	0.0000	1.0000	100.00
0.5	18,612,361	300	0.0000	1.0000	100.00
1.5	17,340,393	10,149	0.0006	0.9994	100.00
2.5	12,/8/,//6 11 204 424	54,6/2	0.0043	0.9957	99.94
3.5 4 5	11,304,434 10 993 643	27 599	0.0001	0.9999	99.51
5.5	10,799,476	14,989	0.0014	0.9986	99.25
6.5	10,542,422	15,083	0.0014	0.9986	99.11
7.5	10,512,294	350	0.0000	1.0000	98.97
8.5	10,412,508	106,332	0.0102	0.9898	98.97
9.5	9,362,240	83,342	0.0089	0.9911	97.96
10.5	9,218,812	62,160	0.0067	0.9933	97.09
11.5 12 E	8,599,633	3,000	0.0003	0.9997	96.44
13 5	0,030,100 7 719 172	1 869	0.0259	0.9741	90.41 93 91
14.5	7,706,988	1,005	0.0002	1.0000	93.89
15.5	7,368,864	47,181	0.0064	0.9936	93.89
16.5	7,350,833	70,642	0.0096	0.9904	93.29
17.5	7,196,702	779,009	0.1082	0.8918	92.39
18.5	6,417,692	23,997	0.0037	0.9963	82.39
19.5	6,443,632	11,000	0.0017	0.9983	82.09
20.5	6,451,232	158,078 EE 70E	0.0245	0.9755	81.95
21.5 22.5	6,364,068	55,795 6 413	0.0088	0.9912	79.94 79.24
23.5	6,236,427	249,437	0.0400	0.9600	79.16
24.5	6,114,421	34,200	0.0056	0.9944	75.99
25.5	6,074,156	9,697	0.0016	0.9984	75.56
26.5	6,064,459	5,000	0.0008	0.9992	75.44
27.5	6,059,459		0.0000	1.0000	75.38
28.5	6,059,459	2,063	0.0003	0.9997	75.38
29.5	6,060,396	607	0.0001	0.9999	75.36
30.5	3,384,099	111,46Z 8 835	0.0329	0.9671	75.35
32.5	3,081,346	4,894	0.0029	0.9984	72.66
33.5	3,073,452	267,100	0.0869	0.9131	72.54
34.5	2,802,107	64,662	0.0231	0.9769	66.24
35.5	2,676,201	266,400	0.0995	0.9005	64.71
36.5	1,534,676	2,000	0.0013	0.9987	58.27
37.5	1,532,676		0.0000	1.0000	58.19
38.5	1,532,676	18,600	0.0121	0.9879	58.19

ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1941-2004

FYDFDTFNCF		19/9-2005
EAPERIENCE	BAND	1948-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	S 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	1,513,376 1,511,376 1,309,132 1,265,946 1,216,036 1,215,906 1,014,067 988,117 963,997 963,997	43,185 130 2,830 25,950 24,120 3,544	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0330\\ 0.0000\\ 0.0001\\ 0.0023\\ 0.0256\\ 0.0244\\ 0.0000\\ 0.0037 \end{array}$	1.0000 1.0000 0.9670 1.0000 0.9999 0.9977 0.9744 0.9756 1.0000 0.9963	57.49 57.49 55.59 55.59 55.58 55.45 54.03 52.71 52.71
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	960,453 757,444 740,677 202,561 202,561 202,561 202,561 202,561 130 130	16,767 538,246	$\begin{array}{c} 0.0000\\ 0.0221\\ 0.7267\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000 \end{array}$	$\begin{array}{c} 1.0000\\ 0.9779\\ 0.2733\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ \end{array}$	52.51 52.51 51.35 14.03 14.03 14.03 14.03 14.03 14.03 14.03 14.03 14.03 14.03
59.5 60.5 61.5 62.5 63.5	130 130 130 130		0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000	14.03 14.03 14.03 14.03 14.03



ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1920-2005 EXPERIENCE BAND 1970-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	4,779,606 4,491,919 5,216,323 5,930,058 6,455,666 6,293,925 5,779,928 5,591,922 5,379,160 4,653,913	75 12,248 18,273 17,618 3,268 8,821 3,591 7,900 20,025	0.0000 0.0027 0.0035 0.0000 0.0027 0.0005 0.0015 0.0015 0.0015 0.0015 0.0015	1.0000 0.9973 0.9965 1.0000 0.9973 0.9995 0.9985 0.9985 0.9985 0.9957	100.00 100.00 99.73 99.38 99.38 99.11 99.06 98.91 98.85 98.70
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	3,941,515 3,952,420 3,782,198 3,719,499 3,632,656 3,605,788 3,488,437 3,239,018 2,495,281 2,481,040	5,899 5,725 60,635 15,705 17,599 12,973 3,475 3,485 12,087	$\begin{array}{c} 0.0015\\ 0.0014\\ 0.0160\\ 0.0042\\ 0.0048\\ 0.0036\\ 0.0010\\ 0.0000\\ 0.0014\\ 0.0049 \end{array}$	0.9985 0.9986 0.9840 0.9958 0.9952 0.9964 0.9990 1.0000 0.9986 0.9951	98.28 98.13 97.99 96.42 96.02 95.56 95.22 95.12 95.12 95.12 94.99
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	2,336,422 2,239,441 2,192,039 2,122,326 1,922,514 1,842,972 1,806,369 1,804,622 1,832,111 1,827,791	11,080 7,205 1,250 3,010 5,779 5,945 3,899 4,618 5,638 11,050	0.0047 0.0032 0.0006 0.0014 0.0030 0.0032 0.0022 0.0026 0.0031 0.0060	0.9953 0.9968 0.9994 0.9986 0.9970 0.9968 0.9978 0.9974 0.9969 0.9940	94.52 94.08 93.78 93.72 93.59 93.31 93.01 92.81 92.57 92.28
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	737,651 714,428 655,555 591,992 481,070 466,566 449,120 392,230 339,563 328,416	6,341 936 1,606 393 7,215 1,240 3,000 800	0.0086 0.0013 0.0024 0.0007 0.0150 0.0000 0.0028 0.0076 0.0000 0.0024	0.9914 0.9987 0.9976 0.9993 0.9850 1.0000 0.9972 0.9924 1.0000 0.9976	91.73 90.94 90.82 90.60 90.54 89.18 89.18 88.93 88.25 88.25

ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

PLACEMENT	BAND 1920-2005		EXPERIEN	CE BAND	1970-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	286,667 283,487 317,394 292,961 281,867 273,722 260,084 213,963 138,106 121,519	6,000 75 6,000 5,444 4,889	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0189\\ 0.0000\\ 0.0000\\ 0.0003\\ 0.0000\\ 0.0280\\ 0.0394\\ 0.0402 \end{array}$	1.0000 1.0000 0.9811 1.0000 1.0000 0.9997 1.0000 0.9720 0.9606 0.9598	88.04 88.04 86.38 86.38 86.38 86.35 86.35 86.35 83.93 80.62
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	117,980 117,980 103,016 102,416 98,341 96,526 91,465 91,181 90,897 90,897	600 2,611 2,000 284	$\begin{array}{c} 0.0000\\ 0.0058\\ 0.0255\\ 0.0000\\ 0.0207\\ 0.0000\\ 0.0031\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	1.0000 1.0000 0.9942 0.9745 1.0000 0.9793 1.0000 0.9969 1.0000 1.0000	77.38 77.38 77.38 76.93 74.97 74.97 73.42 73.42 73.19 73.19
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	90,897 90,897 89,169 89,169 61,602 61,602 61,602 61,602 61,602 61,602		0.0000 0.0000 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	73.19 73.19 73.19 73.19 73.19 73.19 73.19 73.19 73.19 73.19 73.19
69.5 70.5 71.5 72.5 73.5 74.5 75.5 76.5 77.5 78.5	61,602 61,602 61,602 61,602 54,102 53,637 53,637 885 885	465	0.0000 0.0000 0.0000 0.0000 0.0086 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 0.9914 1.0000 1.0000 1.0000 1.0000	73.19 73.19 73.19 73.19 73.19 73.19 72.56 72.56 72.56 72.56

ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

PLACEMENT	BAND 1920-2005	EXPERIE	NCE BAND	1970-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE RETMT INTERVAL RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5 80.5 81.5 82.5 83.5 84.5 85.5	885 885 885 885 885 885 885	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	72.56 72.56 72.56 72.56 72.56 72.56 72.56



ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1924-2005 EXPERIENCE BAND 1970-2005

AGE AT	EXPOSURES AT	RETIREMENTS	S	SURV	PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT		BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	122,286,594	69,665	0.0006	0.9994	100.00
0.5	119,670,150	220,309	0.0018	0.9982	99.94
1.5	112,041,271	259,762	0.0023	0.9977	99.76
2.5	104,388,728	816,446	0.0078	0.9922	99.53
3.5	97,887,884	374,044	0.0038	0.9962	98.75
4.5	93,776,395	464,149	0.0049	0.9951	98.37
5.5	89,592,102	251,817	0.0028	0.9972	97.89
6.5	86,547,618	462,657	0.0053	0.9947	97.62
7.5	83,927,284	457,055	0.0054	0.9946	97.10
8.5	82,319,055	693,017	0.0084	0.9916	96.58
9.5	80,605,271	444,628	0.0055	0.9945	95.77
10.5	79,157,279	276,301	0.0035	0.9965	95.24
11.5	78,306,441	216,602	0.0028	0.9972	94.91
12.5	75,686,612	448,700	0.0059	0.9941	94.64
13.5	72,308,341	327,904	0.0045	0.9955	94.08
14.5	67,855,169	610,620	0.0090	0.9910	93.66
15.5	59,556,358	336,446	0.0056	0.9944	92.82
16.5	55,799,831	389,045	0.0070	0.9930	92.30
17.5	52,949,986	277,812	0.0052	0.9948	91.65
18.5	50,649,743	489,483	0.0097	0.9903	91.17
19.5	49,441,890	313,424	$\begin{array}{c} 0.0063\\ 0.0147\\ 0.0091\\ 0.0141\\ 0.0069\\ 0.0054\\ 0.0079\\ 0.0135\\ 0.0179\\ 0.0059\\ \end{array}$	0.9937	90.29
20.5	47,653,220	700,723		0.9853	89.72
21.5	45,131,914	411,678		0.9909	88.40
22.5	42,241,513	596,848		0.9859	87.60
23.5	39,360,113	273,068		0.9931	86.36
24.5	37,844,247	206,096		0.9946	85.76
25.5	37,042,679	293,955		0.9921	85.30
26.5	35,265,043	475,935		0.9865	84.63
27.5	31,746,959	567,674		0.9821	83.49
28.5	26,088,628	154,521		0.9841	82.00
29.5	18,085,325	130,816	0.0072	0.9928	81.52
30.5	12,992,593	182,023	0.0140	0.9860	80.93
31.5	11,159,851	131,249	0.0118	0.9882	79.80
32.5	9,896,146	128,069	0.0129	0.9871	78.86
33.5	8,331,861	150,681	0.0181	0.9819	77.84
34.5	7,085,327	105,225	0.0149	0.9851	76.43
35.5	6,605,272	280,229	0.0424	0.9576	75.29
36.5	5,310,791	30,804	0.0058	0.9942	72.10
37.5	4,865,793	75,650	0.0155	0.9845	71.68
38.5	3,958,457	32,705	0.0083	0.9917	70.57

ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

PLACEMENT	BAND 1924-2005		EXPERIEN	CE BAND	1970-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMEN DURING AGI INTERVAL	TS E 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	3,486,793 3,217,991 3,054,542 2,421,808 2,040,902 1,637,590 1,572,614 1,049,813 762,531 664,699	50,962 46,094 107,894 171,058 23,243 3,685 54,904 3,581 95,098 13,266	$\begin{array}{c} 0.0146 \\ 0.0143 \\ 0.0353 \\ 0.0706 \\ 0.0114 \\ 0.0023 \\ 0.0349 \\ 0.0034 \\ 0.1247 \\ 0.0200 \end{array}$	0.9854 0.9857 0.9647 0.9294 0.9886 0.9977 0.9651 0.9966 0.8753 0.9800	69.98 68.96 67.97 65.57 60.94 60.25 60.11 58.01 57.81 50.60
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	482,677 458,672 202,671 194,014 177,833 123,629 121,589 120,683 100,670 98,419	24,005 6,230 2,319 3,298 12,922 2,040 31,106 2,251 14,256	0.0497 0.0136 0.0114 0.0170 0.0727 0.0165 0.0000 0.2577 0.0224 0.1449	0.9503 0.9864 0.9886 0.9830 0.9273 0.9835 1.0000 0.7423 0.9776 0.8551	49.59 47.13 46.49 45.96 45.18 41.90 41.21 41.21 30.59 29.90
59.5 60.5 61.5 62.5 63.5	90,296 90,296 90,285 63,366	1,278	0.0000 0.0000 0.0142 0.0000	1.0000 1.0000 0.9858 1.0000	25.57 25.57 25.57 25.21 25.21



ACCOUNT 350.00 - TRANSMISSION - LAND AND LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1928-2005 EXPERIENCE BAND 1948-2005

AGE AT	EXPOSURES AT	RETIREMENTS	5		PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	8,686,390		0.0000	1.0000	100.00
0.5	7,903,671	4,970	0.0006	0.9994	100.00
1.5	8,977,287	13,679	0.0015	0.9985	99.94
2.5	9,778,084	855	0.0001	0.9999	99.79
3.5	9,716,911	12,265	0.0013	0.9987	99.78
4.5	9,735,522	3,815	0.0004	0.9996	99.65
5.5	9,817,947	13,982	0.0014	0.9986	99.61 99.7
7.5	9,698,433	8.080	0.0008	0 9992	99.47
8.5	9,514,016	3,787	0.0004	0.9996	99.39
9.5	9,498,607		0.0000	1.0000	99.35
10.5	9,464,386	3,351	0.0004	0.9996	99.35
11.5	9,475,623	1,434	0.0002	0.9998	99.31
12.5 12 5	9,432,886 0 201 200	/,/04	0.0008	0.9992	99.29
14 5	9 197 461	2 448	0.0000	0 9997	99.21
15.5	9,109,195	914	0.0001	0.9999	99.18
16.5	9,005,359	3,203	0.0004	0.9996	99.17
17.5	8,868,447		0.0000	1.0000	99.13
18.5	8,793,018	32,568	0.0037	0.9963	99.13
19.5	8,778,759	15,576	0.0018	0.9982	98.76
20.5	8,454,590	5,447	0.0006	0.9994	98.58
21.5	8,122,291	10,012	0.0012	0.9988	98.52
22.5	7,390,434 6 489 852	2 205	0.0001	0.9999	98.40
24.5	5,460,063	2,205	0.0000	1.0000	98.36
25.5	5,158,360		0.0000	1.0000	98.36
26.5	4,882,254	42,381	0.0087	0.9913	98.36
27.5	4,473,059	1,104	0.0002	0.9998	97.50
28.5	4,064,742	4,191	0.0010	0.9990	97.48
29.5	2,790,687	3,534	0.0013	0.9987	97.38
30.5	2,327,857	23,556 21 611	0.0101 0.0113	0.9899	97.25
32.5	1,740,608	21,011	0.00113	1,0000	95.18
33.5	1,520,206		0.0000	1.0000	95.18
34.5	1,404,243	7,635	0.0054	0.9946	95.18
35.5	1,283,329	9,150	0.0071	0.9929	94.67
36.5	1,132,348	16,270	0.0144	0.9856	94.00
37.5	978,844	2 4 2 2	0.0000	1.0000	92.65
38.5	942,892	3,480	0.0037	0.9963	92.65

ACCOUNT 350.00 - TRANSMISSION - LAND AND LAND RIGHTS

PLACEMENT	BAND 1928-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	872,840 661,461 632,808 522,409 513,738 495,790 430,744 310,163 257,917 204,628	2,700 21,099 1,906 12,638 890	0.0031 0.0319 0.0030 0.0246 0.0018 0.0000 0.0000 0.0000 0.0000 0.0000	0.9969 0.9681 0.9970 1.0000 0.9754 0.9982 1.0000 1.0000 1.0000 1.0000	92.31 92.02 89.08 88.81 86.63 86.47 86.47 86.47 86.47
49.5 50.5 51.5 52.5	216,100 178,914 155,178 154,024	8,220 9,888	0.0380 0.0553 0.0000 0.0000	0.9620 0.9447 1.0000 1.0000	86.47 83.18 78.58 78.58
53.5 54.5 55.5 56.5 57.5 58.5	146,267 136,073 136,073 136,073 100,577 81,520	10,194 28,280	0.0697 0.0000 0.2078 0.0000 0.0000	0.9303 1.0000 1.0000 0.7922 1.0000 1.0000	78.58 73.10 73.10 73.10 57.91 57.91
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	24,357 24,357 24,357 24,357 24,357 24,357 24,357 24,357 24,357 24,357 24,357		$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	57.91 57.91 57.91 57.91 57.91 57.91 57.91 57.91 57.91 57.91
69.5 70.5 71.5 72.5 73.5 74.5	24,357 24,357 24,357 24,357 19,907	4,450	0.0000 0.0000 0.0000 0.1827 0.0000	1.0000 1.0000 1.0000 0.8173 1.0000	57.91 57.91 57.91 57.91 47.33 47.33



ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

ORIGINAL LIFE TABLE

EXPERIENCE BAND 1949-2005

PLACEMENT BAND 1928-2005

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 15,611,612 40 0.0000 1.0000 1,781 0.0001 0.9999 26,029 0.0016 0.9984 16,249 0.0010 0.9990 17,108 0.0010 0.9990 40 0.0000 1.0000 100.00 15,484,074 100.00 0.5 99.99 1.5 16,374,870 17,017,003 99.83 2.5 17,410,161 99.73 3.5 17,410,10117,1080.00100.999099.7316,919,10319,7670.00120.998899.6316,855,39244,4540.00260.997499.5116,877,56229,6750.00180.998299.2516,929,92534,7530.00210.997999.0716,603,88713,2690.00080.998298.86 4.5 5.5 6.5 7.5 16,603,887 13,269 0.0008 0.9992 98.86 8.5 16,568,01225,9780.00160.998498.7816,162,09950,1340.00310.996998.6215,647,0297,9350.00050.999598.3115,226,82311,5430.00080.999298.2614,555,2976,6980.00050.999598.1814,361,78653,8120.00370.996398.1313,799,60221,4770.00160.998497.7713,377,05815,1320.00110.998997.6113,246,2796,6110.00050.999597.5013,186,18918,2430.00140.998697.45 9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5 12,821,52963,8060.00500.995012,324,78919,9550.00160.998412,008,80866,1170.00550.994511,303,921143,6290.01270.987310,516,467102,0060.00970.99038,758,78652,8410.00600.99408,360,53927,0350.00320.99689,202,2755,5270.00070.9903 97.31 96.82 96.67 19.5 20.5 21.5 96.67 22.5 96.14 23.5 94.92 94.00 24.5 27,035 0.0032 0.9968 93.44 5,527 0.0007 0.9993 93.14 25.5 8,202,375 26.5 7,591,463 81,248 0.0107 0.9893 93.07 27.5 28.5 6,942,021 5,294 0.0008 0.9992 92.07 589 0.0001 0.9999 13,736 0.0037 0.9963 28,301 0.0086 0.9914 7 155 0.0021 4,239,829 589 0.0001 0.9999 92.00 29.5 3,736,283 91.99 30.5 3,297,267 91.65 31.5 7,155 0.0024 0.9976 2,202 0.0009 0.9991 2,952,733 90.86 32.5 34.52,466,83618,5780.00090.999190.6435.52,386,36238,5870.01620.983889.8836.52,069,05261,7280.02980.970288.4237.51,867,62126,1940.01400.986085.7938.51,731,0079110.00050.999594.52

ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

PLACEMENT	BAND 1928-2005		EXPERIEN	CE BAND	1949-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	1,629,231 1,047,330 1,041,075 808,227 731,502 661,717 548,102 415,649 383,596	22,314 3,938 25,488 17,623 11,829 8,572 23,147	0.0137 0.0038 0.0245 0.0218 0.0162 0.0130 0.0000 0.0000 0.0000	0.9863 0.9962 0.9755 0.9782 0.9838 0.9870 1.0000 1.0000 0.9397	84.55 83.39 83.07 81.03 79.26 77.98 76.97 76.97 76.97
48.5	358,067	9,593	0.0268	0.9732	72.33
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	414,550 411,361 216,583 210,124 186,977 186,977 186,977 186,937 62,167 62,167	3,189 139,407 124,770 618	$\begin{array}{c} 0.0077\\ 0.3389\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.6674\\ 0.0000\\ 0.0099 \end{array}$	0.9923 0.6611 1.0000 1.0000 1.0000 1.0000 0.3326 1.0000 0.9901	70.39 69.85 46.18 46.18 46.18 46.18 46.18 46.18 15.36 15.36
59.5 60.5 61.5 62.5 63.5 64.5 65.5 66.5 67.5 68.5	39,625 39,625 39,625 39,625 39,625 39,625 39,625 39,625 39,625 39,625	10,247	0.0000 0.0000 0.2586 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	$\begin{array}{c} 1.0000\\ 1.0000\\ 1.0000\\ 0.7414\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ \end{array}$	15.21 15.21 15.21 11.28 11.28 11.28 11.28 11.28 11.28 11.28
69.5 70.5 71.5 72.5 73.5 74.5	39,625 39,625 39,625 36,875 36,875	2,750	0.0000 0.0000 0.0694 0.0000 0.0000	1.0000 1.0000 0.9306 1.0000 1.0000	11.28 11.28 11.28 10.50 10.50 10.50



ACCOUNT 355.10 & 355.20 - TRANSMISSION - POLES AND FIXTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1952-2005 EXPERIENCE BAND 1975-2005

AGE AT	EXPOSURES AT	RETIREMENT	S		PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	43,930,208	6,106	0.0001	0.9999	100.00
0.5	43,490,693	80,118	0.0018	0.9982	99.99
1.5	40,386,415	142,680	0.0035	0.9965	99.81
2.5	37,181,975	78,570	0.0021	0.9979	99.46
3.5	34,824,795	122,675	0.0035	0.9965	99.25
4.5	33,533,932	71,045	0.0021	0.9979	98.90
5.5	33,491,192	172,644	0.0052	0.9948	98.69
6.5	32, 125, 4/1	66,559 96 107	0.0021	0.9979	98.18
7.5	31,230,413 20 561 742	00,107 126 796	0.0028	0.9972	97.97
0.5	30,301,742	120,790	0.0041	0.9959	97.70
9.5	30,473,720	74,502	0.0024	0.9976	97.30
10.5	29,484,351	82,447	0.0028	0.9972	97.07
11.5	28,745,736	86,375	0.0030	0.9970	96.80
12.5	28,056,391 26 688 787	131, /10	0.0047	0.9953	96.51
14 5	26,000,707	153 489	0.0059	0.9911	95.00
15.5	24,494,927	114,615	0.0047	0.9953	94.65
16.5	23,652,066	154,731	0.0065	0.9935	94.21
17.5	22,857,317	178,178	0.0078	0.9922	93.60
18.5	21,989,191	157,385	0.0072	0.9928	92.87
19.5	21,060,055	208,112	0.0099	0.9901	92.20
20.5	19,997,189	95,974	0.0048	0.9952	91.29
21.5	19,286,406	387,784	0.0201	0.9799	90.85
22.5	17,219,949	358,538	0.0208	0.9792	89.02
23.5	15,408,586	128,481	0.0083	0.9917	87.17
24.5	12,925,528	83,386	0.0065	0.9935	86.45
20.0 26 5	12,124,126	94,044 78 361	0.0078	0.9922	85.89
20.5	10,744,500	83 593	0.0007	0.9933	84 65
28.5	9,697,427	91,532	0.0094	0.9906	83.99
29 5	6 074 113	72 951	0 0120	0 9880	83 20
30.5	4,908,723	124,386	0.0253	0.9747	82.20
31.5	4,081,359	85,241	0.0209	0.9791	80.12
32.5	3,543,952	70,430	0.0199	0.9801	78.45
33.5	2,899,842	55,846	0.0193	0.9807	76.89
34.5	2,710,633	40,567	0.0150	0.9850	75.41
35.5	2,525,737	52,936	0.0210	0.9790	74.28
36.5	2,126,062	81,815	0.0385	0.9615	72.72
37.5	1,818,505	57,651	0.0317	0.9683	69.92
38.5	I,593,307	59,720	0.0375	0.9625	6/.70

ACCOUNT 355.10 & 355.20 - TRANSMISSION - POLES AND FIXTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1952-2005 EXPERIENCE BAND 1975-2005 PCT SURV AGE AT EXPOSURES AT RETIREMENTS BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 49,082 0.0357 0.9643 39.5 1,375,942 65.16
 23,486
 0.0294
 0.9706

 4,734
 0.0061
 0.9939
62.83 40.5 799,646 770,623 60.98 41.5 60.61 42.5 616,684 44,488 0.0721 0.9279 56.24 43.5 511,338 62,985 0.1232 0.8768 22,536 0.0568 0.9432 44.5 396,680 49.31 144,280 45.5 3,878 0.0269 0.9731 46.51 144,898 46.5 5,984 0.0413 0.9587 45.26 47.5 143,505 21,719 0.1513 0.8487 43.39 48.5 118,780 4,009 0.0338 0.9662 36.83 49.5 104,992 2,484 0.0237 0.9763 35.59 0.5309 50.5 99,806 46,818 0.4691 34.75 0.0000 1.0000 51.5 9,196-18.45 0.0000 1.0000 52.5 22,384-18.45 53.5 18.45



ACCOUNT 355.30 - TRANSMISSION - INSULATORS

ORIGINAL LIFE TABLE

PLACEMENT PLACEMENT	BAND 1928-1970 BAND 1980-2005		EXPERIENCE EXPERIENCE	BAND BAND	1948-2005 1980-2005
AGE AT BEGIN OF	EXPOSURES AT	RETIREMENT	rs 7 prymy	SIIDV	PCT SURV
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	19,015,991	2,330	0.0001 0	.9999	100.00
0.5	18,419,646	24,452 89 481	0.0013 0	9951	99.99
2.5	17,306,521	63,732	0.0037 0	.9963	99.37
3.5	16,183,933	50,512	0.0031 0	.9969	99.00
4.5	15,238,157	112,432	0.0074 0	.9926	98.69
5.5	14,633,964	135,505	0.0093 0	.9907	97.96
6.5	13,607,746	76,330	0.0056 0	.9944	97.05
7.5	12,676,352	38,109	0.0030 0	.9970	96.51
8.5	11,379,975	48,138	0.0042 0	.9958	96.22
9.5	10,338,788	38,948	0.0038 0	.9962	95.82
10.5	9,287,353	61,744	0.0066 0	.9934	95.46
11.5	8,295,125	222,410	0.0268 0	.9732	94.83
12.5	7,454,927	83,874	0.0113 0	.9887	92.29
13.5	6,444,473	105,229	0.0163 0	.9837	91.25
14.5	5,356,645	39,455	0.0074 (.9926	89.76
15.5	3,620,423	112 524		9683	89.10
17.5	2,014,559	40 758		9835	82 83
18.5	2,240,134	67,270	0.0300 0	.9700	81.46
19.5	1,933,264	52,459	0.0271 0	.9729	79.02
20.5	1,636,276	28,486	0.0174 C	.9826	76.88
21.5	1,528,373	66,993	0.0438 0	.9562	75.54
22.5	1,226,015	55,242	0.0451 0	.9549	72.23
23.5	1,039,421	34,039	0.0327 0	.9673	68.97
24.5	735,336	16,724	0.0227 0	.9773	66.71
25.5	629,543	12,303	0.0195 0	0.9805	65.20
26.5 27 E	617,240 E92 1E2	35,/15	0.05/9 0	0.9421	63.93
27.5	530,543	20,889	0.0394 C	.9606	54.89
29.5	496.077	30.500	0.0615 0	9385	52.73
30.5	465,577	54,748	0.1176 0	.8824	49.49
31.5	410,829	21,368	0.0520 0	.9480	43.67
32.5	389,237	6,769	0.0174 0	.9826	41.40
33.5	382,468	7,525	0.0197 0	.9803	40.68
34.5	374,943	27,503	0.0734 0	.9266	39.88
35.5	346,180	31,305	0.0904 0	.9096	36.95
36.5	309,274	21,314	0.0689 0	.9311	33.61
37.5	275,593	31,075	0.1128 0	.8872	31.29
30.5	229,326	⊥J,∠⊥U	0.05/6 (.9424	∠/./6

ACCOUNT 355.30 - TRANSMISSION - INSULATORS

PLACEMENT PLACEMENT	BAND 1928-1970 BAND 1980-2005		EXPERIENCE EXPERIENCE	BAND BAND	1948-2005 1980-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	172,463 106,737 99,742 77,064 60,814 58,898 51,061 50,026 30,170 27,978	12,3262,6824,0807,25810,9237,8371,03520,1203,143520	0.0715 0 0.0251 0 0.0409 0 0.0942 0 0.1796 0 0.1331 0 0.0203 0 0.4022 0 0.1042 0 0.0186 0	.9285 .9749 .9591 .9058 .8204 .8669 .9797 .5978 .8958 .9814	26.16 24.29 23.68 22.71 20.57 16.88 14.63 14.33 8.57 7.68
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5	36,204 23,474 6,486 5,808 11,660 11,660 10,687 11,537 5,431 5,296	12,730 21,195 336 973 6,106 135 693	0.3516 0 0.9029 0 0.0000 1 0.0579 0 0.0000 1 0.0834 0 0.0000 1 0.5293 0 0.0249 0 0.1309 0	.6484 .0971 .0000 .9421 .0000 .9166 .0000 .4707 .9751 .8691	7.54 4.89 0.47 0.44 0.44 0.44 0.40 0.40 0.19 0.19
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 38 607 135 143 3,641	0.0382 0 0.0097 0 0.1397 0 0.0312 0 0.0000 1 0.0000 1 0.0000 1 0.0341 0 0.8981 0	.9618 .9903 .9913 .8603 .9688 .0000 .0000 .0000 .9659 .1019	0.17 0.16 0.16 0.14 0.14 0.14 0.14 0.14 0.14
69.5 70.5 71.5	413 413	413	0.0000 1 1.0000 0	.0000 .0000	0.01 0.01 0.00



ACCOUNT 360.00 - DISTRIBUTION - LAND AND LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1938-1989 EXPERIENCE BAND 1966-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	223,405 239,869 246,347 263,662 277,615 309,039 351,106 399,087 462,960 502,823		$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	531,494 555,752 566,971 576,220 582,337 585,843 588,307 597,085 577,994 581,813	6	0.0000 0.0000 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	$100.00\\100.00\\100.00\\100.00\\100.00\\100.00\\100.00\\100.00\\100.00\\100.00\\100.00\\100.00$
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	581,813 577,878 565,946 554,940 548,622 531,419 531,419 531,419 602,953 601,341		0.0000 0.0000 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	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	590,977 563,725 519,254 512,977 506,674 476,064 451,369 451,048 451,048 451,048	346 4,922	0.0000 0.0006 0.0000 0.0097 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9994 1.0000 0.9903 1.0000 1.0000 1.0000 1.0000 1.0000	100.00 100.00 99.94 99.94 98.97 98.97 98.97 98.97 98.97 98.97 98.97 98.97 98.97

ACCOUNT 360.00 - DISTRIBUTION - LAND AND LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-1989 EXPERIENCE BAND 1966-2005 PCT SURV AGE AT EXPOSURES AT RETIREMENTS BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL $\begin{array}{ccccccc} 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ 0.0000 & 1.0000 & 98.97 \\ \end{array}$ 39.5 444,332 444,332 427,868 421,390 408,232 403,358 367,777 325,710 273,572 209,699 169,836 40.5 41.5 42.5 43.5 44.5 45.5 46.5 47.5 48.5 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 0.0000 1.0000 98.97 49.5 141,067 141,007 116,809 105,590 96,335 90,564 87,379 50.5 51.5 52.5 53.5 87,379 54.5 55.5 84,915 77,837 56.5 57.5 77,837 8,126 0.1044 0.8956 98.97 58.5 77,837 69,7115,7960.08310.916988.6463,9155,9380.09290.907181.2757,9770.00001.000073.7257,9770.00001.000073.7257,9770.00001.000073.7251,6740.00001.000073.7251,6740.00001.000073.7251,6740.00001.000073.7251,6740.00001.000073.7251,6740.00001.000073.7251,6740.00001.000073.72 59.5 60.5 61.5 57,977 57,977 51,674 51,674 51,674 62.5 63.5 64.5 65.5 0.0000 1.0000 66.5 73.72 67.5 73.72



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ACCOUNT 361.10 - BARE COPPER & 362.1 / 362.2 - POLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1967-2005 EXPERIENCE BAND 1967-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	303,858,510	652,463	0.0021	0.9979	100.00
0.5	292,120,601	1,217,270	0.0042	0.9958	99.79
1.5	280,914,232	1,214,735	0.0043	0.9957	99.37
2.5	271,143,408	1,223,631	0.0045	0.9955	98.94
3.5	261,806,642	1,337,171	0.0051	0.9949	98.49
4.5	251,870,766	1,211,444	0.0048	0.9952	97.99
5.5	243,599,947	1,667,154	0.0068	0.9932	97.52
6.5	236,458,115	1,685,013	0.0071	0.9929	96.86
7.5	227,974,779	1,324,150	0.0058	0.9942	96.17
8.5	221,566,013	1,268,105	0.0057	0.9943	95.61
9.5	211,569,775	1,469,769	0.0069	0.9931	95.07
10.5	199,458,688	1,371,222	0.0071	0.9931	94.41
11.5	187,394,255	1,338,488	0.0071	0.9929	93.76
12.5	173,659,482	1,239,373	0.0076	0.9929	93.09
13.5	158,868,939	1,213,254	0.0087	0.9924	92.43
14.5	144,635,493	1,251,242	0.0090	0.9913	91.73
15.5	128,451,215	1,154,313	0.0087	0.9910	90.93
16.5	115,386,934	1,008,388	0.0076	0.9913	90.11
17.5	104,916,429	795,777	0.0076	0.9924	89.33
18.5	93,719,519	764,444	0.0082	0.9918	88.65
19.5	83,821,156	745,001	0.0089	0.9911	87.92
20.5	74,982,081	759,411	0.0101	0.9899	87.14
21.5	65,279,295	642,491	0.0098	0.9902	86.26
22.5	57,886,290	499,767	0.0086	0.9914	85.41
23.5	51,054,090	454,554	0.0089	0.9911	84.68
24.5	44,280,407	391,543	0.0088	0.9912	83.93
25.5	37,681,943	409,743	0.0109	0.9891	83.19
26.5	32,104,375	311,804	0.0097	0.9903	82.28
27.5	27,149,106	457,398	0.0168	0.9832	81.48
28.5	22,106,240	234,309	0.0106	0.9894	80.11
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	17,718,248 13,239,072 10,278,891 8,080,245 6,614,770 4,788,153 3,606,599 2,018,819 1,100,941	181,582 137,602 112,505 80,574 71,801 46,569 20,786 16,272 10,759	0.0102 0.0104 0.0109 0.0100 0.0109 0.0097 0.0058 0.0081 0.0098	0.9898 0.9896 0.9891 0.9900 0.9891 0.9903 0.9942 0.9919 0.9902	79.26 78.45 77.63 76.78 76.01 75.18 74.45 74.02 73.42 72.70



ACCOUNT 361.11-W/P COPPER & 361.15-DUPLEX & 365.1-SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1933-2005 EXPERIENCE BAND 1948-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT: DURING AGE INTERVAL	S 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	71,095,599 68,727,421 66,628,261 64,805,102 62,889,136 60,916,272 59,366,788 57,881,104 56,349,046 54,831,678	159,035 224,406 197,007 162,905 168,331 169,290 184,426 214,299 194,891 169,793	0.0022 0.0033 0.0030 0.0025 0.0027 0.0028 0.0031 0.0037 0.0035 0.0031	0.9978 0.9967 0.9970 0.9975 0.9973 0.9972 0.9969 0.9963 0.9965 0.9969	100.00 99.78 99.45 99.15 98.90 98.63 98.35 98.05 97.69 97.35
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	53,052,958 50,868,883 48,304,006 45,259,278 42,269,747 39,062,338 36,029,008 33,047,241 30,181,360 27,605,315	226,967 192,246 169,972 143,847 148,204 140,681 116,584 129,085 105,815 592,880	0.0043 0.0038 0.0035 0.0032 0.0035 0.0036 0.0032 0.0039 0.0035 0.0215	0.9957 0.9962 0.9965 0.9968 0.9965 0.9964 0.9968 0.9961 0.9965 0.9785	97.05 96.63 95.92 95.61 95.28 94.94 94.64 94.27 93.94
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	24,669,171 22,121,170 19,203,450 16,973,000 15,092,645 13,147,399 11,401,138 9,924,920 8,653,298 7,480,323	358,255 437,023 279,171 367,905 276,393 312,045 307,803 117,789 189,539 249,579	0.0145 0.0198 0.0145 0.0217 0.0183 0.0237 0.0270 0.0119 0.0219 0.0334	0.9855 0.9802 0.9855 0.9783 0.9817 0.9763 0.9730 0.9730 0.9881 0.9781 0.9666	91.92 90.59 88.80 87.51 85.61 84.04 82.05 79.83 78.88 77.15
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	6,273,926 5,138,628 4,409,239 3,772,885 3,244,233 2,704,671 2,419,892 2,147,036 1,790,488 1,456,939	195,244 118,326 74,328 93,684 154,285 103,753 26,929 78,797 32,807 45,947	0.0311 0.0230 0.0169 0.0248 0.0476 0.0384 0.0111 0.0367 0.0183 0.0315	0.9689 0.9770 0.9831 0.9752 0.9524 0.9616 0.9889 0.9633 0.9817 0.9685	74.57 72.25 70.59 69.40 67.68 64.46 61.98 61.29 59.04 57.96

ACCOUNT 361.11-W/P COPPER & 361.15-DUPLEX & 365.1-SERVICES

PLACEMENT	BAND 1933-2005		EXPERIEN	CE BAND	1948-2005
AGE AT	EXPOSURES AT	RETIREMENT	S		PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
39.5	1,337,770	1,700	0.0013	0.9987	56.13
40.5	1,103,341	7,279	0.0066	0.9934	56.06
41.5	938,155	4,491	0.0048	0.9952	55.69
42.5	811,065	7,402	0.0091	0.9909	55.42
43.5	589,204	9,103	0.0154	0.9846	54.92
44.5	478,609	26,891	0.0562	0.9438	54.07
45.5	270,356	26,458	0.0979	0.9021	51.03
46.5	63,415	16,646	0.2625	0.7375	46.03
47.5	16,217		0.0000	1.0000	33.95
48.5	16,217	10,168	0.6270	0.3730	33.95
49.5 50.5	6,049	6,049	1.0000	0.0000	12.66 0.00



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ACCOUNT 361.12 - OVERHEAD CONDUCTORS - BARE ALUMINUM

ORIGINAL LIFE TABLE

PLACEMENT BAND 1938-2005 EXPERIENCE BAND 1952-2005

AGE AT	EXPOSURES AT	RETIREMENT	S		PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	87,096,428	120,163	0.0014	0.9986	100.00
0.5	83,482,491	123,374	0.0015	0.9985	99.86
1.5	79,991,110	104,411	0.0013	0.9987	99.71
2.5	76,331,188	112,668	0.0015	0.9985	99.58
3.5	73,950,210	136,598	0.0018	0.9982	99.43
4.5	70,649,041	116,870	0.0017	0.9983	99.25
5.5	67,935,764	234,612	0.0035	0.9965	99.08
6.5	65,000,315	199,431	0.0031	0.9969	98.73
7.5	62,809,839	15/,4/4	0.0025	0.9975	98.42
8.5	60,672,558	1/9,3/2	0.0030	0.9970	98.17
9.5	58,780,892	208,596	0.0035	0.9965	97.88
10.5	56,582,033	247,351	0.0044	0.9956	97.54
11.5	53,827,529	137,284	0.0026	0.9974	97.11
12.5	50,998,476	118,152	0.0023	0.9977	96.86
14 5	4/, /22, 14/	124,742	0.0028	0.9974	96.04
15 5	44,559,122	175 441	0.0031	0.9909	96.09
16.5	37.514.255	278,291	0.0074	0.9926	95.68
17.5	34,509,088	234,715	0.0068	0.9932	94.97
18.5	31,827,674	204,803	0.0064	0.9936	94.32
19.5	29,431,801	181,050	0.0062	0.9938	93.72
20.5	27,118,379	177,554	0.0065	0.9935	93.14
21.5	24,303,033	119,961	0.0049	0.9951	92.53
22.5	22,072,572	159,429	0.0072	0.9928	92.08
23.5	19,682,540	105,877	0.0054	0.9946	91.42
24.5	17,190,942	121,097	0.0070	0.9930	90.93
25.5	14,522,467	74,181	0.0051	0.9949	90.29
26.5	12,689,617	5/,282	0.0045	0.9955	89.83
27.5	8,903,996	85,971 90,997	0.0079	0.9921	89.43 88.72
00 F		00.100	0 000 7	0 0050	0 7 0 0
29.5	7,333,466	20,139	0.0027	0.9973	87.82
30.5	5,720,384	12,917	0.0023	0.9977	87.58
32.5	3 901 625	14 567	0.0039	0.9941	86 86
33.5	3,394,922	22.158	0.0065	0.9935	86.54
34 5	2,879,399	21,495	0.0075	0.9925	85 98
35.5	2,643.270	9.319	0.0035	0.9965	85.34
36.5	2,268,076	13,832	0.0061	0.9939	85.04
37.5	2,092,363	42,322	0.0202	0.9798	84.52
38.5	1,876,590	15,116	0.0081	0.9919	82.81

ACCOUNT 361.12 - OVERHEAD CONDUCTORS - BARE ALUMINUM

PLACEMENT	BAND 1938-2005	E	EXPERIEN	CE BAND	1952-2005
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	1,233,986 290,407 133,328 1-	56,854 27,675 11,158	0.0461 0.0953 0.0837 0.0000	0.9539 0.9047 0.9163 1.0000	82.14 78.35 70.88 64.95 64.95


ACCOUNT 361.13 - OVERHEAD CONDUCTORS - W/P ALUMINUM

ORIGINAL LIFE TABLE

PLACEMENT BAND 1950-2005 EXPERIENCE BAND 1970-2005

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	27,966,167	146,702	0.0052	0.9948	100.00
0.5	26,895,730	134,305	0.0050	0.9950	99.48
1.5	25,871,815	137,410	0.0053	0.9947	98.98
2.5	24,832,301	153,393	0.0062	0.9938	98.46
3.5	24,198,649	185,580	0.0077	0.9923	97.85
4.5	23,473,806	175,769	0.0075	0.9925	97.10
5.5	22,964,386	192,513	0.0084	0.9916	96.37
6.5	22,222,474	245,560	0.0111	0.9889	95.56
7.5	21,359,076	235,195	0.0110	0.9890	94.50
8.5	20,483,178	201,959	0.0099	0.9901	93.46
9.5	19,569,528	259,749	0.0133	0.9867	92.53
10.5	18,612,489	222,475	0.0120	0.9880	91.30
11.5	17,490,533	158,774	0.0091	0.9909	90.20
12.5	16,372,670	176,946	0.0108	0.9892	89.38
13.5	15,055,779	273,253	0.0181	0.9819	88.41
14.5	13,937,907	169,823	0.0122	0.9878	86.81
15.5	12,670,515	159,017	0.0126	0.9874	85.75
16.5	11,680,205	201,317	0.0172	0.9828	84.67
17.5	10,854,299	109,380	0.0101	0.9899	83.21
18.5	10,254,479	171,994	0.0168	0.9832	82.37
19.5	9,556,049	285,115	0.0298	0.9702	80.99
20.5	8,736,536	235,426	0.0269	0.9731	78.58
21.5	7,954,867	247,167	0.0311	0.9689	76.47
22.5	7,142,293	250,177	0.0350	0.9650	74.09
23.5	6,252,412	152,169	0.0243	0.9757	71.50
24.5	5,084,317	215,659	0.0424	0.9576	69.76
24.5	4,009,437	293,362	0.0732	0.9268	66.80
26.5	2,733,762	177,401	0.0649	0.9351	61.91
27.5	1,869,396	425,645	0.2277	0.7723	57.89
28.5	797,083	211,439	0.2653	0.7347	44.71
29.5 30.5 31.5	2	129 340	0.0000	1.0000	32.85 32.85



ACCOUNT 361.14 AERIAL CABLE/361.30 SPECIAL INSUL. COPPER

ORIGINAL LIFE TABLE

PLACEMENT BAND 1957-2000 EXPERIENCE BAND 1957-2005

AGE AT	EXPOSURES AT	RETIREMENT	S		PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	1,313,219		0.0000	1.0000	100.00
0.5	1,314,787	29,118	0.0221	0.9779	100.00
1.5	1,279,493	17,104	0.0134	0.9866	97.79
2.5	1,277,937	345	0.0003	0.9997	96.48
3.5	1,277,592	18,404	0.0144	0.9856	96.45
4.5	1,264,645	8,067	0.0064	0.9936	95.06
5.5	1,201,355	15,425	0.0128	0.9872	94.45
6.5	1,096,610	3,678	0.0034	0.9966	93.24
7.5	1,078,954	20,600	0.0191	0.9809	92.92
8.5	1,068,710	27,042	0.0253	0.9747	91.15
9.5	1,041,668	83,188	0.0799	0.9201	88.84
10.5	892,639	11,778	0.0132	0.9868	81.74
11.5	903,786	17,995	0.0199	0.9801	80.66
12.5	862,866	10,123	0.0117	0.9883	79.05
13.5	852,743	12,538	0.0147	0.9853	78.13
14.5	827,649	784	0.0009	0.9991	76.98
15.5	826,356	20,505	0.0248	0.9752	76.91
16.5	/01,168	14,483	0.0207	0.9793	75.00
10 F	683,898 400 125	24,4//	0.0358	0.9642	73.45
10.5	409,135	3,203	0.0067	0.9955	/0.02
19.5	485,852	5,265	0.0108	0.9892	70.35
20.5	474,851	6,286	0.0132	0.9868	69.59
21.5	468,411	28,837	0.0616	0.9384	68.67
22.5	353,660	4,324	0.0122	0.9878	64.44
23.5 24 E	297,888	4,1/0 147	0.0140	0.9860	63.65
24.5 25 5	278,821 278 674	14/ 16 15/	0.0005	0.9995	62.70
25.5	270,074	10,104 52 776	0.0580	0.9420	59 09
20.5	190 995	16 997	0.2012	0.7500	47 20
28.5	138,747	3,447	0.0248	0.9752	43.00
29 5	105 267	2 073	0 0197	0 9803	41 93
30 5	102 796	21 243	0.2067	0.2003	41 10
31.5	80,800	11.581	0.1433	0.8567	32.60
32.5	64,590	170	0.0026	0.9974	27.93
33.5	74,184	1,362	0.0184	0.9816	27.86
34.5	62,534	3,256	0.0521	0.9479	27.35
35.5	59,223	39,235	0.6625	0.3375	25.93
36.5	4,263	-	0.0000	1.0000	8.75
37.5	4,263		0.0000	1.0000	8.75
38.5					8.75



ACCOUNT 361.20 & 367.20 - UNDERGROUND CABLE AND SWITCHES

ORIGINAL LIFE TABLE

EXPERIENCE BAND 1956-2005

PLACEMENT BAND 1947-2005

AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 19,853,4844,1410.00020.9998100.0019,127,76625,3140.00130.998799.9818,574,95721,6950.00120.998899.8517,580,93715,9720.00090.999199.7316,951,1568,7610.00050.999599.6416,260,26180,3040.00490.995199.5915,725,56413,6660.00090.999199.1015,314,92714,1280.00090.999199.0114,975,54625,7870.00170.998398.9214,657,9468,6930.00060.999498.75 0.0 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.514,341,63673,6880.00510.994998.6910.513,718,13522,5670.00160.998498.1911.513,285,50621,4380.00160.998498.0312.512,654,88510,0260.00080.999297.8713.511,684,4417,4240.00060.999497.7914.510,471,16722,1140.00210.997997.7315.59,696,77311,6400.00120.998897.5216.58,536,56975,4580.00880.991297.4017.57,631,32493,4870.01230.987796.5418.56,870,5132,5040.00040.999695.35 19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5 1,902,689 1,578,270 1,313,753 47,942 0.0252 0.9748 93.26 29.5 29.51,902,68947,9420.02520.974893.2630.51,578,2700.00001.000090.9131.51,313,7532,4080.00180.998290.9132.51,306,3091,9400.00150.998590.7533.51,126,67736,2030.03210.967990.6134.5983,8119,2610.00940.998686.8836.5725,7397770.00110.998986.7637.5592,71892,4900.15600.844086.6638.5251,3930.00001.000073.14

ACCOUNT 361.20 & 367.20 - UNDERGROUND CABLE AND SWITCHES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1947-2005		EXPERIEN	ICE BAND	1956-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5 41.5 42.5 43.5 44.5 45.5 45.5 46.5 47.5 48.5	100,736 100,736 99,639 10,818 10,818 10,818 825 825 825 825 825	1,097	0.0000 0.0109 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	1.0000 0.9891 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	73.14 72.34 72.34 72.34 72.34 72.34 72.34 72.34 72.34 72.34 72.34 72.34 72.34
49.5					72.34





A-77

ACCOUNT 362.30 - DISTRIBUTION - POLES - CONCRETE & STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2005 EXPERIENCE BAND 1965-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	S RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0 0.5 1.5	6,400,719 6,145,340 5,896,339	1,484 9,439 13,718	0.0002 0.0015 0.0023	0.9998 0.9985 0.9977	100.00 99.98 99.83
2.5	5,740,043	17,162	0.0030	0.9970	99.60
3.5	5,590,579	10,914	0.0020	0.9980	99.30
4.5	5,507,096	17,004 19 794	0.0031 0.0037	0.9969	99.10 98 79
6.5	5,218,152	16,665	0.0032	0.9968	98.42
7.5	5,085,343	33,038	0.0065	0.9935	98.11
8.5	4,899,995	13,409	0.0027	0.9973	97.47
9.5	4,678,137	18,198	0.0039	0.9961	97.21
10.5	4,473,709	8,480	0.0019	0.9981	96.83
11.5	4,220,031	13,339	0.0032	0.9968	96.65
12.5 13 5	3,885,285 3 577 414	10,556 10 322	0.0027	0.9973	96.34
14.5	3,352,578	8,748	0.0025	0.9974	95.80
15.5	3,118,893	5,646	0.0018	0.9982	95.55
16.5	2,780,977	9,164	0.0033	0.9967	95.38
17.5	2,517,562	78,531	0.0312	0.9688	95.07
18.5	2,228,944	67,510	0.0303	0.9697	92.10
19.5	1,842,206	29,587	0.0161	0.9839	89.31
20.5	1,666,915	7,291	0.0044	0.9956	87.87
21.5	1,438,898 1,405,725	13,951 16 111	0.0097	0.9903	87.48
22.5	1,274,875	26,634	0.0115 0.0209	0.9791	85.63
24.5	963,123	9,467	0.0098	0.9902	83.84
25.5	870,303	23,946	0.0275	0.9725	83.02
26.5	773,586	11,986	0.0155	0.9845	80.74
27.5	682,615	186	0.0003	0.9997	79.49
28.5	601,584	19,648	0.0327	0.9673	79.47
29.5	485,663	896	0.0018	0.9982	76.87
30.5	342,653	1,673	0.0049	0.9951	76.73
31.5 32 5	281,094 199 392	8,003 49 255	0.0285 0.2470	0.9715	76.35 74 17
33.5	92,273	49,233	0.0000	1.0000	55.85
34.5	43,782	2,141	0.0489	0.9511	55.85
35.5	17,691	2,804	0.1585	0.8415	53.12
36.5	14,887		0.0000	1.0000	44.70
37.5	14,887		0.0000	1.0000	44.70
30.5	14,635		0.0000	T.0000	44./0

ACCOUNT 362.30 - DISTRIBUTION - POLES - CONCRETE & STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1955-2005	EXPERIENC	E BAND	1965-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE RETMT INTERVAL RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL

20	-	
39	. 5	

44.70





ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1967-2005 EXPERIENCE BAND 1967-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	33,823,366	714,401	0.0211	0.9789	100.00
0.5	32,176,469	1,269,182	0.0394	0.9606	97.89
1.5	30,240,492	1,066,821	0.0353	0.9647	94.03
2.5	28,490,018	1,056,557	0.0371	0.9629	90.71
3.5	26,897,211	1,000,328	0.0372	0.9628	87.34
4.5	25,387,726	1,054,173	0.0415	0.9585	84.09
5.5	24,037,760	944,492	0.0393	0.9607	80.60
6.5	23,368,841	872,029	0.0373	0.9627	77.43
7.5	22,159,288	887,652	0.0401	0.9599	74.54
8.5	20,504,230	730,966	0.0356	0.9644	71.55
9.5	18,421,301	630,008	0.0342	0.9658	69.00
10.5	17,238,030	599,037	0.0348	0.9652	66.64
11.5	15,853,779	638,362	0.0403	0.9597	64.32
12.5	14,355,608	651,860	0.0454	0.9546	61.73
13.5	12,811,690	450,205	0.0351	0.9649	58.93
14.5	11,337,262	391,822	0.0346	0.9654	56.86
15.5	10,223,682	367,438	0.0359	0.9641	54.89
16.5	9,077,082	330,583	0.0364	0.9636	52.92
17.5	8,171,312	292,245	0.0358	0.9642	50.99
18.5	6,970,456	324,324	0.0465	0.9535	49.16
19.5	5,563,523	230,167	0.0414	0.9586	46.87
20.5	4,564,288	130,524	0.0286	0.9714	44.93
21.5	3,707,898	147,417	0.0398	0.9602	43.65
22.5	3,336,065	65,672	0.0197	0.9803	41.91
23.5	2,940,130	47,752	0.0162	0.9838	41.08
24.5	2,473,001	145,724	0.0589	0.9411	40.41
25.5	2,021,804	347,899	0.1721	0.8279	38.03
26.5	1,340,294	292,009	0.2179	0.7821	31.49
27.5	698,848	230,112	0.3293	0.6707	24.63
28.5	477,154	300,199	0.6291	0.3709	16.52
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5	175,428 8,010 2,144 908 4,875- 1,257- 23,218- 22,288-	168,794 3,946 1,235 930 22,288	0.9622 0.4926 0.5760 1.0242 0.0000 7.7311- 0.0000 0.0000	0.0378 0.5074 0.4240 0.0242-	6.13 0.23 0.12 0.05



ACCOUNT 364.10,364.11,364.2,364.3,364.4 - LINE TRANSFORMERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1967-2005 EXPERIENCE BAND 1967-2005

AGE AT	EXPOSURES AT	RETIREMENT	S	SURV	PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT		BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	99,003,890	128,582	0.0013	0.9987	100.00
0.5	93,352,003	366,425	0.0039	0.9961	99.87
1.5	87,454,297	328,899	0.0038	0.9962	99.48
2.5	81,348,191	337,961	0.0042	0.9958	99.10
3.5	75,534,180	490,492	0.0065	0.9935	98.68
4.5	69,589,226	458,407	0.0066	0.9934	98.04
5.5	63,956,826	540,883	0.0085	0.9915	97.39
6.5	59,941,645	582,557	0.0097	0.9903	96.56
7.5	55,103,360	719,086	0.0130	0.9870	95.62
8.5	52,245,466	717,528	0.0137	0.9863	94.38
9.5	49,823,628	723,406	0.0145	0.9855	93.09
10.5	47,340,164	737,770	0.0156	0.9844	91.74
11.5	45,123,829	666,726	0.0148	0.9852	90.31
12.5	42,933,276	710,205	0.0165	0.9835	88.97
13.5	40,683,369	710,543	0.0175	0.9825	87.50
14.5	37,075,977	712,777	0.0192	0.9808	85.97
15.5	32,286,802	560,973	0.0174	0.9826	84.32
16.5	28,670,390	495,726	0.0173	0.9827	82.85
17.5	25,994,717	467,206	0.0180	0.9820	81.42
18.5	23,312,346	306,982	0.0132	0.9880	79.95
19.5	20,897,749	403,954	$\begin{array}{c} 0.0193 \\ 0.0175 \\ 0.0180 \\ 0.0239 \\ 0.0241 \\ 0.0197 \\ 0.0195 \\ 0.0255 \\ 0.0228 \\ 0.0237 \end{array}$	0.9807	78.89
20.5	19,424,066	339,816		0.9825	77.37
21.5	17,782,523	320,280		0.9820	76.02
22.5	16,674,576	397,807		0.9761	74.65
23.5	14,829,089	356,661		0.9759	72.87
24.5	13,550,801	266,355		0.9803	71.11
25.5	12,068,787	235,251		0.9805	69.71
26.5	11,421,646	291,131		0.9745	68.35
27.5	10,287,004	234,990		0.9772	66.61
28.5	9,102,080	215,677		0.9763	65.09
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	6,784,700 4,072,481 2,926,066 2,023,361 1,505,257 1,143,894 1,013,941 671,952 333,244	157,759 119,207 113,135 69,178 81,915 28,670 17,975 10,331 3,187	0.0233 0.0293 0.0387 0.0342 0.0544 0.0251 0.0177 0.0154 0.0096	0.9767 0.9707 0.9613 0.9658 0.9456 0.9749 0.9823 0.9846 0.9904	63.55 62.07 60.25 57.92 55.94 52.90 51.57 50.66 49.88 49.40



ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND

ORIGINAL LIFE TABLE

PLACEMENT BAND 1965-2005 EXPERIENCE BAND 1965-2005

AGE AT	EXPOSURES AT	RETIREMENT	S		PCT SURV
BEGIN OF INTERVAL	BEGINNING OF AGE INTERVAL	DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	BEGIN OF INTERVAL
0.0 0.5	5,276,140 5,092,343	3,167	0.0006	0.9994 1.0000	100.00 99.94
1.5 2.5 3 5	4,840,774 4,553,789	1,312	0.0000	1.0000 0.9997	99.94 99.94 99.91
4.5	4,402,120 4,329,461 4,151,289	3,107 7,543	0.0007	0.9993	99.91 99.84
6.5 7.5	4,151,788 4,149,582	1,137	0.0000 0.0003	1.0000 0.9997	99.66 99.66
8.5	3,878,833	4,565	0.0012	0.9988	99.63
9.5 10.5	3,498,167 3,291,845 3,041,997	4,815 8,160 2,838	0.0014	0.9986 0.9975	99.51 99.37 99.12
12.5	2,822,527 2,675,193	2,838 284 7,128	0.0001	0.9999 0.9973	99.03 99.02
14.5 15.5	2,512,939 2,221,627	13,989 10,243	0.0056	0.9944 0.9954	98.75 98.20
16.5 17.5 18.5	1,949,910 1,726,216 1,593,880	3,490 8,266 4,360	0.0018 0.0048 0.0027	0.9982 0.9952 0.9973	97.75 97.57 97.10
19.5	1,545,966	12,656	0.0082	0.9918	96.84
20.5 21.5	1,398,808 1,269,341	4,975 11,324	0.0036 0.0089	0.9964 0.9911	96.05 95.70
22.5 23.5	1,188,834 1,003,232	6,459	0.0054	0.9946 1.0000	94.85 94.34
24.5	920,052 785,604	450	0.0000	1.0000	94.34 94.34
26.5 27.5 28.5	697,399 587,510	458 229 915	0.0006 0.0003 0.0016	0.9994 0.9997 0.9984	94.34 94.28 94.25
29.5	467,455	229	0.0005	0.9995	94.10
30.5 31.5	182,559 107,556		0.0000 0.0000	1.0000 1.0000	94.05 94.05
32.5 33.5	107,555 107,506	49	0.0005 0.0000	0.9995 1.0000	94.05 94.00
34.5 35.5	107,506 93,561		0.0000 0.0000	1.0000 1.0000	94.00 94.00
36.5 37.5	80,001 60,374		0.0000	1.0000 1.0000	94.00 94.00
38.5	15,968		0.0000	1.0000	94.00

ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1965-2005	EXP	PRIENCE	BAND	1965-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE R INTERVAL R	ETMT S ATIO F	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5 40.5	5,690	0.	0000 1.	.0000	94.00 94.00



ACCOUNT 366.10 WATT-HOUR METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1967-2005 EXPERIENCE BAND 1967-2005

AGE AT	EXPOSURES AT	RETIREMENT	S		PCT SURV
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF
INTERVAL	AGE INTERVAL	INTERVAL	RATIO	RATIO	INTERVAL
0.0	16,665,328	18,230	0.0011	0.9989	100.00
0.5	15,608,632	62,832	0.0040	0.9960	99.89
1.5	14,563,019	48,251	0.0033	0.9967	99.49
2.5	14,078,742	42,363	0.0030	0.9970	99.16
3.5	13,601,577	43,620	0.0032	0.9968	98.86
4.5	13,292,720	42,231	0.0032	0.9968	98.54
5.5	12,841,883	46,983	0.0037	0.9963	98.22
6.5	12,335,657	46,937	0.0038	0.9962	97.86
7.5	12,005,530	66,724	0.0056	0.9944	97.49
8.5	11,710,737	74,566	0.0064	0.9936	96.94
9.5	11,365,863	87,367	0.0077	0.9923	96.32
10.5	10,932,089	112,714	0.0103	0.9897	95.58
11.5	10,345,895	748,158	0.0723	0.9277	94.60
12.5	9,278,371	431,873	0.0465	0.9535	87.76
13.5	8,544,690	119,159	0.0139	0.9861	83.68
14.5	7,921,945	78,742	0.0099	0.9901	82.52
15.5	7,301,019 6 754 797	70,549 121 /11	0.0105	0.9695	80 84
10.5	6 102 143	161 485	0.0195	0.9805	79 26
18.5	5,851,354	166,958	0.0285	0.9715	77.16
19.5	5.335.518	93.431	0.0175	0.9825	74.96
20.5	4,784,074	77,765	0.0163	0.9837	73.65
21.5	4,314,879	86,711	0.0201	0.9799	72.45
22.5	3,799,647	71,459	0.0188	0.9812	70.99
23.5	3,456,011	75,656	0.0219	0.9781	69.66
24.5	3,024,374	87,755	0.0290	0.9710	68.13
25.5	2,700,919	100,280	0.0371	0.9629	66.15
26.5	2,423,304	89,430	0.0369	0.9631	63.70
27.5	2,171,083	65,584	0.0302	0.9698	61.35
28.5	1,814,711	58,816	0.0324	0.9676	59.50
29.5	1,502,485	53,087	0.0353	0.9647	57.57
30.5	1,239,057	48,158	0.0389	0.9611	55.54
31.5	927,740	36,771	0.0396	0.9604	53.38
32.5	734,072	33,783	0.0460	0.9540	51.27
33.5	566,254	23,100	0.0408	0.9592	48.91
34.5	457,356	24,056	0.0526	0.9474	46.91
35.5	387,747	7,701	0.0199	0.9801	44.44
36.5	247,259	12,522	0.0506	0.9494	43.56
37.5	177,759	22,016	0.1239	0.8761	41.36
30.5					36.24



ACCOUNT 366.20 - DISTRIBUTION - DEMAND METERS

ORIGINAL LIFE TABLE

EXPERIENCE BAND 1975-2005

PLACEMENT BAND 1949-2005

35.5

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 0.5 1.5 2.5 3.5 4.5 5.5 6.5 7.5 8.5 9.54,321,09880,7940.01870.981390.6710.54,168,53553,3090.01280.987288.9711.54,077,968104,5020.02560.974487.8312.53,893,802133,6000.03430.965785.5813.53,712,499157,2770.04240.957682.6414.53,513,19474,2110.02110.978979.1415.53,366,50185,8440.02550.974577.4716.53,212,981144,5690.04500.955075.4917.52,933,919124,6050.04250.957572.0918.52,458,979115,2400.04690.953169.03 2,116,525 1,922,312 1,798,657 65.79 62.36 60 30 110,577 0.0522 0.9478 60,944 0.0317 0.9683 45,011 0.0250 0.9750 47,275 0.0298 0.9702 36,499 0.0252 0.9748 19.5 20.5 60.38 21.5 22.5 1,586,543 58.87 23.5 1,447,333 57.12 54,5710.04710.952955.0039,4710.04270.957353.0632,7770.04280.957250.7933,1660.05410.945948.6252,0020.07070.929345.99 24.5 1,158,241 25.5 924,575 766,485 26.5 612,688 27.5 466,525 28.5 281,35135,4090.12590.8741188,48225,5770.13570.8643102,51423,7110.23130.768755,70123,1890.41630.583716,8369,5600.56780.4265 281,351 42.74 29.5 37.36 30.5 32.29 31.5 32.5 24.82 33.5 14.49 34.5 6.26





ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCTS & MANHOLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1947-2005 EXPERIENCE BAND 1959-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT: DURING AGE INTERVAL	S 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	4,731,869 4,718,725 4,636,182 4,330,243 4,136,427 4,089,260 4,005,946 4,111,799 4,111,799 4,111,799	1,547	$\begin{array}{c} 0.0000\\ 0.0003\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000 \end{array}$	$\begin{array}{c} 1.0000\\ 1.0000\\ 0.9997\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\end{array}$	100.00 100.00 99.97 99.97 99.97 99.97 99.97 99.97 99.97 99.97
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	4,087,165 4,085,086 4,067,515 4,032,620 3,771,619 3,160,873 3,117,363 3,085,794 3,085,794 3,031,334	2,079 9,712 219	$\begin{array}{c} 0.0005\\ 0.0000\\ 0.0000\\ 0.0026\\ 0.0026\\ 0.0001\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	$\begin{array}{c} 0.9995\\ 1.0000\\ 1.0000\\ 0.9974\\ 0.9999\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ \end{array}$	99.97 99.92 99.92 99.92 99.92 99.66 99.65 99.65 99.65 99.65
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	2,599,070 2,634,219 2,622,232 2,582,137 2,497,025 2,259,241 1,538,535 1,451,041 1,407,896 982,496		$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	$\begin{array}{c} 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\\ 1.0000\end{array}$	99.65 99.65 99.65 99.65 99.65 99.65 99.65 99.65 99.65 99.65
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	942,576 833,472 574,287 573,438 569,109 561,158 557,566 557,566 557,566 467,414	5,340	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0096 0.0000	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.9904 1.0000	99.65 99.65 99.65 99.65 99.65 99.65 99.65 99.65 99.65 99.65 99.65

ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCTS & MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1947-2005 EXPERIENCE BAND 1959-2005 PCT SURV AGE AT EXPOSURES AT RETIREMENTS BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVAL 206,796 39.5 0.0000 1.0000 98.69 40.5 41.5 176,477 176,477 0.0000 1.0000 98.69 0.0000 1.0000 98.69 42.5 176,477 0.0000 1.0000 98.69 43.5 176,477 176,477 0.0000 1.0000 98.69 2,304 0.0131 0.9869 98.69 44.5 45.5 174,173 0.0000 1.0000 97.40 168,015 46.5 0.0000 1.0000 97.40 47.5 168,015 0.0000 1.0000 97.40 168,015 538 0.0032 0.9968 97.40 48.5 49.5 99,263 0.0000 1.0000 97.09 99,263 99,263 99,263 99,263 99,263 99,263 99,263 99,263 99,263 97.09 97.09 0.0000 1.0000 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5 58.5 97.09



ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1921-2005 EXPERIENCE BAND 1948-2005

AGE AT	EXPOSURES AT	RETIREMENTS			PCT SURV	
BEGIN OF	BEGINNING OF	DURING AGE	RETMT	SURV	BEGIN OF	
INTERVAL	AGE INTERVAL	INTERVAL	RA'I'IO	RA'I'IO	INTERVAL	
0.0	2,112,418	200	0.0001	0.9999	100.00	
0.5	2,110,959	6,000	0.0028	0.9972	99.99	
1.5	1,989,248		0.0000	1.0000	99.71	
2.5	1,814,571	1,100	0.0006	0.9994	99.71	
3.5	1,832,754	2,470	0.0013	0.9987	99.65	
4.5	1,815,833	873	0.0005	0.9995	99.52	
5.5	1,761,848	2,617	0.0015	0.9985	99.47	
6.5	1,759,328	13,211	0.0075	0.9925	99.32	
7.5	1,91/,450	43,530	0.0227	0.9773	90.50	
0.5	1,032,932	2,210	0.0012	0.9900	90.34	
9.5	2,163,442	308,532	0.1426	0.8574	96.22	
10.5	1,870,298	22,743	0.0122	0.9878	82.50	
11.5	1,848,519	14,082	0.0076	0.9924	81.49	
12.5	1,838,860	29,534	0.0161	0.9839	80.87	
14 5	1,009,320 1,761,000	4,004	0.0027	0.9973	79.57	
14.5 15 5	1,701,809 1 718 096	23 659	0.0099	0.9901	79.50	
16.5	1,687,664	9,047	0.0054	0.9946	77.49	
17.5	1,583,904	8,980	0.0057	0.9943	77.07	
18.5	1,528,363	37,559	0.0246	0.9754	76.63	
19.5	1,450,124	6,319	0.0044	0.9956	74.74	
20.5	1,307,608	37,918	0.0290	0.9710	74.41	
21.5	1,201,420	73,131	0.0609	0.9391	72.25	
22.5	973,348	31,505	0.0324	0.9676	67.85	
23.5	892,957	173	0.0002	0.9998	65.65	
24.5	876,245	25,930	0.0296	0.9704	65.64	
25.5	846,053 942 24E	961 2492	0.0011	0.9989	63.70	
20.5	775 960	2,403 4 981	0.0029	0.9971	63 45	
28.5	520,241	31,999	0.0615	0.9385	63.04	
29 5	451 480	5 100	0 0113	0 9887	59 16	
30.5	434,082	5,100	0.0000	1.0000	58.49	
31.5	329,256		0.0000	1.0000	58.49	
32.5	298,502		0.0000	1.0000	58.49	
33.5	262,304	11,631	0.0443	0.9557	58.49	
34.5	219,418	3,867	0.0176	0.9824	55.90	
35.5	165,719		0.0000	1.0000	54.92	
36.5	142,631		0.0000	1.0000	54.92	
37.5	120,903	2,821	0.0233	0.9767	54.92	
38.5	174,167		0.0000	T.0000	53.64	

ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1921-2005		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	S 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	203,693 201,888 179,520 78,739 75,660 66,709 53,894 17,629 15,300 15,300	6,654 1,750 12,815	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0371\\ 0.0222\\ 0.0000\\ 0.1921\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ \end{array}$	1.0000 1.0000 0.9629 0.9778 1.0000 0.8079 1.0000 1.0000 1.0000 1.0000	53.64 53.64 51.65 50.50 40.80 40.80 40.80 40.80 40.80
49.5 50.5 51.5 52.5 53.5 54.5 55.5 56.5 57.5	15,300 15,300 15,300 15,300 15,300 15,300 15,300 15,300	15,300	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 0.0000\\ 1.0000\\ 1.0000\end{array}$	1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 0.0000	40.80 40.80 40.80 40.80 40.80 40.80 40.80 40.80 40.80 0.00





ACCOUNT 378.10 - TRANSPORTATION - SEDANS & STATION WAGONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2005 EXPERIENCE BAND 1995-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	S 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	$1,623,199\\1,302,223\\1,145,081\\942,282\\947,057\\821,742\\584,311\\456,681\\134,193\\70,367$	35,297 66,654 92,472 59,543 173,019 311,153 209,647 322,488 63,826 53,271	0.0217 0.0512 0.0808 0.0632 0.1827 0.3787 0.3588 0.7062 0.4756 0.7570	0.9783 0.9488 0.9192 0.9368 0.8173 0.6213 0.6412 0.2938 0.5244 0.2430	100.00 97.83 92.82 85.32 79.93 65.33 40.59 26.03 7.65 4 01
9.5 10.5	17,096		0.0000	1.0000	0.97



ACCOUNT 378.20 - TRANSPORTATION -PICK-UP TRUCKS, WINDOW VANS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1985-2005 EXPERIENCE BAND 1995-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT: DURING AGE INTERVAL	S 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	8,429,876 8,520,750 8,305,911 8,010,698 7,294,522 6,913,346 5,382,818 2,999,813 912,158 343,239	83,535 165,751 363,601 487,087 1,485,988 2,376,617 1,871,948 570,187 197,417	$\begin{array}{c} 0.0000\\ 0.0098\\ 0.0200\\ 0.0454\\ 0.0668\\ 0.2149\\ 0.4415\\ 0.6240\\ 0.6251\\ 0.5752 \end{array}$	1.0000 0.9902 0.9800 0.9546 0.9332 0.7851 0.5585 0.3760 0.3749 0.4248	100.00 100.00 99.02 97.04 92.63 86.44 67.86 37.90 14.25 5.34
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5	55,192 35,645 19,032	19,547 16,613 19,032 22,098	0.3542 0.4661 1.0000	0.6458 0.5339 0.0000	2.27 1.47 0.78 0.00
19.5 20.5	22,098-		0.0000		


ACCOUNTS 378.31 - CAB AND CHASSIS & 378.4 - STAKE BODIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1981-2005 EXPERIENCE BAND 1986-2005

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT: DURING AGE INTERVAL	S 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	14,150,046 14,224,804 13,154,636 11,708,320 12,128,749 11,710,684 10,324,776 8,838,611 7,286,580 5,501,455 4,796,035	1,480 1,283 274,347 465,169 724,028 1,005,058 1,019,194 1,154,598 880,591 802,763	0.0000 0.0001 0.0234 0.0384 0.0618 0.0973 0.1153 0.1585 0.1601 0.1674	1.0000 0.9999 0.9766 0.9616 0.9382 0.9027 0.8847 0.8415 0.8399	100.00 100.00 99.99 97.64 93.89 88.09 79.52 70.35 59.20 49.72
10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	3,691,503 2,449,496 1,348,336 824,838 495,453 204,476 87,624 87,622 43,017	967,666 557,323 532,740 329,385 257,602 116,854 11,650	0.2621 0.2275 0.3951 0.3993 0.5199 0.5715 0.0000 0.0000 0.2708	$\begin{array}{c} 0.7379 \\ 0.7725 \\ 0.6049 \\ 0.6007 \\ 0.4801 \\ 0.4285 \\ 1.0000 \\ 1.0000 \\ 0.7292 \end{array}$	$\begin{array}{c} 41.40\\ 30.55\\ 23.60\\ 14.28\\ 8.58\\ 4.12\\ 1.77\\ 1.77\\ 1.77\\ 1.77\end{array}$
19.5 20.5 21.5 22.5 23.5 24.5	6,238 6,238 2- 2- 6,240-	6,240	$\begin{array}{c} 0.0000 \\ 1.0003 \\ 0.0000 \\ 0.0000 \\ 0.0000 \\ 0.0000 \end{array}$	1.0000 0.0003-	1.29 1.29





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ACCOUNT 382.00 - RADIO SITES

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1948-2004		EXPERIEN	CE BAND	1948-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	TS E 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	578,768 575,517 573,249 565,829 571,715 585,966 567,031 567,996 597,841 592,431	7,217 1,239 2,815 6,302 93	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0126\\ 0.0022\\ 0.0000\\ 0.0048\\ 0.0000\\ 0.0000\\ 0.0105\\ 0.0002 \end{array}$	1.0000 1.0000 0.9874 0.9978 1.0000 0.9952 1.0000 1.0000 0.9895 0.9998	100.00100.0098.7498.5298.5298.0598.0598.0597.02
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	596,010 596,220 596,220 594,608 600,750 600,750 602,037 601,037 570,746 565,095	1,612 1,250 91 1,000 12,627 7,349 352	0.0000 0.0027 0.0021 0.0000 0.0002 0.0017 0.0210 0.0129 0.0006	1.0000 1.0000 0.9973 0.9979 1.0000 0.9998 0.9983 0.9790 0.9871 0.9994	97.00 97.00 97.00 96.74 96.54 96.54 96.52 96.36 94.34 93.12
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	493,284 346,471 279,865 159,762 148,975 148,475 147,377 136,101 134,632 85,076	4,564 5,804 612 7,087 500 1,098 11,276 1,469 1,625 1,648	0.0093 0.0168 0.0022 0.0444 0.0034 0.0074 0.0765 0.0108 0.0121 0.0194	0.9907 0.9832 0.9978 0.9556 0.9966 0.9926 0.9235 0.9892 0.9879 0.9806	93.06 92.19 90.64 90.44 86.42 86.13 85.49 78.95 78.10 77.15
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	83,428 68,351 43,205 41,864 31,067 26,531 26,531 14,939 10,099 6,137	8,941 25,146 1,341 10,797 4,536 11,592 4,840 1,183	0.1072 0.3679 0.0310 0.2579 0.1460 0.0000 0.4369 0.3240 0.0000 0.1928	0.8928 0.6321 0.9690 0.7421 0.8540 1.0000 0.5631 0.6760 1.0000 0.8072	75.65 67.54 42.69 41.37 30.70 26.22 26.22 14.76 9.98 9.98

ACCOUNT 382.00 - RADIO SITES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT	BAND 1948-2004	E	EXPERIEN	CE BAND	1948-2005
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	1,857 1,647 1,647 1,647 195 195	210 1,452 195	0.1131 0.0000 0.0000 0.8816 0.0000 1.0000	0.8869 1.0000 1.0000 0.1184 1.0000 0.0000	8.06 7.15 7.15 7.15 0.85 0.85 0.00



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ACCOUNT 386.00 - SCADA EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1956-2005		EXPERIEN	CE BAND	1982-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	TS E 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	13,274,869 13,494,930 13,480,945 13,566,274 13,458,510 12,285,692 10,676,750 9,779,453 9,385,243 8,849,300	1,140 265,820 352,648 223,214 293,155 208,490 350,978 1,206,639	0.0000 0.0001 0.0196 0.0262 0.0182 0.0275 0.0213 0.0374 0.1364	1.0000 1.0000 0.9999 0.9804 0.9738 0.9818 0.9725 0.9787 0.9626 0.8636	100.00 100.00 99.99 98.03 95.46 93.72 91.14 89.20 85.86
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	7,647,397 7,806,636 6,515,311 5,860,188 5,330,514 3,845,438 3,807,347 2,556,237 1,494,249 1,729,686	$188,550 \\ 1,296,994 \\ 625,410 \\ 341,411 \\ 1,244,305 \\ 192,825 \\ 368,507 \\ 523,773 \\ 41,366 \\ 142,809 \\ 142,809$	0.0247 0.1661 0.0960 0.0583 0.2334 0.0501 0.0968 0.2049 0.0277 0.0826	0.9753 0.8339 0.9040 0.9417 0.7666 0.9499 0.9032 0.7951 0.9723 0.9174	74.15 72.32 60.31 54.52 51.34 39.36 37.39 33.77 26.85 26.11
19.5 20.5 21.5 22.5 23.5 24.5 25.5 26.5 27.5 28.5	1,400,863 1,340,944 821,681 460,650 490,936 424,103 158,817 64,174 36,147 34,154	13,882 333,543 19,377 24,126 78,073 41,846 89,813 28,027 1,993 7,104	0.0099 0.2487 0.0236 0.0524 0.1590 0.0987 0.5655 0.4367 0.0551 0.2080	0.9901 0.7513 0.9764 0.9476 0.8410 0.9013 0.4345 0.5633 0.9449 0.7920	23.95 23.71 17.81 17.39 16.48 13.86 12.49 5.43 3.06 2.89
29.5 30.5 31.5 32.5 33.5 34.5 35.5 36.5 37.5 38.5	26,201 26,201 26,201 9,462 8,937 8,937 6,602 6,602 5,978 5,464	7,382 2,335 624 514	0.0000 0.2817 0.0000 0.2613 0.0000 0.2613 0.0000 0.0945 0.0860 0.0000	1.0000 1.0000 0.7183 1.0000 0.7387 1.0000 0.9055 0.9140 1.0000	2.29 2.29 2.29 1.64 1.64 1.21 1.21 1.10 1.01

ACCOUNT 386.00 - SCADA EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

AGE AT EXPOSURES AT RETIREMENTS PCT SURV BEGIN OF BEGINNING OF DURING AGE RETMT SURV BEGIN OF	PLACEMENT	BAND 1956-2005	EXPERIENCE BAND	1982-2005
INTERVAL AGE INTERVAL INTERVAL RATIO RATIO INTERVA.	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	

1.01



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ACCOUNT 389.10 - TELEPHONE AND DATA COLLECTION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT	BAND 1983-2005		EXPERIEN	CE BAND	1983-2005
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENT DURING AGE INTERVAL	'S 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	2,401,165 2,396,487 2,932,970 2,966,816 2,897,977 2,747,039 2,611,492 2,508,301 1,362,558 434,556	7,202 13,912 122,064 109,395 77,362 157,683 705,768 93,477	$\begin{array}{c} 0.0000\\ 0.0000\\ 0.0025\\ 0.0047\\ 0.0421\\ 0.0398\\ 0.0296\\ 0.0629\\ 0.5180\\ 0.2151 \end{array}$	1.0000 1.0000 0.9975 0.9533 0.9579 0.9602 0.9704 0.9371 0.4820 0.7849	100.00 100.00 99.75 99.28 95.10 91.32 88.62 83.05 40.03
9.5 10.5 11.5 12.5 13.5 14.5 15.5 16.5 17.5 18.5	216,894 188,056 170,804 152,303 104,531 54,998 2,843 2,843 2,843 2,843	22,322 12,511 16,086 2,741 49,533 12,528 2,843	0.1029 0.0665 0.0942 0.0180 0.4739 0.2278 0.0000 0.0000 0.0000 1.0000	0.8971 0.9335 0.9058 0.9820 0.5261 0.7722 1.0000 1.0000 1.0000 0.0000	31.42 28.19 26.32 23.84 23.41 12.32 9.51 9.51 9.51 9.51

19.5

0.00

APPENDIX B — NET SALVAGE STATISTICS

HYDRO PRODUCTION PLANT - ALL ACCOUNTS

		COST	OF	GROS	SS	NET	
		REMO	JAL	SALVA	AGE	SALVA	.GE
YEAR	RETIREMENTS	S AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	13,026	4,263	33		0	4,263-	33-
1977	93,651	5,340	6	6,172	7	832	1
1978	153,825	11,880	8	1,383	1	10,497-	7 -
1979	216,689	42,834	20		0	42,834-	20-
1980	58,096	7,434	13		0	7,434-	13-
1981	176,662	15,829	9	5,000	3	10,829-	6 -
1982	112,902	13,606	12	291	0	13,315-	12-
1983	622,353	62,201	10	706	0	61,495-	10-
1984	214,685	7,248	3	2,448	1	4,800-	2 -
1985	326,146	40,098	12	19,936	6	20,162-	6 -
1986	213,292	40,731	19	37,679	18	3,052-	1-
1987	418,535	84,545	20	229	0		20-
1988	122,353	25,334	21	83,754	68	58,420	48
1989	374,685	43,992	12	8-	- 0	44,000-	12-
1990	458,300	68,601	15	525	0	68,076-	15-
1991	191,896	50,886	27		0	50,886-	27-
1992	245,358	14,431	6	54,166	22	39,735	16
1993	72,070	19,768	27	3,863.	- 5-	23,631-	33-
1994	181,301	41,612	23	182,450	101	140,838	78
1995	445,220	70,341	16		0	70,341-	16-
1996	180,927	37.327	21		0	37.327-	21-
1997	556,891	27,502	5		0	27,502-	5-
1998	275,574	84,467	31		0	84,467-	31-
1999	787,325	270,332	34		0	270,332-	34-
2000	840,111	325,162	39		0	325,162-	39-
2001	518,992	278,683	54		0	278,683-	54-
2002	802,570	174,472	22	2,058	0	172,414-	21-
2003	443,979	, 80,275	18	,	0	, 80,275-	18-
2004	1,250,113	239,492	19		0	239,492-	19-
2005	282,005	107,792	38		0	107,792-	38-
TOTAL	10,649,532	2,296,478	22	392,926	4	1,903,552-	18-
THREE-	YEAR MOVING	AVERAGES					
76-78	86,834	7,161	8	2,518	3	4,643-	5 -
77-79	154,722	20,018	13	2,518	2	17,500-	11-
78-80	142,870	20,716	14	461	0	20,255-	14-
79-81	150,482	22,032	15	1,667	1	20,365-	14-
80-82	115,887	12,290	11	1,764	2	10,526-	9 -
81-83	303,972	30,545	10	1,999	1	28,546-	9 -
82-84	316,647	27,685	9	1,148	0	26,537-	8 -
83-85	387,728	36,516	9	7,697	2	28,819-	7 -

HYDRO PRODUCTION PLANT - ALL ACCOUNTS

		COST	OF	GROS	SS	NET	
		REMO	/AL	SALVA	AGE	SALVAG	ΞE
YEAR RE	TIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT E	PCT
THREE-YEA	AR MOVING AN	/ERAGES					
84-86	251,374	29,359	12	20,021	8	9,338-	4 -
85-87	319,324	55,125	17	19,281	6	35,844-	11-
86-88	251,393	50,203	20	40,554	16	9,649-	4 -
87-89	305,191	51,290	17	27,992	9	23,298-	8 -
88-90	318,446	45,976	14	28,090	9	17,886-	6 -
89-91	341,627	54,493	16	172	0	54,321-	16-
90-92	298,518	44,639	15	18,230	6	26,409-	9 -
91-93	169,775	28,362	17	16,768	10	11,594-	7 -
92-94	166,243	25,270	15	77,584	47	52,314	31
93-95	232,864	43,907	19	59,529	26	15,622	7
94-96	269,149	49,760	18	60,817	23	11,057	4
95-97	394,346	45,057	11		0	45,057-	11-
96-98	337,797	49,765	15		0	49,765-	15-
97-99	539,930	127,434	24		0	127,434-	24-
98-00	634,337	226,654	36		0	226,654-	36-
99-01	715,476	291,392	41		0	291,392-	41-
00-02	720,558	259,439	36	686	0	258,753-	36-
01-03	588,514	177,810	30	686	0	177,124-	30-
02-04	832,221	164,746	20	686	0	164,060-	20-
03-05	658,699	142,520	22		0	142,520-	22-
FIVE-YEAF	R AVERAGE						
01-05	659,532	176,143	27	412	0	175,731-	27-

OTHER PRODUCTION PLANT - ALL ACCOUNTS

YEAR	RETIREMENTS	COST REMOV S AMOUNT	OF JAL PCT	GROS SALVZ AMOUNT	SS AGE PCT	SZ AMOI	NET ALVA JNT	.GE PCT
1977	14,090		0	1,545	11	1,5	545	11
1978	150		0		0			0
1979	333		0		0			0
1980								
1981								
1982	38,426	249	1		0		249-	1-
1983	27,838	871	3	1	0	8	870-	3 -
1984	24,089	500	2	338	1	-	162-	1-
1985	13,345	426	3	324	2	-	102-	1-
1986	10,885	4,510	41		0	4,	510-	41-
1987	136,510	21,638	16		0	21,6	538-	16-
1988	30,100	7,105	24		0	7,	105-	24-
1989	3, 747	2 CE7	10		0	-	108-	- 5
1001	28,400	3,657	1		0	3,6	55/- 501-	13-
1991	40,009	001			0	e e e e e e e e e e e e e e e e e e e	501-	т - О
1992	4,000 93 1 <i>44</i>	29 147	31		0	29	147-	31-
1994	167 629	15 108	9		0	15	108-	9-
1995	44,946	54.018	120		Ő	54.0	018-	120-
1996	138,078	30,328	22		0	30,3	328-	22-
1997	45,630	12,706	28		0	12,	706-	28-
1998	1,699,761	116,979	7	394	0	116,	585-	7-
1999	185,402	275,360	149	18,400	10	256,9	960-	139-
2000	533,728	56,747	11		0	56,	747-	11-
2001	18,145	20,026	110		0	20,0	026-	110-
2002	261,391	118,715	45		0	118,	715-	45-
2003	783,624	70,120	9	83,609	- 11-	153,	729-	20-
2004	118,794	21,602	18	13,996	12	7,6	506-	6 -
2005	1,665,511	130,859	8	423,735	25	292,8	876	18
TOTAL	6,128,385	991,380	16	375,124	6	616,2	256-	10-
THREE-	YEAR MOVING	AVERAGES						
77-79	4,858		0	515	11	I	515	11
78-80	161		0		0			0
79-81	111		0		0			0
80-82	12,809	83	1		0		83-	1-
81-83	22,088	373	2		0	-	373-	2 -
82-84	30,118	540	2	113	0	4	427-	1-
83-85	21,757	599	3	221	1		378-	2-
84-86	16,106	1,812	11	221	1	1,5	591-	10-
85-87	53 , 580	8,858	17	108	0	8,'	/50-	16-

OTHER PRODUCTION PLANT - ALL ACCOUNTS

		COST	OF	GROS	S	NET	
		REMOV	/AL	SALVA	GE	SALVA	ΞE
YEAR RE	TIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT I	PCT
THREE-YEA	R MOVING AV	VERAGES					
86-88	59,165	11,084	19		0	11,084-	19-
87-89	56,786	9,617	17		0	9,617-	17-
88-90	20,749	3,623	17		0	3,623-	17-
89-91	24,279	1,455	6		0	1,455-	6 -
90-92	24,363	1,419	6		0	1,419-	6 -
91-93	45,944	9,916	22		0	9,916-	22-
92-94	88,258	14,752	17		0	14,752-	17-
93-95	101,906	32,758	32		0	32,758-	32-
94-96	116,884	33,151	28		0	33,151-	28-
95-97	76,218	32,351	42		0	32,351-	42-
96-98	627,823	53,338	8	131	0	53,207-	8 -
97-99	643,598	135,015	21	6,265	1	128,750-	20-
98-00	806,297	149,695	19	6,265	1	143,430-	18-
99-01	245,758	117,378	48	6,133	2	111,245-	45-
00-02	271,088	65,163	24		0	65,163-	24-
01-03	354,387	69,620	20	27,870-	8 -	97,490-	28-
02-04	387,936	70,146	18	23,204-	6 -	93,350-	24-
03-05	855,976	74,194	9	118,041	14	43,847	5
FIVE-YEAR	AVERAGE						
01-05	569,493	72,264	13	70,824	12	1,440-	0

SUBSTATIONS - ALL ACCOUNTS

		COST	OF	GROS	S	NET	
		REMOV	JAL	SALVA	GE	SALVA	GΕ
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT I	РСТ
1976	209,702	4,114	2	6,253	3	2,139	1
1977	715,030	12,172	2	24,614	3	12,442	2
1978	324,510	21,609	7	84,012	26	62,403	19
1979	122,514	10,227	8	17,454	14	7,227	6
1980	108,065	2,436	2	45,517	42	43,081	40
1981	238,697	147,479	62	61,857	26	85,622-	36-
1982	129,423	3,099	2	7,165	6	4,066	3
1983	122,630	11,041	9	15,891	13	4,850	4
1984	175,717	13,590	8	13,396	8	194-	0
1985	406,932	18,807	5	8,078	2	10,729-	3 -
1986	192,045	12,595	7	6,350	3	6,245-	3 -
1987	321,499	27,183	8	7,263	2	19,920-	6 -
1988	293,006	44,292	15	34,462	12	9,830-	3 -
1989	171,633	51,567	30	7,769-	5-	59,336-	35-
1990	439,514	61,127	14	25,181	6	35,946-	8 -
1991	256,468	39,146	15	23,514	9	15,632-	6 -
1992	490,044	36,153	7	2,086	0	34,067-	7-
1993	124,896	37,515	30	3,426	3	34,089-	27-
1994	457,823	83,034	18	101,855	22	18,821	4
1995	220,360	47,975	22	101,135	46	53,160	24
1996	408,816	63,917	16	10,702	3	53,215-	13-
1997	462,017	73,776	16	18,898	4	54,878-	12-
1998	453,867	57,107	13	17,258	4	39,849-	9 -
1999	1,100,914	253,110	23	13,300	1	239,810-	22-
2000	491,183	186,825	38	25,556	5	161,269-	33-
2001	646,050	110,079	17	754	0	109,325-	17-
2002	1,921,197	88,133	5	2,773	0	85,360-	4 -
2003	523,765	113,166	22	515,590	98	402,424	77
2004	806,466	434,013	54		0	434,013-	54-
2005	1,194,748	386,434	32	1,270	0	385,164-	32-
TOTAL	13,529,531	2,451,721	18	1,187,841	9	1,263,880-	9 -
THREE-	YEAR MOVING .	AVERAGES					
76-78	416,414	12,632	3	38,293	9	25,661	6
'/'7-79	387.351	14.669	4	42.027	11	27,358	7

/0-/0	410,414	12,052	2	50,295	9	Z5,001	0
77-79	387,351	14,669	4	42,027	11	27,358	7
78-80	185,030	11,424	6	48,994	26	37,570	20
79-81	156,425	53,381	34	41,609	27	11,772-	8 -
80-82	158,728	51,005	32	38,180	24	12,825-	8 -
81-83	163,583	53,873	33	28,304	17	25,569-	16-
82-84	142,590	9,243	6	12,151	9	2,908	2
83-85	235,093	14,479	6	12,455	5	2,024-	1-

SUBSTATIONS - ALL ACCOUNTS

		COST	OF	GROS	SS	NET	
		REMOV	/AL	SALVA	AGE	SALVAGI	Ξ
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PO	CT
THREE-	YEAR MOVING AV	ERAGES					
84-86	258,231	14,997	6	9,275	4	5,722-	2 -
85-87	306,825	19,528	6	7,230	2	12,298-	4 -
86-88	268,850	28,023	10	16,025	6	11,998-	4 -
87-89	262,046	41,014	16	11,319	4	29,695-	11-
88-90	301,384	52,329	17	17,291	6	35,038- 1	12-
89-91	289,205	50,613	18	13,642	5	36,971- 1	13-
90-92	395,342	45,475	12	16,927	4	28,548-	7 -
91-93	290,469	37,605	13	9,675	3	27,930- 1	10-
92-94	357,588	52,234	15	35,789	10	16,445-	5-
93-95	267,693	56,175	21	68,805	26	12,630	5
94-96	362,333	64,975	18	71,231	20	6,256	2
95-97	363,731	61,889	17	43,578	12	18,311-	5-
96-98	441,567	64,933	15	15,619	4	49,314- 1	11-
97-99	672,266	127,998	19	16,485	2	111,513- 1	17-
98-00	681,988	165,681	24	18,705	3	146,976- 2	22-
99-01	746,049	183,338	25	13,203	2	170,135- 2	23-
00-02	1,019,477	128,346	13	9,694	1	118,652- 1	12-
01-03	1,030,337	103,793	10	173,039	17	69,246	7
02-04	1,083,809	211,771	20	172,788	16	38,983-	4 -
03-05	841,660	311,204	37	172,287	20	138,917- 1	17-
FIVE-Y	EAR AVERAGE						
01-05	1,018,445	226,365	22	104,077	10	122,288- 1	12-

TRANSMISSION - ALL ACCOUNTS

		COST	OF	GROS	SS	NET	
		REMO	VAL	SALVA	AGE	SALVAG	E
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT P	СТ
1976	74,518	27,005	36	22,953	31	4,052-	5 -
1977	170,467	89,070	52	103,137	61	14,067	8
1978	166,933	20,255	12	26,050	16	5,795	3
1979	53,320	9,423	18	27,253	51	17,830	33
1980	192,641	14,937	8	29,762	15	14,825	8
1981	439,424	18,798	4	16,820	4	1,978-	0
1982	533,077	23,296	4	68,325	13	45,029	8
1983	26,333	8,388	32	8,175	31	213-	1-
1984	152,266	24,524	16	8,112	5	16,412-	11-
1985	780,922	16,683	2	15,442	2	1,241-	0
1986	68,915	19,596	28	19,343	28	253-	0
1987	393,705	43,333	11	18,684	5	24,649-	6 -
1988	108,574	145,293	134	235,666	217	90,373	83
1989	215,507	112,599	52	48,771	23	63,828-	30-
1990	271,586	145,621	54	11,387	4	134,234-	49-
1991	347,937	103,835	30	16,558	5	87,277-	25-
1992	531,746	192,372	36	91,746	17	100,626-	19-
1993	245,837	77,899	32	51,560	21	26,339-	11-
1994	189,108	210,310	111	140,666	74	69,644-	37-
1995	243,439	126,204	52	72,160	30	54,044-	22-
1996	217,259	140,234	65	23,602	11	116,632-	54-
1997	189,948	152,957	81	4,219	2	148,738-	78-
1998	550,439	191,336	35	21,566	4	169,770-	31-
1999	319,663	163,447	51	17,105	5	146,342-	46-
2000	168,248	135,200	80	27,175	16	108,025-	64-
2001	353,437	361,072	102	2,224	1	358,848-1	02-
2002	501,426	274,226	55	52,038	10	222,188-	44-
2003	1,674,595	286,028	17	94,658	6	191,370-	11-
2004	646,550	257,876	40		0	257,876-	40-
2005	496,444	312,005	63		0	312,005-	63-
TOTAL	10,324,264	3,703,822	36	1,275,157	12	2,428,665-	24-
THREE-	YEAR MOVING 2	AVERAGES					

76-78	137,306	45,443	33	50,713	37	5,270	4
77-79	130,240	39,583	30	52,147	40	12,564	10
78-80	137,631	14,872	11	27,688	20	12,816	9
79-81	228,462	14,386	6	24,612	11	10,226	4
80-82	388,381	19,010	5	38,302	10	19,292	5
81-83	332,945	16,827	5	31,107	9	14,280	4
82-84	237,225	18,736	8	28,204	12	9,468	4
83-85	319,840	16,532	5	10,576	3	5,956-	2 -

TRANSMISSION - ALL ACCOUNTS

		COST	OF	GROS	SS	NET	
		REMOV	/AL	SALVA	AGE	SALVAG	ΞE
YEAR RE	TIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT E	РСТ
THREE-YEA	R MOVING AV	VERAGES					
84-86	334,034	20,268	6	14,299	4	5,969-	2 -
85-87	414,514	26,537	6	17,823	4	8,714-	2 -
86-88	190,398	69,407	36	91,231	48	21,824	11
87-89	239,262	100,408	42	101,040	42	632	0
88-90	198,556	134,504	68	98,608	50	35,896-	18-
89-91	278,343	120,685	43	25,572	9	95,113-	34-
90-92	383,756	147,276	38	39,897	10	107,379-	28-
91-93	375,173	124,702	33	53,288	14	71,414-	19-
92-94	322,230	160,194	50	94,657	29	65,537-	20-
93-95	226,128	138,138	61	88,129	39	50,009-	22-
94-96	216,602	158,916	73	78,809	36	80,107-	37-
95-97	216,882	139,798	64	33,327	15	106,471-	49-
96-98	319,215	161,509	51	16,462	5	145,047-	45-
97-99	353,350	169,247	48	14,297	4	154,950-	44-
98-00	346,117	163,328	47	21,949	6	141,379-	41-
99-01	280,449	219,906	78	15,501	6	204,405-	73-
00-02	341,037	256,833	75	27,146	8	229,687-	67-
01-03	843,153	307,109	36	49,640	6	257,469-	31-
02-04	940,857	272,710	29	48,899	5	223,811-	24-
03-05	939,196	285,303	30	31,553	3	253,750-	27-
FIVE-YEAR	AVERAGE						
01-05	734,490	298,241	41	29,784	4	268,457-	37-

ACCOUNT 360.00 - DISTRIBUTION - LAND AND LAND RIGHTS

		COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
1983	346	0	0	0
1984				
1985	_			
1986	6	0	0	0
1987				
1988				
1989				
1990				
1991				
1992				
1994				
1995				
1996	4,922	0	0	0
1997	8,126	0	0	0
1998	5,796	0	0	0
1999	5,938	0	0	0
2000	-			
2001				
2002				
2003				
2004				
2005				
TOTAL	25,134	0	0	0
THREE-	YEAR MOVING AV	ERAGES		
83-85	115	0	0	0
84-86	2	0	0	0
85-87	2	0	0	0
86-88	2	0	0	0
87-89				
88-90				
89-91				
90-92				
91-93				
92-94				
94-96	1 641	Ω	Ο	Ω
95-97	4.349	0	0	0
96-98	6,281	0	0	0
97-99	6,620	0	0	0

ACCOUNT 360.00 - DISTRIBUTION - LAND AND LAND RIGHTS

SUMMARY OF BOOK SALVAGE

YEAR	RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-Y	YEAR MOVING AVE	RAGES		
98-00 99-01 00-02 01-03 02-04 03-05	3,911 1,979	0 0	0 0	0 0

FIVE-YEAR AVERAGE

01-05

ACCOUNT 361.10/361.11/361.14/361.30 - O/H CONDUCTOR - COPPER

		COST	OF	GROS	SS	NET	
		REMOV	/AL	SALVA	AGE	SALVA	GE
YEAR	RETIREMENTS	S AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	132,517	41,769	32	79,253	60	37,484	28
1977	95,956	40,152	42	46,300	48	6,148	6
1978	173,991	39,827	23	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	41,804	46	34,178-	37-
1985	146 796	80 316	55	74 289	51	6 027-	4 -
1986	52 591	17 995	34	27 795	53	9 800	19
1987	45 990	46 400	101	24 076	52	22 324-	19_
1988	43,990 77 991	33 166	13	24,070	30	9 125-	ェノ 1つ_
1980	75 91/	77 123	40 50	23,741 50 107	50	7 704	10
1909	115 001	44,423	11	52, 127	15	64 625	10 56
1001	114 004	47,204	41	I/,431-	- 13- 47	102 012	00-
1991	114,094	40,010	42	54,40Z- 12 /21	- 4/-	103,012-	100-
1992	48,545	47,798	99	13,431-	- 28-	61,229- 101 0C1	107
1993	54,53/	42,373	78	59,488-	-109-	101,861-	187-
1994	45,980	12,785	28	18,934-	- 41-	31,/19-	69-
1995	38,539	35,154	91	8,124	21	27,030-	70-
1996	66,072	53,514	81	40,880	62	12,634-	19-
1997	37,599	41,250	110	29,192	.78	12,058-	32-
1998	23,966	23,437	98	35,149	147	11,712	49
1999	481,168	129,222	27	28,349	6	100,873-	21-
2000	120,936	48,795	40	44,605	37	4,190-	3 -
2001	145,784	43,823	30	20,761	14	23,062-	16-
2002	351,591	54,677	16	52,793	15	1,884-	1-
2003	211,296	109,607	52	38,175	18	71,432-	34-
2004	190,156	180,276	95	47,795	25	132,481-	70-
2005	232,783	171,438	74	69,537	30	101,901-	44-
TOTAL	3,661,961	1,703,977	47	1,050,199	29	653,778-	18-
	VEAR MOVING	AVERAGES					
		110101010					
76-78	134,155	40,583	30	71,362	53	30,779	23
77-79	131,259	38,895	30	71,446	54	32,551	25
78-80	135,853	34,987	26	82,979	61	47,992	35
79-81	119,937	35,411	30	81,944	68	46,533	39
80-82	102,493	42,732	42	70,106	68	27.374	27
81-83	85,249	42,950	50	60,068	70	17.118	20
82-84	73,622	54,578	74	45,527	62	9.051-	12-
83-85	98,722	61,793	63	55,626	56	6,167-	6 -
	•	•		•		•	

ACCOUNT 361.10/361.11/361.14/361.30 - O/H CONDUCTOR - COPPER

		COST	OF	GROS	S	NET	
		REMOV	AL	SALVA	GE	SALVAG	E
YEAR RI	ETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT P	СТ
THREE-YE	AR MOVING AV	VERAGES					
84-86	96,917	58,098	60	47,963	49	10,135-	10-
85-87	81,792	48,237	59	42,053	51	6,184-	8 -
86-88	58,854	32,520	55	25,204	43	7,316-	12-
87-89	66,595	41,330	62	33,315	50	8,015-	12-
88-90	89,872	41,598	46	19,479	22	22,119-	25-
89-91	102,176	46,746	46	6,569-	6 -	53,315-	52-
90-92	93,080	47,871	51	28,421-	31-	76,292-	82-
91-93	72,652	46,260	64	42,440-	58-	88,700-1	22-
92-94	49,681	34,319	69	30,618-	62-	64,937-1	31-
93-95	46,352	30,104	65	23,433-	51-	53,537-1	16-
94-96	50,197	33,818	67	10,023	20	23,795-	47-
95-97	47,403	43,306	91	26,065	55	17,241-	36-
96-98	42,546	39,400	93	35,074	82	4,326-	10-
97-99	180,911	64,636	36	30,897	17	33,739-	19-
98-00	208,690	67,151	32	36,034	17	31,117-	15-
99-01	249,296	73,947	30	31,238	13	42,709-	17-
00-02	206,104	49,098	24	39,386	19	9,712-	5 -
01-03	236,224	69,369	29	37,243	16	32,126-	14-
02-04	251,014	114,853	46	46,254	18	68,599-	27-
03-05	211,412	153,774	73	51,836	25	101,938-	48-
	P AVERACE						
гтү <u>р</u> -трА	I AVEILAGE						
01-05	226,322	111,964	49	45,812	20	66,152-	29-

ACCOUNT 361.12 & 361.13 & 361.15 - O/H CONDUCTOR - ALUMINUM

		COST	OF	GROS	SS	NET
		REMO	VAL	SALVA	AGE	SALVAGE
YEAR	RETIREMENTS	S AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1976	114 352	32 493	28	10 057	9	22 436- 20-
1077	108 780	/1 355	20	1 782	7	36 573 - 34 -
1070	1/0 791	33 261	24	37 806	- 27	A 545 3
1070	140,791 154 694	27 692	24	26 061	27	1 621 - 1 -
1000	154,024	37,092	24	30,001 40 015	23	1,031- 1-
1001	104,057	34,710 27 E41	21	42,213	20 10	7,505 5
1981	1/4,862	3/,541		32,471	19	5,070- 3-
1982	218,/86	112,179	51	56,834	26	55,345-25-
1983	160,455	49,844	31	43,408	27	6,436- 4-
1984	153,914	66,712	43	35,513	23	31,199-20-
1985	249,623	113,757	46	34,204	14	79,553- 32-
1986	186,915	108,955	58	24,317	13	84,638- 45-
1987	198,281	73,590	37	26,558	13	47,032- 24-
1988	217,376	139,050	64	32,336	15	106,714- 49-
1989	317,420	217,138	68	75,674	24	141,464- 45-
1990	332,374	103,431	31	34,237	10	69,194- 21-
1991	325,342	106,513	33	70,002	22	36,511- 11-
1992	232,436	104,733	45	69,384	30	35,349- 15-
1993	253,834	92,848	37	25,269	10	67,579- 27-
1994	254,897	28,014	11	34,590	14	6,576 3
1995	318,265	124,635	39	67,775	21	56,860- 18-
1996	186,416	73,900	40	30,673	16	43,227-23-
1997	169,004	87,657	52	34,899	21	52,758- 31-
1998	197,011	77,707	39	29,196	15	48,511- 25-
1999	545,297	204,262	37	24,783	5	179,479- 33-
2000	799,899	195,815	24	95,580	12	100,235- 13-
2001	409,966	397,785	97	47,252	12	350,533-86-
2002	1.612.240	334,441	21	57,755	4	276,686-17-
2003	1,164,739	261,955	22	43,582	4	218,373-19-
2004	973 070	530 818	55	24 888	3	505 930- 52-
2005	450,036	528,030	117	30,930	7	497,100-110-
TOTAL	10,785,662	4,350,821	40	1,213,031	11	3,137,790- 29-
THREE-	YEAR MOVING	AVERAGES				
76-78	121,308	35,703	29	17,548	14	18,155- 15-
77-79	134,732	37,436	28	26,216	19	11,220- 8-
78-80	153,357	35,221	23	38,694	25	3,473 2
79-81	164.714	36,648	22	36,916	22	268 0
80-82	186,102	61,477	33	43,840	24	17,637- 9-
81-83	184,701	66,521	36	44,238	24	22,283-12-
82-84	177.718	76.245	43	45,252	2.5	30,993-17-
83-85	187,997	76,771	41	37,708	20	39,063-21-
	,	-, -=		, , , , ,		,

ACCOUNT 361.12 & 361.13 & 361.15 - O/H CONDUCTOR - ALUMINUM

		COST	OF	GRO	SS	NET	
		REMOV	/AL	SALV	AGE	SALVAC	ΞE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT I	PCT
THREE-	YEAR MOVING AV	ERAGES					
84-86	196,817	96,475	49	31,345	16	65,130-	33-
85-87	211,606	98,767	47	28,360	13	70,407-	33-
86-88	200,857	107,198	53	27,737	14	79,461-	40-
87-89	244,359	143,259	59	44,856	18	98,403-	40-
88-90	289,057	153,206	53	47,416	16	105,790-	37-
89-91	325,045	142,361	44	59,971	18	82,390-	25-
90-92	296,717	104,892	35	57,874	20	47,018-	16-
91-93	270,537	101,365	37	54,885	20	46,480-	17-
92-94	247,056	75,198	30	43,081	17	32,117-	13-
93-95	275,665	81,832	30	42,545	15	39,287-	14-
94-96	253,193	75,516	30	44,346	18	31,170-	12-
95-97	224,562	95,397	42	44,449	20	50,948-	23-
96-98	184,144	79,755	43	31,589	17	48,166-	26-
97-99	303,771	123,209	41	29,626	10	93,583-	31-
98-00	514,069	159,261	31	49,853	10	109,408-	21-
99-01	585,054	265,954	45	55,872	10	210,082-	36-
00-02	940,702	309,347	33	66,862	7	242,485-	26-
01-03	1,062,315	331,394	31	49,530	5	281,864-	27-
02-04	1,250,017	375,738	30	42,075	3	333,663-	27-
03-05	862,615	440,268	51	33,133	4	407,135-	47-
FIVE-Y	EAR AVERAGE						
01-05	922,010	410,606	45	40,881	4	369,725-	40-

ACCOUNT 361.20 & 361.40 - DISTRIBUTION - UNDERGROUND CABLES

YEAR	RETIREMENTS	COST REMOV AMOUNT	OF /AL PCT	GROS SALVZ AMOUNT	SS AGE PCT	NET SALVAGE AMOUNT PC	C T
1976	15.435	5.850	38	2.499	16	3.351- 2	22-
1977	29,672	6,820	23	1,945	7	4.875-1	6-
1978	10,173	3,903	38	7,184	, 71	3,281 3	32
1979	18,146	5,758	32	5,122	28	636-	4 -
1980	7,019	1,035	15	413	6	622-	9 -
1981	18,462	_,	0		0		0
1982	13,029		0		0		0
1983	5,425		0		0		0
1984	9,668		0		0		0
1985	136,329		0		0		0
1986	42,361		0		0		0
1987	27,747		0		0		0
1988	27,914		0		0		0
1989	33,138		0		0		0
1990	63,650		0	80,445	126	80,445 12	26
1991	62,058		0	6,110	10	6,110 1	0
1992	12,570		0	1,212	- 10-	1,212- 1	- 0 -
1993	21,230		0		0		0
1994	61,710		0	333-	- 1-	333-	1-
1995	28,002		0	494	2	494	2
1996	50,538	2,165	4	9,782	19	7,617 1	-5
1997	2,251	25	0	2,807	-125-	2,807-12	25-
1998	4,980	37	T	950	19	913 1	-8
1999		0 170		1 700		C 202	
2000	1 000	8,1/9	0.0	1,/86	0	6,393 - 1 967 0	0
2001	1,000 127 726	1,00/	99		0	1,00/- 3	
2002	437,730	11 602	0		0	11 602-	0
2003		44,002				44,002-	
2005		40,977				40,977	
TOTAL	1,141,129	129,193	11	112,378	10	16,815-	1-
THREE-	YEAR MOVING A	VERAGES					
76-78	18,427	5,524	30	3,876	21	1,648-	9 -
77-79	19,330	5,494	28	4,750	25	744-	4 -
78-80	11,779	3,565	30	4,240	36	675	6
79-81	14,542	2,264	16	1,845	13	419-	3 -
80-82	12,837	345	3	138	1	207-	2 -
81-83	12,305		0		0		0
82-84	9,374		0		0		0
83-85	50,474		0		0		0

ACCOUNT 361.20 & 361.40 - DISTRIBUTION - UNDERGROUND CABLES

		COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PC	T AMOUNT PCT
THREE-	YEAR MOVING AV	ERAGES		
84-86	62,786	0		0 0
85-87	68,812	0		0 0
86-88	32,674	0		0 0
87-89	29,600	0		0 0
88-90	41,567	0	26,815 6	5 26,815 65
89-91	52,949	0	28,852 5	4 28,852 54
90-92	46,093	0	28,448 6	2 28,448 62
91-93	31,953	0	1,633	5 1,633 5
92-94	31,837	0	515-	2- 515- 2-
93-95	36,981	0	54	0 54 0
94-96	46,750	722 2	3,314	7 2,592 6
95-97	26,930	722 3	2,490	9 1,768 7
96-98	19,256	734 4	2,642 1	4 1,908 10
97-99	2,410	12 0	619- 2	6- 631- 26-
98-00	1,660	2,739 165	912 5	5 1,827-110-
99-01	629	3,349 532	595 9	5 2,754-438-
00-02	146,541	3,349 2	595	0 2,754- 2-
01-03	146,541	15,490 11		0 15,490-11-
02-04	145,912	31,193 21		0 31,193-21-
03-05		31,193		31,193-
FIVE-Y	EAR AVERAGE			
01-05	87,924	19,089 22		0 19,089- 22-

ACCOUNT 362.30 - DIST. - POLES AND FIXTURES - CONCRETE/STEEL

YEAR	RETIREMENTS	COST REMOV S AMOUNT	OF VAL PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
2001 2002 2003 2004 2005	4,945 240,169	2,358	48 0	0 0	2,358- 48- 0
TOTAL	245,114	2,358	1	0	2,358- 1-
THREE-Y	YEAR MOVING	AVERAGES			
01-03 02-04 03-05	81,705 80,056	786	1 0	0 0	786- 1- 0
FIVE-YI	EAR AVERAGE				
01-05	49,023	472	1	0	472- 1-

ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

		COST	OF	GROS	SS	NE	Г
		REMOV	VAL	SALVA	AGE	SALV	AGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	339,322	22,029	6	125,561	37	103,532	31
1977	292,908	28,558	10	118,441	40	89,883	31
1978	320,116	22,212	7	45,087	14	22,875	7
1979	276,629	28,957	10	50,176	18	21,219	8
1980	652,796	24,086	4	57,568	9	33,482	5
1981	287,170	22,230	8	58,125	20	35,895	12
1982	386,991	25,909	7	64,306	17	38,397	10
1983	266,347	20,962	8	60,854	23	39,892	15
1984	324,804	26,377	8	66,612	21	40,235	12
1985	298,090	30,373	10	74,415	25	44,042	15
1986	320,832	39,069	12	102,154	32	63,085	20
1987	353,116	63,166	18	86,793	25	23,627	7
1988	320,397	60,541	19	85,322	27	24,781	8
1989	440,693	62,442	14	105,334	24	42,892	10
1990	434,043	93,205	21	131,171	30	37,966	9
1991	570,055	94,194	17	119,048	21	24,854	4
1992	553,001	75,827	14	139,543	25	63,716	12
1993	539,127	67,992	13	138,012	26	70,020	13
1994	624,544	94,884	15	151,019	24	56,135	9
1995	651,946	78,266	12	140,254	22	61,988	10
1996	821,347	91,578	11	189,371	23	97,793	12
1997	473,302	78,014	16	157,037	33	79,023	17
1998	286,015	67,032	23	127,506	45	60,474	21
1999	755,062	54,548	7	59,923	8	5,375	1
2000	790,310	71,692	9	61,823	8	9,869	- 1-
2001	848,141	80,975	10	53 , 773	6	27,202	- 3-
2002	2,029,708	59,282	3	24,392	1	34,890	- 2-
2003	808,150	81,887	10	5,824	1	76,063	- 9-
2004	792,759	87,414	11	3,850	0	83,564	- 11-
2005	868,981	107,588	12	9,024	1	98,564	- 11-
TOTAL	16,726,702	1,761,289	11	2,612,318	16	851,029	5
THREE	-YEAR MOVING	AVERAGES					
76-78	317,449	24,266	8	96,363	30	72,097	23
77-79	296,551	26,576	9	71,235	24	44,659	15
78-80	416,514	25,085	6	50,944	12	25,859	6
79-81	405,532	25,091	6	55,290	14	30,199	7
80-82	442,319	24,075	5	60,000	14	35,925	8
81-83	313,503	23,034	7	61,095	19	38,061	12
82-84	326,047	24,416	7	63,924	20	39,508	12
83-85	296,414	25,904	9	67,294	23	41,390	14

ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

		COST	OF	GROS	SS	NET	
		REMOV	AL	SALVA	AGE	SALVAG	E
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT P	СТ
THREE-	YEAR MOVING AVI	ERAGES					
84-86	314,575	31,940	10	81,060	26	49,120	16
85-87	324,013	44,203	14	87,787	27	43,584	13
86-88	331,448	54,259	16	91,423	28	37,164	11
87-89	371,402	62,050	17	92,483	25	30,433	8
88-90	398,378	72,063	18	107,276	27	35,213	9
89-91	481,597	83,280	17	118,518	25	35,238	7
90-92	519,033	87,742	17	129,921	25	42,179	8
91-93	554,061	79 , 338	14	132,201	24	52,863	10
92-94	572,224	79,568	14	142,858	25	63,290	11
93-95	605,206	80,381	13	143,095	24	62,714	10
94-96	699,279	88,243	13	160,215	23	71,972	10
95-97	648,865	82,619	13	162,221	25	79,602	12
96-98	526,888	78,875	15	157,971	30	79,096	15
97-99	504,793	66,531	13	114,822	23	48,291	10
98-00	610,462	64,424	11	83,084	14	18,660	3
99-01	797,838	69,072	9	58,506	7	10,566-	1-
00-02	1,222,720	70,650	6	46,663	4	23,987-	2 -
01-03	1,228,666	74,048	6	27,996	2	46,052-	4 -
02-04	1,210,206	76,194	6	11,355	1	64,839-	5 -
03-05	823,297	92,296	11	6,233	1	86,063-	10-
FIVE-Y	EAR AVERAGE						
01-05	1,069,548	83,429	8	19,373	2	64,056-	6 -

ACCOUNT 364.00 - DISTRIBUTION - TRANSFORMERS

		COST	OF	GROS	SS	NE	ET
YEAR	RETIREMENTS	AMOUNT	VAL PCT	AMOUNT	PCT	AMOUN	AGE F PCT
1976	209,142		0	20,950	10	20,950) 10
1977	301,115		0	11,869	4	11,869	9 4
1978	370,766		0	30,646	8	30,646	58
1979	324,223	277	0	22,112	7	21,835	57
1980	243,756	352	0	45,495	19	45,143	3 19
1981	343,984	2,209	1	9,958	3	7,749	92
1982	300,512		0	9,111	3	9,111	L 3
1983	345,070	203	0	30,557	9	30,354	£9
1984	429,292	585	0	18,444	4	17,859	9 4
1985	202,997	294	0	5,596	3	5,302	2 3
1986	259,030	892	0	11,023	4	10,131	L 4
1987	235,686	601	0	6,422	3	5,821	L 2
1988	330,575	1,658	1	29,257	9	27,599	9 8
1989	371,252	5,113	1	14,079	4	8,966	52
1990	470,448	4,905	1	16,675	4	11,770) 3
1991	339,804	4,659	1	26,611	8	21,952	26
1992	191,717	5,687	3	19,686	10	13,999	97
1993	230,692	7,268	3	28,350	12	21,082	29
1994	197,274	2,670	1	10,681	5	8,011	L 4
1995	227,683	211,488	93	58,141	26	153,347	7- 67-
1996	155,826	10,408	7	33,380	21	22,972	2 15
1997	845,887	4,487	1	6,360	1	1,873	3 0
1998	1,789,961	88,001	5	364,463	20	276,462	2 15
1999	1,419,119	78,045	5	428,942	30	350,89	/ 25
2000	1,226,597	80,581	7	339,672	28	259,091	L 21
2001	912,446	80,007	9	122,917	13	42,910	5
2002	1,485,695	36,016	2	2,340	21	33,676	o- ∠-
2003	1,242,319	326,589	26	387,620	31	61,031	L 5
2004	1 600 745	85,395	11		0	85,395)- ⊥⊥- - 17
2005	1,600,745	346,248	22	68,693	4	277,555	S- ⊥/-
TOTAL	17,356,055	1,384,638	8	2,180,050	13	795,412	2 5
THREE-	YEAR MOVING .	AVERAGES					
76-78	293 674		0	21 155	7	21 155	5 7
77-79	332.035	92	0	21.542	, 6	21,450)))
78-80	312,915	210	Ő	32,751	10	32,541	L 10
79-81	303,988	946	Õ	25,855	9	24,909	9 8
80-82	296,084	854	0	21,521	- 7	20,665	7 7
81-83	329,855	804	0	16,542	5	15,738	3 5
82-84	358,291	263	0	19,371	5	19,108	3 5
83-85	325,786	361	0	18,199	6	17,838	3 5

ACCOUNT 364.00 - DISTRIBUTION - TRANSFORMERS

		COST	OF	GROS	SS	NET	
		REMOV	7AL	SALVA	AGE	SALVAG	ΞE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT E	PCT
THREE-	YEAR MOVING AV	ERAGES					
84-86	297,106	590	0	11,688	4	11,098	4
85-87	232,571	596	0	7,680	3	7,084	3
86-88	275,097	1,050	0	15,567	6	14,517	5
87-89	312,504	2,457	1	16,586	5	14,129	5
88-90	390,758	3,892	1	20,004	5	16,112	4
89-91	393,835	4,892	1	19,122	5	14,230	4
90-92	333,990	5,084	2	20,991	6	15,907	5
91-93	254,071	5,871	2	24,882	10	19,011	7
92-94	206,561	5,208	3	19,572	9	14,364	7
93-95	218,550	73,809	34	32,391	15	41,418-	19-
94-96	193,594	74,855	39	34,067	18	40,788-	21-
95-97	409,799	75,461	18	32,627	8	42,834-	10-
96-98	930,558	34,299	4	134,734	14	100,435	11
97-99	1,351,656	56,844	4	266,588	20	209,744	16
98-00	1,478,559	82,209	6	377,692	26	295,483	20
99-01	1,186,054	79,544	7	297,177	25	217,633	18
00-02	1,208,246	65,535	5	154,976	13	89,441	7
01-03	1,213,487	147,537	12	170,959	14	23,422	2
02-04	1,160,152	149,333	13	129,987	11	19,346-	2 -
03-05	1,198,502	252,744	21	152,104	13	100,640-	8 -
FIVE-Y	EAR AVERAGE						
01-05	1,198,729	174,851	15	116,314	10	58,537-	5-

ACCOUNT 365.00 - DISTRIBUTION - SERVICES

SUMMARY OF BOOK SALVAGE

		COST	OF	GROS	SS	NET
		REMOV	VAL	SALV	AGE	SALVAGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
1976	116,831	47,923	41	4,701	4	43,222- 37-
1977	123,300	58,412	47	6,263	5	52,149-42-
1978	126,631	60,500	48	15,116	12	45,384-36-
1979	138,960	63,186	45	17,372	13	45,814- 33-
1980	, 118, 572	62,500	53	10,391	9	52,109-44-
1981	146,271	76,388	52	14,830	10	61,558- 42-
1982	161,068	72,978	45	11,232	7	61,746- 38-
1983	165,847	81,841	49	15,508	9	66,333- 40-
1984	, 227, 839	83,655	37	15,558	7	68,097-30-
1985	166,496	86,937	52	18,404	11	68,533- 41-
1986	143,362	93,190	65	19,515	14	73,675- 51-
1987	121,573	113,175	93	13,435	11	99,740- 82-
1988	150,491	102,958	68	53,716	36	49,242- 33-
1989	166,620	130,934	79	24,406	15	106,528- 64-
1990	182,441	163,221	89	69,679	38	93,542- 51-
1991	149,716	161,073	108	63,727	43	97,346- 65-
1992	164,570	150,230	91	43,847	27	106,383- 65-
1993	158,154	121,755	77	40,719	26	81,036- 51-
1994	104,640	115,175	110	42,048	40	73,127- 70-
1995	87,789	104,798	119	35,449	40	69,349- 79-
1996	94,690	99,313	105	21,217	22	78,096- 82-
1997	61,501	91,488	149	16,317	27	75,171-122-
1998	27,057	73,289	271	14,685	54	58,604-217-
1999	176,631	108,307	61	21,903	12	86,404- 49-
2000	188,122	127,528	68		0	127,528- 68-
2001	226,430	149,407	66	26,471	12	122,936- 54-
2002	209,907	174,746	83	33,015	16	141,731- 68-
2003	503,249	174,526	35	27,862	6	146,664- 29-
2004	449,745	158,542	35	19,516	4	139,026- 31-
2005	253,823	191,208	75	24,450	10	166,758- 66-
TOTAL	5,112,326	3,299,183	65	741,352	15	2,557,831- 50-
THREE-	YEAR MOVING	AVERAGES				
76-78	122.254	55,612	45	8,693	7	46,919- 38-
77-79	129,630	60,699	47	12,917	10	47,782- 37-
78-80	128,054	62,062	48	14,293	11	47,769- 37-
79-81	134,601	67,358	50	14,198	11	53,160- 39-
80-82	141,970	70,622	50	12,151	9	58,471- 41-
81-83	157,729	77,069	49	13,857	9	63,212- 40-
82-84	184,918	79,491	43	14,099	8	65,392-35-
83-85	186,727	84,144	45	16,490	9	67,654- 36-

ACCOUNT 365.00 - DISTRIBUTION - SERVICES

		COST	OF	GROS	SS	NET
		REMO	VAL	SALV	AGE	SALVAGE
YEAR R	ETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
THREE-YE.	AR MOVING AV	VERAGES				
84-86	179,232	87,927	49	17,826	10	70,101- 39-
85-87	143,810	97,767	68	17,118	12	80,649- 56-
86-88	138,475	103,108	74	28,889	21	74,219- 54-
87-89	146,228	115,689	79	30,519	21	85,170- 58-
88-90	166,517	132,371	79	49,267	30	83,104- 50-
89-91	166,259	151,743	91	52,604	32	99,139- 60-
90-92	165,576	158,175	96	59,084	36	99,091- 60-
91-93	157,480	144,353	92	49,431	31	94,922- 60-
92-94	142,455	129,053	91	42,205	30	86,848- 61-
93-95	116,861	113,909	97	39,405	34	74,504- 64-
94-96	95,706	106,429	111	32,905	34	73,524- 77-
95-97	81,327	98,533	121	24,328	30	74,205- 91-
96-98	61,083	88,030	144	17,406	28	70,624-116-
97-99	88,396	91,028	103	17,635	20	73,393- 83-
98-00	130,603	103,041	79	12,196	9	90,845- 70-
99-01	197,061	128,414	65	16,125	8	112,289- 57-
00-02	208,153	150,560	72	19,829	10	130,731- 63-
01-03	313,195	166,226	53	29,116	9	137,110- 44-
02-04	387,634	169,271	44	26,798	7	142,473- 37-
03-05	402,272	174,759	43	23,943	6	150,816- 37-
FIVE-YEA	R AVERAGE					
01-05	328,631	169,686	52	26,263	8	143,423- 44-
ACCOUNT 366.00 - DISTRIBUTION - METERS

		COST REMOV	OF JAL	GROS SALVA	SS AGE	NET SALVA	GE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	267,479		0		0		0
1977	230,387		0		0		0
1978	118,924	44	0	38	0	6 -	• 0
1979	119,222	27	0	2,599	2	2,572	2
1980	132,578		0	893	1	893	1
1981	157,254		0	303	0	303	0
1982	153,822		0	236	0	236	0
1983	139,459		0	503	0	503	0
1984	129,968		0		0		0
1985	107,970		0		0		0
1986	137,434	52	0		0	52-	• 0
1987	173,229		0		0		0
1988	178,275		0		0		0
1989	140,116		0	750	1	750	1
1990	123,401		0		0		0
1991	259,750		0		0		0
1992	148,500	211	0		0	211-	· 0
1993	240,308	130	0	337-	- 0	467-	· 0
1994	293,024		0	30	0	30	0
1995	267,494		0		0		0
1996	270,217		0		0		0
1997	258,728		0		0		0
1998	188,284	10 401	0		0	10 401	0
1999	463,615	10,421	2		0	10,421-	· 2-
2000	491,121	5,5/8	⊥ 2		0	5,5/8-	· 1-
2001	340,020	9,202	2 2	0.0	0	9,202-	- 3- 2
2002	201,120	0,903	2	00	0	0,010-	2-
2003	587 863	0,040 18 130	2 Q	1 0.920	0	/7 357_	· 2-
2004	1 562 397	40,439	1	2 041	0	47,337- 65 547-	. 1_
2005	1,302,397	07,500	4	2,041	0	05,547-	4-
TOTAL	8,442,638	159,435	2	9,154	0	150,281-	2-
THREE-Y	ZEAR MOVING	AVERAGES					
76-78	205,597	15	0	13	0	2-	0
77-79	156,178	24	0	879	1	855	1
78-80	123,575	24	0	1,177	1	1,153	1
79-81	136,351	9	0	1,265	1	1,256	1
80-82	147,885		0	477	0	477	0
81-83	150,178		0	347	0	347	0
82-84	141,083		0	246	0	246	0
83-85	125,799		0	168	0	168	0

ACCOUNT 366.00 - DISTRIBUTION - METERS

		COST (REMOVI	OF AL	GROSS SALVAG	S SE	NET SALVAG	Έ
YEAR	RETIREMENTS	AMOUNT 1	PCT	AMOUNT E	PCT	AMOUNT P	CT
THREE-Y	EAR MOVING AV	ERAGES					
84-86	125,124	17	0		0	17-	0
85-87	139,544	17	0		0	17-	0
86-88	162,979	17	0		0	17-	0
87-89	163,873		0	250	0	250	0
88-90	147,264		0	250	0	250	0
89-91	174,422		0	250	0	250	0
90-92	177,217	70	0		0	70-	0
91-93	216,186	114	0	112-	0	226-	0
92-94	227,277	114	0	102-	0	216-	0
93-95	266,942	43	0	102-	0	145-	0
94-96	276,912		0	10	0	10	0
95-97	265,480		0		0		0
96-98	239,076		0		0		0
97-99	303,542	3,474	1		0	3,474-	1-
98-00	381,209	5,333	1		0	5,333-	1-
99-01	434,723	8,400	2		0	8,400-	2 -
00-02	402,760	7,894	2	29	0	7,865-	2 -
01-03	367,071	8,982	2	339	0	8,643-	2 -
02-04	446,750	22,061	5	699	0	21,362-	5 -
03-05	844,974	41,622	5	1,350	0	40,272-	5 -
FIVE-YE	AR AVERAGE						
01-05	650,295	28,594	4	828	0	27,766-	4 -

ACCOUNT 367.00 - DISTRIBUTION - UNDERGROUND

YEAR R	ETIREMENTS	COST OF REMOVAI AMOUNT PO	r CT	GROS SALVA AMOUNT	SS AGE PCT	NET SALVA AMOUNT	Г AGE РСТ
1977	18,627		0		0		0
1979	1,527		0		0		0
1980	20		0		0		0
1981							
1982							
1983							
1985	37 480		0		0		0
1986	57,400		0		0		0
1987							
1988							
1989							
1990	0 0 2 1		0		0		0
1991	9,931 254		0		0		0
1993	254		0		0		0
1994							
1995							
1996	538		0		0		0
1997				1,688-	-	1,688-	-
1998							
2000							
2000	2,050	21,665			0	21,665-	_
2002	,	59,701		1,037		58,664-	-
2003		101,237		354		100,883-	-
2004		36,433				36,433-	-
2005							
TOTAL	70,427	219,036 31	L1	297-	- 0	219,333-	-311-
THREE-YE	AR MOVING	AVERAGES					
77-79	6,718		0		0		0
78-80	516		0		0		0
79-81	7		0		0		0
80-82	7		0		0		0
87-83 87-84							
83-85	12 493		0		Ο		Ο
84-86	12,493		0		Õ		Õ
85-87	12,493		0		0		0

ACCOUNT 367.00 - DISTRIBUTION - UNDERGROUND

YEAR I	RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-YI	EAR MOVING AVE	RAGES		
86-88 87-89 88-90				
89-91 90-92 91-93 92-94	3,310 3,395 3,395 85	0 0 0 0	0 0 0 0	0 0 0 0
94-96 95-97 96-98 97-99	179 179 179	0 0 0	0 563-315- 563-315- 563-	0 563-315- 563-315- 563-
99-01 00-02 01-03 02-04 03-05	683 683 683	7,222 27,122 60,868 65,790 45,890	0 346 51 464 68 464 118	7,222- 26,776- 60,404- 65,326- 45,772-
FIVE-YEA	AR AVERAGE			
01-05	410	43,807	278 68	43,529-

ACCOUNT 371.00 - GENERAL - BUILDINGS AND STRUCTURES

		COST	OF	GROS	SS	NET	Г
		REMO	VAL	SALVA	AGE	SALVA	AGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	4,843	163	3	8,659	179	8,496	175
1977	300		0	1,650	550	1,650	550
1978	79,242	637	1	11,980	15	11,343	14
1979	5,552	520	9	26,283	473	25,763	464
1980	57,403	6,451	11	18,648	32	12,197	21
1981	35,733	1,746	5	25,401	71	23,655	66
1982	43,455	10,346	24	375	1	9,971-	- 23-
1983	160,675	5,884	4	1,228	1	4,656-	- 3-
1984	37,007	516	1	48,478	131	47,962	130
1985	78,642	939	1	1,837	2	898	1
1986	50,404	1,886	4	2,879	6	993	2
1987	39,555	7,433	19	, 700	2	6,733-	- 17-
1988	68,927	39,213	57	45,121	65	5,908	9
1989	248,470	48,248	19	12,616	5	35,632-	- 14-
1990	16,329	2,622	16	,	0	2,622-	- 16-
1991	23,928	, 9,157	38	12,049	50	2,892	12
1992	859,831	11,658	1	86,852	10	75,194	
1993	29,875	7,811	26		0	7,811-	- 26-
1994	235,688	47,807	20	50,341	21	2,534	1
1995	84,430	26,455	31	/ -	0	26,455-	- 31-
1996	23,201	5,802	25		0	5,802-	- 25-
1997	404,294	38,948	10	9,826	2	29,122-	- 7-
1998	190,691	37,368	20	- /	0	37,368-	- 20-
1999	176,260	11,040	6		0	11,040-	- 6-
2000	26,000	18,141	70	480,425		462,284	
2001	22,301	13,475	60		0	13,475-	- 60-
2002	, 753,173	42,714	6	3,218	0	39,496-	- 5-
2003	5,000	7,180	144	3,896	78	3,284-	- 66-
2004	548,906	22,445	4	- /	0	22,445-	- 4-
2005	442,464	8,384	2	10,028	2	1,644	0
TOTAL	4,752,579	434,989	9	862,490	18	427,501	9
THREE-	YEAR MOVING	AVERAGES					
76-78	28,128	267	1	7,430	26	7,163	25
77-79	28,365	386	1	13,304	47	12,918	46
78-80	47,399	2,536	5	18,970	40	16,434	35
79-81	32,896	2,906	9	23,444	71	20,538	62
80-82	45,530	6,181	14	14,808	33	8,627	19
81-83	79,954	5,992	7	9,001	11	3,009	4
82-84	80,379	5,582	7	16,694	21	11,112	14
83-85	92,108	2,446	3	17,181	19	14,735	16

ACCOUNT 371.00 - GENERAL - BUILDINGS AND STRUCTURES

		COST	OF	GRO	SS	NET
		REMOV	VAL	SALV	AGE	SALVAGE
YEAR RE	TIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT PCT
THREE-YEA	R MOVING A	VERAGES				
84-86	55,351	1,114	2	17,731	32	16,617 30
85-87	56,200	3,419	6	1,805	3	1,614- 3-
86-88	52,962	16,177	31	16,233	31	56 0
87-89	118,984	31,631	27	19,479	16	12,152- 10-
88-90	111,242	30,028	27	19,246	17	10,782- 10-
89-91	96,242	20,009	21	8,222	9	11,787- 12-
90-92	300,029	7,812	3	32,967	11	25,155 8
91-93	304,545	9,542	3	32,967	11	23,425 8
92-94	375,131	22,425	6	45,731	12	23,306 6
93-95	116,664	27,358	23	16,780	14	10,578- 9-
94-96	114,440	26,688	23	16,780	15	9,908- 9-
95-97	170,642	23,735	14	3,275	2	20,460- 12-
96-98	206,062	27,373	13	3,275	2	24,098- 12-
97-99	257,082	29,119	11	3,275	1	25,844- 10-
98-00	130,984	22,183	17	160,142	122	137,959 105
99-01	74,854	14,219	19	160,142	214	145,923 195
00-02	267,158	24,777	9	161,214	60	136,437 51
01-03	260,158	21,123	8	2,371	1	18,752- 7-
02-04	435,693	24,113	6	2,371	1	21,742- 5-
03-05	332,123	12,670	4	4,641	1	8,029- 2-
FIVE-YEAR	AVERAGE					
01-05	354,369	18,840	5	3,428	1	15,412- 4-

ACCOUNT 372.00 - GENERAL - OFFICE EQUIPMENT

		COST (REMOVA)F AL	GROSS SALVAGE	NE' SALVI	Г AGE
YEAR	RETIREMENTS	AMOUNT I	PCT	AMOUNT PCT	AMOUNT	PCT
1976	6,059		0	0		0
1977	11,310		0	0		0
1978	24,993		0	0		0
1979	3,298		0	0		0
1980	7,807		0	0		0
1981	9,940		0	0		0
1982	4,157		0	0		0
1983	25,914		0	0		0
1984	6,488		0	0		0
1985	4,076		0	0		0
1986	4,712		0	0		0
1987	2,877		0	0		0
1988	12,259		0	0		0
1989	10,569		0	0		0
1990	22,631		0	0		0
1991	32,373		0	0		0
1992	43,262		0	0		0
1993	35,916		0	0		0
1994	5,673		0	0	0.064	0
1995	39,246		0	2,264 6	2,264	6
1996	118,269	071	0	5,719 5	5,719	5
1997	49,152	971	∠ 1	0	971	- 2-
1998	69,867	503	T		21 005	- I-
1999	9,336		0	31,895 342	31,895	342
2000	22,090		0	0		0
2001	49,740		0	0		0
2002	79,021		0	0		0
2003	49 011		0	0		0
2004	40,011		0	0		0
2005	04,140		0	0		0
TOTAL	854,733	1,474	0	39,878 5	38,404	4
THREE-	YEAR MOVING AV	ERAGES				
76-78	14,121		0	0		0
77-79	13,200		0	0		0
78-80	12,033		0	0		0
79-81	7,015		0	0		0
80-82	7,301		0	0		0
81-83	13,337		0	0		0
82-84	12,186		U	0		0
83-85	12,159		0	0		0

ACCOUNT 372.00 - GENERAL - OFFICE EQUIPMENT

		COST	OF	GROS	S	NE	Г
ת תגידע				SALVA	AGE DOT		AGE
ILAR R	EIIREMENIS	AMOUNI	PCI	AMOUNI	PCI	AMOUNI	PCI
THREE-YE	AR MOVING AV	ERAGES					
84-86	5,092		0		0		0
85-87	3,888		0		0		0
86-88	6,616		0		0		0
87-89	8,568		0		0		0
88-90	15,153		0		0		0
89-91	21,858		0		0		0
90-92	32,755		0		0		0
91-93	37,184		0		0		0
92-94	28,284		0		0		0
93-95	26,945		0	755	3	755	3
94-96	54,396		0	2,661	5	2,661	5
95-97	68,889	324	0	2,661	4	2,337	3
96-98	79,096	491	1	1,906	2	1,415	2
97-99	42,785	491	1	10,632	25	10,141	24
98-00	34,033	168	0	10,632	31	10,464	31
99-01	20,659		0	10,632	51	10,632	51
00-02	33,888		0		0		0
01-03	52,834		0		0		0
02-04	59,256		0		0		0
03-05	64,295		0		0		0
FIVE-YEA	R AVERAGE						
01-05	54,331		0		0		0

ACCOUNT 373.00 - GENERAL - STORES EQUIPMENT

YEAR	RETTREMENTS	COST REMOV AMOUNT	OF 'AL PCT	GROS SALVA AMOUNT	SS AGE PCT	NE' SALVA AMOUNT	Г AGE РСТ
1 111 110		11100111	101	10100111	101	11100111	101
1977	1,804		0		0		0
1978							
1979							
1980							
1981	15,536		0		0		0
1982							
1983							
1984							
1985							
1986	2,829		0		0		0
1987	817		0		0		0
1988	1,652		0		0		0
1989							
1990	2,842		0		0		0
1991							
1992	43,621		0		0		0
1993							
1994	361,625		0		0		0
1995	18,805	46,257	246		0	46,257	-246-
1996							
1997	19,277		0		0		0
1998	3,993		0		0		0
1999	1,479		0		0		0
2000	1,554		0		0		0
2001	5,104		0		0		0
2002	40,173		0		0		0
2003	7,757		0		0		0
2004	11,841		0		0		0
2005	9,561		0		0		0
TOTAL	550,270	46,257	8		0	46,257	- 8-
THREE-	YEAR MOVING AV	ERAGES					
77-79	601		0		0		0
78-80							
79-81	5,179		0		0		0
80-82	5,179		0		0		0
81-83	5,179		0		0		0
82-84							
83-85							
84-86	943		0		0		0
85-87	1,215		0		U		0

ACCOUNT 373.00 - GENERAL - STORES EQUIPMENT

		COST OF REMOVAL	GROSS	NET
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
THREE-Y	YEAR MOVING AVE	ERAGES		
86-88	1,766	0	0	0
87-89	823	0	0	0
88-90	1,498	0	0	0
89-91	947	0	0	0
90-92	15,488	0	0	0
91-93	14,540	0	0	0
92-94	135,082	0	0	0
93-95	126,810	15,419 12	0	15,419- 12-
94-96	126,810	15,419 12	0	15,419- 12-
95-97	12,694	15,419 121	0	15,419-121-
96-98	7,757	0	0	0
97-99	8,250	0	0	0
98-00	2,342	0	0	0
99-01	2,712	0	0	0
00-02	15,610	0	0	0
01-03	17,678	0	0	0
02-04	19,924	0	0	0
03-05	9,720	0	0	0
FIVE-YE	EAR AVERAGE			
01-05	14,887	0	0	0

ACCOUNT 374.00 - GENERAL - SHOP EQUIPMENT

YEAR	RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1976	6,546	0	0	0
1977	1,921	0	0	0
1978				
1979				
1980 1001				
1982				
1983				
1984				
1985				
1986	18,099	0	0	0
1987	1,898	0	0	0
1988	1,441	0	0	0
1989	11 010	0	0	0
1990 1001	11,943 567	0	0	0
1991	267 4 691	0	0	0
1993	4,001	0	0	0
1994	679	0	0	0
1995	884	0	0	0
1996	831	0	0	0
1997	672	0	0	0
1998	7,719	0	0	0
1999	1,132	0	0	0
2000	1 259	0	0	0
2001	56 609	0	0	0
2002	11,341	0	0	0
2004	8,580	0	0	0
2005	592	0	0	0
TOTAL	149,323	0	0	0
THREE-	YEAR MOVING A	VERAGES		
76-78	2,822	0	0	0
77-79	640	0	0	0
78-80				
79-81				
80-82				
87-83				
83-85				

ACCOUNT 374.00 - GENERAL - SHOP EQUIPMENT

YEAR	RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-Y	EAR MOVING AVI	ERAGES		
84-86	6,033	0	0	0
85-87	6,666	0	0	0
86-88	7,146	0	0	0
87-89	1,113	0	0	0
88-90	4,461	0	0	0
89-91	4,170	0	0	0
90-92	5,734	0	0	0
91-93	1,753	0	0	0
92-94	1,790	0	0	0
93-95	521	0	0	0
94-96	798	0	0	0
95-97	796	0	0	0
96-98	3,074	0	0	0
97-99	3,174	0	0	0
98-00	6,923	0	0	0
99-01	4,770	0	0	0
00-02	23,262	0	0	0
01-03	23,070	0	0	0
02-04	25,510	0	0	0
03-05	6,838	0	0	0
FIVE-YE.	AR AVERAGE			
01-05	15,676	0	0	0

ACCOUNT 375.00 - GENERAL - LABORATORY & TESTING EQUIPMENT

		COST OF	GROSS	NET
		REMOVAL	SALVAGE	SALVAGE
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
1976	799	0	0	0
1977	21,894	0	0	0
1978	4,358	0	0	0
1979	593	0	0	0
1980				
1981	349	0	0	0
1982	869	0	0	0
1983				
1984	15,112	0	0	0
1985	1,711	0	0	0
1986	784	0	0	0
1987	6,920	0	0	0
1988	6,979	0	0	0
1989	2,861	0	0	0
1990				
1991	206	0	0	0
1992	13,047	0	0	0
1993	411	0	0	0
1994	10,531	0	0	0
1995	43,716	U	0	0
1996 1007	163 4 242	0	0	0
1000	4,343	0	0	0
1000	132,205	0	0	0
2000	11 029	0	0	0
2000	24 229	0	0	0
2001	19 828	0	0	0 0
2002	25 694	0	0	0 0
2003	81,976	0	0	Ĵ
2005	27.519	0	0	Ĵ
	_ , ,	-	-	-
TOTAL	491,523	0	0	0
THREE-	-YEAR MOVING	AVERAGES		
76-78	9 017	0	0	0
77-79	8,948	0	0	0
78-80	1,650	ů O	0	0
79-81	314	ů O	0	0
80-82	406	0	0	0
81-83	406	0	0	0
82-84	5,327	0	0	0
83-85	5,608	0	0	0

ACCOUNT 375.00 - GENERAL - LABORATORY & TESTING EQUIPMENT

		COST OF	GROSS	NET
		REMOVAL	SALVAGE	SALVAGE
YEAR RE	FIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
THREE-YEA	R MOVING AV	ERAGES		
84-86	5,869	0	0	0
85-87	3,138	0	0	0
86-88	4,894	0	0	0
87-89	5,587	0	0	0
88-90	3,280	0	0	0
89-91	1,022	0	0	0
90-92	4,418	0	0	0
91-93	4,555	0	0	0
92-94	7,996	0	0	0
93-95	18,219	0	0	0
94-96	18,137	0	0	0
95-97	16,074	0	0	0
96-98	45,570	0	0	0
97-99	56,648	0	0	0
98-00	58,877	0	0	0
99-01	22,885	0	0	0
00-02	18,362	0	0	0
01-03	23,250	0	0	0
02-04	42,499	0	0	0
03-05	45,063	0	0	0
	λίτρλατ			
LTAR TEAK	AVENAGE			
01-05	35,849	0	0	0

ACCOUNT 376.00 - GENERAL - MISCELLANEOUS EQUIPMENT

		COST (REMOV	OF AL	GROS SALVA	SS AGE	NE: SALVA	Г AGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	10,646		0		0		0
1977	33,864		0		0		0
1978	1,804		0		0		0
1979	6,389		0		0		0
1980	10,706		0		0		0
1981	7,255		0		0		0
1982	6,334		0		0		0
1983	20,652		0		0		0
1984	12,257		0		0		0
1985	13,588		0		0		0
1986	3,860		0		0		0
1987	61,081		0		0		0
1988	55,023		0		0		0
1989	12,005		0		0		0
1990	227,110		0		0		0
1991	252,701 242 210		0		0		0
1002	242,210		0		0		0
1995	18 016		0		0		0
1995	206 782		0	1 044	1	1 044	1
1996	200,702		0	1,011	-	1,011	-
1997	23.703		0		0		0
1998	285,129	769	0		0	769-	- 0
1999	39,446		0		0		0
2000	71,053		0		0		0
2001	93,210		0		0		0
2002	90,947		0		0		0
2003	105,375		0		0		0
2004	79,961		0		0		0
2005	136,180		0		0		0
TOTAL	2,350,222	769	0	1,044	0	275	0
THREE-	YEAR MOVING	AVERAGES					
76-78	15,438		0		0		0
77-79	14,019		0		0		0
78-80	6,300		0		0		0
79-81	8,117		0		0		0
80-82	8,098		0		0		0
81-83	11,414		0		0		0
82-84	13,081		0		0		0
83-85	15,499		0		0		0

ACCOUNT 376.00 - GENERAL - MISCELLANEOUS EQUIPMENT

		COST REMOV	OF /AL	GROS SALVA	SS AGE	NE] SALVA	r AGE
IEAR R.	EIIREMENIS	AMOUNI	PCI	AMOUNI	PCI	AMOUNI	PCI
THREE-YE	AR MOVING AVI	ERAGES					
84-86	9,902		0		0		0
85-87	26,176		0		0		0
86-88	39,988		0		0		0
87-89	42,703		0		0		0
88-90	98,046		0		0		0
89-91	163,939		0		0		0
90-92	240,674		0		0		0
91-93	239,282		0		0		0
92-94	161,054		0		0		0
93-95	149,244		0	348	0	348	0
94-96	74,933		0	348	0	348	0
95-97	76,828		0	348	0	348	0
96-98	102,944	256	0		0	256-	- 0
97-99	116,093	256	0		0	256-	- 0
98-00	131,876	256	0		0	256-	- 0
99-01	67,903		0		0		0
00-02	85,070		0		0		0
01-03	96,511		0		0		0
02-04	92,094		0		0		0
03-05	107,172		0		0		0
FIVE-YEA	R AVERAGE						
01-05	101,135		0		0		0

ACCOUNT 377.00 - GENERAL - ENGINEERING EQUIPMENT

		COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
YEAR	RETTREMENTS	S AMOUN'I' PC'I'	AMOUN'I' PC'I'	AMOUN'I' PC'I'
1977	2,444	0	0	0
1978	257	0	0	0
1979				
1980				
1981				
1982	0 050	0	0	0
1983 1007	2,853	0	0	0
1985	148	0	0	0
1986	140	Ŭ	Ŭ	0
1987	669	0	0	0
1988				
1989				
1990				
1991				
1992	1,364	0	0	0
1993 1997				
1994				
1996				
1997				
1998	8,212	0	0	0
1999	6,892	0	0	0
2000	14,992	0	0	0
2001	11,256	0	0	0
2002	10,386	0	0	0
2003	20,171 4 945	0	0	0
2004	28 655	0	0	0
2005	20,033	Ŭ	Ŭ	Ŭ
TOTAL	113,913	0	0	0
	VEND MOUTING			
THREE-	YEAR MOVING	AVERAGES		
77-79	900	0	0	0
78-80	86	0	0	0
79-81				
80-82				
81-83	951	0	0	0
82-84	1,207	0	0	0
83-85	1,257	0	0	0
84-86 85-87	306	0	0	0
00-07	212	0	0	0

ACCOUNT 377.00 - GENERAL - ENGINEERING EQUIPMENT

YEAR 1	RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
THREE-Y	EAR MOVING A	AVERAGES		
86-88	223	0	0	0
87-89 88-90 89-91	223	0	0	0
90-92	455	0	0	0
91-93	455	0	0	0
92-94	455	0	0	0
93-95				
94-96				
95-97				
96-98	2,737	0	0	0
97-99	5,035	0	0	0
98-00	10,032	0	0	0
99-01	11,047	0	0	0
00-02	12,211	0	0	0
01-03	13,938	0	0	0
02-04	11,801	0	0	0
03-05	17,890	0	0	0
FIVE-YE	AR AVERAGE			
01-05	15,063	0	0	0

ACCOUNT 378.10 - TRANSPORTATION - SEDANS & STATION WAGONS

		COST	OF	GROS	SS	NE	T
VEND	סבייד מבאויייכ				AGE		AGE
ILAK	KEIIKEMENIS	AMOUNT	PCI	AMOUNT	PCI	AMOUNT	PCI
1976	124,348		0	23,462	19	23,462	19
1977	110,821		0	13,341	12	13,341	12
1978	81,553		0	10,705	13	10,705	13
1979	81,046		0	12,560	15	12,560	15
1980	127,272		0	22,561	18	22,561	18
1981	186,427	85	0	25,364	14	25,279	14
1982	143,030	413	0	29,964	21	29,551	21
1983	92,917	179	0	11,477	12	11,298	12
1984	176,318	334	0	28,009	16	27,675	16
1985	236,329	409	0	29,849	13	29,440	12
1986	278,509		0	43,119	15	43,119	15
1987	264,368		0	38,802	15	38,802	15
1988	131,896		0	25,453	19	25,453	19
1989	132,471		0	26,845	20	26,845	20
1990	258,032		0	58,540	23	58,540	23
1991	138,611		0	18,505	13	18,505	13
1992	237,337		0	38,718	16	38,718	16
1993	209,555		0	43,080	21	43,080	21
1994	186,032		0	25,416	14	25,416	14
1995	134,171		0	35,456	26	35,456	26
1996	79,572		0	37,371	47	37,371	47
1997	331,874		0	48,576	15	48,576	15
1998	115,250		0	2,784	2	2,784	2
1999	233,791		0	27,162	12	27,162	12
2000	173,104		0	23,236	13	23,236	13
2001	110,313		0	18,771	17	18,771	17
2002	142,814		0	25,124	18	25,124	18
2003	22,785		0	2,556	11	2,556	11
2004	22,230		0	2,187	10	2,187	10
2005	21,466		0	2,187	10	2,187	10
TOTAL	4,584,242	1,420	0	751,180	16	749,760	16
THREE-	YEAR MOVING AV	ERAGES					
76-78	105,574		0	15,836	15	15,836	15
77-79	91,140		0	12,202	13	12,202	13
78-80	96,624		0	15,275	16	15,275	16
79-81	131,582	28	0	20,162	15	20,134	15
80-82	152,243	166	0	25,963	17	25,797	17
81-83	140,791	226	0	22,268	16	22,042	16
82-84	137,422	309	0	23,150	17	22,841	17
83-85	168,521	307	0	23,112	14	22,805	14

ACCOUNT 378.10 - TRANSPORTATION - SEDANS & STATION WAGONS

		COST	OF	GROS	SS	NE	Т
		REMO	VAL	SALVA	AGE	SALV	AGE
YEAR I	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	EAR MOVING AVE	ERAGES					
84-86	230,385	248	0	33,659	15	33,411	15
85-87	259,735	136	0	37,257	14	37,121	14
86-88	224,924		0	35,791	16	35,791	16
87-89	176,245		0	30,367	17	30,367	17
88-90	174,133		0	36,946	21	36,946	21
89-91	176,371		0	34,630	20	34,630	20
90-92	211,327		0	38,588	18	38,588	18
91-93	195,168		0	33,434	17	33,434	17
92-94	210,975		0	35,738	17	35,738	17
93-95	176,586		0	34,651	20	34,651	20
94-96	133,258		0	32,748	25	32,748	25
95-97	181,872		0	40,468	22	40,468	22
96-98	175,565		0	29,577	17	29,577	17
97-99	226,972		0	26,174	12	26,174	12
98-00	174,048		0	17,727	10	17,727	10
99-01	172,403		0	23,056	13	23,056	13
00-02	142,077		0	22,377	16	22,377	16
01-03	91,971		0	15,484	17	15,484	17
02-04	62,610		0	9,956	16	9,956	16
03-05	22,160		0	2,310	10	2,310	10
FIVE-YEA	AR AVERAGE						
01-05	63,922		0	10,165	16	10,165	16

ACCOUNT 378.20 - TRANSPORTATION-PICK-UP TRUCKS, WINDOW VANS

		COST O	F	GROS	SS	NE'	Г
YEAR	RETIREMENTS	AMOUNT P	L CT	SALVA AMOUNT	AGE PCT	AMOUNT	AGE PCT
1976	76,935		0	14,419	19	14,419	19
1977	194,411		0	27,272	14	27,272	14
1978	117,670		0	20,360	17	20,360	17
1979	140,956		0	30,262	21	30,262	21
1980	189,104		0	37,925	20	37,925	20
1981	234,687	167	0	48,049	20	47,882	20
1982	192,122	446	0	34,468	18	34,022	18
1983	152,371	420	0	23,322	15	22,902	15
1984	253,637	559	0	46,893	18	46,334	18
1985	296,407	1,825	1	41,565	14	39,740	13
1986	411,189		0	53,406	13	53,406	13
1987	291,609		0	44,965	15	44,965	15
1988	485,410		0	91,137	19	91,137	19
1989	350,708		0	81,021	23	81,021	23
1990	225,867		0	37,234	16	37,234	16
1991	505,246		0	65,950	13	65,950	13
1992	455,597	61	0	65,336	14	65,275	14
1993	496,798	52	0	81,279	16	81,227	16
1994	592,278	141	0	75,541	13	75,400	13
1995	645,586	242	0	99,820	15	99,578	15
1996	342,615	2 01 5	0	54,438	16	54,438	16
1997	810,668	3,015	0	126,979	16	123,964	15
1998	399,694		0	61,392	15	61,392 147 720	15
1999	745,007 655 462	226	0	147,720	20 16	104 225	20 16
2000	055,405 156 116	220	0	104,501 67 001	15	104,225	15
2001	1 0/2 100		0	1/2 006	14	1/2 006	1/
2002	1,042,100		0	143,090	74	143,090	25
2003	558 682		0	112 179	20	112 179	20
2005	1,315,354		0	175,840	13	175,840	13
TOTAL	13,342,424	7,264	0	2,259,235	17	2,251,971	17
THREE-	YEAR MOVING AV	ERAGES					
	100 (70		0		1.0		1.0
/6-/8 77_70	151 012		0	20,684 25 065	10 17	20,684	10 17
78_80	1/0 2/2		0	40,905 29 516	1 / 2 0	20,905 20 E16	⊥/ 20
79_91	188 949	56	0	29,510 38 745	∠∪ 21	73,510 73,510	∠∪ 21
80-82	205 304	204	0	40 147	20	39 943	21 19
81-83	193 060	204	0		18	24 976	1 P
82-84	199.377	475	0 0	34,894	18	34,419	17
83-85	234,138	935	0	37,260	16	36,325	16

ACCOUNT 378.20 - TRANSPORTATION-PICK-UP TRUCKS, WINDOW VANS

		COST	OF	GROS	SS	NE	Г
		REMO	VAL	SALVA	AGE	SALV	AGE
YEAR R	ETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVI	ERAGES					
84-86	320,411	795	0	47,288	15	46,493	15
85-87	333,068	608	0	46,645	14	46,037	14
86-88	396,069		0	63,169	16	63,169	16
87-89	375,909		0	72,374	19	72,374	19
88-90	353,995		0	69,797	20	69,797	20
89-91	360,607		0	61,402	17	61,402	17
90-92	395,570	20	0	56,173	14	56,153	14
91-93	485,880	38	0	70,855	15	70,817	15
92-94	514,891	85	0	74,052	14	73,967	14
93-95	578,221	145	0	85,547	15	85,402	15
94-96	526,826	128	0	76,600	15	76,472	15
95-97	599,623	1,086	0	93,746	16	92,660	15
96-98	517,659	1,005	0	80,936	16	79,931	15
97-99	651,790	1,005	0	112,030	17	111,025	17
98-00	600,055	112	0	104,558	17	104,446	17
99-01	618,962	112	0	106,755	17	106,643	17
00-02	718,022	112	0	105,214	15	105,102	15
01-03	735,451		0	151,967	21	151,967	21
02-04	769,540		0	166,699	22	166,699	22
03-05	860,595		0	177,614	21	177,614	21
FIVE-YEA	R AVERAGE						
01-05	816,078		0	148,784	18	148,784	18

ACCOUNT 378.30 & 378.4-CAB & CHASSIS/TRUCKS W/ STAKE BODIES

		COST C)F	GROS	SS	NE	T
YEAR	RETIREMENTS	AMOUNT E	AL PCT	AMOUNT	AGE PCT	AMOUNT	AGE PCT
1976	149,595		0	29,724	20	29,724	20
1977	138,522		0	14,801	11	14,801	11
1978	111,020		0	19,504	18	19,504	18
1979	164,939		0	39,929	24	39,929	24
1980	213,407		0	35,616	17	35,616	17
1981	287,923	118	0	46,910	16	46,792	16
1982	199,377	418	0	32,547	16	32,129	16
1983	182,861	394	0	23,481	13	23,087	13
1984	266,256	416	0	34,328	13	33,912	13
1985	397,684	1,691	0	48,376	12	46,685	12
1986	431,677		0	83,827	19	83,827	19
1987	234,342		0	34,245	15	34,245	15
1988	543,153		0	60,253	11	60,253	11
1989	353,947	702	0	72,535	20	71,833	20
1990	119,715	390	0	23,040	19	22,650	19
1991	567,478	12,953	2	70,266	12	57,313	10
1992	491,105		0	30,464	6	30,464	6
1993	709,026		0	45,489	6	45,489	6
1994	413,730		0	50,740	12	50,740	12
1995	493,263		0	32,606	7	32,606	7
1996	644,052	2,362	0	40,408	6	38,046	6
1997	325,291		0	31,975	10	31,975	10
1998	393,101		0	21,756	6	21,756	6
1999	189,634		0	18,191	10	18,191	10
2000	654,990		0	99,432	15	99,432	15
2001	461,474		0	81,224	18	81,224	18
2002	628,947		0	23,987	4	23,987	4
2003	597,049	2,457	0	60,899	10	58,442	10
2004	714,182		0	31,072	4	31,072	4
2005	818,852		0	35,748	4	35,748	4
TOTAL	11,896,592	21,901	0	1,273,373	11	1,251,472	11
THREE-	YEAR MOVING AVE	ERAGES					
76-78	133 046		0	21 343	16	21 343	16
77-79	138.160		Ő	24.745	18	2.4.745	18
78-80	163,122		õ	31,683	19	31,683	19
79-81	222.090	39	õ	40.818	18	40.779	18
80-82	233.569	179	0	38,358	16	38,179	16
81-83	223,387	310	Õ	34,313	15	34,003	15
82-84	216,165	409	0	30,119	14	29,710	14
83-85	282,267	834	0	35,395	13	34,561	12

ACCOUNT 378.30 & 378.4-CAB & CHASSIS/TRUCKS W/ STAKE BODIES

		COST	OF	GROS	SS	NE	Т
		REMO	VAL	SALVA	AGE	SALV	AGE
YEAR RE	TIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YEA	R MOVING AV	ERAGES					
84-86	365,206	702	0	55,510	15	54,808	15
85-87	354,568	564	0	55,483	16	54,919	15
86-88	403,057		0	59,442	15	59,442	15
87-89	377 , 147	234	0	55,678	15	55,444	15
88-90	338,938	364	0	51,943	15	51,579	15
89-91	347,047	4,682	1	55,280	16	50,598	15
90-92	392,766	4,448	1	41,257	11	36,809	9
91-93	589,203	4,318	1	48,740	8	44,422	8
92-94	537,954		0	42,231	8	42,231	8
93-95	538,673		0	42,945	8	42,945	8
94-96	517,015	787	0	41,251	8	40,464	8
95-97	487,535	787	0	34,996	7	34,209	7
96-98	454,148	787	0	31,380	7	30,593	7
97-99	302,675		0	23,974	8	23,974	8
98-00	412,575		0	46,460	11	46,460	11
99-01	435,366		0	66,282	15	66,282	15
00-02	581,804		0	68,214	12	68,214	12
01-03	562,490	819	0	55,370	10	54,551	10
02-04	646,726	819	0	38,653	6	37,834	6
03-05	710,028	819	0	42,573	6	41,754	6
FIVE-YEAR	AVERAGE						
01-05	644,101	491	0	46,586	7	46,095	7

ACCOUNT 378.32 - TRUCKS W/ DERRICKS - EQUIPMENT

		COST OF	GROSS	NET
		REMOVAL	SALVAGE	SALVAGE
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
1976	33,168	0	0	0
1977	12,009	0	0	0
1978	8,236	0	0	0
1979	41,097	0	0	0
1980	26,170	0	0	0
1981	95,027	0	0	0
1982	56,413	0	0	0
1983	23,078	0	0	0
1984	30,733	0	0	0
1985	151,015	0	0	0
1986	186,209	0	0	0
1987	100,468	0	0	0
1988	64,374	0	0	0
1989	149,461	0	0	0
1990	58,037	0	0	0
1991	186,521	0	0	0
1992	175,061	0	0	0
1993	178,066	0	0	0
1994	354,672	0	0	0
1995	201,836	0	12,830 6	12,830 6
1996	405,228	0	28,623 7	28,623 7
1997	259,544	0	12,849 5	12,849 5
1998	44,746	0	0	0
1999	122,558	0	12,773 10	12,773 10
2000	823,174	0	72,175 9	72,175 9
2001	725,737	0	25,704 4	25,704 4
2002	931,827	0	31,703 3	31,703 3
2003	822,169	0	56,743 7	56,743 7
2004	824,566	0	33,263 4	33,263 4
2005	1,357,316	0	46,704 3	46,704 3
TOTAL	8,448,516	0	333,367 4	333,367 4
THREE-	YEAR MOVING A	VERAGES		
76-78	17,804	0	0	0
77-79	20,447	0	0	0
78-80	25,168	0	0	0
79-81	54,098	0	0	0
80-82	59,203	0	0	0
81-83	58,173	0	0	0
82-84	36,741	0	0	0
83-85	68,275	0	0	0

ACCOUNT 378.32 - TRUCKS W/ DERRICKS - EQUIPMENT

		COST OF	GROSS	NET
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
THREE-Y	YEAR MOVING AVE	ERAGES		
84-86	122,652	0	0	0
85-87	145,897	0	0	0
86-88	117,017	0	0	0
87-89	104,768	0	0	0
88-90	90,624	0	0	0
89-91	131,340	0	0	0
90-92	139,873	0	0	0
91-93	179,883	0	0	0
92-94	235,933	0	0	0
93-95	244,858	0	4,277 2	4,277 2
94-96	320,579	0	13,818 4	13,818 4
95-97	288,869	0	18,101 6	18,101 6
96-98	236,506	0	13,824 6	13,824 6
97-99	142,283	0	8,541 6	8,541 6
98-00	330,159	0	28,316 9	28,316 9
99-01	557,156	0	36,884 7	36,884 7
00-02	826,913	0	43,194 5	43,194 5
01-03	826,578	0	38,050 5	38,050 5
02-04	859,521	0	40,570 5	40,570 5
03-05	1,001,350	0	45,570 5	45,570 5
FIVE-YE	EAR AVERAGE			
01-05	932,323	0	38,823 4	38,823 4

ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

		COST	OF	GROS	SS	NET	Г
		REMO	/AL	SALVA	AGE	SALVA	AGE
YEAR	RETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1976	6,055		0	4,743	78	4,743	78
1977	7,555		0	652	9	652	9
1978	10,730		0		0		0
1979	5,596		0	1,670	30	1,670	30
1980	9,742		0	3,364	35	3,364	35
1981	10,912	18	0	1,851	17	1,833	17
1982	20,328	80	0	6,505	32	6,425	32
1983	5,165	35	1	2,240	43	2,205	43
1984	34,387	1,180	3	10,802	31	9,622	28
1985	12,169	62	1	3,184	26	3,122	26
1986	40,742		0	6,576	16	6,576	16
1987	51,976		0	8,499	16	8,499	16
1988	47,006		0	4,375	9	4,375	9
1989	127,685		0	16,403	13	16,403	13
1990	37,743		0	9,560	25	9,560	25
1991				584		584	
1992	109,454		0	9,069	8	9,069	8
1993	21,690		0	4,557	21	4,557	21
1994	117,038		0	26,435	23	26,435	23
1995	47,593	48	0	4,513	9	4,465	9
1996	114,131		0	9,103	8	9,103	8
1997	150,730		0	20,605	14	20,605	14
1998	123,183		0	51,349	42	51,349	42
1999	45,848		0	21,811	48	21,811	48
2000	313,095		0	37,477	12	37,477	12
2001	63,382		0	10,698	17	10,698	17
2002	95,134		0	6,939	7	6,939	7
2003	223,072		0	53,327	24	53,327	24
2004	59,431		0	10,228	17	10,228	17
2005	192,846		0	46,314	24	46,314	24
TOTAL	2,104,418	1,423	0	393,433	19	392,010	19
THREE-	YEAR MOVING AV	ERAGES					
76-78	8,113		0	1,798	22	1,798	22
77-79	7,960		0	774	10	774	10
78-80	8,689		0	1,678	19	1,678	19
79-81	8,750	6	0	2,295	26	2,289	26
80-82	13,661	33	0	3,907	29	3,874	28
81-83	12,135	44	0	3,532	29	3,488	29
82-84	19,960	432	2	6,516	33	6,084	30
83-85	17,240	426	2	5,409	31	4,983	29

ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

		COST	OF	GROS	SS	NET	Г
		REMO	VAL	SALVA	AGE	SALVA	AGE
YEAR R	ETIREMENTS	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
THREE-YE	AR MOVING AVE	ERAGES					
84-86	29,099	414	1	6,854	24	6,440	22
85-87	34,962	21	0	6,086	17	6,065	17
86-88	46,575		0	6,483	14	6,483	14
87-89	75,556		0	9,759	13	9,759	13
88-90	70,811		0	10,113	14	10,113	14
89-91	55,143		0	8,849	16	8,849	16
90-92	49,066		0	6,404	13	6,404	13
91-93	43,715		0	4,737	11	4,737	11
92-94	82,727		0	13,354	16	13,354	16
93-95	62,107	16	0	11,835	19	11,819	19
94-96	92,921	16	0	13,350	14	13,334	14
95-97	104,151	16	0	11,407	11	11,391	11
96-98	129,348		0	27,019	21	27,019	21
97-99	106,587		0	31,255	29	31,255	29
98-00	160,709		0	36,879	23	36,879	23
99-01	140,775		0	23,329	17	23,329	17
00-02	157,204		0	18,371	12	18,371	12
01-03	127,196		0	23,655	19	23,655	19
02-04	125,879		0	23,498	19	23,498	19
03-05	158,450		0	36,623	23	36,623	23
FIVE-YEA	R AVERAGE						
01-05	126,773		0	25,501	20	25,501	20

ACCOUNT 379.10 - COMPUTERS - HARDWARE

YEAR	RETIREMENTS	COST OF REMOVAL AMOUNT PC	GROS SALVA I AMOUNT	SS AGE PCT	NET SALVA AMOUNT	GE PCT
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005	65,924 601,533 207,639 1,312,610 88,106 244,848 1,970 15,416 4,482,551 156,010 272,584 672,400 954,370 1,143,373 1,937,522 3,516,884	78 20,561 1	<pre>0 6,190 0 408,149 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0</pre>	9 68 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6,190 408,071 20,561-	9 68 0 0 0 0 0 13- 0 0 0 0 0
TOTAL	15,673,740	20,639) 414,339	3	393,700	3
THREE-	YEAR MOVING AV	ERAGES				
90-92 91-93 92-94 93-95 94-96 95-97 96-98 97-99 98-00 99-01 00-02 01-03 02-04	291,699 707,261 536,118 548,521 111,641 87,411 1,499,979 1,551,326 1,637,048 366,998 633,118 923,381 1,345,088	26 26 6,854 6,854 6,854	138,113 136,050))))))))))))))))))	47 19 0 0 0 0 0 0 0 0 0 0 0 0 0	138,087 136,024 6,854- 6,854- 6,854-	47 19 0 0 0 0 0 0 0 0 2 - 0 0 0
03-05	2,199,260)	0		0
FIVE-Y	EAR AVERAGE					
01-05	1,644,910)	0		0

ACCOUNT 379.20 - COMPUTERS - SOFTWARE

YEAR	RETIREMENTS	COST REMOV AMOUNT	OF /AL PCT	GROSS SALVAGE AMOUNT PCT	NET SALVA AMOUNT	GE PCT
1998 1999 2000 2001 2002 2003 2004 2005	881,413 642,806 757,875 4,140,680 4,418,441 1,995,983 2,416,854 706,475	13,708	0 2 0 0 0 0 0 0	0 0 0 0 0 0 0 0	13,708-	0 2 - 0 0 0 0 0 0
TOTAL	15,960,527	13,708	0	0	13,708-	0
98-00 99-01 00-02 01-03 02-04 03-05	760,698 1,847,120 3,105,665 3,518,368 2,943,759 1,706,437	4,569 4,569 4,569	1 0 0 0 0 0	0 0 0 0 0	4,569- 4,569-	1 - 0 0 0 0
FIVE-Y	EAR AVERAGE					
01-05	2,735,687		0	0		0

ACCOUNT 381.00 - MOBILE RADIOS

YEAR	RETIREMENTS	COST OF REMOVAL AMOUNT PCT	GROSS SALVAGE AMOUNT PCT	NET SALVAGE AMOUNT PCT
1991 1992 1993 1994 1995 1996	2,072	0	0	0
1997 1998 1999 2000	3,512 213,350 15,046 666	0 0 0 0	0 0 0 0	0 0 0 0
2001 2002 2003 2004 2005	489,241 150,613 24,182 813,528 122,519	0 0 0 0	0 0 0 0	0 0 0 0
TOTAL	1,834,729	0	0	0
THREE-Y	EAR MOVING A	VERAGES		
91-93 92-94 93-95 94-96	691	0	0	0
95-97 96-98 97-99 98-00 99-01 00-02 01-03 02-04 03-05	1,171 72,287 77,303 76,354 168,318 213,507 221,345 329,441 320,076	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0
FIVE-YE	AR AVERAGE			
01-05	320,017	0	0	0

ACCOUNT 382.00 - RADIO SITES

YEAR	RETIREMENTS	COST OF REMOVAL AMOUNT PCI	GRO SALV AMOUNT	SS AGE PCT	NET SALVA AMOUNT	.GE PCT
1977	4,562	C)	0		0
1978 1979						
1980						
1981						
1982						
1983						
1984	53,582	C)	0		0
1985						
1986		916			916-	
1987		2,761	2,712		49-	
1988				-		_
1989	42,807	C) 232	1	232	1
1001						
1991		2 520	1 950		670-	
1992		445	±,050 634		189	
1994		115	054		109	
1995	8,982	C)	0		0
1996	,					
1997						
1998						
1999						
2000		222			222-	
2001	4,699	C)	0		0
2002	10,286	Ĺ)	0		0
2003						
2004						
2005						
TOTAL	124,918	6,864 5	5,428	4	1,436-	1-
	,	-,	- ,		,	
THREE-	YEAR MOVING AVE	ERAGES				
	1 501			~		0
77-79	1,521	Ĺ)	0		0
78-80						
80-82						
81-83						
82-84	17,861	C)	0		0
83-85	17,861	C)	Ō		0
84-86	17,861	305 2		0	305-	2 -
85-87		1,226	904		322-	

ACCOUNT 382.00 - RADIO SITES

YEAR RE'	FIREMENTS	COST REMOV AMOUNT	OF /AL PCT	GROS SALVA AMOUNT	SS AGE PCT	NET SALVA AMOUNT	T AGE PCT
THREE-YEA	R MOVING .	AVERAGES					
86-88 87-89 88-90 89-91 90-92 91-93 92-94 93-95 94-96	14,269 14,269 14,269 2,994 2,994	1,226 920 840 988 988 148	6 0 0 5 0	904 981 77 77 617 828 828 828 211	7 1 1 7 0	322- 61 77 77 223- 160- 160- 63	0 1 1
95-97 96-98 97-99	2,994		0		0		0
98-00 99-01 00-02 01-03 02-04 03-05	1,566 4,995 4,995 3,429	74 74 74	5 1 0 0		0 0 0	74 - 74 - 74 -	- 5- - 1- 0 0
FIVE-YEAR	AVERAGE						
01-05	2,997		0		0		0

ACCOUNT 383.00 - RADIO EQUIPMENT

		COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
YEAR	RETIREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
1996	1,748	0	0	0
1997	184 065	0	0	2
1998	174,865	0	0	0
1999	1/3,650	0	0	0
2000	17,819	0	0	0
2001	778,059	0	0	0
2002	35,664	0	0	0
2003	19,897	0	0	0
2004	281,956	0	0	0
2005	91,883	0	0	0
TOTAL	1,575,541	0	0	0
THREE-Y	EAR MOVING AV	ERAGES		
96-98	58,871	0	0	0
97-99	116,172	0	0	0
98-00	122,111	0	0	0
99-01	323,176	0	0	0
00-02	277,181	0	0	0
01-03	277,873	0	0	0
02-04	112,506	0	0	0
03-05	131,245	0	0	0
FIVE-YE	AR AVERAGE			
01-05	241,492	0	0	0

ACCOUNT 384.00 - COMMUNICATION CABLES

YEAR F	RETIREMENTS	COST REMOV AMOUNT	OF /AL PCT	GROS SALVA AMOUNT	S GE PCT	NET SALVA AMOUNT	GE PCT
1990 1991 1992 1993 1994	379		0		0		0
1995 1996 1997		629 5,398		220		-629 5,178-	
1998 1999 2000 2001	95,974 24,573	11,599	0 47		0 0	11,599-	0 47-
2002 2003 2004 2005	398,614 336,135 13,313 5,964	42,493 184	11 0 1 0		0 0 0 0	42,493- 184-	11- 0 1- 0
TOTAL	874,952	60,303	7	220	0	60,083-	7-
THREE-YE	EAR MOVING	AVERAGES					
90-92 91-93 92-94	126		0		0		0
93-95 94-96 95-97 96-98 97-99 98-00 99-01 00-02 01-03 02-04 03-05 FIVE-YEA	31,991 40,182 40,182 8,191 132,871 244,916 249,354 118,471 AR AVERAGE	210 2,009 2,009 1,799 3,866 3,866 3,866 14,164 14,164 14,226 61	6 10 47 11 6 0	73 73 73	0 0 0 0 0 0	210- 1,936- 1,936- 3,866- 3,866- 3,866- 14,164- 14,164- 14,226- 61-	5- 10- 10- 47- 11- 6- 0
01-05	150,805	8,535	6		0	8,535-	6 -

ACCOUNT 386.00 - SCADA EQUIPMENT

SUMMARY OF BOOK SALVAGE

VEND	סבייידסביאהיאיייפ	COST REMOV	OF VAL PCT	GROSS SALVAGE	NET SALVAG	E
IBAN	KETTKEMEN 15	AHOONI	FCI	AMOUNI FCI	AMOUNT P	CI
1994 1995 1996 1997	168,116 131,945 624 1,858,202	5,156	3 0 0 0	0 0 0 0	5,156-	3 - 0 0 0
1998 1999 2000 2001	41,691 390,626 3,852,189	15,843 35,852 7,580	0 4 1	0 0 0	15,843- 35,852- 7,580-	0 4- 1-
2002 2003	693,798	403	0	0	403-	0
2004 2005	53,493 2,681		0	0		0
TOTAL	7,193,365	64,834	1	0	64,834-	1-
THREE-	YEAR MOVING A	VERAGES				
94-96 95-97 96-98	100,228 663,590 633,506	1,719	2 0 0	0 0 0	1,719-	2 - 0 0
97-99 98-00 99-01	763,506 1,428,169 1,414,272	5,281 17,232 19,758	1 1 1	0 0 0	5,281- 17,232- 19,758-	1- 1- 1-
00-02 01-03 02-04 03-05	1,515,329 231,266 249,097 18,725	14,612 2,661 134	1 0 0	0 0 0 0	14,612- 2,661- 134-	1- 1- 0 0
FIVE-Y	EAR AVERAGE					

01-05 149,994 1,597 1 0 1,597-1-
ACCOUNT 389.10 - TELEPHONE AND DATA COLLECTION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	RETIREMENTS	COST REMOV AMOUNT	OF /AL PCT	GROS SALVA AMOUNT	SS AGE PCT	NET SALVAO AMOUNT I	GE PCT
1998 1999	124,292	3,520 137	3		0	3,520- 137-	3 -
2000 2001	533,547 12,511	12,538 138	2 1	23,402	4 0	10,864 138-	2 1-
2002 2003	48,074		0		0		0
2004 2005	593,526 93,477	22,263	0 24		0 0	22,263-	0 24-
TOTAL	1,405,427	38,596	3	23,402	2	15,194-	1-
THREE-Y	EAR MOVING	AVERAGES					
98-00 99-01 00-02 01-03 02-04	219,280 182,019 198,044 20,195 213,867	5,398 4,271 4,225 46	2 2 0 0	7,801 7,801 7,801	4 4 0 0	2,403 3,530 3,576 46-	1 2 2 0
03-05	229,001	7,421	3		0	7,421-	3 -
FIVE-YE	EAR AVERAGE						
01-05	149,518	4,480	3		0	4,480-	3 -

ACCOUNT 390.00 - COMMUNICATIONS - POWER LINE CARRIER

SUMMARY OF BOOK SALVAGE

		COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
YEAR	RETTREMENTS	AMOUNT PCT	AMOUNT PCT	AMOUNT PCT
2001	124,789	0	0	0
2002 2003	7,414	0	0	0
2004 2005	39,695	0	0	0
TOTAL	171,898	0	0	0
THREE-Y	YEAR MOVING AVE	ERAGES		
01-03	44,068	0	0	0
02-04 03-05	13,232	0	0	0
FIVE-YE	EAR AVERAGE			
01-05	34,380	0	0	0

ACCOUNT 391.00 - COMMUNICATIONS - TEST EQUIPMENT

SUMMARY OF BOOK SALVAGE

		COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
YEAR I	RETTREMENTS	AMOUN'I' PC'I'	AMOUN'I' PC'I'	AMOUN'I' PC'I'
1995 1996 1997	8,355 1,625	0 0	0 0	0 0
1999 1998 1999 2000 2001	36,301	0	0	0
2002 2003 2004 2005	9,826	0	0	0
TOTAL	56,107	0	0	0
THREE-Y	EAR MOVING AVE	RAGES		
95-97 96-98 97-99 98-00	3,327 12,642 12,100 12,100	0 0 0 0	0 0 0 0	0 0 0 0
00-02 01-03 02-04 03-05	3,275 3,275 3,275	0 0 0	0 0 0	0 0 0
FIVE-YE	AR AVERAGE			
01-05	1,965	0	0	0

APPENDIX C — DETAILED DEPRECIATION CALCULATIONS

ACCOUNT 320.00 - LAND AND LAND CLEARING

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAI	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIN	OR CURVE IOWA 7	5-R2.5			
NET SA	ALVAGE PERCENT 0				
1924	12,170.00	1.05	127.79	.8558	10,415
1928	160.00	1.08	1.73	.8370	134
1930	250.00	1.09	2.73	.8230	206
1931	1,087.00	1.10	11.96	.8195	891
1932	3,626.00	1.11	40.25	.8159	2,958
1941	15,399.00	1.17	180.17	.7547	11,622
1943	9,075.00	1.18	107.09	.7375	6,693
1944	201.00	1.19	2.39	.7319	147
1946	1,610.00	1.20	19.32	.7140	1,150
1949	3,200.00	1.22	39.04	.6893	2,206
1951	11,452.00	1.24	142.00	.6758	7,739
1952	378.00	1.24	4.69	.6634	251
1954	55,986.00	1.26	705.42	.6489	36,329
1956	2,920.00	1.27	37.08	.6287	1,836
1957	3,055.00	1.28	39.10	.6208	1,897
1959	21,557.00	1.29	278.09	.5999	12,932
1963	74,052.00	1.32	977.49	.5610	41,543
1981	142.00	1.44	2.04	.3528	50
1982	3,200.00	1.44	46.08	.3384	1,083
1983	113,058.00	1.45	1,639.34	.3263	36,891
1984	132,423.00	1.46	1,933.38	.3139	41,568
1985	66,452.00	1.47	976.84	.3014	20,029
1986	45,935.00	1.47	675.24	.2867	13,170
1987	7,746.00	1.48	114.64	.2738	2,121
1997	217,657.62	1.57	3,417.22	.1335	29,057
1999	109,120.00	1.60	1,745.92	.1040	11,348
2001	42,373.42	1.63	690.69	.0734	3,110
2002	4,806.01	1.65	79.30	.0578	278
2003	34,601.78	1.68	581.31	.0420	1,453
TOTAL	993,692.83		14,618.34		299,107

ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	R CURVE IOWA	55-R3			
NET SALV	AGE PERCENT	-10			
1924	34,107.00	1.19	405.87	.9699	33,080
1928	17,327.00	1.23	213.12	.9533	16,518
1931	33,287.00	1.27	422.74	.9462	31,496
1935	3,800.00	1.32	50.16	.9306	3,536
1941	27,250.00	1.40	381.50	.9030	24,607
1942	11,211.00	1.41	158.08	.8954	10,038
1943	32,103.00	1.43	459.07	.8938	28,694
1946	5,310.00	1.47	78.06	.8747	4,645
1948	8,087.00	1.50	121.31	.8625	6,975
1951	6,542.00	1.54	100.75	.8393	5,491
1952	33,656.00	1.55	521.67	.8293	27,911
1953	35,883.00	1.57	563.36	.8243	29,578
1954	111,427.00	1.58	1,760.55	.8137	90,668
1955	33,828.00	1.59	537.87	.8030	27,164
1956	20,400.00	1.61	328.44	.7970	16,259
1957	11,282.00	1.62	182.77	.7857	8,864
1958	40,980.00	1.63	667.97	.7743	31,731
1959	89,346.00	1.64	1,465.27	.7626	68,135
1960	1,647.00	1.66	27.34	.7553	1,244
1963	86,893.08	1.69	1,468.49	.7183	62,415
1964	1,515.00	1.70	25.76	.7055	1,069
1966	1,956.00	1.73	33.84	.6834	1,337
1971	1,905.00	1.78	33.91	.6141	1,170
1973	56,816.00	1.81	1,028.37	.5883	33,425
1980	10,075.00	1.88	189.41	.4794	4,830
1982	3,208.00	1.90	60.95	.4465	1,432
1983	77,923.00	1.91	1,488.33	.4298	33,491
1985	5,610.00	1.93	108.27	.3957	2,220
1986	16,513.00	1.94	320.35	.3783	6,247
1987	49,831.00	1.95	971.70	.3608	17,979
1989	19,036.00	1.96	373.11	.3234	6,156
1991	3,865.00	1.98	76.53	.2871	1,110
1992	116,203.00	1.99	2,312.44	.2687	31,224
1993	11,715.00	2.00	234.30	.2500	2,929
1997	501,742.38	2.03	10,185.37	.1726	86,601
1998	804,952.24	2.04	16,421.03	.1530	123,158
2000	92,817.00	2.06	1,912.03	.1133	10,516

ACCOUNT 321.00 - ROADS, TRAILS, AND BRIDGES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO NET SAI	DR CURVE IOWA 55- LVAGE PERCENT10	-R3)			
2002	31,053.63	2.08	645.92	.0728	2,261
2003	192,895.38	2.09	4,031.51	.0523	10,088
2004	45,419.90	2.11	958.36	.0317	1,440
2005	44,374.00	2.15	954.04	.0108	479
			52,279.92		908,211
NET SAI	LVAGE ADJUSTMENT		5,227.99		90,821
TOTAL	2,733,791.61		57,507.91		999,032

ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	75-R2.5			
NET SALVA	AGE PERCENT	-20			
1.0.0.1	1	0.01		0005	
1904	15,500.00	0.91	141.05	.9237	14,317
1917	18,139.00	1.00	181.39	.8850	16,053
1921	6,011.00	1.03	61.91	.8704	5,232
1923	44,920.00	1.04	467.17	.8580	38,541
1924	186,313.00	1.05	1,956.29	.8558	159,447
1929	16,500.00	1.08	178.20	.8262	13,632
1931	80,182.00	1.10	882.00	.8195	65,709
1932	16,251.00	1.11	180.39	.8159	13,259
1937	666.00	1.14	7.59	.7809	520
1941	186,037.00	1.17	2,176.63	.7547	140,402
1942	10,250.00	1.18	120.95	.7493	7,680
1943	11,700.00	1.18	138.06	.7375	8,629
1945	414.00	1.20	4.97	.7260	301
1946	53,910.00	1.20	646.92	.7140	38,492
1951	99,832.00	1.24	1,237.92	.6758	67,466
1954	299,434.00	1.26	3,772.87	.6489	194,303
1956	89,200.00	1.27	1,132.84	.6287	56,080
1957	136,773.00	1.28	1,750.69	.6208	84,909
1958	86.398.00	1.28	1,105,89	6080	52,530
1959	472.517.00	1.29	6.095.47	.5999	283,463
1960	2,430,00	1.30	31.59	. 5915	1,437
1961	432.00	1.30	5.62	.5785	250
1962	1.656.00	1.31	21.69	.5699	944
1963	109.742.00	1.32	1.448.59	.5610	61.565
1964	59,451 00	1 32	784 75	5478	32,567
1965	2,590,00	1 33	34 45	5387	1,395
1966	125 00	1 34	1 68	5293	±,355
1968	591 00	1 35	7 98	5063	299
1970	895 00	1 36	12 17	. 5005	/32
1072	1 214 00	1 20	16 75	.4020	45Z
1972	1,214.00	1 20	10.75	.4025	201
1074	0.47 E EC2 00	1 20		.4405	2 126
1974	5,565.00	1.39	104.00	.4379	2,430
1975	7,490.00	1.40	104.86	.4270	3,198
1077	2,591.00	1.40	36.27	.4130	1,070 2,707
T 9 7 7	6,955.00	1.41	98.07	.4019	2,795
TA.18	5,181.00	1.42	73.57	.3905	2,023
1979	42,005.00	1.42	596.47	.3763	15,806

ACCOUNT 322.00 - BUILDINGS AND STRUCTURES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUAI	_ ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVELL TOWA 75	-R2.5			
NET SA	LVAGE PERCENT2	0			
1.0.0.0					
1980	81,224.00	1.43	1,161.50	.3647	29,622
1981	84,072.00	1.44	1,210.64	.3528	29,661
1982	54,968.00	1.44	791.54	.3384	18,601
1983	674,300.00	1.45	9,777.35	.3263	220,024
1984	241,978.41	1.46	3,532.88	.3139	75,957
1985	48,285.00	1.47	709.79	.3014	14,553
1986	58,401.00	1.47	858.49	.2867	16,744
1987	34,542.82	1.48	511.23	.2738	9,458
1988	70,912.00	1.49	1,056.59	.2608	18,494
1989	4,664.00	1.50	69.96	.2475	1,154
1990	27,709.00	1.51	418.41	.2341	6,487
1991	73,686.00	1.51	1,112.66	.2190	16,137
1994	1,108.00	1.54	17.06	.1771	196
1995	4,883.00	1.55	75.69	.1628	795
1996	27,970.00	1.56	436.33	.1482	4,145
1998	1,716,292.83	1.59	27,289.06	.1193	204,754
1999	44,329.00	1.60	709.26	.1040	4,610
2000	384,426.08	1.61	6,189.26	.0886	34,060
2001	126,448.13	1.63	2,061.10	.0734	9,281
2002	187,709.26	1.65	3,097.20	.0578	10,850
2003	285,670.79	1.68	4,799.27	.0420	11,998
2004	148,445.56	1.72	2,553.26	.0258	3,830
2005	69,777.00	1.82	1,269.94	.0091	635
			95.299.52		2.129.855
NET SA	LVAGE ADJUISTMENT		19,059 90		425,971
	TANK TO OD INT		±2,032.20		123,371
TOTAL	6,531,660.35		114,359.42	:	2,555,826

ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS, & TAILRACES

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA	60-L2.5			
NET SA	LVAGE PERCENT	-20			
1913	33,500.00	0.95	318.25	.8788	29,440
1917	29,076.00	0.98	284.94	.8673	25,218
1920	2,400.00	1.01	24.24	.8636	2.073
1924	61.025.00	1.04	634.66	.8476	51,725
1930	6,922,00	1 10	76 14	8305	5.749
1931	89,020,00	1.11	988.12	.8270	73,620
1932	1,504,00	1 12	16 84	8232	1,238
1933	1,270,00	1 13	14 35	8193	1,041
1934	13,454,00	1 14	153 38	8151	10,966
1937	384 00	1 17	4 4 9	8015	308
1941	258,530,00	1.22	3.154.07	.7869	203.437
1942	89,090,00	1 24	1,104 72	7874	70,149
1943	280,700,00	1.25	3,508,75	. 7813	219.311
1946	81,250,00	1.29	1.048.13	.7676	62.368
1948	182,823.00	1.33	2,431.55	.7648	139,823
1950	13.840.00	1.36	188.22	.7548	10,446
1951	297,377.00	1.37	4.074.06	.7467	222,051
1952	34,414.00	1.39	478.35	.7437	25,594
1953	8,220.00	1.41	115.90	.7403	6,085
1954	913,294.00	1.43	13,060.10	.7365	672,641
1956	367,851.00	1.46	5,370.62	.7227	265,846
1957	6,861.00	1.48	101.54	.7178	4,925
1958	143,625.00	1.49	2,140.01	.7078	101,658
1959	1,554,571.00	1.51	23,474.02	.7022	1,091,620
1960	8,711.00	1.53	133.28	.6962	6,065
1961	1,183.00	1.55	18.34	.6898	816
1963	486,719.00	1.58	7,690.16	.6715	326,832
1964	3,977.00	1.60	63.63	.6640	2,641
1965	685,769.00	1.62	11,109.46	.6561	449,933
1970	942.00	1.69	15.92	.6000	565
1974	1,663.00	1.75	29.10	.5513	917
1978	9,317.00	1.80	167.71	.4950	4,612
1979	518,042.00	1.82	9,428.36	.4823	249,852
1980	107,100.00	1.83	1,959.93	.4667	49,984
1981	2,328,337.00	1.84	42,841.40	.4508	1,049,614
1983	889,708.00	1.86	16,548.57	.4185	372,343
1984	576,127.00	1.87	10,773.57	.4021	231,661

ACCOUNT 323.00 - CANALS, PENSTOCKS, SURGE TANKS, & TAILRACES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAI RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVI NET S	VOR CURVE IOWA 60-I ALVAGE PERCENT20	2.5			
1985	1,989,658.00	1.88	37,405.57	.3854	766,814
1986	256,621.00	1.89	4,850.14	.3686	94,591
1987	936,890.00	1.90	17,800.91	.3515	329,317
1989	1,951,498.00	1.91	37,273.61	.3152	615,112
1990	3,109,126.00	1.92	59,695.22	.2976	925,276
1991	636,862.00	1.93	12,291.44	.2799	178,258
1993	211,827.00	1.95	4,130.63	.2438	51,643
1994	16,587.00	1.95	323.45	.2243	3,720
1995	60,173.00	1.96	1,179.39	.2058	12,384
1996	205,720.00	1.97	4,052.68	.1872	38,511
1997	28,379.00	1.97	559.07	.1675	4,753
1998	3,288,480.81	1.98	65,111.92	.1485	488,339
1999	5,339,055.73	1.98	105,713.30	.1287	687,136
2000	3,465,285.39	1.99	68,959.18	.1095	379,449
2001	2,591,410.79	1.99	51,569.07	.0896	232,190
2002	2,565,612.75	1.99	51,055.69	.0697	178,823
2003	1,538,386.18	1.99	30,613.88	.0498	76,612
2004	2,444,908.09	2.00	48,898.16	.0300	73,347
2005	87,191.00	2.00	1,743.82	.0100	872
			766,772.01	1:	1,180,314
NET S.	ALVAGE ADJUSTMENT		153,354.40	:	2,236,063
TOTAL	40,812,267.74		920,126.41	1:	3,416,377

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			
NET SA	LVAGE PERCENT	-20			
1904	22,000.00	0.88	193.60	.8932	19,650
1917	7,356.00	0.95	69.88	.8408	6,185
1918	20,019.00	0.96	192.18	.8400	16,816
1920	13,548.00	0.97	131.42	.8294	11,237
1921	23,656.00	0.98	231.83	.8281	19,590
1924	154,755.00	1.00	1,547.55	.8150	126,125
1928	63,145.00	1.03	650.39	.7983	50,409
1929	88,318.00	1.03	909.68	.7880	69,595
1931	281,981.00	1.05	2,960.80	.7823	220,594
1932	5,606.00	1.06	59.42	.7791	4,368
1934	14,650.00	1.07	156.76	.7651	11,209
1937	78,579.00	1.09	856.51	.7467	58,675
1940	1,880.00	1.12	21.06	.7336	1,379
1941	252,106.00	1.13	2,848.80	.7289	183,760
1942	42,500.00	1.14	484.50	.7239	30,766
1943	198,990.00	1.15	2,288.39	.7188	143,034
1944	157,200.00	1.15	1,807.80	.7073	111,188
1946	66,700.00	1.17	780.39	.6962	46,437
1948	4,300.00	1.19	51.17	.6843	2,942
1950	919.00	1.21	11.12	.6716	617
1951	140,700.00	1.22	1,716.54	.6649	93,551
1952	41,706.00	1.23	512.98	.6581	27,447
1953	417.00	1.24	5.17	.6510	, 271
1954	1,075,312.08	1.25	13,441.40	.6438	692,286
1955	7,906.00	1.26	99.62	.6363	5,031
1956	359,761.00	1.27	4,568.96	.6287	226,182
1957	986,230.00	1.28	12,623.74	.6208	612,252
1959	914,777.00	1.30	11,892.10	.6045	552,983
1960	2,603.00	1.31	34.10	.5961	1,552
1961	5,120,00	1.32	67.58	.5874	3,007
1962	76,665,00	1 34	1.027.31	5829	44,688
1963	536,790,00	1 35	7,246,67	5738	308,010
1964	50 801 00	1 36	690 89	5644	28 672
1965	51 717 61	1 27	708 53	5549	28 698
1966	591 00	1 38	8 16	5451	20,000
1971	8 230 00	1 45	119 3/	5003	222 2 117
1070	1 210 00	1 46	17 00	. 5005	4,11/
1914	I,ZI9.00	1.40	L/.0U	.4091	596

ACCOUNT 324.00 - DAMS AND RESERVOIRS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUAI	_ ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 70	-S0.5			
NET S.	ALVAGE PERCENT2	C			
1973	8,965.00	1.47	131.79	.4778	4,283
1975	4,625.00	1.50	69.38	.4575	2,116
1978	123,887.00	1.54	1,907.86	.4235	52,466
1979	87,087.00	1.56	1,358.56	.4134	36,002
1980	280,280.00	1.57	4,400.40	.4004	112,224
1981	226,777.00	1.59	3,605.75	.3896	88,352
1982	1,224,430.19	1.60	19,590.88	.3760	460,386
1983	698,576.49	1.62	11,316.94	.3645	254,631
1984	413,469.00	1.63	6,739.54	.3505	144,921
1985	462,871.00	1.65	7,637.37	.3383	156,589
1986	485,415.00	1.67	8,106.43	.3257	158,100
1987	534,895.00	1.68	8,986.24	.3108	166,245
1988	607,044.00	1.70	10,319.75	.2975	180,596
1989	594,345.00	1.72	10,222.73	.2838	168,675
1990	457,337.00	1.73	7,911.93	.2682	122,658
1991	44,657.00	1.75	781.50	.2538	11,334
1992	2,483,357.00	1.77	43,955.42	.2390	593,522
1993	746,485.00	1.79	13,362.08	.2238	167,063
1994	714,966.00	1.81	12,940.88	.2082	148,856
1995	1,478,542.00	1.83	27,057.32	.1922	284,176
1996	579,243.00	1.85	10,716.00	.1758	101,831
1997	332,675.00	1.87	6,221.02	.1590	52,895
1998	4,558,780.99	1.89	86,160.96	.1418	646,435
1999	1,447,915.00	1.91	27,655.18	.1242	179,831
2000	676,869.87	1.93	13,063.59	.1062	71,884
2001	312,976.00	1.96	6,134.33	.0882	27,604
2002	90,218.50	1.98	1,786.33	.0693	6,252
2003	519,530.64	2.01	10,442.57	.0503	26,132
2004	297,776.38	2.04	6,074.64	.0306	9,112
2005	800,690.00	2.08	16,654.35	.0104	8,327
			456,345.86	:	8,207,739
NET S.	ALVAGE ADJUSTMENT		91,269.17	:	1,641,548
TOTAL	27,053,439.75		547,615.03	:	9,849,287

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)
SURVIVO	OR CURVE IOWA	70-R2			
NET SAI	LVAGE PERCENT	-20			
1651	9,074.00-			1.0000	9,074-
1900	417,584.00	0.89	3,716.50	.9390	392,111
1907	11,910.00	0.94	111.95	.9259	11,027
1910	66,482.00	0.95	631.58	.9073	60,319
1913	25,718.00	0.98	252.04	.9065	23,313
1917	61,620.00	1.00	616.20	.8850	54,534
1924	208,018.00	1.05	2,184.19	.8558	178,022
1931	92,329.00	1.11	1,024.85	.8270	76,356
1932	34,600.00	1.11	384.06	.8159	28,230
1939	31,532.00	1.17	368.92	.7781	24,535
1941	364,035.00	1.18	4,295.61	.7611	277,067
1942	45,590.00	1.19	542.52	.7557	34,452
1950	896.00	1.26	11.29	.6993	627
1951	293,461.00	1.26	3,697.61	.6867	201,520
1952	193.00	1.27	2.45	.6795	131
1954	463,575.00	1.29	5,980.12	.6644	307,999
1956	100,600.00	1.31	1,317.86	.6485	65,239
1957	148,465.00	1.31	1,944.89	.6354	94,335
1958	123,700.00	1.32	1,632.84	.6270	77,560
1959	1,033,020.00	1.33	13,739.17	.6185	638,923
1960	8,240.00	1.34	110.42	.6097	5,024
1961	3,145.00	1.35	42.46	.6008	1,890
1962	104,839.00	1.36	1,425.81	.5916	62,023
1963	457,088.00	1.36	6,216.40	.5780	264,197
1964	1,753.00	1.37	24.02	.5686	997
1965	15,697.00	1.38	216.62	.5589	8,773
1966	74.00	1.39	1.03	.5491	41
1967	33,468.00	1.40	468.55	.5390	18,039
1968	118.00	1.41	1.66	.5288	62
1969	22,454.00	1.42	318.85	.5183	11,638
1970	110,246.00	1.43	1,576.52	.5077	55,972
1971	8,764.00	1.43	125.33	.4934	4,324
1972	11,592.00	1.44	166.92	.4824	5,592
1974	21,879.00	1.46	319.43	.4599	10,062
1976	6,305.00	1.48	93.31	.4366	2,753
1977	18,992.00	1.49	282.98	.4247	8,066
1979	73,486.48	1.51	1,109.65	.4002	29,409

ACCOUNT 325.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVT	VOR CURVEL, TOWA 70-	R2			
NET S	ALVAGE PERCENT20)			
1.0.0.0		1 50		0.07.6	1 4 9 9 6 9
1980	386,899.00	1.52	5,880.86	.3876	149,962
1982	98,289.00	1.54	1,513.65	.3619	35,571
1983	2,318,235.00	1.55	35,932.64	.3488	808,600
1984	1,404,765.00	1.56	21,914.33	.3354	471,158
1985	540,729.94	1.58	8,543.53	.3239	175,142
1986	2,191,099.00	1.59	34,838.47	.3101	679,460
1987	326,759.00	1.60	5,228.14	.2960	96,721
1988	84,170.00	1.61	1,355.14	.2818	23,719
1989	24,329.00	1.62	394.13	.2673	6,503
1990	427,508.00	1.64	7,011.13	.2542	108,673
1991	303,852.00	1.65	5,013.56	.2393	72,712
1992	204,682.00	1.66	3,397.72	.2241	45,869
1993	155,210.00	1.68	2,607.53	.2100	32,594
1994	792,774.00	1.69	13,397.88	.1944	154,115
1995	210,531.00	1.71	3,600.08	.1796	37,811
1996	873,735.00	1.73	15,115.62	.1644	143,642
1997	992,775.00	1.75	17,373.56	.1488	147,725
1998	3,041,677.23	1.77	53,837.69	.1328	403,935
1999	971,484.04	1.79	17,389.56	.1164	113,081
2000	412,693.39	1.82	7,511.02	.1001	41,311
2001	92,477.67	1.85	1,710.84	.0833	7,703
2002	1,290,841.47	1.89	24,396.90	.0662	85,454
2003	1,497,140.82	1.94	29,044.53	.0485	72,611
2004	1,406,394.17	2.01	28,268.52	.0302	42,473
2005	1,344,242.00	2.20	29,573.32	.0110	14,787
			429,804,96		6.997.420
NET S	ALVAGE ADJUSTMENT		85,960.99		1,399,484
			,		, ,
TOTAL	25,805,687.21		515,765.95		8,396,904

ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	45-S0.5			
NET SALVA	AGE PERCENT	-20			
1931	1,107.00	1.26	13.95	.9387	1,039
1941	2,415.00	1.38	33.33	.8901	2,150
1950	116.00	1.50	1.74	.8325	97
1951	27,692.00	1.52	420.92	.8284	22,940
1953	211.00	1.55	3.27	.8138	172
1954	109,352.00	1.57	1,716.83	.8086	88,422
1956	39,870.00	1.60	637.92	.7920	31,577
1957	26,062.00	1.62	422.20	.7857	20,477
1958	940.00	1.64	15.42	.7790	732
1959	185,784.00	1.66	3,084.01	.7719	143,407
1960	1,517.00	1.68	25.49	.7644	1,160
1961	180.00	1.69	3.04	.7521	135
1962	22,360.00	1.71	382.36	.7439	16,634
1963	71,642.00	1.73	1,239.41	.7353	52,678
1964	489.00	1.75	8.56	.7263	355
1965	12,450.00	1.77	220.37	.7169	8,925
1968	331.00	1.84	6.09	.6900	228
1970	799.55	1.89	15.11	.6710	536
1971	3,017.00	1.91	57.62	.6590	1,988
1972	109,130.00	1.93	2,106.21	.6466	70,563
1973	7,319.00	1.96	143.45	.6370	4,662
1975	2,711.53	2.01	54.50	.6131	1,662
1977	236,765.00	2.06	4,877.36	.5871	139,005
1978	158,374.00	2.09	3,310.02	.5748	91,033
1979	9,343.00	2.12	198.07	.5618	5,249
1980	124,495.00	2.15	2,676.64	.5483	68,261
1981	25,800.00	2.18	562.44	.5341	13,780
1982	33,194.00	2.21	733.59	.5194	17,241
1983	583,846.00	2.24	13,078.15	.5040	294,258
1984	261,279.29	2.27	5,931.04	.4881	127,530
1985	65,675.86	2.30	1,510.54	.4715	30,966
1986	363,495.00	2.34	8,505.78	.4563	165,863
1987	332,640.50	2.37	7,883.58	.4385	145,863
1988	104,684.00	2.41	2,522.88	.4218	44,156
1989	280,945.00	2.44	6,855.06	.4026	113,108
1991	221,908.00	2.52	5,592.08	.3654	81,085
1992	260,945.00	2.55	6,654.10	.3443	89,843

ACCOUNT 326.00 - SWITCHING, METERING AND CONTROL EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	AL ACCRUAL	-ACCRUEI	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIN	VOR CURVE IOWA 45-	S0.5			
NET SA	ALVAGE PERCENT20				
1993	51,708.00	2.59	1,339.24	.3238	16,743
1994	46,388.00	2.63	1,220.00	.3025	14,032
1995	162,840.00	2.68	4,364.11	.2814	45,823
1996	144,231.00	2.72	3,923.08	.2584	37,269
1997	39,530.00	2.76	1,091.03	.2346	9,274
1998	160,024.39	2.81	4,496.69	.2108	33,733
1999	9,112.00-	2.86	260.60-	.1859	1,694-
2000	115,999.87	2.90	3,364.00	.1595	18,502
2001	545,841.34	2.96	16,156.90	.1332	72,706
2002	96,181.79	3.01	2,895.07	.1054	10,138
2003	680,673.01	3.07	20,896.66	.0768	52,276
2004	2,131,946.32	3.13	66,729.92	.0470	100,201
2005	394,825.00	3.21	12,673.88	.0161	6,357
			220,393.11		2,313,140
NET SA	ALVAGE ADJUSTMENT		44,078.62		462,628
TOTAL	8,249,961.45		264,471.73		2,775,768

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.21

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ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	50-R2			
NET SALV	AGE PERCENT	-20			
1924	200.00	1.18	2.36	.9617	192
1932	2,720.00	1.27	34.54	.9335	2,539
1942	1,200.00	1.40	16.80	.8890	1,067
1946	5,570.00	1.46	81.32	.8687	4,839
1948	6,689.00	1.49	99.67	.8568	5,731
1951	1.00	1.53	0.02	.8339	1
1953	3,214.00	1.56	50.14	.8190	2,632
1954	30,894.10	1.57	485.04	.8086	24,981
1955	1,084.00	1.59	17.24	.8030	870
1957	30,102.00	1.62	487.65	.7857	23,651
1958	4,798.00	1.64	78.69	.7790	3,738
1959	84,627.00	1.65	1,396.35	.7673	64,934
1960	3,128.00	1.67	52.24	.7599	2,377
1961	761.00	1.68	12.78	.7476	569
1962	1,567.00	1.70	26.64	.7395	1,159
1963	17,765.23	1.71	303.79	.7268	12,912
1964	482.00	1.73	8.34	.7180	346
1965	1,213.00	1.75	21.23	.7088	860
1966	21,258.00-	1.76	374.14-	.6952	14,779-
1969	2,039.00	1.81	36.91	.6607	1,347
1970	1,245.00	1.83	22.78	.6497	809
1971	1,938.00	1.84	35.66	.6348	1,230
1974	13,768.00	1.89	260.22	.5954	8,197
1975	719.00	1.91	13.73	.5826	419
1976	5,518.00	1.92	105.95	.5664	3,125
1977	7,467.00	1.94	144.86	.5529	4,129
1978	707.00	1.96	13.86	.5390	381
1979	12,555.00	1.98	248.59	.5247	6,588
1980	12,199.00	1.99	242.76	.5075	6,191
1981	32,376.00	2.01	650.76	.4925	15,945
1983	101,210.83	2.05	2,074.82	.4613	46,689
1986	11,759.00	2.10	246.94	.4095	4,815
1987	8,800.00	2.12	186.56	.3922	3,451
1988	28,339.00	2.14	606.45	.3745	10,613
1990	15,299.00	2.19	335.05	.3395	5,194
1992	684.00	2.23	15.25	.3011	206
1994	1.00	2.28	0.02	.2622	

ACCOUNT 327.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO NET SAI	OR CURVE IOWA 50-1 LVAGE PERCENT20	R2			
1996	31,280.00	2.33	728.82	.2214	6,925
1997	1,756.00	2.36	41.44	.2006	352
1998	20,327.00	2.40	487.85	.1800	3,659
1999	337,668.77-	2.43	8,205.35-	.1580	53,352-
2000	49,569.46	2.47	1,224.37	.1359	6,736
2001	0.88-	2.52	0.02-	.1134	
2002	55,973.82	2.57	1,438.53	.0900	5,038
2003	127,011.00	2.65	3,365.79	.0663	8,421
2004	16,727.75	2.75	460.01	.0413	691
2005	4,765.00	3.01	143.43	.0151	72
			7,726.74		236,490
NET SAI	LVAGE ADJUSTMENT		1,545.35		47,298
TOTAL	401,121.54		9,272.09		283,788

ACCOUNT 331.00 - BUILDING AND STRUCTURES

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
PORT INTE PROB NET	AUX BASQUES DIESEL RIM SURVIVOR CURVE IO ABLE RETIREMENT YEAR SALVAGE PERCENT25	WA 60-S0 6-2016			
1946	35,630.00	1.46	520.20	.8687	30,952
1954	28,060.00	1.64	460.18	.8446	23,699
1964	990.00	1.96	19.40	.8134	805
1966	15,110.00	2.04	308.24	.8058	12,176
1968	2,842.00	2.12	60.25	.7950	2,259
1969	16,044.00	2.17	348.15	.7921	12,708
1982	12,587.00	3.00	377.61	.7050	8,874
1983	12,628.00	3.09	390.21	.6953	8,780
1984	975.00	3.19	31.10	.6859	669
1986	4,549.00	3.40	154.67	.6630	3,016
1988	18,412.00	3.65	672.04	.6388	11,762
1994	24,685.00	4.65	1,147.85	.5348	13,202
1995	48,455.00	4.88	2,364.60	.5124	24,828
2002	1,476.00	7.36	108.63	.2576	380
2004	12,404.00	8.62	1,069.22	.1293	1,604
			8,032.35		155,714
NET	SALVAGE ADJUSTMENT		2,008.09		38,929
	234,847.00		10,040.44		194,643
GREE INTE PROB NET	N HILL GAS TURBINE RIM SURVIVOR CURVE IO ABLE RETIREMENT YEAR SALVAGE PERCENT3	WA 60-S0 6-2016			
1975	157,388.00	2.49	3,918.96	.7595	119,536
1976	3,000.00	2.55	76.50	.7523	2,257
1983	17,719.00	3.09	547.52	.6953	12,320
1998	56,659.00	5.70	3,229.56	.4275	24,222
1999	14,223.00	6.04	859.07	.3926	5,584
2000	6,275.00	6.42	402.86	.3531	2,216
2002	52,728.00	7.36	3,880.78	.2576	13,583
2004	9,781.00	8.62	843.12	.1293	1,265
			13,758.37		180,983
NET	SALVAGE ADJUSTMENT		412.75		5,429
	317,773.00		14,171.12		186,412

ACCOUNT 331.00 - BUILDING AND STRUCTURES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

ANNUAL ACCRUAL	-ACCRUED DEPREC
RATE AMOUNT	FACTOR AMOUNT
(3) (4)	(5) (6)
E IOWA 60-S0 EAR 6-2026 -3	
3.39 2,253.10	.3899 25,914
4.40 144.85	.1980 652
5.06 200.88	.0759 301
2 598 83	26 867
T 77.96	806
2,676.79	27,673
26,888.35	408,728
	ANNUAL ACCRUAL RATE AMOUNT (3) (4) E IOWA 60-S0 EAR 6-2026 -3 3.39 2,253.10 4.40 144.85 5.06 200.88 T 2,598.83 77.96 2,676.79 26,888.35

ACCOUNT 332.00 - ELECTRICAL PLANT

YEAR (1)	ORIGINAL COST (2)	ANNUAI RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
ד הטרא בי	IIX BAGOIIEG DIEGEI.				
TNTERT	M SURVIVOR CURVE	TOWA 70-L	ົ		
PROBAR	LE RETIREMENT VEAR	6 - 2016			
NET SA	LVAGE PERCENT -2	··· · · 2010			
NUI OA		.5			
1946	9,670.00	1.45	140.22	.8628	8,343
1947	1,700.00	1.47	24.99	.8600	1,462
1954	2,595.00	1.64	42.56	.8446	2,192
1959	13,800.00	1.78	245.64	.8277	11,422
1964	4,240.00	1.95	82.68	.8093	, 3,431
1965	1,920.00	1.99	38.21	.8060	1,548
1966	1,547.00	2.03	31.40	.8019	1,241
1969	18,954.00	2.16	409.41	.7884	14,943
1971	1,067.00	2.26	24.11	.7797	832
1973	248.00	2.37	5.88	.7703	191
1982	3,929.00	3.00	117.87	.7050	2,770
1991	13,891.00	4.11	570.92	.5960	8,279
1993	23,555.00	4.47	1,052.91	.5588	13,163
1997	2,509.00-	5.44	136.49-	.4624	1,160-
1999	13,705.00	6.11	837.38	.3972	5,444
			3,487.69		74,101
NET SA	LVAGE ADJUSTMENT		871.92		18,525
	108,312.00		4,359.61		92,626
CDEEN	טדוו מאפ ייוססדאים				
TNTERT	M SURVIVOR CURVE		า		
DRUBAR	LE RETIREMENT VEAR	6 - 2016			
NET CDAD	LVAGE PERCENT -	3			
NEI DA	DVAGE FERCENT.	5			
1975	25,560,00	2 48	633 89	7564	19.334
1986	4,977,00	3 41	169 72	6650	3,310
1987	6,870,00	3 53	242 51	6531	4,487
1992	65,629.00	4.28	2,808.92	.5778	37,920
1996	20,512.00	5.16	1,058.42	.4902	10.055
1997	31,835.00	5.44	1,731.82	.4624	14,721
2001	281,644.00	6.96	19,602.42	.3132	88,211
2002	32,632.00	7.49	2,444.14	.2622	8,556
2003	158,676.00	8.11	12,868.62	.2028	32,179
			,		, -

ACCOUNT 332.00 - ELECTRICAL PLANT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAI RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
GREEN INTERI PROBAE NET SA	HILL GAS TURBINE M SURVIVOR CURVE BLE RETIREMENT YEAR. ALVAGE PERCENT3	IOWA 70-L0 . 6-2016)		
2004 2005	4,158.00 35,481.00	8.87 9.87	368.81 3,501.97	.1331 .0494	553 1,753
NET SA	ALVAGE ADJUSTMENT		45,431.24 1,362.94		221,079 6,632
	667,974.00		46,794.18		227,711
WESLEY INTERI PROBAE NET SA	VILLE M SURVIVOR CURVE BLE RETIREMENT YEAR. ALVAGE PERCENT3	IOWA 70-L0 . 6-2026)		
1993	29,602.00	3.33	985.75	.4163	12,323
1995	0.21-	3.56	0.01-	.3738	
1998	8,010.00	4.00	320.40	.3000	2,403
1999	14,328.00	4.17	597.48	.2711	3,884
2001	48,225.00	4.57	2,203.88	.2057	9,920
2004	106,377.56	5.41	5,755.03	.0812	8,638
2005	1,746,297.00	5.90	103,031.52	.0295	51,516
			112,894.05		88,684
NET SA	ALVAGE ADJUSTMENT		3,386.82		2,661
	1,952,839.35		116,280.87		91,345
MOBILE INTERI PROBAE NET SA	E DIESEL #3 EM SURVIVOR CURVE E BLE RETIREMENT YEAR. ALVAGE PERCENT 0	IOWA 70-L0 . 6-2036)		
2004	1,355,188.17	4.24	57,459.98	.0636	86,190
TOTAL	4,084,313.52		224,894.64		497,872

ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
PORT UNIC INTERIM S PROBABLE NET SALVA	ON DIESEL SURVIVOR CURVE RETIREMENT YEAR. AGE PERCENT25	IOWA 50-L1 . 6-2006			
1962 1966 1998 2000	49,910.00 700.00 2,367.00 383.00-	2.27 2.50 12.50 16.67	1,132.96 17.50 295.88 63.85-	.9875 .9875 .9375 .9169	49,286 691 2,219 351-
NET SALVA	AGE ADJUSTMENT		1,382.49 345.62		51,845 12,961
	52,594.00		1,728.11		64,806
PORT AUX INTERIM S PROBABLE NET SALVA	BASQUES DIESEL SURVIVOR CURVE RETIREMENT YEAR. AGE PERCENT25	IOWA 50-L1 . 6-2016			
1965 1969 2000 2001 2004	2,000.00 293,188.00 64,192.00 94,319.00 2,276.00	2.02 2.19 6.44 6.87 8.63	40.40 6,420.82 4,133.96 6,479.72 196.42	.8181 .7994 .3542 .3092 .1295	1,636 234,374 22,737 29,163 295
NET SALVA	AGE ADJUSTMENT		17,271.32 4,317.83		288,205 72,051
	455,975.00		21,589.15		360,256
PORTABLE INTERIM S PROBABLE NET SALVA	GAS TURBINE SURVIVOR CURVE RETIREMENT YEAR. AGE PERCENT 0	IOWA 50-L1 . 6-2026			
1974 1984 1986 1990	182,455.98 0.64- 38,096.63- 204,102.91	2.14 2.68 2.82 3.13	3,904.56 0.02- 1,074.32- 6,388.42	.6741 .5762 .5499 .4852	122,994 20,949- 99,031

ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
PORTAB INTERI PROBAB	LE GAS TURBINE M SURVIVOR CURVE IC LE RETIREMENT YEAR	DWA 50-L1 6-2026			
NET SA	LVAGE PERCENI U				
1992 1993 1994 1995	25,005.00 25,005.15- 23,650.00 40,004.00	3.32 3.42 3.52 3.63	830.17 855.18- 832.48 1,452.15	.4482 .4275 .4048 .3812	11,207 10,690- 9,574 15,250
1998 1999	2,279.00	4.01 4.15	91.39 15.89	.3008	686 103
2000 2001	88,772.00 28,300.00	4.31	3,826.07 1,267.84	.2371 .2016	21,048 5,705
2002 2003 2004	32,823.00 1,496,428.19 306,618.00	4.87 4.88 5.13	1,532.83 73,025.70 15,729.50	.1220 .0770	5,367 182,564 23,610
	2,367,719.15	:	106,967.50		465,500
GREEN INTERI PROBAB NET SA	HILL GAS TURBINE M SURVIVOR CURVE IC LE RETIREMENT YEAR LVAGE PERCENT3	DWA 50-L1 6-2016			
1975	2,675,690.00	2.52	67,427.39	.7686	2,056,535
1976 1978 1983	3,000.00- 0.19- 1,832,00	2.58 2.72 3.14	0.01- 57.52	.7611 .7480 7065	2,283-
1983 1984 1988	4,087.00 83,490.00	3.24 3.70	132.42 3,089.13	.6966	2,847 54,060
1990 1992 1992	2,192.00 670,037.00 7.578.00	3.98 4.31	87.24 28,878.59 240.25	.6169 .5819	1,352 389,895
1994 1995	56,775.00 21,882.00	4.70 4.92	2,668.43 1,076.59	.5405	30,687 11,304
1996 1997	943,936.00 59,496.00	5.16 5.43	48,707.10 3,230.63	.4902	462,717 27,463
2000 1999	235,943.00 14,117.00	6.07 6.44	14,321.74 909.13	.3946 .3542	93,103 5,000

ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

	ORIGINAL	ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
GREEN	HILL GAS TURBINE				
INTER	IM SURVIVOR CURVE	IOWA 50-L	1		
PROBAE	BLE RETIREMENT YEAR.	. 6-2016			
NET SA	ALVAGE PERCENT3	•			
2001	267,129.00	6.87	18,351.76	.3092	82,596
2002	360,414.00	7.37	26,562.51	.2580	92,987
2003	458,780.27	7.94	36,427.15	.1985	91,068
			252,190.17		3,404,879
NET SA	ALVAGE ADJUSTMENT		7,565.71		102,146
	5,860,378.08		259,755.88		3,507,025
WESLEY	YVILLE				
INTER	IM SURVIVOR CURVE	IOWA 50-L	1		
PROBAE	BLE RETIREMENT YEAR.	. 6-2026			
NET SA	ALVAGE PERCENT3				
1969	350,727.00	1.94	6,804.10	.7081	248,350
1970	1,612.00	1.98	31.92	.7029	1,133
1982	65,612.00	2.55	1,673.11	.5993	39,321
1986	1,000.00	2.82	28.20	.5499	550
1994	611,471.00	3.52	21,523.78	.4048	247,523
1997	39,940.00	3.87	1,545.68	.3290	13,140
1998	52,259.00	4.01	2,095.59	.3008	15,720
1999	5,739.00	4.15	238.17	.2698	1,548
2002	1,241,553.00	4.67	57,980.53	.1635	202,994
2003	2,591,284.68	4.88	126,454.69	.1220	316,137
2004	594,443.67	5.13	30,494.96	.0770	45,772
			248,870.73		1,132,188
NET SA	ALVAGE ADJUSTMENT		7,466.12		33,966
	5,555,641.35		256,336.85		1,166,154

ACCOUNT 333.00 - PRIME MOVERS, GENERATORS AND AUXILIARIES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
MOBIL	E DIESEL #3				
INTER	IM SURVIVOR CURVE	IOWA 50-L	1		
PROBA	BLE RETIREMENT YEAR	6-2036			
NET S.	ALVAGE PERCENT 0				
1005				0.7.60	1
1997	5,000.00	3.25	162.50	.2763	1,382
1998	7,000.00	3.33	233.10	.2498	1,749
2004	603,294.87	4.00	24,131.79	.0600	36,198
	615,294.87		24,527.39		39,329
TOTAL	14,907,602.45		670,904.88	Į	5,603,070

ACCOUNT 334.00 - FUEL HOLDERS

YEAR (1)	ORIGINAL COST (2)	LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	-ACCRUED FACTOR (6)	DEPREC AMOUNT (7)
PORT UN INTERIM PROBABI NET SAI	IION DIESEL 1 SURVIVOR CUR 5E RETIREMENT 5VAGE PERCENT.	VE SQ YEAR 25	UARE 6-2006			
1993 NET SAI	17,545.00 VAGE ADJUSTME	13.00 NT	7.69	1,349.21 337.30	.9615	16,870 4,218
	17,545.00			1,686.51		21,088
PORT AU INTERIM PROBABI NET SAI	JX BASQUES DIE 1 SURVIVOR CUR JE RETIREMENT JVAGE PERCENT.	SEL VE SQ YEAR 25	UARE 6-2016			
1969 1995 1998 1999 2000	221.00 7,802.00 6,029.00 383.00 1,211.00	47.00 21.00 18.00 17.00 16.00	2.13 4.76 5.56 5.88 6.25	4.71 371.38 335.21 22.52 75.69	.7766 .5000 .4167 .3824 .3437	172 3,901 2,512 146 416
NET SAI	VAGE ADJUSTME	NT		809.51 202.38		7,147 1,787
	15,646.00			1,011.89		8,934
GREEN H INTERIM PROBABI NET SAI	IILL GAS TURBI 1 SURVIVOR CUR JE RETIREMENT JVAGE PERCENT.	NE VE SQ YEAR 3	UARE 6-2016			
1975 1994 1998 1999 2000 2002	36,755.00 85,285.00 8,444.00 49,451.00 65,210.00 201,000.00	41.00 22.00 18.00 17.00 16.00 14.00	2.44 4.55 5.56 5.88 6.25 7.14	896.82 3,880.47 469.49 2,907.72 4,075.63 14,351.40	.7439 .5227 .4167 .3824 .3437 .2500	27,342 44,578 3,519 18,910 22,413 50,250
NET SAI	VAGE ADJUSTME	NT		26,581.53 797.45		167,012 5,010
	446,145.00			27,378.98		172,022

ACCOUNT 334.00 - FUEL HOLDERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
WESLEYV INTERIM PROBABI NET SAL	VILLE 1 SURVIVOR CUR JE RETIREMENT JVAGE PERCENT.	.VE SQ YEAR 3	UARE 6-2026			
1986 2000 2004	19,774.00 143,088.00 38,548.00	40.00 26.00 22.00	2.50 3.85 4.55	494.35 5,508.89 1,753.93	.4875 .2115 .0682	9,640 30,263 2,629
NET SAL	VAGE ADJUSTME	NT		7,757.17 232.72		42,532 1,276
	201,410.00			7,989.89		43,808
TOTAL	680,746.00			38,067.27		245,852

ACCOUNT 335.00 - MISCELLANEOUS POWER PLANT EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	(ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
	YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	PORT AUX BA INTERIM SUB PROBABLE RE NET SALVAGE	ASQUES DIES RVIVOR CURV ETIREMENT S E PERCENT.	SEL VE SQ YEAR 25	UARE 6-2016			
	1046	1 570 00	70 00	1 4 2	22.45	8500	1 225
	1052	1,570.00	70.00 64 00	1 56	22.45	.0500	1,355 111
	1952	495.00	64.00	1.50	1.12	.8359	414
	1954	845.00	62.00	1.61	13.60	.8306	702
	1955	1,945.00	61.00	1.64	31.90	.8279	1,610
	1956	850.00	60.00	1.67	14.20	.8250	701
	1974	1,193.00	42.00	2.38	28.39	.7500	895
					118.26		5,657
	NET SALVAGE	E ADJUSTMEN	T		29.57		1,414
5	TOTAL	6,898.00			147.83		7,071

ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUEI	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 50	-R2.5			
NET SA	LVAGE PERCENT1	0			
1920	885.00	1.14	10.09	.9747	863
1928	52,752.00	1.23	648.85	.9533	50,288
1931	7,500.00	1.27	95.25	.9462	7,097
1942	27,567.00	1.42	391.45	.9017	24,857
1944	1,728.00	1.45	25.06	.8918	1,541
1949	284.00	1.54	4.37	.8701	247
1950	3,061.00	1.55	47.45	.8603	2,633
1951	1,815.00	1.57	28.50	.8557	1,553
1952	1,464.00	1.58	23.13	.8453	1,238
1954	14,964.00	1.62	242.42	.8343	12,484
1957	11,143.00	1.67	186.09	.8100	9,026
1958	69,857.00	1.68	1,173.60	.7980	55,746
1959	46,121.00	1.70	784.06	.7905	36,459
1960	16,174.00	1.71	276.58	.7781	12,585
1961	8,145.00	1.73	140.91	.7699	6,271
1962	11,094.00	1.75	194.15	.7613	8,446
1963	18,433.00	1.76	324.42	.7480	13,788
1964	26,618.00	1.78	473.80	.7387	19,663
1965	3,180.00	1.79	56.92	.7250	2,306
1966	40,949.00	1.81	741.18	.7150	29,279
1967	18,647.00	1.82	339.38	.7007	13,066
1968	49,667.34	1.84	913.88	.6900	34,270
1969	55,650.00	1.85	1,029.53	.6753	37,580
1970	17,446.00	1.87	326.24	.6639	11,582
1971	7,289.00	1.88	137.03	.6486	4,728
1972	110,529.00	1.90	2,100.05	.6365	70,352
1973	61,957.00	1.91	1,183.38	.6208	38,463
1974	54,801.00	1.93	1,057.66	.6080	33,319
1975	16,181.00	1.94	313.91	.5917	9,574
1976	1,079,090.00	1.96	21,150.16	.5782	623,930
1977	1,318.00-	1.97	25.96-	.5615	740-
1978	1,513.00-	1.99	30.11-	.5473	828-
1979	1,352.00-	2.00	27.04-	.5300	717-
1980	30,481.00	2.02	615.72	.5151	15,701
1981	73,763.00	2.03	1,497.39	.4974	36,690
1982	193,614.00	2.05	3,969.09	.4818	93,283
1983	73,166.00	2.06	1,507.22	.4635	33,912

ACCOUNT 341.00 - SUBSTATION - BUILDINGS AND STRUCTURES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 50-	R2.5			
NET SA	LVAGE PERCENT10				
1984	40,197.00	2.08	836.10	.4472	17,976
1985	88.014.00	2.09	1.839.49	.4285	37.714
1986	133.558.00	2.11	2,818.07	. 4115	54,959
1987	14.661.00	2.12	310.81	. 3922	5.750
1988	736,774,00	2.14	15.766.96	.3745	275,922
1989	245,944.00	2.15	5,287.80	.3548	87,261
1990	140,816.00	2.17	3,055.71	.3364	47,371
1991	23,403.00	2.19	512.53	.3176	7,433
1992	39,825.00	2.20	876.15	.2970	, 11,828
1993	6,198.00	2.22	137.60	.2775	1,720
1994	242,150.00	2.24	5,424.16	.2576	62,378
1995	50,688.00	2.26	1,145.55	.2373	12,028
1996	75,260.00	2.27	1,708.40	.2157	16,234
1997	81,360.00	2.29	1,863.14	.1947	15,841
1998	4,880.00-	2.32	113.22-	.1740	849-
1999	34,544.00	2.34	808.33	.1521	5,254
2000	259,184.00	2.36	6,116.74	.1298	33,642
2001	174,806.00	2.39	4,177.86	.1076	18,809
2003	7,299.21	2.47	180.29	.0618	451
2004	17,497.00	2.54	444.42	.0381	667
2005	403,250.00	2.69	10,847.43	.0135	5,444
			105,970.13		2,068,368
NET SA	LVAGE ADJUSTMENT		10,597.01		206,837
TOTAL	5,012,380.55		116,567.14		2,275,205

ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 46	-R2			
NET SA	LVAGE PERCENT1	0			
1942	63,366,00	1.44	912.47	.9144	57,942
1943	25,641,00	1.46	374.36	.9125	23,397
1944	11.00	1.47	0.16	. 9041	10
1946	6.133.00-	1.50	92.00-	.8925	5.474-
1948	11 093 00-	1 54	170 83-	8855	9 823-
1949	906 00	1 55	14 04	8758	793
1951	41 282 19	1 59	656 39	8666	35 775
1952	12,883,00	1 60	206 13	8560	11,028
1953	6,338,00	1 62	102 68	8505	5,390
1954	249,771 00	1 64	4.096.24	8446	210,957
1956	163,533,08	1 67	2,731 00	8267	135,193
1957	2,734 00	1 69	46 20	8197	2,241
1958	283,701,00	1 71	4.851.29	8123	230,450
1959	467,896,51	1 73	8,094 61	8045	376,423
1960	46,517,00	1.75	814.05	.7963	37.041
1961	380,069,00	1 76	6.689.21	7832	297,670
1962	236,472,00	1.78	4,209,20	.7743	183,100
1963	524,797.66	1.80	9,446.36	.7650	401,470
1964	117.355.00	1.82	2,135,86	. 7553	88,638
1965	206,860.00	1.84	3,806.22	.7452	154,152
1966	438,958.39	1.86	8,164.63	.7347	322,503
1967	836,079.88	1.87	15,634.69	.7200	601,978
1968	414,193.80	1.89	7,828.26	.7088	, 293,581
1969	1,011,382.00	1.91	19,317.40	.6972	, 705,136
1970	374,830.15	1.93	7,234.22	.6852	256,834
1971	1,111,338.43	1.95	21,671.10	.6728	747,708
1972	1,471,504.71	1.97	28,988.64	.6600	971,193
1973	1,132,456.54	1.99	22,535.89	.6468	732,473
1974	1,643,051.80	2.01	33,025.34	.6332	1,040,380
1975	4,962,079.56	2.03	100,730.22	.6192	3,072,520
1976	7,848,251.36	2.05	160,889.15	.6048	1,746,622
1977	5,098,692.39	2.06	105,033.06	.5871	2,993,442
1978	3,141,638.66	2.08	65,346.08	.5720	1,797,017
1979	1,518,065.35	2.10	31,879.37	.5565	844,803
1980	606,865.65	2.12	12,865.55	.5406	328,072
1981	1,243,629.33	2.15	26,738.03	.5268	655,144
1982	2,299,259.35	2.17	49,893.93	.5100	1,172,622

ACCOUNT 342.00 - SUBSTATION - EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNU	AL ACCRUAL	-ACCRUE	D DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	JOR CURVE., TOWA 46-	R2			
NET SA	ALVAGE PERCENT10				
1983	2.482.010 78	2 19	54.356.04	4928	1.223.135
1984	1,812,981 25	2.21	40,066,89	4752	861.529
1985	1,454,166,05	2.23	32,427,90	.4572	664.845
1986	918.641.44	2.25	20,669,43	.4388	403,100
1987	2,086,078,00	2.27	47,353.97	.4200	876,153
1988	2,484,971.00	2.30	57,154.33	.4025	1,000,201
1989	3,434,910.00	2.32	79,689.91	.3828	1,314,884
1990	8,176,270.14	2.35	192,142.35	.3643	2,978,615
1991	4,298,684.80	2.37	101,878.83	.3437	1,477,458
1992	3,400,710.00	2.40	81,617.04	.3240	1,101,830
1993	2,775,556.00	2.42	67,168.46	.3025	839,606
1994	1,155,854.00	2.45	28,318.42	.2818	325,720
1995	1,948,188.03	2.48	48,315.06	.2604	507,308
1996	1,794,406.19	2.51	45,039.60	.2385	427,966
1997	2,369,468.00	2.55	60,421.43	.2168	513,701
1998	2,807,501.22	2.58	72,433.53	.1935	543,251
1999	3,715,794.00	2.62	97,353.80	.1703	632,800
2000	4,389,173.74	2.67	117,190.94	.1469	644,770
2001	3,784,998.00	2.72	102,951.95	.1224	463,284
2002	5,384,619.00	2.78	149,692.41	.0973	523,923
2003	8,152,449.00	2.86	233,160.04	.0715	582,900
2004	6,155,873.00	2.98	183,445.02	.0447	275,168
2005	4,037,045.00	3.26	131,607.67	.0163	65,804
			2,811,154.22		41,766,352
NET SA	ALVAGE ADJUSTMENT		281,115.42		4,176,635
TOTAL 2	116,985,533.43		3,092,269.64		45,942,987

ACCOUNT 350.00 - TRANSMISSION - LAND AND LAND RIGHTS

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA	65-S2.5			
NET SAL	VAGE PERCENT	0			
1931	19,907.00	1.17	232.91	.8717	17,353
1946	57,163.00	1.34	765.98	.7973	45,576
1947	19,055.00	1.35	257.24	.7898	15,050
1948	7,216.00	1.36	98.14	.7820	5,643
1949	0.41	1.37	0.01	.7741	
1952	7,757.14	1.41	109.38	.7544	5,852
1953	1,154.00	1.42	16.39	.7455	860
1954	13,848.00	1.43	198.03	.7365	10,199
1955	28,966.00	1.44	417.11	.7272	21,064
1956	16,810.00	1.45	243.75	.7178	12,066
1957	53,289.00	1.46	778.02	.7081	37,734
1958	52,246.00	1.47	768.02	.6983	36,483
1959	120,581.00	1.48	1,784.60	.6882	82,984
1960	64,156.00	1.49	955.92	.6780	43,498
1961	5,310.47	1.50	79.66	.6675	3,545
1962	8,671.00	1.51	130.93	.6569	5,696
1963	108,493.00	1.52	1,649.09	.6460	70,086
1964	7,554.00	1.53	115.58	.6350	4,797
1965	208,679.00	1.54	3,213.66	.6237	, 130,153
1966	, 66,572.00	1.55	, 1,031.87	.6123	40,762
1967	33,952.00	1.56	529.65	.6006	20,392
1968	136,074.00	1.57	2,136.36	.5888	80,120
1969	141,831.00	1.58	2,240.93	.5767	81,794
1970	, 113, 181.00	1.59	, 1,799.58	.5645	63,891
1971	, , , , , , , , , , , , , , , , , , , ,	1.60	, 1,855.41	.5520	64,012
1972	, 220, 402.00	1.60	, 3,526.43	.5360	, 118,135
1973	, 144,709.00	1.61	, 2,329.81	.5233	, 75,726
1974	397,323.00	1.62	6,436.63	.5103	202,754
1975	460,347.00	1.63	7,503.66	.4972	228,885
1976	1,270,395.00	1.63	20,707.44	.4809	610,933
1977	374.778.00	1.64	6.146.36	4674	175.171
1978	314.843.00	1.64	5,163,43	.4510	141,994
1979	286,229,00	1.65	4,722,78	.4373	125,168
1980	163,476,00	1.66	2.713.70	. 4233	69,199
1981	1.030.284.00	1.66	17,102,71	.4067	419.017
1982	899.625.00	1.66	14,933,78	. 3901	350,944
1983	721 845 00	1 67	12 054 81	2752	271 269
	,21,010.00	T • O /	-2,0J0I	. 5750	2,1,200

ACCOUNT 350.00 - TRANSMISSION - LAND AND LAND RIGHTS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAI RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUEI FACTOR (5)	DEPREC AMOUNT (6)
SURVI NET S	VOR CURVE IOWA 65 ALVAGE PERCENT 0	-S2.5			
1984	326,852.00	1.67	5,458.43	.3591	117,373
1985	308,593.00	1.68	5,184.36	.3444	106,279
1986	38,854.00	1.68	652.75	.3276	12,729
1987	90,665.00	1.68	1,523.17	.3108	28,179
1988	138,487.00	1.68	2,326.58	.2940	40,715
1989	108,363.00	1.69	1,831.33	.2789	30,222
1990	108,158.00	1.69	1,827.87	.2620	28,337
1991	152,635.00	1.69	2,579.53	.2451	37,411
1992	133,802.00	1.69	2,261.25	.2282	30,534
1993	45,349.00	1.69	766.40	.2113	9,582
1994	31,002.00	1.69	523.93	.1944	6,027
1995	123,076.82	1.70	2,092.31	.1785	21,969
1996	14,045.00	1.70	238.77	.1615	2,268
1997	229,077.00	1.70	3,894.31	.1445	33,102
1999	9,872.00	1.70	167.82	.1105	1,091
2000	10,102.00	1.70	171.73	.0935	945
2001	27,397.00	1.70	465.75	.0765	2,096
2002	158,096.00	1.70	2,687.63	.0595	9,407
2003	139,956.00	1.70	2,379.25	.0425	5,948
2004	79,565.00	1.70	1,352.61	.0255	2,029
2005	117,481.00	1.70	1,997.18	.0085	999
TOTAL	10,084,112.84		165,132.72		4,216,047
ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

YEAR COST RATE AMOUNT FACTOR (1) (2) (3) (4) (5) SURVIVOR CURVE IOWA 53-R3 NET SALVAGE PERCENT35	AMOUNT (6)
(1) (2) (3) (4) (5) SURVIVOR CURVE IOWA 53-R3 NET SALVAGE PERCENT35	(6)
SURVIVOR CURVE IOWA 53-R3 NET SALVAGE PERCENT35	
SURVIVOR CURVE IOWA 53-R3 NET SALVAGE PERCENT35	
NET SALVAGE PERCENT35	
	25 164
1931 36,875.00 1.28 472.00 .9536	35,164
1942 10,247.00- 1.43 146.539081	9,305-
1946 21,924.00 1.49 326.67 .8866	19,438
1949 40.00 1.54 0.62 .8701	35
1952 23,147.00 1.58 365.72 .8453	19,566
1953 6,459.00 1.60 103.34 .8400	5,426
1954 55,371.00 1.61 891.47 .8292	45,914
1956 66,254.00 1.64 1,086.57 .8118	53,785
1957 2,382.00 1.65 39.30 .8003	1,906
195832,053.001.67535.29.7933	25,428
1959 132,453.00 1.68 2,225.21 .7812	103,472
1960 105,043.00 1.70 1,785.73 .7735	81,251
1961 57,955.84 1.71 991.04 .7610	44,104
1962 59,102.00 1.72 1,016.55 .7482	44,220
1963 207,360.00 1.74 3,608.06 .7395	153,343
1964 2,317.00 1.75 40.55 .7263	1,683
1965 559,586.50 1.76 9,848.72 .7128	398,873
1966 100,865.69 1.77 1,785.32 .6992	70,525
1967108,922.001.791,949.70.6892	75,069
1968 139,703.00 1.80 2,514.65 .6750	94,300
1969 278,722.87 1.81 5,044.88 .6607	184,152
1970 61,771.17 1.82 1,124.24 .6461	39,910
1971 68,325.00 1.84 1,257.18 .6348	43,373
1972 408,215.00 1.85 7,551.98 .6198	253,012
1973 315,893.00 1.86 5,875.61 .6045	190,957
1974 405,462.00 1.87 7,582.14 .5891	238,858
1975 502,957.00 1.88 9,455.59 .5734	288,396
1976 2,679,088.06 1.90 50,902.67 .5605 1,	,501,629
1977 521,897.54 1.91 9,968.24 .5444	284,121
1978 545,793.13 1.92 10,479.23 .5280	288,179
1979 124,148.00 1.93 2,396.06 .5115	63,502
1980 195,515.00 1.94 3,792.99 .4947	96,721
1981 1,655,675.00 1.95 32,285.66 .4778	791,082
1982 614,433.00 1.96 12,042.89 .4606	283,008
1983 638,770.00 1.97 12,583.77 .4433	283,167
1984 296,026.00 1.98 5,861.31 .4257	126,018
1985 428,113.00 1.99 8,519.45 .4080	174,670

ACCOUNT 353.10 - TRANSMISSION - OVERHEAD CONDUCTORS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVI NET SA	VOR CURVE IOWA 53-F ALVAGE PERCENT35	3			
1986	374,150.00	2.00	7,483.00	.3900	145,919
1987	74,878.55	2.01	1,505.06	.3719	27,847
1988	233,573.00	2.02	4,718.17	.3535	82,568
1989	401,067.00	2.03	8,141.66	.3350	134,357
1990	508,372.37	2.04	10,370.80	.3162	160,747
1991	422,965.00	2.05	8,670.78	.2973	125,747
1992	660,860.78	2.06	13,613.73	.2781	183,785
1993	427,552.00	2.07	8,850.33	.2588	110,650
1994	468,496.00	2.08	9,744.72	.2392	112,064
1995	440,389.00	2.09	9,204.13	.2195	96,665
1996	151,444.00	2.10	3,180.32	.1995	30,213
1997	360,393.00	2.11	7,604.29	.1794	64,655
1998	256,225.69	2.11	5,406.36	.1583	40,561
1999	141,299.88	2.12	2,995.56	.1378	19,471
2000	173,327.00	2.13	3,691.87	.1172	20,314
2001	555,193.44	2.14	11,881.14	.0963	53,465
2002	53,893.00	2.16	1,164.09	.0756	4,074
2003	907,573.00	2.17	19,694.33	.0543	49,281
2004	368,672.00	2.19	8,073.92	.0329	12,129
2005	601,467.00	2.23	13,412.71	.0112	6,736
			375,570.84		7,876,200
NET SZ	ALVAGE ADJUSTMENT		131,449.79		2,756,670
TOTAL	19,030,162.51		507,020.63	1	0,632,870

ACCOUNT 353.20 - TRANSMISSION - UNDERGROUND CABLES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR	CURVE 50-	SQUARE				
NET SALV	AGE PERCENT.	15				
1967	183,288.00	50.00	2.00	3,665.76	.7700	141,132
1980	776,120.00	50.00	2.00	15,522.40	.5100	395,821
1997	6,161.00	50.00	2.00	123.22	.1700	1,047
				19,311.38		538,000
NET SALV	AGE ADJUSTME	NT		2,896.71		80,700
TOTAL	965,569.00			22,208.09		618,700

ACCOUNT 355.10 - TRANSMISSION - POLES

YEAR COST RATE AMOUNT FACTOR AMOUNT (1) (2) (3) (4) (5) (6) SURVIVOR CURVE IOWA 44-R2.5		ORIGINAL	– – ANNUAL	ACCRUAL	-ACCRUED	DEPREC
(1) (2) (3) (4) (5) (6) SURVIVOR CURVE IOWA 44-R2.5 NET SALVAGE PERCENT35 1942 3,115.00- 1.48 46.10- .9398 2,927- 1949 3,494.00- 1.60 55.90- .9040 3,159- 1952 20,640.79- 1.67 344.70- .8935 18,443- 1953 13,394.00 1.69 226.36 .8873 11,884 1955 2,702.00 1.71 611.57 .8807 31,498 1955 2,702.00 1.77 52.37 .8585 2,540 1956 5,283.15 1.75 92.46 .8663 4,577 1957 2,959.00 1.77 72.37 .8585 2,540 1950 11,717.36- 1.81 212.08- .8417 9,863- 1960 221,472.00 1.83 4,052.94 .8327 184,420 1961 52,076.00 1.88 684.06 .8178 29,756 1963 47,628.09 1.90 903.03 .8075 36,379	YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
SURVIVOR CURVE IOWA 44-R2.5 NET SALVAGE PERCENT35 1942 3,115.00- 1.48 46.10	(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR CURVE IOWA 44-R2.5 NET SALVÄGE PERCENT35 1942 3,115.00- 1.48 46.10- .9398 2,927- 1942 3,115.00- 1.60 55.90- .9040 3,159- 1952 20,640.79- 1.67 344.70- .8335 18,443- 1953 13,394.00 1.69 226.36 .8873 11,884 1955 2,702.00 1.73 46.74 .8737 2,361 1956 5,283.15 1.75 92.46 .8663 4,577 1957 2,559.00 1.77 52.37 .8585 2,540 1958 4,005.00- 1.79 71.69- .8503 3,405- 1959 11,717.36- 1.81 4052.94 .8327 184,420 1961 52,076.00 1.85 963.41 .8233 42,874 1962 36,386.00 1.88 684.06 .8178 29,756 1963 47,528.09 1.90 903.03 .8075 38,379 1964 1,664.44 1.92 31.96 .7968						
NET SALVAGE PERCENT35 1942 3,115.00- 1.48 46.10- .9398 2,927- 1949 3,494.00- 1.60 55.90- .9040 3,159- 1952 20,640.79- 1.67 344.70- .8935 18,443- 1953 13,394.00 1.69 226.36 .8873 11,884 1954 35,764.50 1.71 611.57 .8807 31,498 1955 2,702.00 1.73 46.74 .8737 2,361 1956 5,283.15 1.75 92.46 .8663 4,577 1957 2,959.00 1.77 52.37 .8585 2,540 1958 4,005.00- 1.79 71.69- .8503 3,405- 1959 11,717.36- 1.81 212.08- .8417 9,863- 1960 221,472.00 1.83 4,052.94 .8227 184,420 1961 52.076.00 1.88 684.06 .8178 2.9,756 1963 47,528.09 1.90 903.03 .8075 363,379 1964	SURVIV	OR CURVE IOWA 4	4-R2.5			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	NET SA	LVAGE PERCENT	-35			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1942	3,115.00-	1.48	46.10-	.9398	2,927-
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1949	3,494.00-	1.60	55.90-	.9040	3,159-
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1952	20,640.79-	1.67	344.70-	.8935	18,443-
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1953	13,394.00	1.69	226.36	.8873	11,884
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1954	35,764.50	1.71	611.57	.8807	31,498
19565,283.151.7592.46.86634,57719572,959.001.7752.37.85852,54019584,005.00-1.7971.6985033,405-195911,717.36-1.81212.0884179,863-1960221,472.001.834,052.94.8327184,420196152,076.001.85963.41.823342,874196236,386.001.86684.06.817829,756196347,528.091.90903.03.807538,37919641,664.441.9231.96.79681,3261965356,958.451.946,924.99.7857280,462196699,708.211.961,954.28.774277,1941967127,826.001.982,530.95.762397,4421968189,824.772.003,796.50.7500142,369197087,612.642.041,787.30.724263,449197147,591.002.06980.37.710733,8231972273,847.112.085,696.02.6968190,8171973188,489.152.103,958.27.6825128,6441974302,748.002.126,418.26.6678202,1751975475,519.472.189,973.71.6213244,2511978406,655.452.198,905.97.602324,49351979244,928.142.215,412.91 <td>1955</td> <td>2,702.00</td> <td>1.73</td> <td>46.74</td> <td>.8737</td> <td>2,361</td>	1955	2,702.00	1.73	46.74	.8737	2,361
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1956	5,283.15	1.75	92.46	.8663	4,577
1958 $4,005.00 1.79$ $71.69 .8503$ $3,405-$ 1959 $11,717.36 1.81$ $212.08 .8417$ $9,863-$ 1960 $221,472.00$ 1.83 $4,052.94$ $.8327$ $184,420$ 1961 $52,076.00$ 1.85 963.41 $.8233$ $42,874$ 1962 $36,386.00$ 1.88 684.06 $.8178$ $29,756$ 1963 $47,528.09$ 1.90 903.03 $.8075$ $38,379$ 1964 $1.664.44$ 1.92 31.96 $.7968$ 1.326 1965 $356,958.45$ 1.94 $6,924.99$ $.7857$ $280,462$ 1966 $99,708.21$ 1.96 $1.954.28$ $.7742$ $77,194$ 1967 $127,826.00$ 1.98 $2,550.95$ $.7623$ $97,442$ 1968 $189,824.77$ 2.00 $3,796.50$ $.7500$ $142,369$ 1970 $87,612.64$ 2.04 $.787.30$ $.7242$ $63,449$ 1971 $47,591.00$ 2.06 980.37 $.7107$ $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$ $.6968$ $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$ $.6825$ $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$ $.6678$ $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$ $.6527$ $110,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$ $.6372$ $1,48,864$ 1977 $457,509.47$ 2.18 $9,973.71$ </td <td>1957</td> <td>2,959.00</td> <td>1.77</td> <td>52.37</td> <td>.8585</td> <td>2,540</td>	1957	2,959.00	1.77	52.37	.8585	2,540
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1958	4,005.00-	1.79	71.69-	.8503	3,405-
1960221,472.001.834,052.94.8327184,4201961 $52,076.00$ 1.85 963.41 .8233 $42,874$ 1962 $36,386.00$ 1.88 684.06 .8178 $29,756$ 1963 $47,528.09$ 1.90 903.03 .8075 $38,379$ 19641,664.441.92 31.96 .79681,3261965 $356,958.45$ 1.94 $6,924.99$.7857 $280,462$ 1966 $99,708.21$ 1.961,954.28.7742 $77,194$ 1967 $127,826.00$ 1.98 $2,530.95$.7623 $97,442$ 1968 $189,824.77$ 2.00 $3,796.50$.7500 $142,369$ 1969 $202,418.30$ 2.02 $4,088.85$.7373 $149,243$ 1970 $87,612.64$ 2.04 $1,787.30$.7242 $63,449$ 1971 $47,591.00$ 2.06 980.37 .7107 $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$.6968 $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$.6825 $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$.6678 $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$.6527 $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$.6372 $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$.6213 $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$.6023 $244,935$ 1979 <td>1959</td> <td>11,717.36-</td> <td>1.81</td> <td>212.08-</td> <td>.8417</td> <td>9,863-</td>	1959	11,717.36-	1.81	212.08-	.8417	9,863-
1961 $52,076.00$ 1.85 963.41 $.8233$ $42,874$ 1962 $36,386.00$ 1.88 684.06 $.8178$ $29,756$ 1963 $47,528.09$ 1.90 903.03 $.8075$ $38,379$ 1964 $1,664.44$ 1.92 31.96 $.7968$ $1,326$ 1965 $356,958.45$ 1.94 $6,924.99$ $.7857$ $280,462$ 1966 $99,708.21$ 1.96 $1.954.28$ $.7742$ $77,194$ 1967 $127,826.00$ 1.98 $2,530.95$ $.7623$ $97,442$ 1968 $189,824.77$ 2.00 $3,796.50$ $.7500$ $142,369$ 1970 $87,612.64$ 2.04 $1,787.30$ $.7242$ $63,449$ 1971 $47,591.00$ 2.06 980.37 $.7107$ $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$ $.6968$ $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$ $.6825$ $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$ $.6678$ $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$ $.6527$ $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$ $.6372$ $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$ $.6213$ $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$ $.6023$ $244,935$ 1979 $244,928.14$ 2.21 $5,412.91$ $.5857$ $143,454$ 1980 $170,901.01$ 2.23 $3,8$	1960	221,472.00	1.83	4,052.94	.8327	184,420
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1961	52,076.00	1.85	963.41	.8233	42,874
1963 $47,528.09$ 1.90 903.03 $.8075$ $38,379$ 1964 $1,664.44$ 1.92 31.96 $.7968$ $1,326$ 1965 $356,958.45$ 1.94 $6,924.99$ $.7857$ $280,462$ 1966 $99,708.21$ 1.96 $1.954.28$ $.7742$ $77,194$ 1967 $127,826.00$ 1.98 $2,530.955$ $.7623$ $97,442$ 1968 $189,824.77$ 2.00 $3,796.50$ $.7500$ $142,369$ 1969 $202,418.30$ 2.02 $4,088.85$ $.7373$ $149,243$ 1970 $87,612.64$ 2.04 $1,787.30$ $.7242$ $63,449$ 1971 $47,591.00$ 2.06 980.37 $.7107$ $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$ $.6968$ $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$ $.6825$ $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$ $.6678$ $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$ $.6527$ $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$ $.6372$ $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$ $.6213$ $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$ $.6023$ $244,935$ 1979 $244,928.14$ 2.21 $5,412.91$ $.5857$ $143,454$ 1980 $170,901.01$ 2.23 $3,811.09$ $.5687$ $97,191$ 1981 <td>1962</td> <td>36,386.00</td> <td>1.88</td> <td>684.06</td> <td>.8178</td> <td>29,756</td>	1962	36,386.00	1.88	684.06	.8178	29,756
1964 $1,664.44$ 1.92 31.96 $.7968$ $1,326$ 1965 $356,958.45$ 1.94 $6,924.99$ $.7857$ $280,462$ 1966 $99,708.21$ 1.96 $1,954.28$ $.7742$ $77,194$ 1967 $127,826.00$ 1.98 $2,530.95$ $.7623$ $97,442$ 1968 $189,824.77$ 2.00 $3,796.50$ $.7500$ $142,369$ 1969 $202,418.30$ 2.02 $4,088.85$ $.7373$ $149,243$ 1970 $87,612.64$ 2.04 $1,787.30$ $.7242$ $63,449$ 1971 $47,591.00$ 2.06 980.37 $.7107$ $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$ $.6968$ $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$ $.6825$ $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$ $.6678$ $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$ $.6527$ $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$ $.6372$ $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$ $.6213$ $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$ $.6023$ $244,935$ 1979 $244,928.14$ 2.21 $5,412.91$ $.5857$ $143,454$ 1980 $170,901.01$ 2.23 $3,811.09$ $.5687$ $97,191$ 1981 $1,270,973.75$ 2.25 $28,596.91$ $.5513$ $700,688$ 19	1963	47,528.09	1.90	903.03	.8075	38,379
1965 $356,958.45$ 1.94 $6,924.99$ $.7857$ $280,462$ 1966 $99,708.21$ 1.96 $1,954.28$ $.7742$ $77,194$ 1967 $127,826.00$ 1.98 $2,530.95$ $.7623$ $97,442$ 1968 $189,824.77$ 2.00 $3,796.50$ $.7500$ $142,369$ 1969 $202,418.30$ 2.02 $4,088.85$ $.7373$ $149,243$ 1970 $87,612.64$ 2.04 $1,787.30$ $.7242$ $63,449$ 1971 $47,591.00$ 2.06 980.37 $.7107$ $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$ $.6968$ $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$ $.6825$ $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$ $.6678$ $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$ $.6527$ $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$ $.6372$ $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$ $.6213$ $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$ $.6023$ $244,935$ 1979 $244,928.14$ 2.21 $5,412.91$ $.5857$ $143,454$ 1980 $170,901.01$ 2.23 $3,811.09$ $.5687$ $97,191$ 1981 $1,270,973.75$ 2.25 $28,596.91$ $.5513$ $700,688$ 1982 $491,466.32$ 2.27 $11,156.29$ $.5335$ $262,197$ 1985 $448,264.49$ <	1964	1,664.44	1.92	31.96	.7968	1,326
196699,708.211.961,954.28.774277,1941967127,826.001.982,530.95.762397,4421968189,824.772.003,796.50.7500142,3691969202,418.302.024,088.85.7373149,243197087,612.642.041,787.30.724263,449197147,591.002.06980.37.710733,8231972273,847.112.085,696.02.6968190,8171973188,489.152.103,958.27.6825128,6441974302,748.002.126,418.26.6678202,1751975475,316.002.1410,171.76.6527310,23919762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,56.29.5335262,19719831,015,587.372.2923,266.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986 <td>1965</td> <td>356,958.45</td> <td>1.94</td> <td>6,924.99</td> <td>.7857</td> <td>280,462</td>	1965	356,958.45	1.94	6,924.99	.7857	280,462
1967 $127,826.00$ 1.98 $2,530.95$ $.7623$ $97,442$ 1968 $189,824.77$ 2.00 $3,796.50$ $.7500$ $142,369$ 1969 $202,418.30$ 2.02 $4,088.85$ $.7373$ $149,243$ 1970 $87,612.64$ 2.04 $1,787.30$ $.7242$ $63,449$ 1971 $47,591.00$ 2.06 980.37 $.7107$ $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$ $.6968$ $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$ $.6825$ $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$ $.6678$ $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$ $.6527$ $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$ $.6372$ $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$ $.6213$ $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$ $.6023$ $244,935$ 1979 $244,928.14$ 2.21 $5,412.91$ $.5857$ $143,454$ 1980 $170,901.01$ 2.23 $3,811.09$ $.5687$ $97,191$ 1983 $1,015,587.37$ 2.29 $23,256.95$ $.5153$ $523,332$ 1984 $136,816.05$ 2.31 $3,160.45$ $.4967$ $67,957$ 1985 $448,264.49$ 2.33 $10,444.56$ $.4777$ $214,136$ 1986 $104,494.70$ 2.35 $2,455.63$ $.4583$ $47,890$ <td>1966</td> <td>99,708.21</td> <td>1.96</td> <td>1,954.28</td> <td>.7742</td> <td>77,194</td>	1966	99,708.21	1.96	1,954.28	.7742	77,194
1968189,824.772.00 $3,796.50$.7500 $142,369$ 1969202,418.302.02 $4,088.85$.7373 $149,243$ 1970 $87,612.64$ 2.04 $1,787.30$.7242 $63,449$ 1971 $47,591.00$ 2.06 980.37 .7107 $33,823$ 1972273,847.112.08 $5,696.02$.6968 $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$.6825 $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$.6678 $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$.6527 $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$.6372 $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$.6213 $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$.6023 $244,935$ 1979 $244,928.14$ 2.21 $5,412.91$.5857 $143,454$ 1980 $170,901.01$ 2.23 $3,811.09$.5687 $97,191$ 1981 $1,270,973.75$ 2.25 $28,596.91$.5513 $700,688$ 1982 $491,466.32$ 2.27 $11,156.29$.5335 $262,197$ 1983 $1,015,587.37$ 2.29 $23,256.95$.5153 $523,332$ 1984 $136,816.05$ 2.31 $3,160.45$.4967 $67,957$ 1985 $448,264.49$ 2.33 $10,444.56$.4777 $214,136$ 1986 $104,494.70$ 2.35 $2,455.63$.4583 $47,890$ <td>1967</td> <td>127,826.00</td> <td>1.98</td> <td>2,530.95</td> <td>.7623</td> <td>97,442</td>	1967	127,826.00	1.98	2,530.95	.7623	97,442
1969202,418.302.024,088.85.7373149,243197087,612.642.041,787.30.724263,449197147,591.002.06980.37.710733,8231972273,847.112.085,696.02.6968190,8171973188,489.152.103,958.27.6825128,6441974302,748.002.126,418.26.6678202,1751975475,316.002.1410,171.76.6527310,23919762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1968	189,824.77	2.00	3,796.50	.7500	142,369
197087,612.642.041,787.30.724263,449197147,591.002.06980.37.710733,8231972273,847.112.085,696.02.6968190,8171973188,489.152.103,958.27.6825128,6441974302,748.002.126,418.26.6678202,1751975475,316.002.1410,171.76.6527310,23919762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1969	202,418.30	2.02	4,088.85	.7373	149,243
1971 $47, 591.00$ 2.06 980.37 $.7107$ $33,823$ 1972 $273,847.11$ 2.08 $5,696.02$ $.6968$ $190,817$ 1973 $188,489.15$ 2.10 $3,958.27$ $.6825$ $128,644$ 1974 $302,748.00$ 2.12 $6,418.26$ $.6678$ $202,175$ 1975 $475,316.00$ 2.14 $10,171.76$ $.6527$ $310,239$ 1976 $2,116,860.54$ 2.16 $45,724.19$ $.6372$ $1,348,864$ 1977 $457,509.47$ 2.18 $9,973.71$ $.6213$ $284,251$ 1978 $406,665.45$ 2.19 $8,905.97$ $.6023$ $244,935$ 1979 $244,928.14$ 2.21 $5,412.91$ $.5857$ $143,454$ 1980 $170,901.01$ 2.23 $3,811.09$ $.5687$ $97,191$ 1981 $1,270,973.75$ 2.25 $28,596.91$ $.5513$ $700,688$ 1982 $491,466.32$ 2.27 $11,156.29$ $.5335$ $262,197$ 1983 $1,015,587.37$ 2.29 $23,256.95$ $.5153$ $523,332$ 1984 $136,816.05$ 2.31 $3,160.45$ $.4967$ $67,957$ 1985 $448,264.49$ 2.33 $10,444.56$ $.4777$ $214,136$ 1986 $104,494.70$ 2.35 $2,455.63$ $.4583$ $47,890$	1970	87,612.64	2.04	1,787.30	.7242	63,449
1972273,847.112.085,696.02.6968190,8171973188,489.152.103,958.27.6825128,6441974302,748.002.126,418.26.6678202,1751975475,316.002.1410,171.76.6527310,23919762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1971	47,591.00	2.06	980.37	.7107	33,823
1973188,489.152.103,958.27.6825128,6441974302,748.002.126,418.26.6678202,1751975475,316.002.1410,171.76.6527310,23919762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1972	273,847.11	2.08	5,696.02	.6968	190,817
1974302,748.002.126,418.26.6678202,1751975475,316.002.1410,171.76.6527310,23919762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1973	188,489.15	2.10	3,958.27	.6825	128,644
1975475,316.002.1410,171.76.6527310,23919762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1974	302,748.00	2.12	6,418.26	.6678	202,175
19762,116,860.542.1645,724.19.63721,348,8641977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1975	475,316.00	2.14	10,171.76	.6527	310,239
1977457,509.472.189,973.71.6213284,2511978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1976	2,116,860.54	2.16	45,724.19	.6372	1,348,864
1978406,665.452.198,905.97.6023244,9351979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1977	457,509.47	2.18	9,973.71	.6213	284,251
1979244,928.142.215,412.91.5857143,4541980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1978	406,665.45	2.19	8,905.97	.6023	244,935
1980170,901.012.233,811.09.568797,19119811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1979	244,928.14	2.21	5,412.91	.5857	143,454
19811,270,973.752.2528,596.91.5513700,6881982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1980	170,901.01	2.23	3,811.09	.5687	97,191
1982491,466.322.2711,156.29.5335262,19719831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1981	1,270,973.75	2.25	28,596.91	.5513	700,688
19831,015,587.372.2923,256.95.5153523,3321984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1982	491,466.32	2.27	11,156.29	.5335	262,197
1984136,816.052.313,160.45.496767,9571985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1983	1,015,587.37	2.29	23,256.95	.5153	523,332
1985448,264.492.3310,444.56.4777214,1361986104,494.702.352,455.63.458347,890	1984	136,816.05	2.31	3,160.45	.4967	67,957
1986 104,494.70 2.35 2,455.63 .4583 47,890	1985	448,264.49	2.33	10,444.56	.4777	214,136
	1986	104,494.70	2.35	2,455.63	.4583	47,890

ACCOUNT 355.10 - TRANSMISSION - POLES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	AL ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 44-1	R2.5			
NET S	ALVAGE PERCENT35				
1987	169,792,15	2 37	4.024.07	4385	74,454
1988	370,907,01	2 39	8,864,68	4183	155,150
1989	515,526,94	2.41	12,424,20	. 3977	205,025
1990	722.766.27	2.43	17,563.22	.3767	272,266
1991	465,539.71	2.45	11,405.72	.3553	165,406
1992	652,954.87	2.47	16,127.99	.3335	217,760
1993	331,609.00	2.49	8,257.06	.3113	103,230
1994	249,760.15	2.51	6,268.98	.2887	, 72,106
1995	493,677.00	2.53	12,490.03	.2657	131,170
1996	342,283.83	2.56	8,762.47	.2432	83,243
1997	503,665.11	2.58	12,994.56	.2193	110,454
1998	451,236.99	2.61	11,777.29	.1958	88,352
1999	436,089.33	2.63	11,469.15	.1710	74,571
2000	256,106.00	2.67	6,838.03	.1469	37,622
2001	559,651.03	2.70	15,110.58	.1215	67,998
2002	840,014.00	2.74	23,016.38	.0959	80,557
2003	1,395,971.00	2.79	38,947.59	.0698	97,439
2004	520,850.00	2.86	14,896.31	.0429	22,344
2005	797,216.00	3.04	24,235.37	.0152	12,118
			473 614 32		7 993 835
NET S	ALVAGE ADJUSTMENT		165,765,01		2,797,842
11LI D.			100,700.01		2,.5,,012
TOTAL	19,668,680.34		639,379.33	1	0,791,677

ACCOUNT 355.20 - TRANSMISSION - POLE FIXTURES

	ORIGINAL	– – ANNUAI	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 44	-R2.5			
NET SA	LVAGE PERCENT3	5			
1020	262 195 00	1 27	2 220 00	0012	259 079
1021	202,199.00	1 21	5,525.00	. 5045	230,077
1040	3,873.00	1 10	50.70	.9700	2,702
10/0	1 564 00-	1 60	25 02-	.9398	1 111-
1050	1,384.00-	1.60	25.02-	.9040	1,414-
1952	1,743.32-	1.67	29.11-	.8935	1,558-
1953	206.00-	1.69	3.48-	.88/3	183-
1954	26,419.26	1.71	451.77	.8807	23,267
1956	4,496.00	1.75	/8.68	.8663	3,895
1957	47.00	1.77	0.83	.8585	40
1958	585.75-	1.79	10.48-	.8503	498-
1959	7,220.80	1.81	130.70	.8417	6,078
1960	8,393.00	1.83	153.59	.8327	6,989
1961	403.19-	1.85	7.46-	.8233	332-
1962	24,472.00	1.88	460.07	.8178	20,013
1963	101,677.32	1.90	1,931.87	.8075	82,104
1964	3,872.00	1.92	74.34	.7968	3,085
1965	170,256.22	1.94	3,302.97	.7857	133,770
1966	57,937.55	1.96	1,135.58	.7742	44,855
1967	39,720.70	1.98	786.47	.7623	30,279
1968	35,916.76	2.00	718.34	.7500	26,938
1969	144,320.59	2.02	2,915.28	.7373	106,408
1970	53,635.38	2.04	1,094.16	.7242	38,843
1971	85,772.00	2.06	1,766.90	.7107	60,958
1972	299,832.61	2.08	6,236.52	.6968	208,923
1973	263,512.00	2.10	5,533.75	.6825	179,847
1974	403,579.00	2.12	8,555.87	.6678	269,510
1975	617,122.72	2.14	13,206.43	.6527	402,796
1976	1,408,680.10	2.16	30,427.49	.6372	897,611
1977	428,993.32	2.18	9,352.05	.6213	266,534
1978	303,029.92	2.19	6,636.36	.6023	182,515
1979	142,847.24	2.21	3,156.92	.5857	83,666
1980	227,385.97	2.23	5,070.71	.5687	129,314
1981	1,083,603.71	2.25	24,381.08	.5513	, 597,391
1982	956,133.29	2.27	21,704.23	.5335	510,097
1983	716,294.52	2.29	16,403.14	.5153	369,107
1984	493,125.79	2.31	11,391.21	.4967	244,936
1985	519,282.73	2.33	12,099.29	.4777	248.061
	,		_,		,

ACCOUNT 355.20 - TRANSMISSION - POLE FIXTURES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 44-E	R2.5			
NET S.	ALVAGE PERCENT35				
1986	687,580.20	2.35	16,158.13	.4583	315,118
1987	702,224.21	2.37	16,642.71	.4385	307,925
1988	332,671.32	2.39	7,950.84	.4183	139,156
1989	459,397.93	2.41	11,071.49	.3977	182,703
1990	872,017.31	2.43	21,190.02	.3767	328,489
1991	479,738.64	2.45	11,753.60	.3553	170,451
1992	698,707.01	2.47	17,258.06	.3335	233,019
1993	397,870.00	2.49	9,906.96	.3113	123,857
1994	542,616.98	2.51	13,619.69	.2887	156,654
1995	424,817.90	2.53	10,747.89	.2657	112,874
1996	445,867.47	2.56	11,414.21	.2432	108,435
1997	395,739.56	2.58	10,210.08	.2193	86,786
1998	460,421.43	2.61	12,017.00	.1958	90,151
1999	694,265.91	2.63	18,259.19	.1710	118,719
2000	290,627.00	2.67	7,759.74	.1469	42,693
2001	741,753.31	2.70	20,027.34	.1215	90,123
2002	1,080,367.00	2.74	29,602.06	.0959	103,607
2003	778,533.00	2.79	21,721.07	.0698	54,342
2004	530,346.00	2.86	15,167.90	.0429	22,752
2005	774,270.00	3.04	23,537.81	.0152	11,769
			498,471.44	1	8,234,946
NET S.	ALVAGE ADJUSTMENT		174,465.00	:	2,882,231
TOTAL	20,678,571.42		672,936.44	1:	1,117,177

ACCOUNT 355.30 - TRANSMISSION - INSULATORS

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAF	R COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SUR	/IVOR CURVE IOWA	31-S0.5			
NE.I.	SALVAGE PERCENT	-35			
1942	2 593.00-			1.0000	593-
1949	850.00-	1.71	14.54-	.9662	821-
1952	6,187.85-	1.78	110.14-	.9523	5,893-
1953	678.00	1.80	12.20	.9450	641
1954	4,207.40-	1.82	76.57-	.9373	3,944-
1956	5 16.00-	1.87	0.30-	.9257	15-
1957	7 951.00-	1.89	17.97-	.9167	872-
1958	3 263.75-	1.92	5.06-	.9120	241-
1961	9,007.25-	1.99	179.24-	.8856	7,977-
1962	8,992.00	2.02	181.64	.8787	7,901
1963	18,598.00	2.05	381.26	.8713	16,204
1964	4,313.00	2.08	89.71	.8632	3,723
1965	5 53,400.04	2.11	1,126.74	.8546	45,636
1966	5 43,653.00	2.14	934.17	.8453	36,900
1967	15,192.00	2.17	329.67	.8355	12,693
1968	3 12,367.20	2.21	273.32	.8288	10,250
1969	9 5,600.45	2.24	125.45	.8176	4,579
1970	1,261.00	2.28	28.75	.8094	1,021
1971	L 334.00-	2.31	7.72-	.7970	266-
1972	4,299.15-	2.35	101.03-	.7873	3,385-
1973	3 52,114.00	2.39	1,245.52	.7768	40,482
1974	4 24,362.00	2.43	592.00	.7655	18,649
1975	5 160,409.00	2.47	3,962.10	.7534	120,852
1976	5 196,868.73	2.51	4,941.41	.7405	145,781
1977	63,663.42	2.55	1,623.42	.7268	46,271
1978	3 75,562.00	2.59	1,957.06	.7123	53,823
1979	9 19,265.69	2.64	508.61	.6996	13,478
1980	69,164.95	2.69	1,860.54	.6860	47,447
1981	270,046.09	2.74	7,399.26	.6713	181,282
1982	129,390.45	2.79	3,609.99	.6557	84,841
1983	3 235,365.94	2.84	6,684.39	.6390	150,399
1984	4 79,416.76	2.89	2,295.14	.6214	49,350
1985	5 244,031.70	2.95	7,198.94	.6048	147,590
1986	5 243,399.42	3.00	7,301.98	.5850	142,389
1987	185,576.06	3.06	5,678.63	.5661	105,055
1988	3 235,346.94	3.12	7,342.82	.5460	128,499
1989	9 707,186.61	3.19	22,559.25	.5264	372,263

ACCOUNT 355.30 - TRANSMISSION - INSULATORS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

VEND	ORIGINAL	ANNUA	AL ACCRUAL	-ACCRUED	DEPREC
IEAR	(2)	KAIE (2)	AMOON I	FACIOR	AMOUNI
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 31-	S0.5			
NET SA	ALVAGE PERCENT35				
1990	1,696,767.86	3.25	55,144.96	.5038	854,832
1991	1,047,423.87	3.32	34,774.47	.4814	504,230
1992	926,580.57	3.39	31,411.08	.4577	424,096
1993	624,643.47	3.46	21,612.66	.4325	270,158
1994	934,008.97	3.53	32,970.52	.4060	379,208
1995	1,034,857.89	3.61	37,358.37	.3791	392,315
1996	1,039,748.95	3.69	38,366.74	.3506	364,536
1997	1,267,861.92	3.77	47,798.39	.3205	406,350
1998	972,197.36	3.86	37,526.82	.2895	281,451
1999	896,166.20	3.95	35,398.56	.2568	230,135
2000	543,641.00	4.04	21,963.10	.2222	120,797
2001	904,944.09	4.14	37,464.69	.1863	168,591
2002	1,157,395.00	4.25	49,189.29	.1488	172,220
2003	912,872.00	4.36	39,801.22	.1090	99 , 503
2004	660,966.00	4.48	29,611.28	.0672	44,417
2005	593,250.00	4.63	27,467.48	.0232	13,763
			667,591.03	e	5,690,594
NET SA	ALVAGE ADJUSTMENT		233,656.86		2,341,708
TOTAL	18,341,840.20		901,247.89	(9,032,302

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 4.91

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ACCOUNT 360.00 - DISTRIBUTION - LAND AND LAND RIGHTS

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	65-R5			
NET SALVA	AGE PERCENT.	0			
1938	51,674.00	1.38	713.10	.9315	48,134
1941	6,303.00	1.41	88.87	.9095	5,733
1949	7,078.00	1.49	105.46	.8419	5,959
1950	2,464.00	1.50	36.96	.8325	2,051
1951	3,185.00	1.50	47.78	.8175	2,604
1952	5,771.00	1.51	87.14	.8079	4,662
1953	9,255.00	1.52	140.68	.7980	7,385
1954	11,219.00	1.52	170.53	.7828	8,782
1955	24,258.00	1.53	371.15	.7727	18,744
1956	28,769.00	1.53	440.17	.7574	21,790
1957	39,863.00	1.54	613.89	.7469	29,774
1958	63,873.00	1.54	983.64	.7315	46,723
1959	52,138.00	1.54	802.93	.7161	37,336
1960	42,067.00	1.55	652.04	.7053	29,670
1961	35,581.00	1.55	551.51	.6898	24,544
1962	4,874.00	1.55	75.55	.6743	3,287
1963	13,158.00	1.56	205.26	.6630	8,724
1964	6,478.00	1.56	101.06	.6474	4,194
1965	16,464.00	1.56	256.84	.6318	10,402
1966	6,716.00	1.56	104.77	.6162	4,138
1969	321.00	1.57	5.04	.5731	184
1970	24,695.00	1.57	387.71	.5574	13,765
1971	25,786.00	1.57	404.84	.5417	13,968
1972	6,303.00	1.57	98.96	.5260	3,315
1973	6,277.00	1.57	98.55	.5103	3,203
1974	44,125.00	1.57	692.76	.4946	21.824
1975	27.252.00	1.57	427.86	4789	13.051
1976	10.364.00	1.57	162.71	.4632	4,801
1977	34,047,00	1.57	534.54	.4475	15,236
1978	59,606,00	1 57	935 81	4318	25,738
1979	1 966 00	1 57	30.87	4161	818
1980	138 227 00	1 57	2 170 16	4004	55 346
1981	23 506 00	1 57	369 04	3847	9 043
1982	6 318 00	1 57	99 19	3690	2,043
1983	11 006 00	1 57	172 79	.5050	3 800
198/	$11 \ 922 \ 00$	1 57	187 22		3,000 A 000
1005	11,332.00	1 57	LU/.33		4,040
TARP	3,935.00	1.5/	6T.18	.3419	1,26/

ACCOUNT 360.00 - DISTRIBUTION - LAND AND LAND RIGHTS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO NET SAL	R CURVE IOWA 65 VAGE PERCENT 0	5-R5			
1988	21,529.00	1.57	338.01	.2748	5,916
1989	17,216.00	1.57	270.29	.2591	4,461
TOTAL	905,599.00		13,997.57		526,819

ACCOUNT 361.10 - O/H CONDUCTOR - BARE COPPER

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

		ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
	YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
	(1)	(2)	(3)	(4)	(5)	(6)
	SURVIVOR	CURVE IOWA	45-R1.5			
	NET SALV	AGE PERCENT	-45			
	1962	49,209.50	1.75	861.17	.7613	37,463
	1963	57,670.00	1.77	1,020.76	.7523	43,385
	1964	61,419.00	1.79	1,099.40	.7429	45,628
	1965	137,417.00	1.81	2,487.25	.7331	100,740
	1966	84,493.00	1.83	1,546.22	.7229	61,080
	1967	102,796.97	1.85	1,901.74	.7123	73,222
	1968	96,160.43	1.87	1,798.20	.7013	67,437
	1969	30,851.07	1.89	583.09	.6899	21,284
	1970	18,479.41	1.90	351.11	.6745	12,464
	1971	27,597.34	1.92	529.87	.6624	18,280
	1972	19,500.45	1.94	378.31	.6499	12,673
	1973	22,029.77	1.97	433.99	.6403	14,106
	1974	4,295.71-	1.99	85.48-	.6269	2,693-
	1975	69,002.56	2.01	1,386.95	.6131	42,305
	1976	61,231.16	2.03	1,242.99	.5989	36,671
	1977	31,264.88	2.05	640.93	.5843	18,268
	1978	13,913.07	2.07	288.00	.5693	7,921
	1979	26,727.93	2.09	558.61	.5539	14,805
	1980	10,138.00-	2.12	214.93-	.5406	5,481-
	1981	7,143.00-	2.14	152.86-	.5243	3,745-
	1982	1,399.09	2.16	30.22	.5076	710
	1983	25,856.00	2.19	566.25	.4928	12,742
	1984	27,219.30	2.21	601.55	.4752	12,935
	1985	7,253.87	2.24	162.49	.4592	3,331
	1986	37,109.00-	2.26	838.66-	.4407	16,354-
	1987	19,491.00-	2.29	446.34-	.4237	8,258-
	1988	11,751.61-	2.32	272.64-	.4060	4,771-
	1989	2,261.00-	2.35	53.13-	.3878	877-
	1991	3,052.20-	2.41	73.56-	.3495	1,067-
	1992	36,772.60	2.45	900.93	.3308	12,164
	1993	20,776.07-	2.48	515.25-	.3100	6,441-
				16,717.18		619,927
	NET SALV	AGE ADJUSTMENT	Г	7,522.73		278,967
Т	OTAL	892,246.81		24,239.91		898,894

ACCOUNT 361.11 - O/H CONDUCTOR - W/P COPPER

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUEI FACTOR (5)	D DEPREC AMOUNT (6)
SURVIV NET SA	OR CURVE IOWA 39- LVAGE PERCENT45	S1.5			
1958	30,552.10	1.82	556.05	.8645	26,412
1959	180,483.00	1.84	3,320.89	.8556	154,421
1960	181,362.00	1.87	3,391.47	.8509	154,321
1961	101,492.00	1.89	1,918.20	.8411	85,365
1962	214,459.00	1.92	4,117.61	.8352	179,116
1963	122,599.00	1.94	2,378.42	.8245	101,083
1964	157,907.00	1.97	3,110.77	.8176	129,105
1965	232,729.00	2.00	4,654.58	.8100	188,510
1966	109,964.00	2.02	2,221.27	.7979	87,740
1967	122,167.55	2.05	2,504.43	.7893	96,427
1968	100,569.40	2.08	2,091.84	.7800	78,444
1969	38,542.12	2.11	813.24	.7702	29,685
1970	4,986.99	2.14	106.72	.7597	3,789
1971	42,541.24	2.17	923.14	.7487	31,851
1972	24,455.67	2.20	538.02	.7370	18,024
1973	45,202.17	2.23	1,008.01	.7248	32,763
1974	20,780.19	2.26	469.63	.7119	14,793
1975	54,541.09	2.30	1,254.45	.7015	38,261
1976	38,059.31	2.33	886.78	.6874	26,162
1977	2,101.19	2.36	49.59	.6726	1,413
1978	55,026.78	2.39	1,315.14	.6573	36,169
1979	9,243.33	2.43	224.61	.6440	5,953
1980	9,464.56	2.46	232.83	.6273	5,937
1981	13,060.61	2.49	325.21	.6101	7,968
1002	1,045.00-	2.53	26.44-	.5946	621- 2 014
1005	5,059.86-	2.50	129.53-	.5760	2,914-
1006	2 597 00-	2.65	170.05- 05.69-	.5592	3,303-
1007	2 212 94-	2.00	95.00- 62.24-	.5107	1 152-
1988	5 536 03	2.05	150 58	.4077	1, 102 - 2
1989	2 027 00-	2.72	55 74-	4538	920-
1990	1 973 00-	2.75	55 05-	4325	853-
1991	8 268 65-	2.75	233 18-	4089	3 381-
1992	3 619 54	2.82	102 79	3834	1 388
1993	10,259.93-	2.87	294.46-	.3588	3,681-
			37,543.10		1,518,844
NET SA	LVAGE ADJUSTMENT		16,894.40		683,480
TOTAL	1,880,404.29		54,437.50		2,202,324

ACCOUNT 361.12 - O/H CONDUCTOR - BARE ALUMINUM

ORIGINAL	ANNUAL	ACCRUAL	-ACCRUEI) DEPREC
YEAR COST	RATE	AMOUNT	FACTOR	AMOUNT
(1) (2)	(3)	(4)	(5)	(6)
SURVIVOR CURVE IOWA 50-R2	2.5			
NET SALVAGE PERCENT30				
1962 1.26-	1.75	0.02-	.7613	1-
1963 122,171.58	1.76	2,150.22	.7480	91,384
1964 129,403.00	1.78	2,303.37	.7387	95,590
1965 886,725.00	1.79	15,872.38	.7250	642,876
1966 627,488.00	1.81	11,357.53	.7150	448,654
1967 173,451.36	1.82	3,156.81	.7007	121,537
1968 161,880.55	1.84	2,978.60	.6900	111,698
1969 366,078.89	1.85	6,772.46	.6753	247,213
1970 214,895.69	1.87	4,018.55	.6639	142,669
1971 493,576.29	1.88	9,279.23	.6486	320,134
1972 493,585.99	1.90	9,378.13	.6365	314,167
1973 774,543.14	1.91	14,793.77	.6208	480,836
1974 969,213.74	1.93	18,705.83	.6080	589,282
1975 1,612,039.71	1.94	31,273.57	.5917	953,844
1976 1,490,570.06	1.96	29,215.17	.5782	861,848
1977 1,995,356.47	1.97	39,308.52	.5615	1,120,393
1978 1,771,758.03	1.99	35,257.98	.5473	969,683
1979 1,758,670.09	2.00	35,173.40	.5300	932,095
1980 2,546,133.33	2.02	51,431.89	.5151	1,311,513
1981 2,348,200.51	2.03	47,668.47	.4974	1,167,995
1982 2,217,958.77	2.05	45,468.15	.4818	1,068,613
1983 2,092,139.61	2.06	43,098.08	.4635	969,707
1984 2,609,884.38	2.08	54,285.60	.4472	1,167,140
1985 2,133,134.65	2.09	44,582.51	.4285	914,048
1986 2,191,072.61	2.11	46,231.63	.4115	901,626
1987 2,446,698.96	2.12	51,870.02	.3922	959,595
1988 2,726,876.73	2.14	58,355.16	.3745	1,021,215
1989 3,030,858.54	2.15	65,163.46	.3548	1,075,349
1990 3,750,546.41	2.17	81,386.86	.3364	1,261,684
1991 3,084,577.01	2.19	67,552.24	.3176	979,662
1992 3,450,624.17	2.20	75,913.73	.2970	1,024,835
1993 2,802,181.34	2.22	62,208.43	.2775	777,605
1994 2,571,240.10	2.24	57,595.78	.2576	662,351
1995 2,005,613.35	2.26	45,326.86	.2373	475,932
1996 1,831,540.70	2.27	41,575.97	.2157	395,063
1997 2,166,372.23	2.29	49,609.92	.1947	421,793
1998 2,150,429.42	2.32	49,889.96	.1740	374,175

ACCOUNT 361.12 - O/H CONDUCTOR - BARE ALUMINUM

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEARCOSTRATEAMOUNTFACTORAMOUNT(1)(2)(3)(4)(5)(6)SURVIVOR CURVEIOWA 50-R2.5SURVIVOR CURVEIOWA 50-R2.5(6)NET SALVAGE PERCENT30-301521475,49120002,896,369.092.3668,354.31.1298375,94920013,290,954.272.3978,653.81.1076354,10720022,429,904.332.4359,046.68.0851206,78520033,812,123.102.4794,159.44.0618235,58920043,602,541.122.5491,504.54.0381137,25720053,693,798.002.6999,363.17.013549,866TOTAL85,049,355.912,436,778.1235,371,501		ORIGINAL	ANNUA	L ACCRUAL	-ACCRUED	DEPREC
(1)(2)(3)(4)(5)(6)SURVIVOR CURVE IOWA 50-R2.5 NET SALVAGE PERCENT3019993,126,176.852.3473,152.54.1521475,49120002,896,369.092.3668,354.31.1298375,94920013,290,954.272.3978,653.81.1076354,10720022,429,904.332.4359,046.68.0851206,78520033,812,123.102.4794,159.44.0618235,58920043,602,541.122.5491,504.54.0381137,25720053,693,798.002.6999,363.17.013549,866I,874,444.7127,208,847NET SALVAGE ADJUSTMENT562,333.418,162,654TOTAL 85,049,355.912,436,778.1235,371,501	YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
SURVIVOR CURVE IOWA 50-R2.5 NET SALVAGE PERCENT 30 1999 3,126,176.85 2.34 73,152.54 .1521 475,491 2000 2,896,369.09 2.36 68,354.31 .1298 375,949 2001 3,290,954.27 2.39 78,653.81 .1076 354,107 2002 2,429,904.33 2.43 59,046.68 .0851 206,785 2003 3,812,123.10 2.47 94,159.44 .0618 235,589 2004 3,602,541.12 2.54 91,504.54 .0381 137,257 2005 3,693,798.00 2.69 99,363.17 .0135 49,866 NET SALVAGE ADJUSTMENT 1,874,444.71 27,208,847 562,333.41 8,162,654 TOTAL 85,049,355.91 2,436,778.12 35,371,501	(1)	(2)	(3)	(4)	(5)	(6)
19993,126,176.852.3473,152.54.1521475,49120002,896,369.092.3668,354.31.1298375,94920013,290,954.272.3978,653.81.1076354,10720022,429,904.332.4359,046.68.0851206,78520033,812,123.102.4794,159.44.0618235,58920043,602,541.122.5491,504.54.0381137,25720053,693,798.002.6999,363.17.013549,866NET SALVAGE ADJUSTMENT1,874,444.7127,208,847TOTAL85,049,355.912,436,778.1235,371,501	SURVI NET S	IVOR CURVE IOWA 50 SALVAGE PERCENT3	-R2.5 0			
2000 2,896,369.09 2.36 68,354.31 .1298 375,949 2001 3,290,954.27 2.39 78,653.81 .1076 354,107 2002 2,429,904.33 2.43 59,046.68 .0851 206,785 2003 3,812,123.10 2.47 94,159.44 .0618 235,589 2004 3,602,541.12 2.54 91,504.54 .0381 137,257 2005 3,693,798.00 2.69 99,363.17 .0135 49,866 NET SALVAGE ADJUSTMENT TOTAL 85,049,355.91 2,436,778.12 35,371,501	1999	3,126,176.85	2.34	73,152.54	.1521	475,491
2001 3,290,954.27 2.39 78,653.81 .1076 354,107 2002 2,429,904.33 2.43 59,046.68 .0851 206,785 2003 3,812,123.10 2.47 94,159.44 .0618 235,585 2004 3,602,541.12 2.54 91,504.54 .0381 137,257 2005 3,693,798.00 2.69 99,363.17 .0135 49,866 NET SALVAGE ADJUSTMENT TOTAL 85,049,355.91 2,436,778.12 35,371,501	2000	2,896,369.09	2.36	68,354.31	.1298	375,949
2002 2,429,904.33 2.43 59,046.68 .0851 206,785 2003 3,812,123.10 2.47 94,159.44 .0618 235,589 2004 3,602,541.12 2.54 91,504.54 .0381 137,257 2005 3,693,798.00 2.69 99,363.17 .0135 49,866 NET SALVAGE ADJUSTMENT TOTAL 85,049,355.91 2,436,778.12 35,371,501	2001	3,290,954.27	2.39	78,653.81	.1076	354,107
2003 3,812,123.10 2.47 94,159.44 .0618 235,589 2004 3,602,541.12 2.54 91,504.54 .0381 137,257 2005 3,693,798.00 2.69 99,363.17 .0135 49,866 NET SALVAGE ADJUSTMENT 1,874,444.71 27,208,847 TOTAL 85,049,355.91 2,436,778.12 35,371,501	2002	2,429,904.33	2.43	59,046.68	.0851	206,785
2004 3,602,541.12 2.54 91,504.54 .0381 137,257 2005 3,693,798.00 2.69 99,363.17 .0135 49,866 NET SALVAGE ADJUSTMENT 1,874,444.71 27,208,847 8,162,654 TOTAL 85,049,355.91 2,436,778.12 35,371,501	2003	3,812,123.10	2.47	94,159.44	.0618	235,589
2005 3,693,798.00 2.69 99,363.17 .0135 49,866 NET SALVAGE ADJUSTMENT 1,874,444.71 27,208,847 TOTAL 85,049,355.91 2,436,778.12 35,371,501	2004	3,602,541.12	2.54	91,504.54	.0381	137,257
NET SALVAGE ADJUSTMENT1,874,444.71 562,333.4127,208,847 8,162,654TOTAL 85,049,355.912,436,778.1235,371,501	2005	3,693,798.00	2.69	99,363.17	.0135	49,866
NET SALVAGE ADJUSTMENT 562,333.41 8,162,654 TOTAL 85,049,355.91 2,436,778.12 35,371,501			1	,874,444.71	2	7,208,847
TOTAL 85,049,355.91 2,436,778.12 35,371,501	NET S	SALVAGE ADJUSTMENT		562,333.41		8,162,654
	TOTAL	85,049,355.91	2	,436,778.12	3	5,371,501

ACCOUNT 361.13 - O/H CONDUCTOR - W/P ALUMINUM

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVI NET SZ	VOR CURVE IOWA 31 ALVAGE PERCENT3	-R1.5 0			
1974	0.13	2.48		.7812	
1975	1.81	2.52	0.05	.7686	1
1976	585,642.00	2.56	14,992.44	.7552	442,277
1977	647,721.52	2.60	16,840.76	.7410	479,962
1978	686,965.08	2.64	18,135.88	.7260	498,737
1979	982,312.61	2.68	26,325.98	.7102	697,638
1980	859,221.19	2.72	23,370.82	.6936	595,956
1981	1,015,925.23	2.76	28,039.54	.6762	686,969
1982	640,070.00	2.81	17,985.97	.6604	422,702
1983	565,408.15	2.85	16,114.13	.6413	362,596
1984	546,243.26	2.89	15,786.43	.6214	339,436
1985	538,454.77	2.94	15,830.57	.6027	324,527
1986	526,436.19	2.98	15,687.80	.5811	305,912
1987	490,439.96	3.03	14,860.33	.5606	274,941
1988	624,588.70	3.08	19,237.33	.5390	336,653
1989	831,293.04	3.12	25,936.34	.5148	427,950
1990	1,097,569.41	3.18	34,902.71	.4929	540,992
1991	844,619.02	3.23	27,281.19	.4684	395,620
1992	1,139,944.02	3.28	37,390.16	.4428	504,767
1993	959,089.10	3.34	32,033.58	.4175	400,420
1994	899,481.40	3.40	30,582.37	.3910	351,697
1995	699,876.61	3.47	24,285.72	.3644	255,035
1996	715,763.42	3.54	25,338.03	.3363	240,711
1997	646,082.93	3.62	23,388.20	.3077	198,800
1998	629,301.68	3.70	23,284.16	.2775	174,631
1999	573,867.11	3.80	21,806.95	.2470	141,745
2000	374,714.36	3.90	14,613.86	.2145	80,376
2001	641,500.88	4.03	25,852.49	.1814	116,368
2002	642,758.20	4.19	26,931.57	.1467	94,293
2003	927,617.16	4.39	40,722.39	.1098	101,852
2004	983,802.19	4.71	46,337.08	.0707	69,555
2005	1,062,762.00	5.47	58,133.08	.0274	29,120
			762,027.91		9,892,239
NET SZ	ALVAGE ADJUSTMENT		228,608.37		2,967,672
TOTAL	22,379,473.13		990,636.28	1	2,859,911

ACCOUNT 361.14 - O/H CONDUCTOR - AERIAL CABLE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

		ORIGINA	Г -	ANNUAL	ACCRUAL		-ACCRUED	DEPREC
	YEAR	COST		RATE	AMOUN	Т	FACTOR	AMOUNT
	(1)	(2)		(3)	(4)		(5)	(6)
	SURVIVOR	CURVE	IOWA 25-R1					
	NET SALVA	AGE PERCE	NT45					
	1967	4,263.	00	2.38	101.	46	.9163	3,906
	1969	15,725.	00	2.46	386.	84	.8979	14,119
	1970	55.	00	2.50	1.	38	.8875	49
	1971	10,255.	00	2.54	260.	48	.8763	8,986
	1972	10,305.	87-	2.59	266.	92-	.8677	8,942-
	1973	4,618.	00	2.63	121.	45	.8548	3,947
	1974	752.	00	2.68	20.	15	.8442	635
	1975	398.	00	2.73	10.	87	.8327	331
	1976	30,034.	00	2.78	834.	95	.8201	24,631
	1977	23,553.	00	2.83	666.	55	.8066	18,998
	1978	9,476.	00	2.88	272.	91	.7920	7,505
	1979	265.	00	2.93	7.	76	.7765	206
	1981	14,897.	00	3.04	452.	87	.7448	11,095
	1982	7,182.	00	3.10	222.	64	.7285	5,232
	1983	48,964.	00	3.15	1,542.	37	.7088	34,706
	1985	6,323.	00	3.28	207.	39	.6724	4,252
	1987	170,286.	00	3.41	5,806.	75	.6309	107,433
	1988	2,787.	00	3.47	96.	71	.6073	1,693
	1989	104,682.	00	3.55	3,716.	21	.5858	61,323
	1990	3,192.	00	3.62	115.	55	.5611	1,791
	1991	26,303.	00	3.70	973.	21	.5365	14,112
	1995	65,841.	00	4.06	2,673.	14	.4263	28,068
	1998	13,978.	00	4.42	617.	83	.3315	4,634
	1999	89,320.	00	4.57	4,081.	92	.2971	26,537
	2000	55,223.	00	4.75	2,623.	09	.2613	14,430
					25,547.	56		389,677
	NET SALVA	AGE ADJUS	TMENT		11,496.	40		175,355
]	TOTAL	698,066.	13		37,043.	96		565,032

ACCOUNT 361.15 - O/H CONDUCTOR - DUPLEX, TRIPLEX, QUADRUPLEX

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	39-S1.5			
NET SALVA	AGE PERCENT	-30			
1966	19 667 00	2 0 2	277 07	7070	1/ 00/
1067	14 057 00	2.02	206 62	. 7002	11 006
1069	19 57.00	2.05	407 14	.7095	15 260
1960	16 175 00	2.00	241 20	.7800	10,200
1969	10,175.00	2.11	341.29	.7702	14,450
1970	19,620.00	2.14	419.87	. 7597	14,905
1971	15,087.00	2.17	327.39	. /48 /	11,296
1972	27,612.00	2.20	607.46	. 7370	20,350
1973	27,336.00	2.23	609.59	.7248	19,813
1974	23,029.00	2.26	520.46	.7119	16,394
1975	31,459.00	2.30	723.56	.7015	22,068
1976	30,055.00	2.33	700.28	.6874	20,660
1977	27,591.00	2.36	651.15	.6726	18,558
1978	44,880.00	2.39	1,072.63	.6573	29,500
1979	48,020.00	2.43	1,166.89	.6440	30,925
1980	41,804.00	2.46	1,028.38	.6273	26,224
1981	55,228.00	2.49	1,375.18	.6101	33,695
1982	62,320.00	2.53	1,576.70	.5946	37,055
1983	68,089.00	2.56	1,743.08	.5760	39,219
1984	84,937.00	2.59	2,199.87	.5569	47,301
1985	61,877.00	2.63	1,627.37	.5392	33,364
1986	103,642.00	2.66	2,756.88	.5187	53,759
1987	109,958.00	2.69	2,957.87	.4977	54,726
1988	78,735.00	2.72	2,141.59	.4760	37,478
1989	93,468.00	2.75	2,570.37	.4538	42,416
1990	71,998.00	2.79	2,008.74	.4325	31,139
1991	80,732.00	2.82	2,276.64	.4089	33,011
1992	68,618.00	2.84	1,948.75	.3834	26,308
1993	, 93,883.00	2.87	2,694.44	.3588	, 33,685
1994	, 65,564.00	2.90	, 1,901.36	.3335	, 21,866
1995	, 70,487,00	2.93	, 2,065,27	.3077	21.689
1996	34,083,00	2.95	1,005.45	.2803	9.553
1997	65,395,00	2 97	1,942,23	2525	16,512
1998	59,147,00	3 00	1,774 41	2250	13,308
1999	92,753 00	3 02	2,801 14	1963	18 207
2000	133,476 00	2.02	4,044 32	1667	22 250
2001	162 951 00	3 05	4 970 01	1373	22,250
2002	187 023 00	3.05	5 722 QA	1071	20 030
2002	101,023.00	5.00	5,122.30		20,030

ACCOUNT 361.15 - O/H CONDUCTOR - DUPLEX, TRIPLEX, QUADRUPLEX

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	DR CURVE IOWA 39	-S1.5			
NET SAI	LVAGE PERCENT3	0			
2003	156,593.00	3.07	4,807.41	.0768	12,026
2004	173,267.95	3.08	5,336.65	.0462	8,005
2005	217,035.00	3.09	6,706.38	.0155	3,364
			80,214.79		977,458
NET SAI	LVAGE ADJUSTMENT		24,064.44		293,237
TOTAL	2,857,125.95		104,279.23		1,270,695

ACCOUNT 361.20 - DISTRIBUTION - UNDERGROUND CABLE

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	OR CURVE IOWA 4	0-R3			
NET SAI	LVAGE PERCENT C				
1966	149,962.00	2.12	3,179.19	.8374	125,578
1967	208,895.00	2.14	4,470.35	.8239	172,109
1968	132,244.00	2.17	2,869.69	.8138	107,620
1969	99,036.00	2.19	2,168.89	.7994	79,169
1970	117,745.00	2.22	2,613.94	.7881	92,795
1971	106,663.00	2.24	2,389.25	.7728	82,429
1972	146,270.00	2.27	3,320.33	.7605	111,238
1973	98,027.00	2.29	2,244.82	.7443	72,961
1974	264,780.00	2.31	6,116.42	.7277	192,680
1975	260,967.00	2.34	6,106.63	.7137	186,252
1976	242,548.00	2.36	5,724.13	.6962	168,862
1977	302,581.00	2.38	7,201.43	.6783	205,241
1978	500,618.00	2.40	12,014.83	.6600	330,408
1979	107,402.00	2.42	2,599.13	.6413	68,877
1980	655,606.00	2.44	15,996.79	.6222	407,918
1981	470,883.00	2.47	11,630.81	.6052	284,978
1982	306,894.00	2.49	7,641.66	.5852	179,594
1983	315,848.00	2.51	7,927.78	.5648	178,391
1984	447,265.00	2.53	11,315.80	.5440	243,312
1985	391,392.00	2.55	9,980.50	.5228	204,620
1986	1,284,106.00	2.57	33,001.52	.5012	643,594
1987	704,228.00	2.58	18,169.08	.4773	336,128
1988	829,335.00	2.60	21,562.71	.4550	377,347
1989	1,173,790.00	2.62	30,753.30	.4323	507,429
1990	747,039.00	2.64	19,721.83	.4092	305,688
1991	1,052,181.00	2.66	27,988.01	.3857	405,826
1992	860,797.00	2.67	22,983.28	.3605	310,317
1993	609,181.00	2.69	16,386.97	.3363	204,868
1994	410,062.00	2.71	11,112.68	.3117	127,816
1995	489,128.00	2.72	13,304.28	.2856	139,695
1996	307,501.00	2.74	8,425.53	.2603	80,043
1997	291,813.00	2.76	8,054.04	.2346	68,459
1998	261,543.00	2.77	7,244.74	.2078	54,349
1999	233,208.00	2.79	6,506.50	.1814	42,304
2000	242,855.00	2.80	6,799.94	.1540	37,400
2001	344,594.00	2.82	9,717.55	.1269	43,729
2002	481,256.00	2.84	13,667.67	.0994	47,837
	•		•		•

ACCOUNT 361.20 - DISTRIBUTION - UNDERGROUND CABLE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	AL ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVI NET S	VOR CURVE IOWA 40 ALVAGE PERCENT 0	-R3			
2003 2004 2005	624,851.00 607,036.26 724,555.00	2.86 2.89 2.95	17,870.74 17,543.35 21,374.37	.0715 .0434 .0148	44,677 26,345 10,723
TOTAL	17,604,685.26		459,700.46		7,309,606

ACCOUNT 361.30 - DISTRIBUTION - SPECIAL INSUL. COPPER CABLE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUAI	L ACCRUAL	-ACCRUED	DEPREC
YE	AR COST	RATE	AMOUNT	FACTOR	AMOUNT
(]	1) (2)	(3)	(4)	(5)	(6)
SUI NET	RVIVOR CURVE IOWA 25- I SALVAGE PERCENT45	R1			
19'	11,698.00	2.83	331.05	.8066	9,436
19'	78 9,008.00	2.88	259.43	.7920	7,134
198	32 44,266.00	3.10	1,372.25	.7285	32,248
198	33 36,950.00	3.15	1,163.93	.7088	26,190
198	154.00	3.21	4.94	.6902	106
			3,131.60		75,114
NE	I SALVAGE ADJUSTMENT		1,409.22		33,801
TOT	AL 102,076.00		4,540.82		108,915

ACCOUNT 361.40 - DISTRIBUTION - SUBMARINE CABLE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR	ORIGINAL COST	– – ANNUA RATE	L ACCRUAL AMOUNT	-ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV NET SA	OR CURVE IOWA 40 LVAGE PERCENT 0)-R3			
1965	23,650.00	2.09	494.29	.8465	20,020
1988	1,951,898.00	2.60	50,749.35	.4550	888,114
1990	1,472,083.00	2.64	38,862.99	.4092	602,376
TOTAL	3,447,631.00		90,106.63	:	1,510,510

ACCOUNT 362.10 - DISTRIBUTION - POLES (UNDER 35')

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUE	D DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 45-	R1.5			
NET SA	LVAGE PERCENT10)			
1961	52,042.32-	1.73	900.33-	.7699	40,067-
1962	396,798.00	1.75	6,943.97	.7613	302,082
1963	345,556.67	1.77	6,116.35	.7523	259,962
1964	354,600.33	1.79	6,347.35	.7429	263,433
1965	634,031.40	1.81	11,475.97	.7331	464,808
1966	801,642.57	1.83	14,670.06	.7229	579,507
1967	307,590.99	1.85	5,690.43	.7123	219,097
1968	222,905.09	1.87	4,168.33	.7013	156,323
1969	362,463.31	1.89	6,850.56	.6899	250,063
1970	306,773.04	1.90	5,828.69	.6745	206,918
1971	533,776.23	1.92	10,248.50	.6624	353,573
1972	450,565.81	1.94	8,740.98	.6499	292,823
1973	758,812.77	1.97	14,948.61	.6403	485,868
1974	863,453.14	1.99	17,182.72	.6269	541,299
1975	1,039,136.70	2.01	20,886.65	.6131	637,095
1976	1,964,404.98	2.03	39,877.42	.5989	1,176,482
1977	1,193,307.18	2.05	24,462.80	.5843	697,249
1978	1,140,321.11	2.07	23,604.65	.5693	649,185
1979	1,461,976.63	2.09	30,555.31	.5539	809,789
1980	1,100,349.84	2.12	23,327.42	.5406	594,849
1981	2,049,094.12	2.14	43,850.61	.5243	1,074,340
1982	1,471,264.86	2.16	31,779.32	.5076	746,814
1983	1,775,194.35	2.19	38,876.76	.4928	874,816
1984	2,019,490.44	2.21	44,630.74	.4752	959,662
1985	1,829,267.87	2.24	40,975.60	.4592	840,000
1986	2,135,127.06	2.26	48,253.87	.4407	940,950
1987	2,241,700.23	2.29	51,334.94	.4237	949,808
1988	2,325,285.91	2.32	53,946.63	.4060	944,066
1989	2,548,156.94	2.35	59,881.69	.3878	988,175
1990	3,066,279.59	2.38	72,977.45	.3689	1,131,151
1991	2,712,894.63	2.41	65,380.76	.3495	948,157
1992	3,310,174.52	2.45	81,099.28	.3308	1,095,006
1993	3,480,536.92	2.48	86,317.32	.3100	1,078,966
1994	2,557,917.78	2.52	64,459.53	.2898	741,285
1995	3,476,260.21	2.57		.2699	938,243
1996	2,887,321.61	2.61	75,359.09	.2480	716,056
1997	1,827,899.13	2.66	48,622.12	.2261	413,288
					,

ACCOUNT 362.10 - DISTRIBUTION - POLES (UNDER 35')

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI NET S	VOR CURVE IOWA 45- ALVAGE PERCENT1(-R1.5)			
1998	1,619,421.99	2.72	44,048.28	.2040	330,362
1999	2,137,037.38	2.78	59,409.64	.1807	386,163
2000	2,055,965.04	2.85	58,595.00	.1568	322,375
2001	2,248,566.65	2.93	65,883.00	.1319	296,586
2002	1,676,405.56	3.04	50,962.73	.1064	178,370
2003	2,097,205.76	3.18	66,691.14	.0795	166,728
2004	2,391,702.11	3.39	81,078.70	.0509	121,738
2005	1,767,982.00	3.91	69,128.10	.0196	34,652
		1	,773,908.63	2	6,118,095
NET S	ALVAGE ADJUSTMENT		177,390.86		2,611,810
TOTAL	71,894,576.13	1	,951,299.49	2	8,729,905

ACCOUNT 362.20 - DISTRIBUTION - POLES (35' & OVER)

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUEI	D DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA	45-R1.5			
NET SA	ALVAGE PERCENT	-10			
1963	103,188.84-	1.77	1,826.44-	.7523	77,629-
1964	903,243.70	1.79	16,168.06	.7429	671,020
1965	2,268,125.97	1.81	41,053.08	.7331	1,662,763
1966	1,819,562.93	1.83	33,298.00	.7229	1,315,362
1967	679,793.87	1.85	12,576.19	.7123	484,217
1968	605,304.22	1.87	11,319.19	.7013	424,500
1969	1,220,679.06	1.89	23,070.83	.6899	842,146
1970	925,506.38	1.90	17,584.62	.6745	624,254
1971	1,373,947.37	1.92	26,379.79	.6624	910,103
1972	1,214,038.55	1.94	23,552.35	.6499	789,004
1973	1,639,875.00	1.97	32,305.54	.6403	1,050,012
1974	2,242,459.41	1.99	44,624.94	.6269	1,405,798
1975	3,697,580.42	2.01	74,321.37	.6131	2,266,987
1976	2,461,692.59	2.03	49,972.36	.5989	1,474,308
1977	3,737,761.80	2.05	76,624.12	.5843	2,183,974
1978	4,012,736.83	2.07	83,063.65	.5693	2,284,451
1979	4,168,145.73	2.09	87,114.25	.5539	2,308,736
1980	6,094,069.78	2.12	129,194.28	.5406	3,294,454
1981	4,691,383.57	2.14	100,395.61	.5243	2,459,692
1982	5,286,245.15	2.16	114,182.90	.5076	2,683,298
1983	5,380,829.04	2.19	117,840.16	.4928	2,651,673
1984	7,405,038.57	2.21	163,651.35	.4752	3,518,874
1985	6,696,901.67	2.24	150,010.60	.4592	3,075,217
1986	7,559,149.47	2.26	170,836.78	.4407	3,331,317
1987	8,641,915.59	2.29	197,899.87	.4237	3,661,580
1988	7,787,046.64	2.32	180,659.48	.4060	3,161,541
1989	9,948,658.14	2.35	233,793.47	.3878	3,858,090
1990	12,852,898.83	2.38	305,898.99	.3689	4,741,434
1991	11,532,931.50	2.41	277,943.65	.3495	4,030,760
1992	11,770,290.33	2.45	288,372.11	.3308	3,893,612
1993	10,446,892.73	2.48	259,082.94	.3100	3,238,537
1994	10,894,461.71	2.52	274,540.44	.2898	3,157,215
1995	10,346,190.11	2.57	265,897.09	.2699	2,792,437
1996	9,318,497.38	2.61	243,212.78	.2480	2,310,987
1997	7,590,080.59	2.66	201,896.14	.2261	1,716,117
1998	9,110,101.83	2.72	, 247,794.77	.2040	1,858,461
1999	7,637,078.61	2.78	212,310.79	.1807	1,380,020

ACCOUNT 362.20 - DISTRIBUTION - POLES (35' & OVER)

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUEI	D DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI NET S	VOR CURVE IOWA 45 ALVAGE PERCENT1	-R1.5 0			
2000	9,671,312.16	2.85	275,632.40	.1568	1,516,462
2001	10,340,615.26	2.93	302,980.03	.1319	1,363,927
2002	9,546,736.19	3.04	290,220.78	.1064	1,015,773
2003	9,424,453.60	3.18	299,697.62	.0795	749,244
2004	9,918,741.50	3.39	336,245.34	.0509	504,864
2005	10,863,079.00	3.91	424,746.39	.0196	212,916
		6	,716,138.66	8	36,798,508
NET S	ALVAGE ADJUSTMENT		671,613.87		8,679,851
TOTAL	263,622,863.94	7	,387,752.53	<u>c</u>	95,478,359

ACCOUNT 362.30 - DISTRIBUTION - POLES - CONCRETE & STEEL

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	37-R2.5			
NET SALV	AGE PERCENT	-20			
1966	14,635.00	2.14	313.19	.8453	12,371
1967	252.00	2.17	5.47	.8355	211
1970	23,950.00	2.26	541.27	.8023	19,215
1971	48,491.00	2.29	1,110.44	.7901	38,313
1972	57,898.00	2.32	1,343.23	.7772	44,998
1973	73,902.00	2.35	1,736.70	.7638	56,446
1974	59,889.00	2.38	1,425.36	.7497	44,899
1975	136,149.00	2.41	3,281.19	.7351	100,083
1976	106,499.00	2.43	2,587.93	.7169	76,349
1977	80,122.00	2.46	1,971.00	.7011	56,174
1978	79,081.00	2.49	1,969.12	.6848	54,155
1979	68,891.00	2.52	1,736.05	.6678	46,005
1980	144,972.00	2.54	3,682.29	.6477	93,898
1981	223,497.00	2.57	5,743.87	.6297	140,736
1982	123,437.00	2.60	3,209.36	.6110	75,420
1983	19,227.00	2.63	505.67	.5918	11,379
1984	220,729.00	2.65	5,849.32	.5698	125,771
1985	144,138.00	2.68	3,862.90	.5494	79,189
1986	319,228.00	2.71	8,651.08	.5285	168,712
1987	206,777.00	2.74	5,665.69	.5069	104,815
1988	254,251.00	2.76	7,017.33	.4830	122,803
1989	332,270.00	2.79	9,270.33	.4604	152,977
1990	224,937.00	2.82	6,343.22	.4371	98,320
1991	214,516.00	2.85	6,113.71	.4133	88,659
1992	296,801.00	2.87	8,518.19	.3875	115,010
1993	321,407.00	2.90	9,320.80	.3625	116,510
1994	245,198.00	2.93	7,184.30	.3370	82,632
1995	186,230.00	2.96	, 5,512.41	.3108	, 57,880
1996	208,449.00	2.99	6,232.63	.2841	, 59,220
1997	152,310.00	3.02	4,599.76	.2567	39,098
1998	111,497.00	3.06	3,411.81	.2295	25,589
1999	88,906.00	3.09	2,747.20	.2009	17,861
2000	90,967.00	3.13	2,847.27	.1722	15,665
2001	72,569.00	3.18	2,307.69	.1431	10,385
2002	132,302.00	3.23	4,273.35	. 1131	14.963
2003	142,578.00	3.29	4,690.82	. 0823	11.734
2004	246,213 50	2.22	8.322 02	0507	12 483
2001	2:0,2:0.00	5.50	0,022.02	.0307	12,100

ACCOUNT 362.30 - DISTRIBUTION - POLES - CONCRETE & STEEL

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIV NET SA	OR CURVE IOWA 37 LVAGE PERCENT2	-R2.5 0			
2005	253,895.00	3.59	9,114.83	.0180	4,570
NET SA	LVAGE ADJUSTMENT		163,018.80 32,603.76	2	2,395,498 479,100
TOTAL	5,727,060.50		195,622.56	2	2,874,598

ACCOUNT 362.40 - DISTRIBUTION - STEEL TOWERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIVO NET SAL	R CURVE IOWA 45 VAGE PERCENT 0	5-R3			
1980	184,774.00	2.22	4,101.98	.5661	104,601
TOTAL	184,774.00		4,101.98		104,601

ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CIIDUTU		1 (01			
NET CA	UNCE DEDCENT	- 5 - 5			
NEI SA	LIVAGE FERCENI	- 5			
1968	22,288.32-			1.0000	22,288-
1969	929.58-			1.0000	930-
1970	326.96-			1.0000	327-
1971	3,618.92-			1.0000	3,619-
1972	4,854.25			1.0000	4,854
1973	0.20			1.0000	
1974	0.49	3.17	0.02	1.0000	
1975	2,308.50-	3.21	74.10-	.9791	2,260-
1976	2,308.16	3.26	75.25	.9617	2,220
1977	4,210.28	3.31	139.36	.9434	3,972
1978	336,613.19	3.37	11,343.86	.9268	311,973
1979	333,621.39	3.43	11,443.21	.9090	303,262
1980	305,040.74	3.50	10,676.43	.8925	272,249
1981	423,022.34	3.56	15,059.60	.8722	368,960
1982	332,261.74	3.63	12,061.10	.8531	283,452
1983	222,223.59	3.71	8,244.50	.8348	185,512
1984	723,574.27	3.79	27,423.46	.8149	589,641
1985	767,509.29	3.87	29,702.61	.7934	608,942
1986	1,081,156.32	3.96	42,813.79	.7722	834,869
1987	910,588.65	4.06	36,969.90	.7511	683,943
1988	564,878.19	4.16	23,498.93	.7280	411,231
1989	719,544.78	4.28	30,796.52	.7062	508,143
1990	768,840.60	4.40	33,828.99	.6820	524,349
1991	1,030,722.95	4.53	46,691.75	.6569	677,082
1992	886,333.38	4.67	41,391.77	.6305	558,833
1993	874,810.49	4.82	42,165.87	.6025	527,073
1994	776,842.58	5.00	38,842.13	.5750	446,684
1995	564,331.42	5.19	29,288.80	.5450	307,561
1996	1,352,934.78	5.40	73,058.48	.5130	694,056
1997	771,994.45	5.65	43,617.69	.4803	370,789
1998	338,825.83	5.93	20,092.37	.4448	150,710
1999	207,637.00	6.26	12,998.08	.4069	84,487
2000	390,517.15	6.66	26,008.44	.3663	143,046
2001	509,573.82	7.15	36,434.53	.3218	163,981
2002	557,215.73	7.79	43,407.11	.2727	151,953
2003	662,486.35	8.69	57,570.06	.2173	143,958
2004	667,088.43	10.15	67,709.48	.1523	101,598

ACCOUNT 363.00 - DISTRIBUTION - STREET LIGHTS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	AL ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIVO NET SAL	R CURVE IOWA 10 VAGE PERCENT	5-01 -5			
2005	932,498.00	14.06	131,109.22	.0703	65,555
NET SAL	VAGE ADJUSTMENT	1	,004,389.21 50,219.46	1	0,455,514 522,776
TOTAL 1	7,994,588.55	1	.,054,608.67	1	0,978,290

ACCOUNT 364.10 - DISTRIBUTION - TRANSFORMERS (UPTO 15 KVA)

	ORIGINA	ն -	ANNUAL	ACCRUA	L	-ACCRUED	DEPREC
YEAR	COST		RATE	AMOU	NT	FACTOR	AMOUNT
(1)	(2)		(3)	(4)	(5)	(6)
SURVIVOR	CURVE 3	IOWA 36-S0					
NET SALVA	AGE PERCEI	NT +5					
1963	70,768.0	04	1.89	1,337	.52	.8033	56,848
1964	133,358.	74	1.91	2,547	.15	.7927	105,713
1965	204,478.2	22	1.94	3,966	.88	.7857	160,659
1966	106,717.	58	1.96	2,091	.66	.7742	82,621
1967	83,173.	59	1.99	1,655	.15	.7662	63,728
1968	92,787.4	47	2.01	1,865	.03	.7538	69,943
1969	131,478.9	91	2.04	2,682	.17	.7446	97,899
1970	8,643.3	38	2.07	178	.92	.7349	6,352
1971	72,303.9	99	2.10	1,518	.38	.7245	52,384
1972	104,674.	79	2.13	2,229	.57	.7136	74,696
1973	97,870.9	97	2.16	2,114	.01	.7020	68,705
1974	101,571.8	82	2.19	2,224	.42	.6899	70,074
1975	251,812.	57	2.22	5,590	.24	.6771	170,502
1976	232,335.2	23	2.25	5,227	.54	.6638	154,224
1977	118,950.3	36	2.29	2,723	.96	.6527	77,639
1978	25,378.9	92	2.33	591	.33	.6408	16,263
1980	41,421.0	00	2.40	994	.10	.6120	25,350
1981	56,029.0	00	2.44	1,367	.11	.5978	33,494
1982	88,101.0	60	2.48	2,184	.92	.5828	51,346
1983	72,190.3	36	2.53	1,826	.42	.5693	41,098
1984	144,343.8	89	2.57	3,709	.64	.5526	79,764
1985	59,680.2	20	2.62	1,563	.62	.5371	32,054
1986	209,522.0	00	2.67	5,594	.24	.5207	109,098
1987	231,873.3	18	2.72	6,306	.95	.5032	116,679
1988	15,140.0	00	2.77	419	.38	.4848	7,340
1989	132,499.2	24	2.83	3,749	.73	.4670	61,877
1990	116,990.2	24	2.88	3,369	.32	.4464	52,224
1991	20,378.3	33	2.95	601	.16	.4278	8,718
1992	208,381.4	48	3.01	6,272	.28	.4064	84,686
1993	127,754.	54	3.08	3,934	.84	.3850	49,185
1994	53,255.	51	3.15	1,677	.55	.3623	19,294
1995	112,710.0	00	3.22	3,629	.26	.3381	38,107
1996	179,888.8	82	3.30	5,936	.33	.3135	56,395
1997	228,248.0	60	3.39	7,737	.63	.2882	65,781
1998	565,595.9	92	3.48	19,682	.74	.2610	147,621
1999	419,795.0	00	3.58	15,028	.66	.2327	97,686
2000	788,989.2	20	3.69	29,113	.70	.2030	160,165
	,			, -			,

ACCOUNT 364.10 - DISTRIBUTION - TRANSFORMERS (UPTO 15 KVA)

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI NET S.	VOR CURVE IOWA 36-S ALVAGE PERCENT +5	0			
2001	549,276.00	3.80	20,872.49	.1710	93,926
2002	583,860.77	3.93	22,945.73	.1376	80,339
2003	574,644.77	4.08	23,445.51	.1020	58,614
2004	469,964.09	4.25	19,973.47	.0638	29,984
2005	406,126.00	4.46	18,113.22	.0223	9,057
			268,593.93	:	2,938,132
NET S.	ALVAGE ADJUSTMENT		13,429.70-		146,907-
TOTAL	8,292,964.32		255,164.23	:	2,791,225

ACCOUNT 364.11 - DISTRIBUTION - TRANSFORMERS (OVER 15 KVA)

	ORIGINAL	– – ANNUAI	_ ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	OR CURVE IO	WA 36-S0			
NET SAI	LVAGE PERCENT	+5			
1964	1,406.00	- 1.91	26.85-	.7927	1,115-
1965	173,077.00	1.94	3,357.69	.7857	135,987
1966	13,956.40	1.96	273.55	.7742	10,805
1967	246,883.86	1.99	4,912.99	.7662	189,162
1968	218,644.00	2.01	4,394.74	.7538	164,814
1969	163,062.44	2.04	3,326.47	.7446	121,416
1970	27,679.00	2.07	572.96	.7349	20,341
1971	111,719.04	2.10	2,346.10	.7245	80,940
1972	266,612.10	2.13	5,678.84	.7136	190,254
1973	617,548.58	2.16	13,339.05	.7020	433,519
1974	759,158.42	2.19	16,625.57	.6899	523,743
1975	2,198,377.85	2.22	48,803.99	.6771	1,488,522
1976	1,840,325.44	2.25	41,407.32	.6638	1,221,608
1977	806,848.22	2.29	18,476.82	.6527	526,630
1978	745,877.96	2.33	17,378.96	.6408	477,959
1979	381,288.74	2.36	8,998.41	.6254	238,458
1980	1,024,775.43	2.40	24,594.61	.6120	627,163
1981	942,641.80	2.44	23,000.46	.5978	563,511
1982	1,191,087.71	2.48	29,538.98	.5828	694,166
1983	591,611.18	2.53	14,967.76	.5693	336,804
1984	1,067,212.29	2.57	27,427.36	.5526	589,742
1985	807,632.66	2.62	21,159.98	.5371	433,780
1986	1,822,954.82	2.67	48,672.89	.5207	949,213
1987	1,754,540.66	2.72	, 47,723.51	.5032	, 882,885
1988	2,093,150.18	2.77	57,980.26	.4848	1,014,759
1989	2,684,007.13	2.83	75,957.40	.4670	1,253,431
1990	3,722,236.05	2.88	107,200.40	.4464	1,661,606
1991	2,547,952.84	2.95	, 75,164.61	.4278	1,090,014
1992	1,234,994.08	3.01	37,173.32	.4064	501,902
1993	1,367,724.42	3.08	42,125.91	.3850	526,574
1994	1,244,437.83	3.15	39,199.79	.3623	, 450,860
1995	1,604,790.12	3.22	, 51,674.24	.3381	, 542,580
1996	1,522,445.28	3.30	, 50,240.69	.3135	, 477,287
1997	1,929,949.59	3.39	65,425.29	.2882	556.211
1998	3,641,177.61	3.48	126,712.98	.2610	950,347
1999	2,927,558.19	3.58	104,806.58	.2327	681.243
2000	4,195,186.00	3.69	154,802.36	. 2.030	851.623
	-, _, _, _, _, _, 00	5.55	,		551,515

ACCOUNT 364.11 - DISTRIBUTION - TRANSFORMERS (OVER 15 KVA)

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

		ORIGINAL	– – ANNUA	AL ACCRUAL	-ACCRUED	DEPREC
	YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
	(1)	(2)	(3)	(4)	(5)	(6)
	SURVIN NET SA	VOR CURVE IOWA 36-S ALVAGE PERCENT +5	0			
	2001	4,335,883.00	3.80	164,763.55	.1710	741,436
	2002	4,925,514.00	3.93	193,572.70	.1376	677,751
	2003	5,385,575.00	4.08	219,731.46	.1020	549,329
	2004	5,351,495.09	4.25	227,438.54	.0638	341,425
	2005	4,928,153.00	4.46	219,795.62	.0223	109,898
			2	2,440,717.86	2	3,878,583
	NET SA	ALVAGE ADJUSTMENT		122,035.89-		1,193,929-
5	TOTAL	73,414,339.01	2	2,318,681.97	2	2,684,654
ACCOUNT 364.20 - DISTRIBUTION - VOLTAGE REGULATORS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIN NET SA	VOR CURVE IOWA 36- ALVAGE PERCENT +5	S0			
1956	3,400.00	1.74	59.16	.8613	2,928
1959	7,578.98	1.80	136.42	.8370	6,344
1960	1,860.00	1.82	33.85	.8281	1,540
1961	3,202.53-	1.84	58.93-	.8188	2,622-
1965	10,022.33	1.94	194.43	.7857	7,875
1968	16,945.00	2.01	340.59	.7538	12,773
1969	29,311.30	2.04	597.95	.7446	21,825
1970	64,284.26	2.07	1,330.68	.7349	47,243
1971	95,424.72	2.10	2,003.92	.7245	69,135
1972	77,638.84	2.13	1,653.71	.7136	55,403
1973	71,509.16	2.16	1,544.60	.7020	50,199
1974	173,250.84	2.19	3,794.19	.6899	119,526
1975	106,375.04	2.22	2,361.53	.6771	72,027
1976	54,153.55	2.25	1,218.45	.6638	35,947
1977	27,066.84	2.29	619.83	.6527	17,667
1978	35,857.00	2.33	835.47	.6408	22,977
1979	16,980.44	2.36	400.74	.6254	10,620
1980	162,464.03	2.40	3,899.14	.6120	99,428
1981	50,133.89	2.44	1,223.27	.5978	29,970
1982	48,690.56	2.48	1,207.53	.5828	∠8,377 40 001
1001	71,880.00	2.53	1,818.50	.5693	40,921 14 052
1005	25,428.00	2.57		.5520	147 751
1006	275,090.32	2.62	1,207.37	.53/1	14/,/51
1007	43,024.73	2.07	I,I/U.IZ	.5207	102 929
1989	85 335 24	2.72	2 363 79	. 5052	102,829
1989	180 283 00	2.77	5 102 01	4670	84 192
1990	179 232 00	2.05	5 161 88	4464	80 009
1991	306,968,00	2.00	9,055 56	4278	131,321
1992	112,348,25	3 01	3,381,68	4064	45,658
1994	202.348.00	3.15	6.373.96	. 3623	73,311
1998	0.15-	3.48	0.01-	.2610	,
1999	30,312.00	3.58	1.085.17	.2327	7.054
2004	61,381,30	4.25	2,608.71	.0638	3,916
2005	189,026.00	4.46	8,430.56	.0223	4,215
			83,367.72		1,508,602
NET SA	ALVAGE ADJUSTMENT		4,168.39-		75,430-
TOTAL	3,017,551.22		79,199.33		1,433,172

ACCOUNT 364.30 - DISTRIBUTION - CAPACITOR BANKS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAI	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 36	-S0			
NET SAL	VAGE PERCENT +	5			
1984	21,730.00	2.57	558.46	.5526	12,008
1990	3,406.00	2.88	98.09	.4464	1,520
1991	2,680.00	2.95	79.06	.4278	1,147
1993	19,978.00	3.08	615.32	.3850	7,692
1995	4,786.00	3.22	154.11	.3381	1,618
1997	14,492.00	3.39	491.28	.2882	4,177
1998	38,064.00	3.48	1,324.63	.2610	9,935
1999	77,432.00	3.58	2,772.07	.2327	18,018
2000	20,434.00	3.69	754.01	.2030	4,148
			6,847.03		60,263
NET SAL	VAGE ADJUSTMENT		342.35-		3,013-
TOTAL	203,002.00		6,504.68		57,250

ACCOUNT 364.40 - DISTRIBUTION - RECLOSERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUEI	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	DR CURVE IOWA 36-	S0			
NET SAI	LVAGE PERCENT +5				
1954	1,160.00	1.70	19.72	.8755	1,016
1963	2,188.00	1.89	41.35	.8033	1,758
1966	2,892.00	1.96	56.68	.7742	2,239
1969	162.00	2.04	3.30	.7446	121
1970	677.00	2.07	14.01	.7349	498
1973	2,641.00	2.16	57.05	.7020	1,854
1974	1,781.00	2.19	39.00	.6899	1,229
1976	12,134.30	2.25	273.02	.6638	8,055
1982	9,704.35-	2.48	240.67-	.5828	5,656-
1983	16,164.54	2.53	408.96	.5693	9,202
1985	3,866.00	2.62	101.29	.5371	2,076
1986	28,178.00	2.67	752.35	.5207	14,672
1987	13,191.00	2.72	358.80	.5032	6,638
1989	66,096.00	2.83	1,870.52	.4670	30,867
1990	56,096.00	2.88	1,615.56	.4464	25,041
1991	16,016.00	2.95	472.47	.4278	6,852
2000	159,836.00	3.69	5,897.95	.2030	32,447
2001	609,153.00	3.80	23,147.81	.1710	104,165
			34,889.17		243,074
NET SAI	LVAGE ADJUSTMENT		1,744.46-		12,154-
TOTAL	982,527.49		33,144.71		230,920

ACCOUNT 365.10 - DISTRIBUTION - SERVICES OVERHEAD

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 39-S1	.5			
NET SAL	VAGE PERCENT60				
1966	55,407.65-	2.02	1,119.23-	.7979	44,210-
1967	163,618.66	2.05	3,354.18	.7893	129,144
1968	157,607.78	2.08	3,278.24	.7800	122,934
1969	191,210.66	2.11	4,034.54	.7702	147,270
1970	156,764.40	2.14	3,354.76	.7597	119,094
1971	320,935.35	2.17	6,964.30	.7487	240,284
1972	367,974.94	2.20	8,095.45	.7370	271,198
1973	511,186.37	2.23	11,399.46	.7248	370,508
1974	670,568.65	2.26	15,154.85	.7119	477,378
1975	852,382.31	2.30	19,604.79	.7015	597,946
1976	908,051.57	2.33	21,157.60	.6874	624,195
1977	957,997.98	2.36	22,608.75	.6726	644,349
1978	1,052,475.52	2.39	25,154.16	.6573	691,792
1979	1,264,725.45	2.43	30,732.83	.6440	814,483
1980	1,377,870.20	2.46	33,895.61	.6273	864,338
1981	1,601,973.50	2.49	39,889.14	.6101	977,364
1982	1,549,459.09	2.53	39,201.31	.5946	921,308
1983	1,887,363.11	2.56	48,316.50	.5760	1,087,121
1984	2,395,488.55	2.59	62,043.15	.5569	1,334,048
1985	2,145,817.72	2.63	56,435.01	.5392	1,157,025
1986	2,241,801.43	2.66	59,631.92	.5187	1,162,822
1987	2,370,224.08	2.69	63,759.03	.4977	1,179,661
1988	2,651,170.19	2.72	72,111.83	.4760	1,261,957
1989	2,965,062.61	2.75	81,539.22	.4538	1,345,545
1990	2,859,517.25	2.79	79,780.53	.4325	1,236,741
1991	3,033,536.59	2.82	85,545.73	.4089	1,240,413
1992	2,974,902.35	2.84	84,487.23	.3834	1,140,578
1993	2,856,647.29	2.87	81,985.78	.3588	1,024,965
1994	2,370,371.97	2.90	68,740.79	.3335	790,519
1995	1,958,392.53	2.93	57,380.90	.3077	602,597
1996	1,792,412.33	2.95	52,876.16	.2803	502,413
1997	1,574,256.16	2.97	46,755.41	.2525	397,500
1998	1,447,692.56	3.00	43,430.78	.2250	325,731
1999	1,495,980.72	3.02	45,178.62	.1963	293,661
2000	1,492,102.47	3.03	45,210.70	.1667	248,733
2001	1,833,986.60	3.05	55,936.59	.1373	251,806
2002	1,813,626.19	3.06	55,496.96	.1071	194,239

ACCOUNT 365.10 - DISTRIBUTION - SERVICES OVERHEAD

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR	ORIGINAL COST	ANNUA RATE	L ACCRUAL AMOUNT	-ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI NET SZ	VOR CURVE IOWA 39 ALVAGE PERCENT6	-S1.5 0			
2003	1,700,987.40	3.07	52,220.31	.0768	130,636
2004	1,938,294.13	3.08	59,699.46	.0462	89,549
2005	2,189,040.00	3.09	67,641.34	.0155	33,930
		1	,712,964.69	2	5,001,565
NET SA	ALVAGE ADJUSTMENT	1	,027,778.81	1	5,000,939
TOTAL	62,038,069.01	2	,740,743.50	4	0,002,504

ACCOUNT 365.20 - DISTRIBUTION - SERVICES UNDERGROUND

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 45-	R3			
NET SA	LVAGE PERCENT5	5			
1965	5,690.00	1.96	111.52	.7938	4,517
1966	10,278.00	1.98	203.50	.7821	8,038
1967	44,406.00	2.00	888.12	.7700	34,193
1968	19,627.00	2.02	396.47	.7575	14,867
1969	13,560.00	2.04	276.62	.7446	10,097
1970	13,945.00	2.06	287.27	.7313	10,198
1974	75,003.00	2.13	1,597.56	.6710	50,327
1975	284,667.00	2.14	6,091.87	.6527	185,802
1976	119,140.00	2.16	2,573.42	.6372	75,916
1977	109,660.00	2.18	2,390.59	.6213	68,132
1978	34,576.00	2.19	757.21	.6023	20,825
1979	52,990.00	2.21	1,171.08	.5857	31,036
1980	134,057.00	2.22	2,976.07	.5661	75,890
1981	83,751.00	2.24	1,876.02	.5488	45,963
1982	179,142.00	2.26	4,048.61	.5311	95,142
1983	69,183.00	2.27	1,570.45	.5108	35,339
1984	134,754.00	2.29	3,085.87	.4924	66,353
1985	139,028.00	2.30	3,197.64	.4715	65,552
1986	64,590.00	2.32	1,498.49	.4524	29,221
1987	125,196.00	2.33	2,917.07	.4311	53,972
1988	220,655.00	2.35	5,185.39	.4113	90,755
1989	295,200.00	2.36	6,966.72	.3894	114,951
1990	282,563.00	2.37	6,696.74	.3674	103,814
1991	167,294.00	2.39	3,998.33	.3466	57,984
1992	159,624.00	2.40	3,830.98	.3240	51,718
1993	216,632.00	2.41	5,220.83	.3013	65,271
1994	241,688.00	2.43	5,873.02	.2795	67,552
1995	262,203.00	2.44	6,397.75	.2562	67,176
1996	376,219.00	2.45	9,217.37	.2328	87,584
1997	269,613.00	2.46	6,632.48	.2091	56,376
1998	14,149.00	2.48	350.90	.1860	2,632
2000	175,064.00	2.50	4,376.60	.1375	24,071
2001	72,659.00	2.52	1,831.01	.1134	8,240
2002	150,357.00	2.53	3,804.03	.0886	13,322
2003	318,679.00	2.55	8,126.31	.0638	20,332
2004	251,568.71	2.57	6,465.32	.0386	9,711
2005	180,630.00	2.62	4,732.51	.0131	2,366
:			127,621.74		1,825,235
NET SA	LVAGE ADJUSTMENT		6,381.09		91,262
TOTAL	5,368,040.71		134,002.83		1,916,497

ACCOUNT 366.10 - DISTRIBUTION - WATT-HOUR METERS

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	32-S0.5			
NET SALVA	AGE PERCENT	0			
1965	74,724.90-	2.08	1,554.28-	.8424	62,948-
1966	19,337.00-	2.11	408.01-	.8335	16,117-
1967	155,742.56	2.14	3,332.89	.8239	128,316
1968	56,978.75	2.18	1,242.14	.8175	46,580
1969	132,787.29	2.21	2,934.60	.8067	107,120
1970	45,552.50	2.24	1,020.38	.7952	36,223
1971	85,798.27	2.28	1,956.20	.7866	67,489
1972	134,034.78	2.31	3,096.20	.7739	103,730
1973	156,896.91	2.35	3,687.08	.7638	119,838
1974	263,154.54	2.39	6,289.39	.7529	198,129
1975	210,340.53	2.43	5,111.27	.7412	155,904
1976	253,406.93	2.47	6,259.15	.7287	184,658
1977	290,786.73	2.51	7,298.75	.7154	208,029
1978	162,791.63	2.55	4,151.19	.7013	114,166
1979	177,334.19	2.60	4,610.69	.6890	122,183
1980	235,697.44	2.64	6,222.41	.6732	158,672
1981	355,980.20	2.69	9,575.87	.6591	234,627
1982	272,180.28	2.74	7,457.74	.6439	175,257
1983	428,522.47	2.78	11,912.92	.6255	268,041
1984	391,430.32	2.84	11,116.62	.6106	239,007
1985	458,009.61	2.89	13,236.48	.5925	271,371
1986	348,875.18	2.94	10,256.93	.5733	200,010
1987	89,304.65	3.00	2,679.14	.5550	49,564
1988	521,244.16	3.06	15,950.07	.5355	279,126
1989	469,677.12	3.12	14,653.93	.5148	241,790
1990	542,184.31	3.18	17,241.46	.4929	267,243
1991	503,587.16	3.24	16,316.22	.4698	236,585
1992	329,500.57	3.31	10,906.47	.4469	147,254
1993	291,672.75	3.38	9,858.54	.4225	123,232
1994	475,482.42	3.45	16,404.14	.3968	188,671
1995	344,406.40	3.52	12,123.11	.3696	127,293
1996	270,308.27	3.60	9,731.10	.3420	92,445
1997	228,068.17	3.68	8,392.91	.3128	71,340
1998	283,191.95	3.76	10,648.02	.2820	79,860
1999	459,242.99	3.85	17,680.86	.2503	114,949
2000	411,785.84	3.93	16,183.18	.2162	89,028
2001	, 264,982.01	4.03	10,678.78	.1814	48,068
	,		,		,

ACCOUNT 366.10 - DISTRIBUTION - WATT-HOUR METERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 3	2-S0.5			
NET SZ	ALVAGE PERCENT C)			
2002	434,801.89	4.13	17,957.32	.1446	62,872
2003	460,668.76	4.23	19,486.29	.1058	48,739
2004	990,966.28	4.35	43,107.03	.0653	64,710
2005	1,047,188.00	4.49	47,018.74	.0225	23,562
TOTAL	12,940,502.91		435,823.92	!	5,416,616

ACCOUNT 366.20 - DISTRIBUTION - DEMAND METERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

		ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
	YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
	(1)	(2)	(3)	(4)	(5)	(6)
	SURVIV	OR CURVE IOWA	25-S0.5			
	NET SA	LVAGE PERCENT	0			
	1970	0.35-	2.49	0.01-	.8840	
	1971	7,276.11	2.53	184.09	.8729	6,351
	1972	15,676.42	2.58	404.45	.8643	13,549
	1973	23,101.83	2.63	607.58	.8548	19,747
	1974	60.391.50	2 67	1.612.45	8411	50.795
	1975	57,459,64	2 72	1,562,90	8296	47,669
	1976	152,929,29	2 78	4,251,43	8201	125,417
	1977	112,996.32	2.83	3,197,80	.8066	91,143
	1978	121 019 64	2 88	3 485 37	7920	95 848
	1979	118,620,10	2.94	3,487,43	7791	92,417
	1980	184,588,88	3 00	5,537,67	7650	141,210
	1981	253 230 34	3.06	7 748 85	7497	189 847
	1982	91 932 90	3.00	2 877 50	7356	67 626
	1983	167,107,29	3 20	5,347,43	7200	120,317
	1984	62,710,35	3 26	2,044,36	7009	43,954
	1985	83 634 74	3 34	2 793 40	6847	57 265
	1986	227,961,12	3 41	7,773,47	6650	151,594
	1987	364,588,76	3.49	12.724.15	.6457	235,415
	1988	145,144,62	3 57	5,181 66	6248	90,686
	1989	82,204,44	3 66	3,008,68	6039	49,643
	1990	93,689,46	3.74	3,503,99	.5797	54,312
	1991	65,875,30	3.84	2,529.61	.5568	36,679
	1992	85,754,00	3.93	3,370,13	.5306	45,501
	1993	85,664,64	4.03	3,452,28	.5038	43,158
	1994	81,993.39	4.13	3,386.33	.4750	38,947
	1995	103,428.98	4.24	4,385.39	.4452	46,047
	1996	46,916.01	4.36	2,045.54	.4142	19,433
	1997	40,367.66	4.47	1,804.43	.3800	15,340
	1998	68,314.00	4.60	3,142.44	.3450	23,568
	1999	102.427.00	4.73	4,844,80	. 3075	31,496
	2000	182,148.30	4.86	8,852.41	.2673	48,688
	2001	250,753.04	5.01	12,562.73	.2255	56,545
	2002	174,398.16	5.16	8,998.95	.1806	31,496
	2003	462,717.00	5.32	24,616.54	.1330	61,541
	2004	310,259.36	5.50	17,064.26	.0825	25.596
	2005	286,476.00	5.72	16,386.43	.0286	8,193
		···, ····		,		-,
5	TOTAL	4,773,756.24	:	194,776.92		2,277,033

ACCOUNT 366.30 - DISTRIBUTION - INSTRUMENT TRANSFORMERS

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	35-R3			
NET SALVA	AGE PERCENT	0			
1958	873.53	1.99	17.38	.9453	826
1959	7,278.00	2.02	147.02	.9393	6,836
1960	5,359.00	2.05	109.86	.9328	4,999
1961	2,230.00	2.08	46.38	.9256	2,064
1962	5,677.00	2.12	120.35	.9222	5,235
1963	10,438.00	2.15	224.42	.9138	9,538
1964	4,882.00	2.18	106.43	.9047	4,417
1965	7,811.00	2.22	173.40	.8991	7,023
1966	13,308.00	2.25	299.43	.8888	11,828
1967	13,253.06	2.29	303.50	.8817	11,685
1968	15,783.16	2.32	366.17	.8700	13,731
1969	10,590.28	2.36	249.93	.8614	9,122
1970	9,318.36	2.39	222.71	.8485	7,907
1971	13,331.01	2.42	322.61	.8349	11,130
1972	10,969.74	2.46	269.86	.8241	9,040
1973	29,132.70	2.49	725.40	.8093	23,577
1974	, 084.84	2.52	833.74	.7938	26,263
1975	43,687.40	2.55	1,114.03	.7778	, 33,980
1976	43,850,47	2.59	, 1,135.73	.7641	, 33,506
1977	43,149.94	2.62	1,130.53	.7467	32,220
1978	35,757.70	2.65	947.58	.7288	26,060
1979	53,532.40	2.68	1,434.67	.7102	38,019
1980	64,695.34	2.70	1,746.77	.6885	44,543
1981	53,578.10	2.73	1,462.68	.6689	35,838
1982	19,641.20	2.76	542.10	.6486	12,739
1983	44,488.28	2.79	1,241,22	.6278	27,930
1984	103,333,90	2 82	2,914 02	6063	62,651
1985	80.355 78	2.84	2,282,10	5822	46,783
1986	81,646,29	2.87	2,343,25	5597	45,697
1987	99 717 88	2 90	2 891 82	5365	53 499
1988	72 833 58	2.90	2,001.02 2 126 74	5110	37 218
1989	84 163 08	2.92	2 482 81	4868	40 971
1990	$103 \ 261 \ 41$	2.55	3 066 86	4604	47 542
1991	78 149 32	2.57	2 336 66	.1001	33 886
1992	43 901 58	2.77	2,350.00 1 325 92	.=550	17 900
1993		3.04	±,525.92	.40//	τ, σου αου
1001	2,193.00 24 120 00	3.04	720 (5	.3000	0 105
1994	∠4,⊥39.00	3.06	/30.05	.3519	8,495

ACCOUNT 366.30 - DISTRIBUTION - INSTRUMENT TRANSFORMERS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAI	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIN NET SA	/OR CURVE IOWA 35 ALVAGE PERCENT 0	-R3			
1995	28,799.68	3.09	889.91	.3245	9,345
1996	32,675.00	3.11	1,016.19	.2955	9,655
1997	20,032.88	3.13	627.03	.2661	5,331
1998	22,727.00	3.15	715.90	.2363	5,370
1999	22,629.00	3.17	717.34	.2061	4,664
2000	192,014.00	3.19	6,125.25	.1755	33,698
2001	98,125.00-	3.21	3,149.81-	.1445	14,179-
2002	71,380.71	3.23	2,305.60	.1131	8,073
2003	49,271.00	3.26	1,606.23	.0815	4,016
2004	63,991.60	3.29	2,105.32	.0494	3,161
2005	87,132.00	3.36	2,927.64	.0168	1,464
TOTAL	1,861,926.20		53,756.00		916,129

ACCOUNT 366.40 - DISTRIBUTION - METERING TANKS

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 3	35-R3			
NET SAL	VAGE PERCENT ()			
1962	1,148.00	2.12	24.34	.9222	1,059
1963	1,833.00	2.15	39.41	.9138	1,675
1964	7,592.00	2.18	165.51	.9047	6,868
1965	6,127.00	2.22	136.02	.8991	5,509
1966	20,743.00	2.25	466.72	.8888	18,436
1967	1,305.32-	2.29	29.89-	.8817	1,151-
1968	6,844.86	2.32	158.80	.8700	5,955
1969	1,082.00	2.36	25.54	.8614	932
1970	24,168.89	2.39	577.64	.8485	20,507
1971	6,165.84	2.42	149.21	.8349	5,148
1972	34,228.09	2.46	842.01	.8241	28,207
1973	8,592.00	2.49	213.94	.8093	6,954
1974	13,437.54	2.52	338.63	.7938	10,667
1975	91,891.88	2.55	2,343.24	.7778	71,474
1976	54,630.00	2.59	1,414.92	.7641	41,743
1977	77,196.36	2.62	2,022.54	.7467	57,643
1978	41,856.00	2.65	1,109.18	.7288	30,505
1979	88,717.30	2.68	2,377.62	.7102	63,007
1980	22,442.00	2.70	605.93	.6885	15,451
1981	22,803.00	2.73	622.52	.6689	15,253
1982	13,215.00	2.76	364.73	.6486	8,571
1983	23,672.00	2.79	660.45	.6278	14,861
1984	76,461.00	2.82	2,156.20	.6063	46,358
1988	54,481.00	2.92	1,590.85	.5110	27,840
1989	21,181.00	2.95	624.84	.4868	10,311
1990	87,647.00	2.97	2,603.12	.4604	40,353
1991	17,213.00	2.99	514.67	.4336	7,464
1992	158,551.00	3.02	4,788.24	.4077	64,641
1993	0.54-	3.04	0.02-	.3800	
1994	50,424.00	3.06	1,542.97	.3519	17,744
1996	494.00-	3.11	15.36-	.2955	146-
1998	459.00-	3.15	14.46-	.2363	108-
1999	195.00-	3.17	6.18-	.2061	40-
2001	11,458.00	3.21	367.80	.1445	1,656
2002	14,228.00	3.23	459.56	.1131	1,609
2003	13,124.00	3.26	427.84	.0815	1,070
2004	16,315.01	3.29	536.76	.0494	806
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ACCOUNT 366.40 - DISTRIBUTION - METERING TANKS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVINNET SA	VOR CURVE IOWA 39 ALVAGE PERCENT 0	5-R3			
2005	20,336.00	3.36	683.29	.0168	342
TOTAL	1,107,350.91		30,889.13		649,174

ACCOUNT 367.10 - DISTRIBUTION - UNDERGROUND DUCTS & MANHOLES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

		ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
	YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
	(1)	(2)	(3)	(4)	(5)	(6)
			60 D4			
	SURVIV	OR CURVE IOWA	60-R4			
	NET SA	LVAGE PERCENT	0			
	1947	99,263.00	1.48	1,469.09	.8658	85,942
	1956	68,214.00	1.57	1,070.96	.7772	53,016
	1959	6,158.00	1.60	98.53	.7440	4,582
	1965	30,319.00	1.65	500.26	.6683	20,262
	1966	260,618.00	1.66	4,326.26	.6557	170,887
	1967	84,812.00	1.67	1,416.36	.6430	54,534
	1970	3,592.00	1.69	60.70	.6000	2,155
	1971	7,951.00	1.69	134.37	.5831	4,636
	1972	4,329.00	1.70	73.59	.5695	2,465
	1973	849.00	1.70	14.43	.5525	469
	1974	259,185.00	1.71	4,432.06	.5387	139,623
	1975	109,104.00	1.71	1,865.68	.5216	56,909
	1976	145,315.00	1.72	2,499.42	.5074	73,733
	1977	425,400.00	1.72	7,316.88	.4902	208,531
	1978	43,145.00	1.73	746.41	.4758	20,528
	1979	87,494.00	1.73	1,513.65	.4585	40,116
	1980	720,706.00	1.73	12,468.21	.4412	317,975
	1981	237,784.00	1.74	4,137.44	.4263	101,367
	1982	85,112.00	1.74	1,480.95	.4089	34,802
	1983	40,095.00	1.74	697.65	.3915	15,697
	1984	11,987.00	1.75	209.77	.3763	4,511
	1985	35,115.00	1.75	614.51	.3588	12,599
	1986	432,264.00	1.75	7,564.62	.3413	147,532
	1987	54,460.00	1.75	953.05	.3238	17,634
	1989	31,569.00	1.76	555.61	.2904	9,168
	1990	43,291.00	1.76	761.92	.2728	11,810
	1991	601,034.00	1.76	10,578.20	.2552	153,384
	1992	261,001.00	1.76	4,593.62	.2376	62,014
	1993	34,895.00	1.76	614.15	.2200	7,677
	1994	17,571.00	1.76	309.25	.2024	3,556
	1996	24,634.00	1.77	436.02	.1682	4,143
	2000	83,314.00	1.77	1,474.66	.0974	8,115
	2001	47,167.00	1.77	834.86	.0797	3,759
	2002	193,816.00	1.77	3,430.54	.0620	12,017
	2003	179,777.00	1.77	3,182.05	.0443	7,964
	2004	94,552.74	1.77	1,673.58	.0266	2,515
	2005	13,144.00	1.77	232.65	.0089	117
F	ΓΟΤΔΤ.	4.879.036 74		84.341 96		1.876 744
				<u> </u>		-, 0, 0, , ==

ACCOUNT 367.20 - DISTRIBUTION - UNDERGROUND SWITCHES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 40	-R3			
NET SA	LVAGE PERCENT 0				
1956	825.00	1.86	15.35	.9207	760
1960	9,993.00	1.96	195.86	.8918	8,912
1967	39,940.00	2.14	854.72	.8239	32,907
1969	30,832.00	2.19	675.22	.7994	24,647
1972	15,443.00	2.27	350.56	.7605	11,744
1973	4,874.00	2.29	111.61	.7443	3,628
1975	15,509.00	2.34	362.91	.7137	11,069
1986	47,961.00	2.57	1,232.60	.5012	24,038
1991	141,500.00	2.66	3,763.90	.3857	54,577
1992	87,047.00	2.67	2,324.15	.3605	31,380
1998	51,766.78	2.77	1,433.94	.2078	10,757
1999	103,587.00	2.79	2,890.08	.1814	18,791
2000	221,146.00	2.80	6,192.09	.1540	34,056
2001	262,514.00	2.82	7,402.89	.1269	33,313
2002	134,280.00	2.84	3,813.55	.0994	13,347
2003	355,740.00	2.86	10,174.16	.0715	25,435
2004	141,267.74	2.89	4,082.64	.0434	6,131
	1 664 005 50		45 056 00		

TOTAL 1,664,225.52

45,876.23

345,492

ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVOR	CURVE IOWA	35-S0			
NET SALV	AGE PERCENT	- 5			
1958	2,329.00	1.80	41.92	.8550	1,991
1959	36,265.00	1.82	660.02	.8463	30,691
1961	8,951.00	1.87	167.38	.8322	7,449
1962	2,829.00	1.89	53.47	.8222	2,326
1963	94,127.02	1.91	1,797.83	.8118	76,412
1964	68,703.00	1.94	1,332.84	.8051	55,313
1965	1,805.00	1.96	35.38	.7938	1,433
1966	17,029.00	1.99	338.88	.7861	13,386
1967	9,589.00	2.01	192.74	.7739	7,421
1968	21,728.00	2.04	443.25	.7650	16,622
1969	23,088.00	2.07	477.92	.7556	17,445
1970	51,174.00	2.10	1,074.65	.7455	38,150
1971	19,623.00	2.13	417.97	.7349	14,421
1972	39,627.00	2.16	855.94	.7236	28,674
1973	28,754.00	2.19	629.71	.7118	20,467
1974	104,826.00	2.22	2,327.14	.6993	73,305
1975	12,298.47	2.26	277.95	.6893	8,477
1976	36,762.08	2.29	841.85	.6756	24,836
1977	43,222.00	2.33	1,007.07	.6641	28,704
1978	63,902.00	2.36	1,508.09	.6490	41,472
1979	18,697.13	2.40	448.73	.6360	11,891
1980	4,262.00	2.44	103.99	.6222	2,652
1981	16,539.00	2.48	410.17	.6076	10,049
1982	48,886.00	2.53	1,236.82	.5946	29,068
1983	154,941.00	2.57	3,981.98	.5783	89,602
1984	70,909.36	2.62	1,857.83	.5633	39,943
1985	188,493.00	2.66	5,013.91	.5453	102,785
1986	56,126.00	2.71	1,521.01	.5285	29,663
1987	59,677.00	2.77	1,653.05	.5125	30,584
1988	98,016.00	2.82	2,764.05	.4935	48,371
1989	23,483.00	2.88	676.31	.4752	11,159
1990	41,655.00	2.94	1,224.66	.4557	18,982
1991	73,633.00	3.00	2,208.99	.4350	32,030
1993	2,017.00	3.14	63.33	.3925	792
1994	10,970.00	3.21	352.14	.3692	4,050
1996	5,864.28	3.38	198.21	.3211	1,883
1997	41,577.00	3.46	1,438.56	.2941	12,228

ACCOUNT 371.10 - BUILDINGS AND STRUCTURES - SMALL

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAI	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIN	JOR CURVE IOWA 3	5-S0			
NET SA	ALVAGE PERCENT	-5			
1998	28,304.00	3.56	1,007.62	.2670	7,557
1999	36,168.00	3.66	1,323.75	.2379	8,604
2000	55,853.40	3.77	2,105.67	.2074	11,584
2001	38,512.64	3.90	1,501.99	.1755	6,759
2002	12,779.59	4.03	515.02	.1411	1,803
2003	0.26	4.18	0.01	.1045	
2005	8,480.00	4.59	389.23	.0230	195
			46,479.03	:	1,021,229
NET SA	ALVAGE ADJUSTMENT		2,323.95		51,061
TOTAL	1,782,475.23		48,802.98	1	1,072,290

ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
TOPSAIL	ROAD - TRANSFORM	ER SHOP			
INTERIM	SURVIVOR CURVE	IOWA 70-R1			
PROBABL	E RETIREMENT YEAR	6-2026			
NET SAL	VAGE PERCENT 0				
1957	29,077.00	1.52	441.97	.7372	21,436
1962	3,343.00	1.63	54.49	.7091	2,371
1963	10,791.00	1.66	179.13	.7055	7,613
1966	104,408.00	1.74	1,816.70	.6873	71,760
1967	397.00	1.77	7.03	.6815	271
1968	5,519.00	1.80	99.34	.6750	3,725
1969	264.00	1.83	4.83	.6680	176
1971	2,609.00	1.90	49.57	.6555	1,710
1972	8,479.00	1.93	163.64	.6466	5,483
1973	16,864.00	1.97	332.22	.6403	10,798
1974	8,878.00	2.01	178.45	.6332	5,622
1975	13,639.00	2.05	279.60	.6253	8,528
1977	14,677.00	2.13	312.62	.6071	8,910
1978	1,665.00	2.18	36.30	.5995	998
1979	24,532.00	2.22	544.61	.5883	14,432
1980	77,079.00	2.27	1,749.69	.5789	44,621
1981	66,393.00	2.32	1,540.32	.5684	37,738
1982	152,875.00	2.38	3,638.43	.5593	85,503
1984	2,953.00	2.50	73.83	.5375	1,587
1986	20,475.00	2.62	536.45	.5109	10,461
1987	17,994.00	2.69	484.04	.4977	8,956
1988	17,920.00	2.77	496.38	.4848	8,688
1991	11,926.00	3.02	360.17	.4379	5,222
1992	20,026.00	3.11	622.81	.4199	8,409
1993	58,970.00	3.21	1,892.94	.4013	23,665
1994	32,428.00	3.32	1,076.61	.3818	12,381
1996	8,605.00	3.56	306.34	.3382	2,910
1997	14,741.00	3.70	545.42	.3145	4,636
1998	2,538.00	3.85	97.71	.2888	, 733
1999	6,144.00	4.01	246.37	.2607	1,602
2000	75,242.00	4.19	3,152.64	.2305	17,343
2001	67,068.00	4.40	2,950.99	.1980	13,279
2002	139,445.74	4.63	6,456.34	.1621	22.604
2003	33,290.00	4.91	1,634.54	.1228	4,088
2004	47,104.00	5.28	2,487.09	.0792	3,731
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ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
TOPSAI INTERI PROBAB NET SA	L ROAD - TRANSFORM M SURVIVOR CURVE LE RETIREMENT YEAR LVAGE PERCENT 0	ER SHOP IOWA 70-R1 6-2026			
2005	55,375.00	5.95	3,294.81	.0298	1,650
	1,173,733.74		38,144.42		483,640
TOPSAI INTERI PROBAB NET SA	L ROAD - SYSTEM CO M SURVIVOR CURVE LE RETIREMENT YEAR LVAGE PERCENT 0	NTROL CENTE IOWA 70-R1 6-2054	R		
1991	3,785,00	2.01	76.08	. 2915	1,103
1999	989,399,00	2.45	24.240.28	.1593	157.611
2000	19 634 00	2 54	498 70	1397	2 743
2000	69 701 00	2.54	1 8/0 11	1188	8 280
2001	33 052 00	2.04	1,040.11	.1100	0,200 2 102
2002	33,032.00	2.75	900.93 205 25	.0903	3,103 720
2003	10,181.00	2.90	295.25	.0725	738
2004	8,220.63	3.12	256.48	.0468	385
2005	12,409.00	3.64	451.69	.0182	226
	1,146,381.63		28,567.52		174,269
KENMOU	NT ROAD				
TNTERT	M SURVIVOR CURVE	TOWA 70-R1			
PROBAB	LE RETIREMENT YEAR	6-2046			
NET SA	LVAGE PERCENT 0				
1969	758,616.00	1.51	11,455.10	.5512	418,149
1970	14,576.00	1.53	223.01	.5432	7,918
1971	1,755.00	1.55	27.20	.5348	939
1973	3,587.00	1.60	57.39	.5200	1,865
1974	2,530.00	1.62	40.99	.5103	1,291
1975	4,613.00	1.64	75.65	.5002	2,307
1978	4,063,00	1.72	69.88	.4730	1.922
1980	2.530.828 00	1.77	44.795.66	4514	1,142,416
1981	126 337 00	1 80	2 274 07	4410	55 715
1001	24 022 00	1 00	120 00		10 777
TAQT	24,033.00	1.03	439.80	.4301	10,33/

ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUE FACTOR (5)	D DEPREC AMOUNT (6)
KENMOU	JNT ROAD				
INTER	IM SURVIVOR CURVE I	OWA 70-F	21		
PROBA	BLE RETIREMENT YEAR	6-2046	5		
NET SA	ALVAGE PERCENT 0				
1983	17 415 00	1 86	373 97	4185	7 288
1985	2 553 00	1 93	49 27	3957	1 010
1986	139 274 00	1 96	2 729 77	3822	53 231
1987	689,736,00	2 00	13,794,72	3700	255,202
1988	109,874 00	2.00	2,241 43	3570	39,225
1990	23,228,00	2.13	494.76	.3302	7,670
1991	118.155.00	2.17	2.563.96	.3147	37,183
1992	440,305.00	2.22	9,774.77	.2997	131,959
1993	106,780.00	2.27	2,423.91	.2838	30,304
1994	61,449.00	2.33	1,431.76	.2680	16,468
1995	41,129.00	2.39	982.98	.2510	10,323
1997	169,870.00	2.52	4,280.72	.2142	36,386
1998	281,355.00	2.60	7,315.23	.1950	, 54,864
1999	80,134.00	2.68	2,147.59	.1742	13,959
2000	52,480.66	2.78	1,458.96	.1529	8,024
2001	16,636.04-	2.88	479.12-	.1296	2,156-
2002	18,488.00	3.01	556.49	.1054	1,949
2003	70,436.00	3.18	2,239.86	.0795	5,600
2004	44,400.10	3.41	1,514.04	.0512	2,273
2005	147,003.00	3.94	5,791.92	.0197	2,896
	6,068,366.72		121,095.69		2,356,517
DUFFY	PLACE				
INTER	IM SURVIVOR CURVE I	OWA 70-F	21		
PROBA	BLE RETIREMENT YEAR	6-2060)		
NET SA	ALVAGE PERCENT 0				
1990	9,644,957.00	1.89	182,289.69	.2930	2,825.972
1991	94,221.00	1.93	1,818.47	.2799	26,372
1992	7,335.00	1.97	144.50	.2660	1,951
1993	6,936.00	2.01	139.41	.2513	, 1,743
1994	44,508.00	2.05	912.41	.2358	10,495
1995	20,084.00	2.10	421.76	.2205	4,429
1996	23,539.00	2.15	506.09	.2043	4,809

ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

	ORIGINAL	– – ANNUAI	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
DUFFY	PLACE				
INTERI	M SURVIVOR CURVE	IOWA 70-R1	L		
PROBAB	LE RETIREMENT YEAR	8 6-2060			
NET SA	LVAGE PERCENT 0				
1997	53,366.00	2.21	1,179.39	.1879	10,027
1998	75,022.00	2.27	1,703.00	.1703	12,776
1999	200,887.00	2.34	4,700.76	.1521	30,555
2000	609,123.23	2.41	14,679.87	.1326	80,770
2001	151,471.00	2.50	3,786.78	.1125	17,040
2002	83,805.00	2.62	2,195.69	.0917	7,685
2003	38,217.00	2.76	1,054.79	.0690	2,637
2004	72,938.22	2.97	2,166.27	.0446	3,253
2005	215,773.00	3.48	7,508.90	.0174	3,754
	11,342,182.45		225,207.78		3,044,268
~~~~~					
CARBON	EAR - OFFICE/WAREH	IOUSE			
INTERI	M SURVIVOR CURVE	IOWA 70-R	L		
PROBAB	LE RETIREMENT YEAR	2 6-2030			
NET SA	LVAGE PERCENT 0				
1970	1,526.00	1.77	27.01	.6284	959
1974	2,314.00	1.90	43.97	.5985	1,385
1977	333,806.00	2.01	6,709.50	.5729	191,237
1978	10,941.00	2.04	, 223.20	.5610	, 6,138
1979	7,756.00	2.09	162.10	.5539	4,296
1980	5,329.00	2.13	113.51	.5432	2,895
1981	34,844,00	2.17	756.11	.5317	18,527
1984	11.262.00	2.32	261.28	4988	5.617
1985	8,460,00	2.37	200.50	.4859	4,111
1987	238,674,00	2.49	5.942.98	4607	109.957
1988	31,368,00	2.55	799.88	.4463	14,000
1989	676 132 00	2.55	17 714 66	4323	292 292
1990	207,760,00	2.69	5.588 74	4170	86 636
1991	8,171 00	2.00	226 34	4017	3 282
1992	3 672 00	2.,,	104 28	2021 . IOT 1	1 100
1993	26 190 00	2.04	107.20	.2024	1,400 9 502
1006	51 963 00	2.23	1 672 21	. 3003	15 005
1007	0 410 00	2.44	1,0/3.21 200 OF	.5051	10, CT
1921	8,410.00	3.33	200.00	.2031	∠,381

## ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

VEAD	ORIGINAL	ANNUAI	L ACCRUAL	-ACCRUED	DEPREC
ILAR	(2)	KAIE (2)	AMOON I	FACIOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CARBON	EAR - OFFICE/WARE	HOUSE			
INTERI	M SURVIVOR CURVE.	. IOWA 70-R	1		
PROBAB	LE RETIREMENT YEAR	R 6-2030			
NET SA	LVAGE PERCENT 0				
1998	102,257.00	3.46	3,538.09	.2595	26,536
1999	2,520.00	3.59	90.47	.2334	588
2003	0.10	4.34		.1085	
2005	4,565.00	5.26	240.12	.0263	120
	1,777,920.10		45,463.37		797,853
WHITBC	URNE				
INTERI	M SURVIVOR CURVE.	. IOWA 70-R	1		
PROBAB	LE RETIREMENT YEAR	R 6-2033			
NET SA	LVAGE PERCENT 0				
1973	6,000.00	1.80	108.00	.5850	3,510
1977	2,351.00	1.93	45.37	.5501	1,293
1978	225,803.00	1.96	4,425.74	.5390	121,708
1979	50,242.00	2.00	1,004.84	.5300	26,628
1980	1,056.00	2.04	21.54	.5202	549
1982	5,746.00	2.12	121.82	.4982	2,863
1983	2,890.00	2.17	62.71	.4883	1,411
1984	8,632.00	2.21	190.77	.4752	4,102
1985	32.00	2.26	0.72	.4633	15
1987	17,448.00	2.37	413.52	.4385	7,651
1988	131,804.00	2.42	3,189.66	.4235	55,819
1989	8,222.00	2.48	203.91	.4092	3,364
1990	9,920.00	2.54	251.97	.3937	3,906
1991	25,854.00	2.61	674.79	.3785	9,786
1992	3,575.00	2.68	95.81	.3618	1,293
1996	4,379.00	3.02	132.25	.2869	1,256
1997	14,652.00	3.12	457.14	.2652	3,886
1998	72,716.00	3.22	2,341.46	.2415	17,561
	591,322.00		13,742.02		266,601

#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SALT POND INTERIM SU PROBABLE R NET SALVAG	URVIVOR CURVE IO RETIREMENT YEAR SE PERCENT 0	WA 70-R1 6-2023			
1968	746.00	1.88	14.02	.7050	526
1969	47,127.00	1.91	900.13	.6972	32,857
1970	820.00	1.95	15.99	.6923	568
1971	1,072.00	1.98	21.23	.6831	732
1972	11,862.00	2.02	239.61	.6767	8,027
1974 1	67,763.00	2.11	3,539.80	.6647	111,512
1976	8,022.00	2.20	176.48	.6490	5,206
1977	896.00	2.25	20.16	.6413	575
1978	30,690.00	2.30	705.87	.6325	19,411
1979	549.00	2.35	12.90	.6228	342
1980	0.03-	2.40		.6120	
1982	6,795.00	2.52	171.23	.5922	4,024
1984	1,652.00	2.66	43.94	.5719	945
1985	811.00	2.73	22.14	.5597	454
1986	28,547.00	2.80	799.32	.5460	15,587
1987 1	51,842.72	2.88	4,373.07	.5328	80,902
1988	2,114.00	2.97	62.79	.5198	1,099
1989	1,322.00	3.06	40.45	.5049	667
1990	22,374.00	3.15	704.78	.4883	10,925
1993	41,492.23	3.49	1,448.08	.4363	18,103
1995	79,070.00	3.75	2,965.13	.3938	31,138
2002	41,411.65	5.17	2,140.98	.1810	7,496
2003	4,277.87	5.51	235.71	.1378	589
2004	41,384.08	5.93	2,454.08	.0890	3,683
2005	10,070.00	6.68	672.68	.0334	336
7	02,710.52		21,780.57		355,704
CLARENVITI	E REGIONAL RITIDT	NG			
TNTERIM ST	IRVIVOR CURVE TO	WA 70-R1			
PROBABLE F	ETIREMENT YEAR	6-2042			
NET SALVAG	E PERCENT 0				
1990 1 6	51.044 00	2 23	36.818.28	3457	570 766
1991 1	46,476.00	2.28	3,339.65	.3306	48,425

## ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
CLARENV	ILLE REGIONAL BUI	LDING			
INTERIM	I SURVIVOR CURVE	IOWA 70-R1			
PROBABL	E RETIREMENT YEAR	6-2042			
NET SAL	VAGE PERCENT 0				
1992	8,811.00	2.33	205.30	.3146	2,772
1993	6,094.00	2.39	145.65	.2988	1,821
1995	18,780.00	2.51	471.38	.2636	4,950
1999	19,656.00	2.83	556.26	.1840	3,617
2000	21,716.00	2.94	638.45	.1617	3,511
2005	5,317.00	4.15	220.66	.0208	111
	1,877,894.00		42,395.63		635,973
GANDER					
INTERIM	SURVIVOR CURVE	IOWA 70-R1			
PROBABL	E RETIREMENT YEAR	6-2023			
NET SAL	VAGE PERCENT 0				
1963	2,039.00	1.72	35.07	.7310	1,491
1968	1,096.00	1.88	20.60	.7050	773
1975	231,781.00	2.15	4,983.29	.6558	152,002
1976	24,084.00	2.20	529.85	.6490	15,631
1977	8,245.00	2.25	185.51	.6413	5,288
1978	14,751.00	2.30	339.27	.6325	9,330
1979	2,688.00	2.35	63.17	.6228	1,674
1981	1,109.00	2.46	27.28	.6027	668
1983	40,197.00	2.59	1,041.10	.5828	23,427
1984	30,568.00	2.66	813.11	.5719	17,482
1985	17,867.00	2.73	487.77	.5597	10,000
1986	189,763.00	2.80	5,313.36	.5460	103,611
1987	71,157.00	2.88	2,049.32	.5328	37,912
1988	1,273.00	2.97	37.81	.5198	662
1989	8,645.00	3.06	264.54	.5049	4,365
1990	1,197.00	3.15	37.71	.4883	584
1997	613,545.00	4.06	24,909.93	.3451	211,734
1998	21,825.00	4.24	925.38	.3180	6,940
1999	385.00	4.43	17.06	.2880	111
2001	47,190.00	4.89	2,307.59	.2201	10,387
2003	22,015.00	5.51	1,213.03	.1378	3,034
	,		,		, -

#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
GANDER INTERIM S PROBABLE NET SALVA	URVIVOR CURVE IO RETIREMENT YEAR GE PERCENT 0	WA 70-R1 6-2023			
2004 2005	53,349.91 9,965.00	5.93 6.68	3,163.65 665.66	.0890 .0334	4,748 333
1,	414,734.91		49,431.06		622,187
GRAND FAL INTERIM S PROBABLE NET SALVA	LS OFFICE BUILDING URVIVOR CURVE IO RETIREMENT YEAR GE PERCENT +48	WA 70-R1 6-2005			
1974 1975 1976 1977 1978 1979 1983 1985 1989 1991 1992 1999 2000 NET SALVA	63,000.00 104,524.00 26,522.00 708.00 884.00 358.00 1,922.00 177,339.00 22,076.00- 5,286.00 9,387.00 353.00- 12,927.00 GE ADJUSTMENT			1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	63,000 104,524 26,522 708 884 358 1,922 177,339 22,076- 5,286 9,387 353- 12,927 380,428 182,605-
	380,428.00				197,823
GRAND FAL INTERIM S PROBABLE NET SALVA	LS SERVICE BUILDIN URVIVOR CURVE IO RETIREMENT YEAR GE PERCENT 0	G WA 70-R1 6-2041			
1958	47,594.00	1.37	652.04	.6508	30,974

#### ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
GRAND F INTERIM PROBABL NET SAL	ALLS SERVICE BUII SURVIVOR CURVE. E RETIREMENT YEAH VAGE PERCENT 0	LDING . IOWA 70-R1 R 6-2041			
1959	2,047.00	1.38	28.25	.6417	1.314
1960	2,041.00	1.40	28.57	.6370	1,300
1961	925.00	1.42	13.14	.6319	585
1965	182.00	1.49	2.71	.6035	110
1967	1,147.00	1.53	17.55	.5891	676
1969	1,261.00	1.57	19.80	.5731	723
1970	1,781.00	1.59	28.32	.5645	1,005
1972	3,706.00	1.63	60.41	.5461	2,024
1973	2,735.00	1.66	45.40	.5395	1,476
1974	20,811.00	1.68	349.62	.5292	11,013
1975	52,104.00	1.71	890.98	.5216	27,177
1976	16,165.00	1.74	281.27	.5133	8,297
1977	13,401.00	1.76	235.86	.5016	6,722
1979	46,109.00	1.82	839.18	.4823	22,238
1980	1,113.00	1.85	20.59	.4718	525
1981	17,128.00	1.89	323.72	.4631	7,932
1982	18,645.00	1.92	357.98	.4512	8,413
1987	3,918.00	2.11	82.67	.3904	1,530
1988	448,803.00	2.16	9,694.14	.3780	169,648
1989	34,251.00	2.20	753.52	.3630	12,433
1992	5,410.00	2.36	127.68	.3186	1,724
1994	18,827.00	2.48	466.91	.2852	5,369
1999	10,905.00	2.88	314.06	.1872	2,041
2000	3,109.01	2.98	92.65	.1639	510
2001	40,206.00	3.10	1,246.39	.1395	5,609
	814,324.01		16,973.41		331,368
CORNER	BROOK - WEST STR	<b>ЯОТЯЯО ТЯ</b>			
INTERIM	SURVIVOR CURVE	. IOWA 70-R1			
PROBABL	E RETIREMENT YEAR	R. 6-2009			
NET SAL	VAGE PERCENT 0				
1051		1	0 100 40	~~ = ~	110 10-
1954	117,499.00	1.82	2,138.48	.9373	110,132
1957	972.00	1.93	18.76	.9361	910

## ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

YEAR (1)	ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
CORNER	BROOK - WEST STR	EET OFFICE			
INTERI	M SURVIVOR CURVE.	. IOWA 70-R1			
PROBAB	LE RETIREMENT YEA	R 6-2009			
NET SA	LVAGE PERCENT 0				
1963	3,667.00	2.18	79.94	.9265	3,397
1969	663.00	2.50	16.58	.9125	605
1973	1,576.00	2.78	43.81	.9035	1,424
1974	1,617.00	2.86	46.25	.9009	1,457
1975	5,642.00	2.95	166.44	.8998	5,077
1976	3,606.00	3.03	109.26	.8939	3,223
1977	1,199.00	3.13	37.53	.8921	1,070
1980	83,285.00	3.45	2,873.33	.8798	73,274
1981	11,512.00	3.58	412.13	.8771	10,097
1984	29,733.00	4.01	1,192.29	.8622	25,636
1985	2,886.00	4.17	120.35	.8549	2,467
1987	121,351.00	4.55	5,521.47	.8418	102,153
1989	275,691.00	5.01	13,812.12	.8267	227,914
1990	34,659.00	5.27	1,826.53	.8169	28,313
1991	18,785.00	5.57	1,046.32	.8077	15,173
1997	13,895.00	8.36	1,161.62	.7106	9,874
1998	29,248.00	9.12	2,667.42	.6840	20,006
2000	4,626.00	11.16	516.26	.6138	2,839
	762,112.00		33,806.89		645,041
CORNER	BROOK - MAPLE VA	LLEY SERVICE	BUILDING		
INTERI	M SURVIVOR CURVE.	. IOWA 70-R1			
PROBAB	LE RETIREMENT YEA	R 6-2034			
NET SA	LVAGE PERCENT 0				
1979	360,915.00	1.97	7,110.03	.5221	188,434
1981	22,711.00	2.05	465.58	.5023	11,408
1985	2,474.00	2.23	55.17	.4572	1,131
1986	6,130.29	2.28	139.77	.4446	2,726
1987	2,399.00	2.33	55.90	.4311	1,034
1988	2,379.00	2.38	56.62	.4165	991
1989	180,869.00	2.44	4,413.20	.4026	72,818
1990	6,035.00	2.50	150.88	.3875	2,339
1991	5,939.00	2.57	152.63	.3727	2,213

## ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

ORIGINAL COST (2)	ANNUAL RATE (3)	ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
BROOK - MAPLE VALLEY 1 SURVIVOR CURVE IC LE RETIREMENT YEAR LVAGE PERCENT 0	X SERVICE DWA 70-R1 6-2034	BUILDING		
41,277.00	2.78	1,147.50	.3197	13,196
353.00-	3.27	11.54-	.2126	75-
6,220.00-	3.40	211.48-	.1870	1,163-
100,251.00	3.54	3,548.89	.1593	15,970
37,979.00	3.92	1,488.78	.0980	3,722
5,034.81	4.20	211.46	.0630	317
767,820.10		18,773.39		315,061
IVILLE OFFICE AND SEF 1 SURVIVOR CURVE IC LE RETIREMENT YEAR LVAGE PERCENT 0	RVICE BUI DWA 70-R1 6-2028	LDING		
142,910.00	1.51	2,157.94	.7173	102,509
30,384.00	2.03	616.80	.5989	18,197
669.00	2.07	13.85	.5900	395
828.00	2.11	17.47	.5803	480
9,461.00	2.30	217.60	.5405	5,114
945.00	2.35	22.21	.5288	500
2,438.00	2.59	63.14	.4792	1,168
487,768.88	2.66	12,974.65	.4655	227,056
148,708.00	2.73	4,059.73	.4505	66,993
28,279.00	2.80	791.81	.4340	12,273
0.52-	2.88	0.01-	.4176	
17,045.00	2.97	506.24	.4010	6,835
32,158.00	3.16	1,016.19	.3634	11,686
0.09-	3.38		.3211	
22,245.00	3.50	778.58	.2975	6,618
2,135.00	3.79	80.92	.2464	526
8,148.00	3.95	321.85	.2173	1,771
22,917.00	4.60	1,054.18	.1150	2,635
61,952.10	4.93	3,054.24	.0740	4,584
1,018,990.37		27,747.39		469,340
	ORIGINAL COST (2) BROOK - MAPLE VALLEY M SURVIVOR CURVE IO LE RETIREMENT YEAR JVAGE PERCENT 0 41,277.00 353.00- 6,220.00- 100,251.00 37,979.00 5,034.81 767,820.10 IVILLE OFFICE AND SEM M SURVIVOR CURVE IO LE RETIREMENT YEAR JVAGE PERCENT 0 142,910.00 30,384.00 669.00 828.00 9,461.00 945.00 2,438.00 487,768.88 148,708.00 28,279.00 0.52- 17,045.00 32,158.00 0.09- 22,245.00 2,135.00 8,148.00 22,917.00 61,952.10 1,018,990.37	ORIGINAL COST COST (2) BROOK - MAPLE VALLEY SERVICE A SURVIVOR CURVE IOWA 70-R1 LE RETIREMENT YEAR 6-2034 JVAGE PERCENT 0 41,277.00 2.78 353.00- 3.27 6,220.00- 3.40 100,251.00 3.54 37,979.00 3.92 5,034.81 4.20 767,820.10 IVILLE OFFICE AND SERVICE BUI A SURVIVOR CURVE IOWA 70-R1 LE RETIREMENT YEAR 6-2028 JVAGE PERCENT 0 142,910.00 1.51 30,384.00 2.07 828.00 2.11 9,461.00 2.30 945.00 2.35 2,438.00 2.59 487,768.88 2.66 148,708.00 2.73 28,279.00 2.80 0.52- 2.88 17,045.00 2.97 32,158.00 3.16 0.09- 3.38 22,245.00 3.50 2,135.00 3.79 8,148.00 3.95 22,917.00 4.60 61,952.10 4.93 1,018,990.37	ORIGINAL ANNUAL ACCRUAL COST  RATE  AMOUNT    (2)  (3)  (4)    BROOK - MAPLE VALLEY SERVICE BUILDING    A SURVIVOR CURVE IOWA 70-R1    LE RETIREMENT YEAR  6-2034    JVAGE PERCENT  0    41,277.00  2.78  1,147.50    353.00-  3.27  11.54-    6,220.00-  3.40  211.48-    100,251.00  3.54  3,548.89    37,979.00  3.92  1,488.78    5,034.81  4.20  211.46    767,820.10  18,773.39    NVILLE OFFICE AND SERVICE BUILDING    4 SURVIVOR CURVE IOWA 70-R1    LE RETIREMENT YEAR  6-2028    JVAGE PERCENT  0    142,910.00  1.51  2,157.94    30,384.00  2.03  616.80    669.00  2.07  13.85    828.00  2.11  17.47    9,461.00  2.30  217.60    945.00  2.73  4,059.73    28,279.00  2.80  791.81    0.52-  2.88  0.01-	ORIGINAL ANNUAL ACCRUAL  -ACCRUED    COST  RATE  AMOUNT  FACTOR    (2)  (3)  (4)  (5)    BROOK  MAPLE VALLEY SERVICE BUILDING  (5)    4 SURVIVOR CURVE  IOWA 70-R1

## ACCOUNT 371.20 - BUILDINGS AND STRUCTURES - LARGE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUEI	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
PORT	AUX BASOUES				
INTER	IM SURVIVOR CURVE.	. IOWA 70-R1			
PROBA	BLE RETIREMENT YEAR	R 6-2026			
NET S	CALVAGE PERCENT 0				
1953	2,100.00	1.44	30.24	.7560	1,588
1966	5,552.00	1.74	96.60	.6873	3,816
1982	151,108.00	2.38	3,596.37	.5593	, 84,515
1983	22,703.00	2.44	553.95	.5490	12,464
1984	4,673.00	2.50	116.83	.5375	2,512
1985	1,545.00	2.56	39.55	.5248	811
1987	7,518.00	2.69	202.23	.4977	3,742
1988	40,396.00	2.77	1,118.97	.4848	19,584
1989	6,142.00	2.85	175.05	.4703	2,889
1990	20,209.00	2.93	592.12	.4542	9,179
1997	610.00	3.70	22.57	.3145	192
2000	7,150.00	4.19	299.59	.2305	1,648
	269,706.00		6,844.07		142,940
TOTAL	30,108,626.55		689,973.21	1	LO,838,585

## ACCOUNT 372.00 - GENERAL - OFFICE EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIV	OR CURVE 25-	SQUARE				
NET SA	LVAGE PERCENT.	. 0				
1980	51,170,00				1.0000	51.170
1981	198,074.00	25.00	4.00	7,922,96	.9800	194.113
1982	120,788.00	25.00	4.00	4,831.52	.9400	113,541
1983	56,431.00	25.00	4.00	2,257.24	.9000	50,788
1984	, 93,100.00	25.00	4.00	3,724.00	.8600	, 80,066
1985	158,048.00	25.00	4.00	6,321.92	.8200	, 129,599
1986	201,372.00	25.00	4.00	8,054.88	.7800	157,070
1987	319,451.00	25.00	4.00	12,778.04	.7400	236,394
1988	347,317.00	25.00	4.00	13,892.68	.7000	243,122
1989	423,921.00	25.00	4.00	16,956.84	.6600	279,788
1990	742,516.00	25.00	4.00	29,700.64	.6200	460,360
1991	270,246.00	25.00	4.00	10,809.84	.5800	156,743
1992	357,631.00	25.00	4.00	14,305.24	.5400	193,121
1993	127,487.00	25.00	4.00	5,099.48	.5000	63,744
1994	716,551.00	25.00	4.00	28,662.04	.4600	329,613
1995	198,331.00	25.00	4.00	7,933.24	.4200	83,299
1996	105,582.00	25.00	4.00	4,223.28	.3800	40,121
1997	433,487.00	25.00	4.00	17,339.48	.3400	147,386
1998	258,621.00	25.00	4.00	10,344.84	.3000	77,586
1999	146,317.00	25.00	4.00	5,852.68	.2600	38,042
2000	414,211.77	25.00	4.00	16,568.47	.2200	91,127
2001	360,559.00	25.00	4.00	14,422.36	.1800	64,901
2002	148,751.61	25.00	4.00	5,950.06	.1400	20,825
2003	329,744.13	25.00	4.00	13,189.77	.1000	32,974
2004	123,705.97	25.00	4.00	4,948.24	.0600	7,422
2005	71,535.00	25.00	4.00	2,861.40	.0200	1,431
TOTAL	6,774,948.48			268,951.14		3,344,346

## ACCOUNT 373.00 - GENERAL - STORES EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CIIDVIV		CUIVDE				
NET SA	LVAGE PERCENT.					
1121 011		• •				
1980	4,087.00				1.0000	4,087
1981	31,174.00	25.00	4.00	1,246.96	.9800	30,551
1982	7,175.00	25.00	4.00	287.00	.9400	6,745
1984	3,619.00	25.00	4.00	144.76	.8600	3,112
1985	19,093.00	25.00	4.00	763.72	.8200	15,656
1986	9,305.00	25.00	4.00	372.20	.7800	7,258
1987	5,256.00	25.00	4.00	210.24	.7400	3,889
1988	24,062.00	25.00	4.00	962.48	.7000	16,843
1989	113,142.00	25.00	4.00	4,525.68	.6600	74,674
1990	90,012.00	25.00	4.00	3,600.48	.6200	55,807
1991	23,515.00	25.00	4.00	940.60	.5800	13,639
1992	22,969.00	25.00	4.00	918.76	.5400	12,403
1993	4,556.00	25.00	4.00	182.24	.5000	2,278
1994	58,688.00	25.00	4.00	2,347.52	.4600	26,996
1995	94,538.00	25.00	4.00	3,781.52	.4200	39,706
1996	38,389.00	25.00	4.00	1,535.56	.3800	14,588
1997	27,661.00	25.00	4.00	1,106.44	.3400	9,405
2000	16,786.00	25.00	4.00	671.44	.2200	3,693
2001	8,787.00	25.00	4.00	351.48	.1800	1,582
2003	4,302.00	25.00	4.00	172.08	.1000	430
2004	8,902.53	25.00	4.00	356.10	.0600	534
2005	28,110.00	25.00	4.00	1,124.40	.0200	562
TOTAL	644,128.53			25,601.66		344,438
				•		

# ACCOUNT 374.00 - GENERAL - SHOP EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	DR CURVE 25-	SQUARE				
NET SAI	LVAGE PERCENT.	. 0				
1000	2 571 00				1 0000	2 571
1001	12,571.00	25 00	4 0 0	E10 21	1.0000	12 / 22
1002	13,700.00	25.00	4.00	295 69	.9800	LJ,4JZ
1983	2 011 00	25.00	4.00	80 44	9000	1 810
1984	13 864 00	25.00	4.00	554 56	.9000	11 923
1985	7 713 00	25.00	4 00	308 52	.0000	6 325
1986	10 556 00	25.00	4 00	422 24	7800	8 234
1987	47,591 00	25.00	4 00	1,903 64	7400	35,217
1988	11,628,00	25 00	4 00	465 12	7000	8,140
1989	44.822.00	25.00	4.00	1.792.88	.6600	29.583
1990	70,910.00	25.00	4.00	2,836.40	.6200	43,964
1991	81,854.00	25.00	4.00	3,274.16	.5800	47,475
1992	46,628.00	25.00	4.00	1,865.12	.5400	25,179
1993	18,953.00	25.00	4.00	758.12	.5000	9,477
1994	29,504.00	25.00	4.00	1,180.16	.4600	13,572
1995	22,264.00	25.00	4.00	890.56	.4200	9,351
1996	38,385.00	25.00	4.00	1,535.40	.3800	14,586
1997	4,964.00	25.00	4.00	198.56	.3400	1,688
1998	38,347.00	25.00	4.00	1,533.88	.3000	11,504
1999	99,654.00	25.00	4.00	3,986.16	.2600	25,910
2000	32,361.00	25.00	4.00	1,294.44	.2200	7,119
2001	57,908.00	25.00	4.00	2,316.32	.1800	10,423
2003	1,457.61	25.00	4.00	58.30	.1000	146
2004	3,278.33	25.00	4.00	131.13	.0600	197
2005	3,599.00	25.00	4.00	143.96	.0200	72
ΤΟΤΑΙ	711,920,94			28.373.99		344.846
	· · · · / · · · · · · ·					511,010

ACCOUNT 375.00 - GENERAL - LABORATORY & TESTING EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR	ORIGINAL COST	LIFE	ANNUAL RATE	ACCRUAL AMOUNT	-ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVI	VOR CURVE 25-	SQUARE				
NET SA	ALVAGE PERCENT.	. 0				
1977	25,694.00				1.0000	25,694
1980	59,610.00				1.0000	59,610
1981	49,832.00	25.00	4.00	1,993.28	.9800	48,835
1982	43,847.00	25.00	4.00	1,753.88	.9400	41,216
1983	26,858.00	25.00	4.00	1,074.32	.9000	24,172
1984	30,003.00	25.00	4.00	1,200.12	.8600	25,803
1985	56,193.00	25.00	4.00	2,247.72	.8200	46,078
1986	270,072.00	25.00	4.00	10,802.88	.7800	210,656
1987	129,497.00	25.00	4.00	5,179.88	.7400	95,828
1988	131,809.00	25.00	4.00	5,272.36	.7000	92,266
1989	168,124.00	25.00	4.00	6,724.96	.6600	110,962
1990	359,251.00	25.00	4.00	14,370.04	.6200	222,736
1991	87,473.00	25.00	4.00	3,498.92	.5800	50,734
1992	692,594.00	25.00	4.00	27,703.76	.5400	374,001
1993	258,557.00	25.00	4.00	10,342.28	.5000	129,279
1994	187,890.00	25.00	4.00	7,515.60	.4600	86,429
1995	91,335.00	25.00	4.00	3,653.40	.4200	38,361
1996	265,873.00	25.00	4.00	10,634.92	.3800	101,032
1997	204,056.00	25.00	4.00	8,162.24	.3400	69,379
1998	433,249.00	25.00	4.00	17,329.96	.3000	129,975
1999	367,649.00	25.00	4.00	14,705.96	.2600	95,589
2000	57,184.00	25.00	4.00	2,287.36	.2200	12,580
2001	52,376.00	25.00	4.00	2,095.04	.1800	9,428
2002	222,014.00	25.00	4.00	8,880.56	.1400	31,082
2003	114,206.56	25.00	4.00	4,568.26	.1000	11,421
2004	251,504.35	25.00	4.00	10,060.17	.0600	15,090
2005	360,052.00	25.00	4.00	14,402.08	.0200	7,201
TOTAL	4,996,802.91			196,459.95		2,165,437

ACCOUNT 376.00 - GENERAL - MISCELLANEOUS EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUA	AL ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE 15-	SQUARE				
NET SAL	VAGE PERCENT.	. 0				
1987	105,375.00				1.0000	105,375
1990	94,276.00				1.0000	94,276
1991	49,695.00	15.00	6.67	3,314.66	.9667	48,040
1992	112,786.00	15.00	6.67	7,522.83	.9000	101,507
1993	45,844.00	15.00	6.67	3,057.79	.8333	38,202
1994	66,230.00	15.00	6.67	4,417.54	.7667	50,779
1995	56,297.00	15.00	6.67	3,755.01	.7000	39,408
1996	99,402.00	15.00	6.67	6,630.11	.6333	62,951
1997	208,469.00	15.00	6.67	13,904.88	.5667	118,139
1998	43,040.00	15.00	6.67	2,870.77	.5000	21,520
1999	96,730.00	15.00	6.67	6,451.89	.4333	41,913
2000	108,765.00	15.00	6.67	7,254.63	.3667	39,884
2001	79,001.00	15.00	6.67	5,269.37	.3000	23,700
2002	65,622.05	15.00	6.67	4,376.99	.2333	15,310
2003	326,362.83	15.00	6.67	21,768.40	.1667	54,405
2004	224,366.94	15.00	6.67	14,965.27	.1000	22,437
2005	262,457.00	15.00	6.67	17,505.88	.0333	8,740

TOTAL 2,044,718.82

123,066.02

886,586

ACCOUNT 377.00 - GENERAL - ENGINEERING EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE 25-	SQUARE				
NET SAL	VAGE PERCENT.	. 0				
1977	20,171.00				1.0000	20,171
1980	11,936.00				1.0000	11,936
1983	9,413.00	25.00	4.00	376.52	.9000	8,472
1984	747.00	25.00	4.00	29.88	.8600	642
1985	4,561.00	25.00	4.00	182.44	.8200	3,740
1986	36,479.00	25.00	4.00	1,459.16	.7800	28,454
1987	125,253.00	25.00	4.00	5,010.12	.7400	92,687
1988	37,696.00	25.00	4.00	1,507.84	.7000	26,387
1989	8,642.00	25.00	4.00	345.68	.6600	5,704
1990	10,841.00	25.00	4.00	433.64	.6200	6,721
1991	9,859.00	25.00	4.00	394.36	.5800	5,718
1992	1,980.00	25.00	4.00	79.20	.5400	1,069
1993	3,932.00	25.00	4.00	157.28	.5000	1,966
1995	707.00	25.00	4.00	28.28	.4200	297
1996	2,540.00	25.00	4.00	101.60	.3800	965
1998	6,983.00	25.00	4.00	279.32	.3000	2,095
1999	24,076.00	25.00	4.00	963.04	.2600	6,260
2003	20,171.00-	25.00	4.00	806.84-	.1000	2,017-

TOTAL 295,645.00

10,541.52

221,267
#### ACCOUNT 378.10 - TRANSPORTATION - SEDANS & STATION WAGONS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 5-	R1.5			
NET SAL	VAGE PERCENT +1	6			
1995	17,096.00	9.98	1,706.18	1.0000	17,096
1996	0.35-	10.52	0.04-	.9994	
1999	17,095.59-	13.55	2,316.45-	.8808	15,058-
2000	41,606.00	14.87	6,186.81	.8179	34,030
2001	30,611.00	16.32	4,995.72	.7344	22,481
2003	53,359.00	19.75	10,538.40	.4938	26,349
2005	224,064.00	27.37	61,326.32	.1369	30,674
			82,436.94		115,572
NET SAL	VAGE ADJUSTMENT		13,189.91-		18,492-
TOTAL	349,640.06		69,247.03		97,080

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 19.81

# ACCOUNT 378.20 - TRANSPORTATION-PICK-UP TRUCKS, WINDOW VANS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	AL ACCRUAL	-ACCRUEI	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	VOR CURVE IOWA 6-5	52.5			
NET SA	ALVAGE PERCENT +17	7			
1985	22,098.30-			1.0000	22,098-
1994	0.05	8.74		1.0000	
1995	0.10	9.45	0.01	.9923	
1996	0.03-	10.22		.9709	
1997	20,584.12	11.11	2,286.90	.9444	19,440
1998	275,396.42	12.14	33,433.13	.9105	250,748
1999	134,631.57	13.29	17,892.54	.8639	116,308
2000	302,101.55	14.54	43,925.57	.7997	241,591
2001	655,629.86	15.81	103,655.08	.7115	466,481
2002	976,432.48	16.96	165,602.95	.5936	579,610
2003	809,517.93	17.82	144,256.10	.4455	360,640
2004	558,972.20	18.29	102,236.02	.2744	153,382
2005	1,321,099.00	18.46	243,874.88	.0923	121,937
			857,163.18		2,288,039
NET SZ	ALVAGE ADJUSTMENT		145,717.74-		388,967-
TOTAL	5,032,266.95		711,445.44		1,899,072

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 14.14

# ACCOUNT 378.31 - TRUCKS $\ensuremath{\mathbb{W}}/$ DERRICKS - CAB AND CHASSIS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIN NET SA	/OR CURVE IOWA 10 ALVAGE PERCENT +1	-S1.5 0			
1988	1.00-	5.55	0.06-	.9713	1-
1989	1.70-	5.79	0.10-	.9554	2 -
1990	39,612.19	6.05	2,396.54	.9378	37,148
1991	1.00	6.33	0.06	.9179	1
1992	0.12-	6.65	0.01-	.8978	
1993	92,946.05	6.99	6,496.93	.8738	81,216
1994	115,289.62	7.35	8,473.79	.8453	97,454
1995	82,323.14	7.75	6,380.04	.8138	66,995
1996	0.17-	8.18	0.01-	.7771	
1997	126,721.60	8.64	10,948.75	.7344	93,064
1998	223,878.70	9.12	20,417.74	.6840	153,133
1999	451,240.49	9.61	43,364.21	.6247	281,890
2000	568,263.23	10.12	57,508.24	.5566	316,295
2001	327,003.62	10.61	34,695.08	.4775	156,144
2002	97,863.04	11.07	10,833.44	.3875	37,922
2003	843,053.00	11.48	96,782.48	.2870	241,956
2004	1,190,018.00	11.81	140,541.13	.1772	210,871
2005	222,356.00	12.02	26,727.19	.0601	13,364
			465,565.44	:	1,787,450
NET SA	ALVAGE ADJUSTMENT		46,556.54-		178,745-
TOTAL	4,380,566.69		419,008.90	:	1,608,705

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 9.57

# ACCOUNT 378.32 - TRUCKS W/ DERRICKS - EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR	ORIGINAL COST	ANNUAI RATE	L ACCRUAL AMOUNT	-ACCRUED FACTOR	DEPREC AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI	/OR CURVE IOWA 10-	-S1.5			
NET SA	ALVAGE PERCENT +10	0			
1979	1.00-			1.0000	1-
1982	1.00-			1.0000	1-
1985	0.18-			1.0000	
1986	0.34	5.13	0.02	1.0000	
1988	3.92-	5.55	0.22-	.9713	4 -
1989	0.16	5.79	0.01	.9554	
1990	108,525.28	6.05	6,565.78	.9378	101,775
1991	2,942.12	6.33	186.24	.9179	2,701
1992	104,227.84	6.65	6,931.15	.8978	93,576
1993	201,847.98	6.99	14,109.17	.8738	176,375
1994	120,163.32	7.35	8,832.00	.8453	101,574
1995	509,650.42	7.75	39,497.91	.8138	414,754
1996	14,756.00	8.18	1,207.04	.7771	11,467
1997	134,883.24	8.64	11,653.91	.7344	99,058
1998	249,357.00	9.12	22,741.36	.6840	170,560
1999	272,310.65	9.61	26,169.05	.6247	170,112
2000	781,127.80	10.12	79,050.13	.5566	434,776
2001	744,431.51	10.61	78,984.18	.4775	355,466
2002	164,037.46	11.07	18,158.95	.3875	63,565
2003	1,526,044.00	11.48	175,189.85	.2870	437,975
2004	475,322.00	11.81	56,135.53	.1772	84,227
2005	523,806.00	12.02	62,961.48	.0601	31,481
			608,373.54	:	2,749,436
NET SA	ALVAGE ADJUSTMENT		60,837.35-		274,944-
TOTAL	5,933,427.02		547,536.19		2,474,492

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 9.23

# ACCOUNT 378.40 - TRANSPORTATION - TRUCKS W/ STAKE BODIES

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIV NET SA	OR CURVE IOWA 10 LVAGE PERCENT +1	-S1.5 0			
1981	6,240.00-			1.0000	6,240-
1982	6,238.00			1.0000	6,238
1986	25,129.00	5.13	1,289.12	1.0000	25,129
1987	44,605.00	5.34	2,381.91	.9879	44,065
1988	3.22	5.55	0.18	.9713	3
1989	0.11	5.79	0.01	.9554	
1992	1.00	6.65	0.07	.8978	1
1993	285,164.40	6.99	19,932.99	.8738	249,177
1994	159,050.90	7.35	11,690.24	.8453	134,446
1995	219,446.05	7.75	17,007.07	.8138	178,585
1996	125,036.70	8.18	10,228.00	.7771	97,166
1997	564,205.84	8.64	48,747.38	.7344	414,353
1998	298,827.86	9.12	27,253.10	.6840	204,398
1999	0.19	9.61	0.02	.6247	
2000	259,872.94	10.12	26,299.14	.5566	144,645
2001	14,868.30	10.61	1,577.53	.4775	7,100
2002	1,125.28	11.07	124.57	.3875	436
2003	594,812.00	11.48	68,284.42	.2870	170,711
2004	402,507.96	11.81	47,536.19	.1772	71,324
2005	596,381.00	12.02	71,685.00	.0601	35,842
			354,036.94	-	1,777,379
NET SA	LVAGE ADJUSTMENT		35,403.69-		177,738-
TOTAL	3,591,035.75		318,633.25	:	1,599,641

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 8.87

#### ACCOUNT 378.50 - TRANSPORTATION - MISCELLANEOUS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUEI	D DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIN	VOR CURVE IOWA 18-	L1			
NET SA	ALVAGE PERCENT +20				
1966	4,182,46	2.35	98.29	. 9283	3,883
1968	39,739.00	2.45	973.61	.9188	36,512
1972	2,077.00	2.66	55.25	.8911	1,851
1974	15,153.00	2.78	421.25	.8757	13,269
1975	28,625.00	2.85	815.81	.8693	24,884
1977	0.45	2.98	0.01	.8493	,
1979	69,258.00	3.14	2,174.70	.8321	57,630
1981	5,685.00	3.30	187.61	.8085	4,596
1982	2,985.00	3.39	101.19	.7967	2,378
1984	0.69-	3.59	0.02-	.7719	1-
1985	35,832.80	3.69	1,322.23	.7565	27,108
1986	41,726.30	3.81	1,589.77	.7430	31,003
1987	2,471.02	3.93	97.11	.7271	1,797
1988	64,577.84	4.05	2,615.40	.7088	45,773
1989	124,987.33	4.19	5,236.97	.6914	86,416
1990	32,548.70	4.34	1,412.61	.6727	21,896
1992	13,508.38	4.66	629.49	.6291	8,498
1993	8,338.00	4.85	404.39	.6063	5,055
1994	116,499.42	5.05	5,883.22	.5808	67,663
1995	7,653.00	5.27	403.31	.5534	4,235
1996	76,885.39	5.51	4,236.38	.5235	40,250
1997	116,212.80	5.78	6,717.10	.4913	57,095
1998	95,567.05	6.05	5,781.81	.4538	43,368
1999	30,975.00	6.34	1,963.82	.4121	12,765
2000	82,442.91	6.65	5,482.45	.3658	30,158
2001	55,508.00	6.96	3,863.36	.3132	17,385
2002	48,545.00	7.28	3,534.08	.2548	12,369
2003	44,701.00	7.62	3,406.22	.1905	8,516
2004	186,078.50	8.00	14,886.28	.1200	22,329
2005	128,150.00	8.60	11,020.90	.0430	5,510
			85,314.60		694,191
NET SA	ALVAGE ADJUSTMENT		17,062.92-		138,838-
TOTAL	1,480,912.66		68,251.68		555,353

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 4.61

#### ACCOUNT 379.10 - COMPUTERS - HARDWARE

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

ORIGINAL			– – ANNU	JAL ACCRUAL	-ACCRUED	-ACCRUED DEPREC	
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
SURVI	VOR CURVE 5-SQ	UARE					
NET SA	ALVAGE PERCENT	0					
1997	0.58				1.0000	1	
1998	1.15				1.0000	1	
2000	2,443,249.00				1.0000	2,443,249	
2001	1,225,626.00	5.00	20.00	245,125.20	.9000	1,103,063	
2002	1,549,348.00	5.00	20.00	309,869.60	.7000	1,084,544	
2003	2,774,524.00	5.00	20.00	554,904.80	.5000	1,387,262	
2004	1,666,665.00	5.00	20.00	333,333.00	.3000	500,000	
2005	1,371,220.00	5.00	20.00	274,244.00	.1000	137,122	
TOTAL	11,030,633.73			1,717,476.60		6,655,242	

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 15.57

#### ACCOUNT 379.20 - COMPUTERS - SOFTWARE

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNU	JAL ACCRUAL	-ACCRU	ED DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVI NET SZ	VOR CURVE 10- ALVAGE PERCENT.	SQUARE . 0				
1992	0.38-				1.0000	
1995	507,771.00				1.0000	507,771
1996	878,309.00	10.00	10.00	87,830.90	.9500	834,394
1997	1,890,856.00	10.00	10.00	189,085.60	.8500	1,607,228
1998	2,619,834.00	10.00	10.00	261,983.40	.7500	1,964,876
1999	3,341,108.00	10.00	10.00	334,110.80	.6500	2,171,720
2000	2,377,562.00	10.00	10.00	237,756.20	.5500	1,307,659
2001	1,876,081.00	10.00	10.00	187,608.10	.4500	844,236
2002	4,554,641.00	10.00	10.00	455,464.10	.3500	1,594,124
2003	4,608,132.00	10.00	10.00	460,813.20	.2500	1,152,033
2004	2,550,912.00	10.00	10.00	255,091.20	.1500	382,637
2005	2,170,524.00	10.00	10.00	217,052.40	.0500	108,526
TOTAL	27,375,729.62			2,686,795.90		12,475,204

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 9.81

#### ACCOUNT 381.10 - MOBILE RADIOS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUA	AL ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	R CURVE 15-	SQUARE				
NET SAL	VAGE PERCENT.	. 0				
1990	59,302.00				1.0000	59,302
1992	38,903.00	15.00	6.67	2,594.83	.9000	35,013
1993	2,352.00	15.00	6.67	156.88	.8333	1,960
1996	45,704.00	15.00	6.67	3,048.46	.6333	28,944
1997	86,422.00	15.00	6.67	5,764.35	.5667	48,975
1998	26,370.00	15.00	6.67	1,758.88	.5000	13,185
2000	31,928.27	15.00	6.67	2,129.62	.3667	11,708
2001	26,431.00	15.00	6.67	1,762.95	.3000	7,929
2002	31,615.00	15.00	6.67	2,108.72	.2333	7,376
2003	26,481.00	15.00	6.67	1,766.28	.1667	4,414
2004	15,437.92	15.00	6.67	1,029.71	.1000	1,544
2005	21,838.00	15.00	6.67	1,456.59	.0333	727
TOTAL	412,784.19			23,577.27		221,077

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 5.71

ACCOUNT 381.20 - MOBILE RADIOS - PORTABLE RADIOS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

ORIGINAL		– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(2)	(3)	(4)	(5)	(6)	(7)
R CURVE 15-	SQUARE				
VAGE PERCENT.	. 0				
49,760.00				1.0000	49,760
31,674.00	15.00	6.67	2,112.66	.9000	28,507
9,988.00	15.00	6.67	666.20	.7667	7,658
41,511.00	15.00	6.67	2,768.78	.7000	29,058
23,216.00	15.00	6.67	1,548.51	.5667	13,157
18,161.00	15.00	6.67	1,211.34	.5000	9,081
19,565.00	15.00	6.67	1,304.99	.4333	8,478
0.27-	15.00	6.67	0.02-	.3667	
13,654.00	15.00	6.67	910.72	.3000	4,096
22,354.00	15.00	6.67	1,491.01	.2333	5,215
4,891.00	15.00	6.67	326.23	.0333	163
234,773.73			12,340.42		155,173
,	ORIGINAL COST (2) R CURVE. 15- VAGE PERCENT. 49,760.00 31,674.00 9,988.00 41,511.00 23,216.00 18,161.00 19,565.00 0.27- 13,654.00 22,354.00 4,891.00 234,773.73	ORIGINAL COST LIFE (2) (3) R CURVE 15-SQUARE VAGE PERCENT 0 49,760.00 31,674.00 15.00 9,988.00 15.00 41,511.00 15.00 23,216.00 15.00 18,161.00 15.00 19,565.00 15.00 13,654.00 15.00 22,354.00 15.00 4,891.00 15.00 234,773.73	ORIGINALANNUA COST LIFE RATE (2) (3) (4) R CURVE 15-SQUARE VAGE PERCENT 0 49,760.00 31,674.00 15.00 6.67 9,988.00 15.00 6.67 41,511.00 15.00 6.67 23,216.00 15.00 6.67 18,161.00 15.00 6.67 19,565.00 15.00 6.67 13,654.00 15.00 6.67 22,354.00 15.00 6.67 4,891.00 15.00 6.67 234,773.73	ORIGINAL ANNUAL ACCRUAL COST  LIFE  RATE  AMOUNT    (2)  (3)  (4)  (5)    R CURVE  15-SQUARE  (5)    VAGE PERCENT  0  49,760.00    31,674.00  15.00  6.67  2,112.66    9,988.00  15.00  6.67  2,768.78    23,216.00  15.00  6.67  1,548.51    18,161.00  15.00  6.67  1,211.34    19,565.00  15.00  6.67  0.02-    13,654.00  15.00  6.67  1,491.01    4,891.00  15.00  6.67  1,491.01    4,891.00  15.00  6.67  1,2340.42	ORIGINAL ANNUAL ACCRUAL  -ACCRUED    COST  LIFE  RATE  AMOUNT  FACTOR    (2)  (3)  (4)  (5)  (6)    R CURVE  15-SQUARE  (6)  1.0000    49,760.00  1.0000  9988.00  15.00  6.67  2,112.66  .9000    9,988.00  15.00  6.67  2,768.78  .7000  .7667    41,511.00  15.00  6.67  1,548.51  .5667    18,161.00  15.00  6.67  1,211.34  .5000    19,565.00  15.00  6.67  1,491.01  .2333    0.27-  15.00  6.67  1,491.01  .2333    4,891.00  15.00  6.67  326.23  .0333

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 5.26

#### ACCOUNT 381.30 - MOBILE RADIOS - BASE STATIONS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVO	OR CURVE 15-	SQUARE				
NET SAL	JVAGE PERCENT.	. 0				
1990	27,155.00				1.0000	27,155
1991	56,384.00	15.00	6.67	3,760.81	.9667	54,506
1992	11,710.00	15.00	6.67	781.06	.9000	10,539
1995	1,320.00	15.00	6.67	88.04	.7000	924
1996	5,562.00	15.00	6.67	370.99	.6333	3,522
TOTAL	102,131.00			5,000.90		96,646

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 4.90

# ACCOUNT 382.10 - RADIO SITES - ROADS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUAI	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIN	JOR CURVE IOWA 30-	-R4			
NET SA	ALVAGE PERCENT 0				
1966	3,097.00	2.45	75.88	.9678	2,997
1967	3,962.00	2.50	99.05	.9625	3,813
1975	6,136.00	2.90	177.94	.8845	5,427
1977	5,545.00	3.00	166.35	.8550	4,741
1982	3,700.00	3.19	118.03	.7497	2,774
1983	2,729.00	3.23	88.15	.7268	1,983
1984	5,083.00	3.26	165.71	.7009	3,563
1985	40,119.00	3.29	1,319.92	.6745	27,060
1986	38,398.00	3.32	1,274.81	.6474	24,859
1992	965.00	3.46	33.39	.4671	451
TOTAL	109,734.00		3,519.23		77,668

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.21

#### ACCOUNT 382.20 - RADIO SITES - BUILDINGS

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO NET SAI	DR CURVE IOWA 30- LVAGE PERCENT5	R4			
1977	42,386.00	3.00	1,271.58	.8550	36,240
1983	116,762.00	3.23	3,771.41	.7268	84,863
1984	55,719.00	3.26	1,816.44	.7009	39,053
1985	100,065.00	3.29	3,292.14	.6745	67,494
1986	33,061.00	3.32	1,097.63	.6474	21,404
1988	17,664.00	3.38	597.04	.5915	10,448
2000	16,120.00	3.53	569.04	.1942	3,131
2001	1,869.00	3.53	65.98	.1589	297
2004	2,268.00	3.54	80.29	.0531	120
			12,561.55		263,050
NET SAI	LVAGE ADJUSTMENT		628.08		13,153
TOTAL	385,914.00		13,189.63		276,203

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 3.42

#### ACCOUNT 383.00 - RADIO EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		– – ANNUA	AL ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIV	OR CURVE., 15-	SOUARE				
NET SA	LVAGE PERCENT.	. 0				
1983	1.698.00-				1.0000	1.698-
1988	1.00-				1.0000	1-
1991	466,547.00	15.00	6.67	31,118.68	.9667	451,011
1992	94,421.00	15.00	6.67	6,297.88	.9000	84,979
1993	82,574.00	15.00	6.67	5,507.69	.8333	68,809
1994	216,379.00	15.00	6.67	14,432.48	.7667	165,898
1996	180,896.00	15.00	6.67	12,065.76	.6333	114,561
1997	56,686.00	15.00	6.67	3,780.96	.5667	32,124
1998	186,751.00	15.00	6.67	12,456.29	.5000	93,376
1999	2,680.00	15.00	6.67	178.76	.4333	1,161
2000	61,961.98	15.00	6.67	4,132.86	.3667	22,721
2001	41,106.00	15.00	6.67	2,741.77	.3000	12,332
2002	37,617.00	15.00	6.67	2,509.05	.2333	8,776
2004	160,211.91	15.00	6.67	10,686.13	.1000	16,021
2005	1,737.00	15.00	6.67	115.86	.0333	58
TOTAL	1,587,868.89			106,024.17		1,070,128

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 6.68

#### ACCOUNT 384.00 - COMMUNICATION CABLES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

YEAR (1)	ORIGINAL COST (2)	ANNUA RATE (3)	L ACCRUAL AMOUNT (4)	-ACCRUED FACTOR (5)	DEPREC AMOUNT (6)
SURVIV NET SA	OR CURVE IOWA 25- LVAGE PERCENT10	R3			
1982	208,795.00	3.47	7,245.19	.8155	170,272
1983	6,474.00	3.53	228.53	.7943	5,142
1985	105,946.00	3.65	3,867.03	.7483	79,279
1988	4,523.00	3.83	173.23	.6703	3,032
1989	13,491.00	3.88	523.45	.6402	8,637
1990	266,307.86	3.94	10,492.53	.6107	162,634
1991	492,621.55	3.99	19,655.60	.5786	285,031
1993	0.44-	4.09	0.02-	.5113	
1994	10,967.00	4.14	454.03	.4761	5,221
1995	23,582.00	4.19	988.09	.4400	10,376
1996	36,235.00	4.23	1,532.74	.4019	14,563
1997	1,466.00	4.28	62.74	.3638	533
1998	232,557.00	4.32	10,046.46	.3240	75,348
1999	68,531.00	4.36	2,987.95	.2834	19,422
2000	276,402.72	4.40	12,161.72	.2420	66,889
2001	232,622.86	4.44	10,328.45	.1998	46,478
2002	139,979.00	4.48	6,271.06	.1568	21,949
2003	221,175.00	4.53	10,019.23	.1133	25,059
2004	1,461.32	4.58	66.93	.0687	100
2005	68,476.00	4.68	3,204.68	.0234	1,602
			100,309.62	:	1,001,567
NET SA	LVAGE ADJUSTMENT		10,030.96		100,157
TOTAL	2,411,612.87		110,340.58		1,101,724

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 4.58

#### ACCOUNT 386.00 - COMMUNICATIONS - SCADA EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIV	OR CURVE IOWA 14-	L2			
NET SA	LVAGE PERCENT 0				
1980	218,747.00	3.57	7,809.27	.9104	199,147
1983	414,435.00	3.91	16,204.41	.8798	364,620
1984	211,742.00	4.04	8,554.38	.8686	183,919
1985	28,476.00	4.17	1,187.45	.8549	24,344
1986	190,537.00	4.32	8,231.20	.8424	160,508
1987	89,632.00	4.47	4,006.55	.8270	74,126
1988	526,317.00	4.64	24,421.11	.8120	427,369
1989	478,723.89	4.83	23,122.36	.7970	381,543
1990	10,639.00	5.03	535.14	.7797	8,295
1991	227,631.00	5.25	11,950.63	.7613	173,295
1992	62,006.00	5.50	3,410.33	.7425	46,039
1993	50,312.00	5.77	2,903.00	.7213	36,290
1994	58,347.00	6.07	3,541.66	.6981	40,732
1995	51,908.00	6.39	3,316.92	.6710	34,830
1996	31,656.00	6.73	2,130.45	.6394	20,241
1997	7,183.44	7.08	508.59	.6018	4,323
1998	17,070.00	7.42	1,266.59	.5565	9,499
1999	247,722.00	7.74	19,173.68	.5031	124,629
2000	1,382,638.81	8.02	110,887.63	.4411	609,882
2001	1,173,574.14	8.27	97,054.58	.3722	436,804
2002	280,135.00	8.51	23,839.49	.2979	83,452
2004	27,355.85	8.91	2,437.41	.1337	3,657
2005	6,283.00	9.02	566.73	.0451	283
TOTAL	5,793,071.13		377,059.56	:	3,447,827

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 6.51

#### ACCOUNT 389.10 - TELEPHONE & DATA COLLECTION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	– – ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVI NET S	VOR CURVE IOWA : ALVAGE PERCENT (	10-L2.5 )			
1990	39,627.00	5.71	2,262.70	.8851	35,074
1992	45,031.00	6.29	2,832.45	.8492	38,240
1993	2,415.00	6.63	160.11	.8288	2,002
1994	4,740.64	7.03	333.27	.8085	3,833
1995	6,516.00	7.49	488.05	.7865	5,125
1996	124,185.15	8.03	9,972.07	.7629	94,741
1997	222,233.62	8.62	19,156.54	.7327	162,831
1998	816,114.93	9.24	75,409.02	.6930	565,568
1999	25,829.07	9.84	2,541.58	.6396	16,520
2000	30,414.39	10.38	3,157.01	.5709	17,364
2001	17,245.00	10.85	1,871.08	.4883	8,421
2005	4,678.00	11.97	559.96	.0599	280
TOTAL	1,339,029.80		118,743.84		949,999

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 8.87

# ACCOUNT 390.00 - COMMUNICATIONS - POWER LINE CARRIER

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL		ANNUAL	ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)
SURVIVOR NET SALV	R CURVE 15-S /AGE PERCENT	QUARE 0				
1989	5,930.04				1.0000	5,930
1990	7,088.00				1.0000	7,088
1995	8,830.00	15.00	6.67	588.96	.7000	6,181
1997	0.20-	15.00	6.67	0.01-	.5667	
TOTAL	21,847.84			588.95		19,199

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 2.70

#### ACCOUNT 391.00 - COMMUNICATIONS - TEST EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT DECEMBER 31, 2005

	ORIGINAL	ANNUA	L ACCRUAL	-ACCRUED	DEPREC
YEAR	COST	RATE	AMOUNT	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)
SURVIVO	R CURVE IOWA 15	-R3			
NET SAL	VAGE PERCENT 0				
1985	28,409.00	4.63	1,315.34	.9492	26,966
1986	53,903.00	4.80	2,587.34	.9360	50,453
1987	40,782.00	4.97	2,026.87	.9195	37,499
1988	80,065.00	5.16	4,131.35	.9030	72,299
1989	122,101.00	5.34	6,520.19	.8811	107,583
1990	158,190.00	5.53	8,747.91	.8572	135,600
1991	30,442.00	5.71	1,738.24	.8280	25,206
1992	65,593.00	5.89	3,863.43	.7952	52,160
1993	26,087.00	6.06	1,580.87	.7575	19,761
1995	22,544.00	6.38	1,438.31	.6699	15,102
1996	25,491.00	6.53	1,664.56	.6204	15,815
1997	21,608.00	6.68	1,443.41	.5678	12,269
1998	35,716.00	6.82	2,435.83	.5115	18,269
1999	10,612.00	6.95	737.53	.4518	4,795
TOTAL	721,543.00		40,231.18		593,777

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 5.58