Exhibit No.:	
Issue:	Depreciation Rates
Witness:	Dr. Ronald E. White
Type of Exhibit:	Rebuttal Testimony
Sponsoring Party:	KCP&L Greater Missouri Operations Company
Case No.:	ER-2009-0090
Date Testimony Prepared:	March 13, 2009

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2009-0090

REBUTTAL TESTIMONY

OF

Dr. Ronald E. White

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri
March 2009

BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY OF DR. RONALD E. WHITE
ON BEHALF OF KCP&L GREATER MISSOURI OPERATIONS COMPANY

CASE NO. ER-2009–0090

Q. Would you please state your name and business address?

A. My name is Ronald E. White. My business address is 17595 S. Tamiami Trail, Suite 212, Fort Myers, Florida 33908.

Q. What is your occupation?

A. I am Chairman and a Senior Consultant of Foster Associates, Inc.

QUALIFICATIONS

Q. Would you briefly describe your educational training and professional background?

A. I received a B.S. degree in Engineering Operations and an M.S. degree and Ph.D. (1977) in Engineering Valuation from Iowa State University. I have taught graduate and undergraduate courses in industrial engineering, engineering economics, and engineering valuation at Iowa State University and previously served on the faculty for Depreciation Programs for public utility commissions, companies, and consultants, sponsored by Depreciation Programs, Inc., in cooperation with Western Michigan University. I also conduct courses in depreciation and public utility economics for clients of the firm.

I have prepared and presented a number of papers to professional organizations, committees, and conferences and have published several articles on matters relating to depreciation, valuation and economics. I am a past member of the Board of Directors of the Iowa State Regulatory Conference and an affiliate member of the joint American Gas Association (A.G.A.) – Edison Electric Institute (EEI) Depreciation Accounting Committee,

where I previously served as chairman of a standing committee on capital recovery and its effect on corporate economics. I am also a member of the American Economic Association, the Financial Management Association, the Midwest Finance Association, the Electric Cooperatives Accounting Association (ECAA), and a founding member of the Society of Depreciation Professionals.

Q. What is your professional experience?

A. I joined the firm of Foster Associates in 1979, as a specialist in depreciation, the economics of capital investment decisions, and cost of capital studies for ratemaking applications. Prior to joining Foster Associates, I was employed by Northern States Power Company (1968–1979) in various assignments related to finance and treasury activities. As Manager of the Corporate Economics Department, I was responsible for book depreciation studies, studies involving staff assistance from the Corporate Economics Department in evaluating the economics of capital investment decisions, and the development and execution of innovative forms of project financing. As Assistant Treasurer at Northern States, I was responsible for bank relations, cash requirements planning, and short–term borrowings and investments.

Q. Have you previously testified before a regulatory body?

A. Yes. I have testified in numerous proceedings before administrative and judicial bodies in over thirty jurisdictions, including several appearances before the Missouri Public Service Commission. I have also testified before the Federal Energy Regulatory Commission, the Federal Power Commission, the Alberta Energy Board, the Ontario Energy Board, and the Securities and Exchange Commission. I have sponsored position statements before the Federal Communication Commission and numerous local franchising authorities in

matters relating to the regulation of telephone and cable television. A more detailed description of my professional qualifications is provided in Attachment REW–1.

PURPOSE OF TESTIMONY

Q. What is the purpose of your rebuttal testimony?

A. I was asked by KCP&L Greater Missouri Operations (GMO) to respond to the pre–filed direct testimony of Commission Staff ("Staff") Witness Rosella L. Schad. In particular, I was asked to review and comment on depreciation rates recommended by Witness Schad for electric properties owned and operated by GMO–MPS (MPS) and electric and industrial steam properties owned and operated by GMO–L&P (L&P).

RESPONSE TO STAFF WITNESS SCHAD

Q. What is your understanding of the difference in annual depreciation rates and accruals advocated by Staff and those currently approved for MPS electric operations?

A. Table 1 provides a summary of the difference in annual depreciation rates and accruals advocated by Staff and those currently approved for MPS electric operations. This comparison is based on December 31, 2007 plant and depreciation reserves.

Function	Accrual Rate			2008 Annualized Accrual		
	Current	Staff	Difference	Current	Staff	Difference
A	B	C	D=C-B	E	F	G=F-E
Steam Production	2.17%	2.09%	-0.08%	$8,003,437	$7,728,166	($275,271)
Other Production	4.07%	2.72%	-1.35%	7,679,078	5,127,897	(2,551,181)
Transmission	2.22%	2.32%	0.10%	4,911,709	5,118,266	206,557
Distribution	2.93%	2.76%	-0.17%	20,551,561	19,358,580	(1,192,981)
General Plant	4.27%	3.59%	-0.68%	1,754,559	1,474,448	(280,111)
Total Utility	2.82%	2.55%	-0.27%	$42,900,344	$38,807,357	($4,092,987)

Table 1. MPS Depreciation Rates and Accruals

It can be observed from Table 1 that Staff is advocating a composite depreciation rate reduction of 0.27 percentage points from the currently approved composite accrual rate of 2.82 percent. The reduction in depreciation rates advocated by Staff reduces 2008 annualized depreciation expense by $4,092,987, or more than 9.5 percent.

Q. What is your understanding of the difference in annual depreciation rates and accruals advocated by Staff and those currently approved for L&P electric and industrial steam operations?

A. Table 2 provides a summary of the difference in annual depreciation rates and accruals advocated by Staff and those currently approved for L&P electric and industrial steam operations.

	Accrual Rate			2008 Annualized Accrual		
Function	Current	Staff	Difference	Current	Staff	Difference
A	B	C	D=C-B	E	F	G=F-E
Steam Production	2.14%	2.06%	-0.08%	$3,311,626	$3,194,656	($116,970)
Other Production	4.21%	2.80%	-1.41%	727,195	483,278	(243,917)
Transmission	2.27%	2.05%	-0.22%	684,736	618,307	(66,429)
Distribution	2.84%	2.66%	-0.18%	4,959,680	4,645,483	(314,197)
General Plant	5.19%	4.13%	-1.06%	896,131	712,287	(183,844)
Total Electric	2.68%	2.45%	-0.23%	10,579,368	9,654,011	(925,357)
Industrial Steam	2.46%	2.36%	-0.10%	90,011	86,329	(3,682)
Total L&P	2.68%	2.45%	-0.23%	$10,669,379	$9,740,340	($929,039)

Table 2. L&P Depreciation Rates and Accruals

It can be observed from Table 2 that Staff is advocating a composite depreciation rate reduction of 0.23 percentage points from the currently approved composite accrual rate of 2.68 percent for L&P electric operations. The reduction in depreciation rates advocated by Staff reduces 2008 annualized depreciation expense by $925,357, or more than 8.7 percent. Staff is also advocating a composite depreciation rate reduction of 0.10 percentage points from the currently approved composite accrual rate of 2.45 percent for L&P

industrial steam operations. The reduction in depreciation rates for industrial steam reduces 2008 annualized depreciation expense by 3,682, or more than four percent.

Q. Did Foster Associates conduct 2008 depreciation studies for MPS and L&P?

A. Yes, we did. It is my understanding that the studies conducted by Foster Associates were filled with the Commission in accordance with a Stipulation and Agreement in Case No. ER–2007–0004.[1] It is also my understanding that depreciation rates developed in the 2008 studies were not proposed by the Company in the current case pending completion of Iatan 2 coal fired generation facility and completion of a system–wide depreciation study for all KCP&L and GMO operations. The 2008 depreciation studies were conducted prior to the Great Plains Energy acquisition of Aquila, Inc.

Q. What is the difference in annual depreciation rates and accruals advocated by Staff and those developed by Foster Associates in the 2008 depreciation study for MPS electric operations?

A. Table 3 provides a summary of the difference in annual whole–life depreciation rates and accruals advocated by Staff and those developed in the 2008 study (FA Study) for MPS electric operations.

Function	Whole-Life Accrual Rates			2008 Annualized Accrual		
	FA Study	Staff	Difference	FA Study	Staff	Difference
A	B	C	D=C-B	E	F	G=F-E
Steam Production	2.70%	2.09%	-0.61%	$9,978,092	$7,728,166	($2,249,926)
Other Production	3.40%	2.72%	-0.68%	6,418,095	5,127,897	(1,290,198)
Transmission	2.19%	2.32%	0.13%	4,839,448	5,118,266	278,818
Distribution	2.77%	2.76%	-0.01%	19,443,162	19,358,580	(84,582)
General Plant	3.87%	3.59%	-0.28%	1,589,544	1,474,448	(115,096)
Total Utility	2.78%	2.55%	-0.23%	$42,268,341	$38,807,357	($3,460,984)

Table 3. MPS 2008 Depreciation Study vs Staff Rates and Accruals

[1] The 2008 Depreciation studies are provided in Attachment REW–2.

It can be observed from Table 3 that Staff is advocating a composite depreciation rate reduction of 0.23 percentage points from the whole–life rates developed by Foster Associates in the 2008 study. The difference between 2008 annualized depreciation expense amounts is a Staff reduction of $3,460,984.[2] All of the reduction in steam and other production facilities is attributable to Staff treatment of the constituent accounts as full–mortality rather than life–span categories.

Q. What is the difference in annual depreciation rates and accruals advocated by Staff and those developed by Foster Associates in the 2008 depreciation study for L&P electric and industrial steam operations?

A. Table 4 provides a summary of the difference in annual whole–life depreciation rates and accruals advocated by Staff and those developed in the 2008 depreciation study for L&P electric and industrial steam operations.

	Whole-Life Accrual Rates			2008 Annualized Accrual		
Function	FA Study	Staff	Difference	FA Study	Staff	Difference
A	B	C	D=C-B	E	F	G=F-E
Steam Production	2.67%	2.06%	-0.61%	$4,129,619	$3,194,656	($934,963)
Other Production	2.61%	2.80%	0.19%	451,136	483,278	32,142
Transmission	2.33%	2.05%	-0.28%	703,011	618,307	(84,704)
Distribution	2.42%	2.66%	0.24%	4,230,525	4,645,483	414,958
General Plant	4.01%	4.13%	0.12%	691,593	712,287	20,694
Total Electric	2.59%	2.45%	-0.14%	10,205,884	9,654,011	(551,873)
Industrial Steam	2.96%	2.36%	-0.60%	108,077	86,329	(21,748)
Total L&P	2.59%	2.45%	-0.14%	$10,313,961	$9,740,340	($573,621)

Table 4. L&P 2008 Depreciation Study vs Staff Rates and Accruals

It can be observed from Table 4 that Staff is advocating a composite depreciation rate reduction of 0.14 percentage points from the whole–life rates developed by Foster Associ-

[2] It should be noted that the formulation of accrual rates recommended in the 2008 study included a component for amortization of reserve imbalances. For comparative purposes, only the whole-life component is shown in Tables 3 and 4.

ates in the 2008 study. The difference between 2008 annualized depreciation expense amounts is a Staff reduction of $573,621. As with MPS, all of the reduction in steam, other production and industrial steam facilities is attributable to Staff treatment of the constituent accounts as full–mortality rather than life–span categories.

Q. Why are the depreciation rates and accruals advocated by Staff significantly different from the whole–life rates and accruals developed by Foster Associates in the 2008 studies?

A. Apart from minor computational errors by Staff (*e.g.*, incorrect net salvage rates for MPS Account 358.00 and L&P Accounts 396.00 and 381.09), the differences in whole–life depreciation rates and accruals advocated by Staff and those developed by Foster Associates are largely attributable to:

a) The depreciation *procedure* used to develop accrual rates; and
b) Modification of service life statistics.

DEPRECIATION PROCEDURE

Q. What is a depreciation procedure?

A. A depreciation procedure identifies the level of grouping or sub–grouping of assets within a plant category. Pursuant to prior stipulations, both MPS and L&P are currently using a broad–group procedure. Depreciation rates developed in the 2008 studies were derived using a vintage–group procedure. Staff retained the broad–group procedure.

The level of asset grouping identified in the broad–group procedure is the total plant in service from all vintages in an account. Each vintage is estimated to have the same average service life. The level of asset grouping identified in the vintage–group procedure is

the plant in service from each vintage. Average service lives (or remaining lives) are estimated for each vintage and composite life statistics are computed for a plant account.

Q. Why does Foster Associates recommend a vintage–group procedure for both MPS and L&P?

A. The matching and expense recognition principles of accounting provide that the cost of an asset (or group of assets) should be allocated to operations over an estimate of the economic life of the asset in proportion to the consumption of service potential. It is the opinion of Foster Associates that the objectives of depreciation accounting can be more nearly achieved using the vintage–group procedure (combined with the remaining–life technique). Unlike the broad–group procedure in which each vintage is estimated to have the same average service life, the vintage–group procedure distinguishes average service lives among vintages and provides cost apportionment over the estimated weighted-average remaining life or average life of a rate category.

Q. What is the difference in depreciation rates and accruals for MPS and L&P resulting from a use of the vintage–group procedure rather than the broad–group procedure?

A. Table 5 provides a comparison of depreciation rates and accruals using the vintage–group procedure, whole–life technique and the broad–group procedure, whole–life technique with service lives and net salvage rates estimated by Foster Associates in the 2008 depreciation studies.

Operation	Whole-Life Accrual Rates			2008 Annualized Accrual		
	VG	BG	Difference	VG	BG	Difference
A	B	C	D=C-B	E	F	G=F-E
MPS						
Electric	2.78%	2.78%		$42,268,341	$42,345,512	$77,171
L&P						
Electric	2.59%	2.60%	0.01%	$10,205,884	$10,260,212	$54,328
Industrial Steam	2.96%	2.96%		108,077	108,077	
Total L&P	2.59%	2.61%	0.02%	$10,313,961	$10,368,289	$54,328
Total				$52,582,302	$52,713,801	$131,499

Table 5. Vintage-Group vs Broad Group (FA Parameters)

It can be observed from Table 5 that marginally higher depreciation rates and accruals result from an application of the broad–group procedure. By comparison, depreciation accruals derived from an application of the parameters and whole–life technique advocated by Staff would be reduced by $406,424 ($48,547,697–$48,141,273) by adoption of the vintage–group procedure. Clearly, the procedure recommended by Foster Associates was not selected to maximize depreciation expense. It was selected to more nearly achieve the goals and objectives of depreciation accounting.

SERVICE LIFE STATISTICS

Q. What is the difference in depreciation rates and accruals for MPS and L&P resulting from the adjustment to service life statistics advocated by Staff?

A. Table 6 provides a comparison of depreciation rates and accruals using service life statistics (*i.e.*, projection life and projection curve) estimated by Foster Associates and service life statistics advocated by Staff. The vintage–group procedure, whole–life technique and net salvage rates developed by Foster Associates were used in the comparison to isolate differences solely attributable to the changes in service life statistics advocated by Staff.

Operation	Whole-Life Accrual Rates			2008 Annualized Accrual		
	FA Study	Staff	Difference	FA Study	Staff	Difference
A	B	C	D=C-B	E	F	G=F-E
MPS						
Electric	2.78%	2.54%	-0.24%	$42,268,341	$38,613,079	($3,655,262)
L&P						
Electric	2.59%	2.39%	-0.20%	$10,205,884	$9,443,284	($762,600)
Industrial Steam	2.96%	2.32%	-0.64%	108,077	84,910	(23,167)
Total L&P	2.59%	2.39%	-0.20%	$10,313,961	$9,528,194	($785,767)
Total	2.74%	2.51%	-0.23%	$52,582,302	$48,141,273	($4,441,029)

Table 6. FA vs Staff Service Life Statistics (VG Procedure, W/L Technique)

It can be observed from Table 6 that service life statistics advocated by Staff produce a composite depreciation rate reduction of 0.23 percentage points below the rate of 2.74 percent developed by Foster Associates. The reduction in depreciation rates reduces 2008 annualized depreciation expense by $4,441,029, or nearly 8.5 percent.

1. STAFF DATA CONCERNS

Q. According to Witness Schad, Staff recommends that service life statistics advocated for the MPS Sibley production station should be applied to all L&P steam production facilities because of "... Staff's concerns with L&P Electric data."[3] What is your understanding of these data concerns?

A. According to Witness Schad, "... Staff's concerns with L&P Electric data are: 1) Placements of vintages prior to 1979, in the data file, are not recorded until 1979; and 2) There are no retirements, from those vintages, recorded until 1979. This results in some plant being almost 80 years with no retirements occurring."[4]

Q. Is this an accurate description of the L&P steam production database?

A. No, it is not. The L&P steam production database contains plant transactions (*i.e.*,

[3] Staff Report Cost of Service, Page 129.
[4] Staff Report Cost of Service, Page 130.

additions, retirements, transfers and adjustments) recorded over the period 1979–2007. Vintage years recorded during this band of activity years are dated as early as 1951 for Lake Road and 1980 for Iatan. The first unit of the Lake Road plant was installed in 1951 and the Iatan plant was placed in service in 1980. The opening balance reported in 1979 (by vintage year of placement) for Lake Road is net of all retirements prior to 1979. It is incorrect to claim that no retirements were recorded prior to 1979. Moreover, it is unrealistic to expect that retirements would be recorded for the Iatan plant before it was placed in service. The database for L&P steam production facilities accurately reflects all activity with vintage–year identification recorded over the period 1979–2007. Contrary to the opinion of Staff, the database contains no "data gaps".

Q. What is your understanding of the "data gaps" claimed by Staff for L&P other production, transmission, distribution and general plant accounts?

A. According to Witness Schad, Staff has the same data concerns as claimed for the L&P steam production accounts.

Q. Do you agree with these concerns?

A. No, I do not. The L&P database for other production, transmission, distribution and general plant accounts contains all plant transactions recorded over the period 1979–2007. Vintage years recorded during this band of activity years are dated as early as 1900, depending upon the inception date of an account. The opening balances reported in 1979 (by vintage year of placement) for accounts classified in these functions are net of all retirements prior to 1979. Contrary to the opinion of Staff, the number of activity years included in the database provides sufficient retirement experience to conduct a statistical analysis of most L&P plant accounts. It is neither necessary nor appropriate to apply MPS

parameters to the L&P accounts.

2. LIFE–SPAN CATEGORIES

Q. What is a life–span category?

A. Life–span categories are composed of major items of plant that will most likely be retired as a single unit. A power production unit, for example, is a life–span category in which all associated plant and equipment will eventually be retired at the same date, regardless of the age of the equipment.

Plant retirements from an integrated system prior to the retirement of the entire system are properly viewed as interim retirements that will be replaced in order to maintain the integrity of the facility. Additionally, plant and equipment may be added to the existing system (*i.e.*, interim additions) in order to expand or enhance its productive capacity without extending the service life of the system. A proper depreciation rate can be developed for an integrated system using a life–span method.

Q. What is a life–span method?

A. The life-span method requires the estimation of a coterminous retirement date for all plant additions to a specific facility. A composite depreciation rate is calculated for the facility using the technique of harmonic weighting of the expected life span of each vintage addition. The resulting accrual rate must be adjusted for interim retirements to the extent that such retirements can be reasonably predicted. Absent this adjustment, the depreciation accumulated over the life–span of the facility will be deficient by an amount equal to a portion of the interim retirements. Properly implemented, the life-span method does not include plant additions or replacements of interim retirements until such activity is reported. All plant accounts classified in the steam, industrial steam and other produc-

tion functions were identified by location and treated as life–span categories in both the MPS and L&P depreciation studies.

Q. How did Staff estimate service lives for plant classified in the production functions?

A. Staff treated production functions as open–ended plant categories in which additions and retirements are envisioned to be recorded in perpetuity. Service lives for production plant were estimated in the same manner as, for example, poles or line transformers in which life indications were derived from a statistical analysis of recorded retirements. The same average service life was assigned to each vintage of a plant account. No consideration was given to the expectation that each vintage will be retired at a coterminous date, irrespective of age, and therefore will exhibit a unique average service life.

Q. How do the service lives derived by Foster Associates for production plants compare with those advocated by Staff?

A. Table 7 provides a comparison of composite average and remaining services lives estimated by Foster Associates using the vintage–group procedure with those advocated

Plant	Foster Associates			Staff	
	AYFR	ASL	R/L	ASL	R/L
A	B	C	D	E	F
MPS					
Jeffery	2040	49.93	31.11	50.16	31.92
Sibley	2028-2030	35.27	20.77	49.68	33.95
Other Production	2025-2039	29.68	26.03	37.22	32.86
L&P					
Lake Road	2030	34.01	21.85	50.15	35.44
Iatan	2035	46.91	26.50	49.02	29.72
Other Production	2030	39.35	21.08	36.86	18.32
Industrial Steam	2030	35.30	21.84	43.88	29.93

Table 7. FA vs Staff Production Plant Statistics

by Staff using the broad–group procedure.[5] It can be observed from Table 7 that service life statistics advocated by Staff are considerably longer than those obtained from a life–span treatment in which a year of final retirement was estimated for each generating unit.

Q. Where did Foster Associates obtain the year of final retirement for each station?

A. A year of final retirement was estimated for each unit at each generating station by MPS and L&P engineers. The estimated retirement dates for each unit were composited by Foster Associates to obtain an estimated average year of final retirement (AYFR) for each station by plant account.

Q. Did Staff explain why a life–span treatment was not applied to production facilities?

A. No, they did not. No explanation was offered for abandoning the life–span treatment employed by both Company and Staff in Missouri Public Service Case No. ER–97–394. Apparently Staff is now of the opinion that a life–span treatment is no longer appropriate for production facilities.

Q. Are you familiar with the Commission Report and Order addressing service lives for production facilities in The Empire District Electric Company Case No. ER–2004–0570?

A. Yes, I am. It is my understanding that both Staff and Public Counsel urged treating production facilities as open–ended, full mortality categories claiming that generation plants tend to remain in service indefinitely. I can only assume that Staff is now applying the same reasoning to MPS and L&P.

Q. Do you agree that generation plants tend to remain in service indefinitely?

[5] The vintage–group procedure used by Foster Associates and the broad–group used Staff were retained in the comparison to properly derive the weighted statistics used in developing depreciation rates.

A. No, I do not. The industry has a long history of retiring power plants and it is doubtful that any plant in service today will remain in service indefinitely.[6]

I would agree, however, that no service life statistic or estimated year of final retirement can be known with certainty until all units from an original placement or plant have been retired from service. This is why depreciation studies are conducted periodically and estimated service lives are revised as indications of the eventual service life become more certain. Rejecting a life–span treatment only because the estimated retirement dates are uncertain is no excuse for applying an incorrect model. It is far better to recognize that all plant and equipment associated with a power plant will eventually be retired at the same date (regardless of the age of the equipment) in the computation of service lives for power plants than it is to apply a full mortality treatment knowing full well the model does not describe how power plants are retired from service. As Warren Buffet once remarked, "It is better to be approximately right than precisely wrong."

3. FULL–MORTALITY CATEGORIES

Q. What is a full–mortality category?

A. Full–mortality categories are plant categories in which additions, retirements and replacements are anticipated to continue with no foreseeable date at which all plant will be retired irrespective of age. A pole–line account, for example, is a full–mortality category in which poles will most likely be added, retired and replaced indefinitely.

Q. How are service lives estimated for a full–mortality category?

A. Statistical methods of life analysis combined with engineering judgment are used to examine and describe the forces of retirement acting upon a full–mortality category. The

[6] As H. R. Hatfield (1931) once wrote, "... all machinery is on an irresistible march to the junk heap."

descriptors most often used are survival functions expressed as probability distributions. The objective of a life analysis is to quantify the attributes of the parent population from which observed retirements were extracted as a random sample. Life indications obtained from an analysis of observed retirement activity must be tempered with informed judgment to the extent that future forces of retirement or failure rates are anticipated to be different from those observed in the past. The tempering of observed life indications is called *life estimation*. A variety of statistical techniques have been developed for estimating service lives of physical property, some of which are more robust than others.

Q. How would you describe the life analysis technique used by Staff?

A. It is a mechanized version of a visual curve–fitting technique employed long before the advent of computers. Prior to the availability of mechanized systems, a series of survivor proportions obtained from an observed life table was typically plotted on graph paper and overlaid with correspondingly scaled graphs of survivor curves such as the Iowa–type curves. The type–curves were drawn with various average service lives such that both the dispersion and average service life of the observed proportion surviving could be selected from a visual inspection of which curve appeared to best "fit" the data.

A mechanized version of the same technique merely replaces the visual inspection with a fit criterion, such as a minimum sum of squared differences between the observed proportion surviving and the theoretical proportion surviving obtained from a table of the points displayed in a graphical representation of a type–curve. The type–curves used in such an analysis can be scaled to any average service life, thereby providing a description of both the dispersion and average service life of the fitted data.

Q. How do the life analysis techniques used by Foster Associates in conducting depreciation studies differ from those used by Staff?

A. Based upon extensive independent research and development of life analysis techniques, Foster Associates uses a multi–step procedure in which various estimators of the observed hazard rates (*i.e.*, conditional probabilities of retirement) obtained from an observed life table are first graduated without regard to the observed proportion surviving. A survivorship function is then derived from a transformation of a parametric form of the hazard function and numerically integrated to obtain an estimate of the expected or mean service life of the population from which the retirements displayed in the observed life table are viewed as a random sample. The transformed survivorship function is then fitted by a weighted least–squares procedure to type–curves (*e.g.*, Iowa) to obtain a mathematical description or classification of the dispersion characteristics of the data.

Q. Will the life analysis technique used by Foster Associates produce the same dispersion and service–life indications as the technique used by Staff?

A. Not necessarily. The techniques used by Foster Associates were designed to overcome a serious limitation in the technique used by Staff. Each successive measurement of the proportion surviving developed in an observed life table is dependent upon the proportion surviving in prior age–intervals. One or more anomalous retirements, therefore, will dictate the proportion surviving in subsequent age–intervals. Fitting a survivor curve to the observed proportion surviving will seldom produce an accurate description of the underlying forces of mortality.

The techniques used by Foster Associates maximize the informational content of the data and minimize the influence of extraneous events by extracting the underlying forces of

mortality from an analysis of the hazard rates.[7] This is not to suggest that an analyst must be highly trained in actuarial statistics to conduct a depreciation study. Absent this knowledge, however, life analysis becomes an exercise in curve–fitting rather than an attempt to quantify the attributes of the parent population from which observed retirements were extracted as a sample. It is not surprising therefore that Witness Schad would find different curve fits and service lives than Foster Associates identified from a more rigorous analysis of the underlying forces of mortality.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

[7] Although some correlation can be found in the conditional proportion retired, the covariance between the hazard rates in two age–intervals is asymptotically zero. This property has permitted the development of various methods of weighting that reflect serial independence of the disturbance term.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Aquila, Inc. dba KCP&L Greater Missouri Operations Company to Modify Its Electric Tariffs to Effectuate a Rate Increase	)))	Case No. ER-2009-0090

AFFIDAVIT OF RONALD WHITE

STATE OF FLORIDA)
) **ss**
COUNTY OF LEE)

Ronald E. White, being first duly sworn on his oath, states:

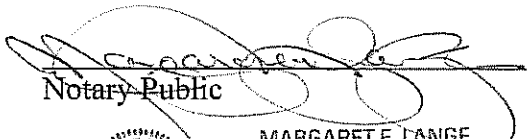
1. My name is Ronald E. White. I am employed by Foster Associates, Inc. in Fort Myers, Florida. I have been retained by Great Plains Energy Incorporated, the parent company of KCP&L Greater Missouri Operations Company, to serve as an expert witness to provide Rebuttal Testimony on behalf of KCP&L Greater Missouri Operations Company.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of eighteen (18) pages and Attachments REW–1 and REW–2, all of which having been prepared in written form for introduction into evidence in the above–captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Ronald E. White, Ph.D.

Subscribed and sworn before me this 11th day of March 2009.



Notary Public

My commission expires: October 19, 2009.

MARGARET E. LANGE
Notary Public, State of Florida
My Comm. expires Oct. 19, 2009
Comm. No. DD 465538

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Fort Myers, FL 33908

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Ronald E. White, Ph.D.

Education

1961 - 1964 Valparaiso University
Major: Electrical Engineering

1965 Iowa State University
B.S., Engineering Operations

1968 Iowa State University
M.S., Engineering Valuation
Thesis: The Multivariate Normal Distribution and the Simulated Plant Record Method of Life Analysis

1977 Iowa State University
Ph.D., Engineering Valuation
Minor: Economics
Dissertation: A Comparative Analysis of Various Estimates of the Hazard Rate Associated With the Service Life of Industrial Property

Employment

2007 - Present Foster Associates, Inc.
Chairman

1996 - 2007 Foster Associates, Inc.
Executive Vice President

1988 - 1996 Foster Associates, Inc.
Senior Vice President

1979 - 1988 Foster Associates, Inc.
Vice President

1978 - 1979 Northern States Power Company
Assistant Treasurer

1974 - 1978 Northern States Power Company
Manager, Corporate Economics

1972 - 1974 Northern States Power Company
Corporate Economist

1970 - 1972 Iowa State University
Graduate Student and Instructor

1968 - 1970 Northern States Power Company
Valuation Engineer

1965 - 1968 Iowa State University
Graduate Student and Teaching Assistant

Publications

A New Set of Generalized Survivor Tables, Journal of the Society of Depreciation Professionals, October, 1992.

The Theory and Practice of Depreciation Accounting Under Public Utility Regulation, Journal of the Society of Depreciation Professionals, December, 1989.

Standards for Depreciation Accounting Under Regulated Competition, paper presented at The Institute for Study of Regulation, Rate Symposium, February, 1985.

The Economics of Price-Level Depreciation, paper presented at the Iowa State University Regulatory Conference, May, 1981.

Depreciation and the Discount Rate for Capital Investment Decisions, paper presented at the National Communications Forum - National Electronics Conference, October 1979.

A Computerized Method for Generating a Life Table From the 'h-System' of Survival Functions, paper presented at the American Gas Association - Edison Electric Institute Depreciation Accounting Committee Meeting, December, 1975.

The Problem With AFDC is ..., paper presented at the Iowa State University Conference on Public Utility Valuation and the Rate Making Process, May, 1973.

The Simulated Plant-Record Method of Life Analysis, paper presented at the Missouri Public Service Commission Regulatory Information Systems Conference, May, 1971.

Simulated Plant-Record Survivor Analysis Program (User's Manual), special report published by Engineering Research Institute, Iowa State University, February, 1971.

A Test Procedure for the Simulated Plant-Record Method of Life Analysis, Journal of the American Statistical Association, September, 1970.

Modeling the Behavior of Property Records, paper presented at the Iowa State University Conference on Public Utility Valuation and the Rate Making Process, May, 1970.

A Technique for Simulating the Retirement Experience of Limited-Life Industrial Property, paper presented at the National Conference of Electric and Gas Utility Accountants, May, 1969.

How Dependable are Simulated Plant-Record Estimates?, paper presented at the Iowa State University Conference on Public Utility Valuation and the Rate Making Process, April, 1968.

Testifying Witness

Alabama Public Service Commission, Docket No. 18488, General Telephone Company of the Southeast; testimony concerning engineering economy study techniques.

Alabama Public Service Commission, Docket No. 20208, General Telephone Company of the South; testimony concerning the equal-life group procedure and remaining-life technique.

Alberta Energy and Utilities Board, Application No. 1250392, Aquila Networks Canada; rebuttal testimony supporting proposed depreciation rates.

Alberta Energy and Utilities Board, Case No. RE95081, Edmonton Power Inc.; rebuttal evidence concerning appropriate depreciation rates.

Alberta Energy and Utilities Board, 1999/2000 General Tariff Application, Edmonton Power Inc.; direct and rebuttal evidence concerning appropriate depreciation rates.

Arizona Corporation Commission, Docket No. T-01051B-97-0689, U S West Communications, Inc.; testimony concerning appropriate depreciation rates.

Arizona Corporation Commission, Docket No. G-1032A-02-0598, Citizens Communications Company; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. E–01345A–08–0172, Arizona Public Service Company; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. E–0135A–03–0437, Arizona Public

Service Company; rebuttal testimony supporting net salvage rates.

Arizona Corporation Commission, Docket No. E–01345A–05–0816, Arizona Public Service Company; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. G–04204A–06–0463, UNS Gas, Inc.; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. E–04204A–06–0783, UNS Electric, Inc.; testimony supporting proposed depreciation rates.

Arizona State Board of Equalization, Docket No. 6302-07-2, Arizona Public Service Company; testimony concerning valuation and assessment of contributions in aid of construction.

California Public Utilities Commission, Case Nos. A.92-06-040, 92-06-042, GTE California Incorporated; rebuttal testimony supporting depreciation study techniques.

California Public Utilities Commission. Docket No. GRC A.05–12–002, Pacific Gas and Electric Company; testimony regarding estimation of net salvage rates.

California Public Utilities Commission. Docket No. GRC A.06–12–009/A.06–12–010, San Diego Gas & Electric Company and Southern California Gas Company; testimony regarding estimation of net salvage rates.

Public Utilities Commission of the State of Colorado, Application No. 36883-Reopened. U S WEST Communications; testimony concerning equal-life group procedure.

State of Connecticut Department of Public Utility Control, Docket No. 05–03–17, The Southern Connecticut Gas Company; testimony supporting recommended depreciation rates.

State of Connecticut Department of Public Utility Control, Docket No. 06–12PH01, Yankee Gas Services Company; testimony supporting recommended depreciation rates.

Delaware Public Service Commission, Docket No. 81-8, Diamond State Telephone Company; testimony concerning the amortization of inside wiring.

Delaware Public Service Commission, Docket No. 82-32, Diamond State Telephone Company; testimony concerning the equal-life group procedure and remaining-life technique.

Public Service Commission of the District of Columbia, Formal Case No. 842, District of Columbia Natural Gas; testimony concerning depreciation rates.

Public Service Commission of the District of Columbia, Formal Case No. 1016, Washington Gas Light Company - District of Columbia; testimony supporting proposed depreciation rates.

Public Service Commission of the District of Columbia, Formal Case No. 1054, Washington Gas Light Company - District of Columbia; testimony supporting proposed depreciation rates.

Federal Communications Commission, Prescription of Revised Depreciation Rates for AT&T Communications; statement concerning depreciation, regulation and competition.

Federal Communications Commission, Petition for Modification of FCC Depreciation Prescription Practices for AT&T; statement concerning alignment of depreciation expense used for financial reporting and regulatory purposes.

Federal Communications Commission, Docket No. *99*-117, Bell Atlantic; affidavit concerning revenue requirement and capital recovery implications of omitted plant

retirements.

Federal Energy Regulatory Commission, Docket No. ER95-267-000, New England Power Company; testimony supporting proposed depreciation rates.

Federal Energy Regulatory Commission, Docket No. RP89-248, Mississippi River Transmission Corporation; rebuttal testimony concerning appropriateness of net salvage component in depreciation rates.

Federal Energy Regulatory Commission, Docket No. ER91-565, New England Power Company; testimony supporting proposed depreciation rates.

Federal Energy Regulatory Commission, Docket No. ER78-291, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Federal Energy Regulatory Commission, Docket Nos. RP80-97 and RP81-54, Tennessee Gas Pipeline Company; testimony concerning offshore plant depreciation rates.

Federal Power Commission, Docket No. E-8252, Northern States Power Company; testimony concerning general financial requirements and measurements of financial performance.

Federal Power Commission, Docket No. E-9148, Northern States Power Company; testimony concerning general financial requirements and measurements of financial performance.

Federal Power Commission, Docket No. ER76-818, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Federal Power Commission, Docket No. RP74-80, *Northern* Natural Gas Company; testimony concerning depreciation expense.

Public Utilities Commission of the State of Hawaii, Docket No. 00-0309, The Gas Company; testimony supporting proposed depreciation rates.

Public Utilities Commission of the State of Hawaii, Docket No. 94-0298, GTE Hawaiian Telephone Company Incorporated; testimony concerning the need for shortened service lives and disclosure of asset impairment losses.

Idaho Public Utilities Commission, Case No. U-1002-59, General Telephone Company of the Northwest, Inc.; testimony concerning the remaining-life technique and the equal-life group procedure.

Illinois Commerce Commission, Case No. 04–0476, Illinois Power Company; testimony supporting proposed depreciation rates.

Illinois Commerce Commission, Docket No. 94-0481, Citizens Utilities Company of Illinois; rebuttal testimony concerning applications of the Simulated Plant-Record method of life analysis.

Iowa State Commerce Commission, Docket No. RPU 82-47, North Central Public Service Company; testimony on depreciation rates.

Iowa State Commerce Commission, Docket No. RPU 84-34, General Telephone Company of the Midwest; testimony concerning the remaining-life technique and the equal-life group procedure.

Iowa State Utilities Board, Docket No. DPU-86-2, Northwestern Bell Telephone Company; testimony concerning capital recovery in competition.

Iowa State Utilities Board, Docket No. RPU-84-7, Northwestern Bell Telephone Company; testimony concerning the deduction of a reserve deficiency from the rate base.

Iowa State Utilities Board, Docket No. DPU-88-6, U S WEST Communications;

testimony concerning depreciation subject to refund.

Iowa State Utilities Board, Docket No. RPU-90-9, Central Telephone Company of Iowa; testimony concerning depreciation rates.

Iowa State Utilities Board, Docket No. RPU-93-9, U S WEST Communications; testimony concerning principles of depreciation accounting and abandonment of FASB 71.

Iowa State Utilities Board, Docket No. DPU-96-1, U S WEST Communications; testimony concerning principles of depreciation accounting and abandonment of FASB 71.

Iowa State Utilities Board, Docket No. RPU-05-2, Aquila Networks; testimony supporting recommended depreciation rates.

Kansas Corporation Commission, Docket No. 04–AQLE–1065–RTS, Aquila Networks – WPE (Kansas); testimony supporting proposed depreciation rates.

Kansas Corporation Commission, Docket No. 03–KGSG–602–RTS, Kansas Gas Service, a Division of ONEOK, Inc.; rebuttal testimony supporting net salvage rates.

Kansas Corporation Commission, Docket No. 06–KGSG–1209–RTS, Kansas Gas Service, a Division of ONEOK, Inc.; testimony supporting proposed depreciation rates.

Kentucky Public Service Commission, Case No. 97-224, Jackson Purchase Electric Cooperative Corporation; rebuttal testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 8485, Baltimore Gas and Electric Company; testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 9096, Baltimore Gas and Electric Company; testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 7689, Washington Gas Light Company; testimony concerning life analysis and net salvage.

Maryland Public Service Commission, Case No. 8960, Washington Gas Light Company; testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 9103, Washington Gas Light Company; rebuttal testimony supporting proposed depreciation rates.

Commonwealth of Massachusetts Department of Telecommunications and Energy, D.T.E. 06–55, Western Massachusetts Electric Company; testimony supporting proposed depreciation rates.

Massachusetts Department of Public Utilities, Case No. DPU 91-52, Massachusetts Electric Company; testimony supporting proposed depreciation rates which include a net salvage component.

Michigan Public Service Commission, Case No. U13899, Michigan Consolidated Gas Company; testimony concerning service life estimates.

Michigan Public Service Commission, Case No. U-13393, Aquila Networks – MGU; testimony supporting proposed depreciation rates.

Michigan Public Service Commission, Case No. U-12395, Michigan Gas Utilities; testimony supporting proposed depreciation rates including amortization accounting and redistribution of recorded reserves.

Michigan Public Service Commission, Case No. U-6587, General Telephone Company of Michigan; testimony concerning use of a theoretical depreciation

reserve with the remaining-life technique.

Michigan Public Service Commission, Case No. U-7134, General Telephone Company of Michigan; testimony concerning the equal-life group depreciation procedure.

Minnesota Public Service Commission, Docket No. E-611, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Minnesota Public Service Commission, Docket No. E-1086, Northern States Power Company; testimony concerning depreciation rates.

Minnesota Public Service Commission, Docket No. G-1015, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Public Service Commission of the State of Missouri, Case No. ER-2001-672, Missouri Public Service, a division of Utilicorp United Inc.; surrebuttal testimony regarding computation of income tax expense.

Public Service Commission of the State of Missouri, Case No. TO-82-3, Southwestern Bell Telephone Company; rebuttal testimony concerning the remaining-life technique and the equal-life group procedure.

Public Service Commission of the State of Missouri, Case No. GO-97-79, Laclede Gas Company; rebuttal testimony concerning adequacy of database for conducting depreciation studies.

Public Service Commission of the State of Missouri, Case No. GR-99-315, Laclede Gas Company; rebuttal testimony concerning treatment of net salvage in development of depreciation rates.

Public Service Commission of the State of Missouri, Case No. HR–2004–0024, Aquila Inc. d/b/a/ Aquila Networks–L & P; testimony supporting depreciation rates.

Public Service Commission of the State of Missouri, Case No. ER–2004–0034, Aquila Inc. d/b/a/ Aquila Networks–L & P and Aquila Networks–MPS; testimony supporting depreciation rates.

Public Service Commission of the State of Missouri, Case No. GR–2004–0072, Aquila Inc. d/b/a/ Aquila Networks–L & P and Aquila Networks–MPS; testimony supporting depreciation rates.

Public Service Commission of the State of Montana, Docket No. 88.2.5, Mountain State Telephone and Telegraph Company; rebuttal testimony concerning the equal-life group procedure and amortization of reserve imbalances.

Montana Public Service Commission, Docket No. D95.9.128, The Montana Power Company; testimony supporting proposed depreciation rates.

Nebraska Public Service Commission, Docket No. NG–0041, Aquila Networks (PNG Nebraska); testimony supporting proposed depreciation rates.

Public Service Commission of Nevada, Docket No. 92-7002, Central Telephone Company-Nevada; testimony supporting proposed depreciation rates.

Public Service Commission of Nevada, Docket No. 91-5054, Central Telephone Company-Nevada; testimony supporting proposed depreciation rates.

New Hampshire Public Utilities Commission, Docket No. DR95-169, Granite State Electric Company; testimony supporting proposed net salvage rates.

New Jersey Board of Public Utilities, Docket No. GR07110889, New Jersey Natural Gas Company; testimony supporting proposed depreciation rates.

New Jersey Board of Public Utilities, Docket No. GR 87060552, New Jersey

Natural Gas Company; testimony concerning depreciation rates.

New Jersey Board of Regulatory Commissioners, Docket No. GR93040114J, New Jersey Natural Gas Company; testimony concerning depreciation rates.

North Carolina Utilities Commission, Docket No. E-7, SUB 487, Duke Power Company; rebuttal testimony concerning proposed depreciation rates.

North Carolina Utilities Commission, Docket No. P-19, SUB 207, General Telephone Company of the South; rebuttal testimony concerning the equal-life group depreciation procedure.

North Dakota Public Service Commission, Case No. 8860, Northern States Power Company; testimony concerning general financial requirements.

North Dakota Public Service Commission, Case No. 9634, Northern States Power Company; testimony concerning rate of return and general financial requirements.

North Dakota Public Service Commission, Case No. 9666, Northern States Power Company; testimony concerning rate of return and general financial requirements.

North Dakota Public Service Commission, Case No. 9741, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Ontario Energy Board, E.B.R.O. 385, Tecumseh Gas Storage Limited; testimony concerning depreciation rates.

Ontario Energy Board, E.B.R.O. 388, Union Gas Limited; testimony concerning depreciation rates.

Ontario Energy Board, E.B.R.O. 456, Union Gas Limited; testimony concerning depreciation rates.

Ontario Energy Board, E.B.R.O. 476-03, Union Gas Limited; testimony concerning depreciation rates.

Public Utilities Commission of Ohio, Case No. 81-383-TP-AIR, General Telephone Company of Ohio; testimony in support of the remaining-life technique.

Public Utilities Commission of Ohio, Case No. 82-886-TP-AIR, General Telephone Company of Ohio; testimony concerning the remaining-life technique and the equal-life group procedure.

Public Utilities Commission of Ohio, Case No. 84-1026-TP-AIR, General Telephone Company of Ohio; testimony in support of the equal-life group procedure and the remaining-life technique.

Public Utilities Commission of Ohio, Case No. 81-1433, The Ohio Bell Telephone Company; testimony concerning the remaining-life technique and the equal-life group procedure.

Public Utilities Commission of Ohio, Case No. 83-300-TP-AIR, The Ohio Bell Telephone Company; testimony concerning straight-line age-life depreciation.

Public Utilities Commission of Ohio, Case No. 84-1435-TP-AIR, The Ohio Bell Telephone Company; testimony in support of test period depreciation expense.

Public Utilities Commission of Oregon, Docket No. UM 204, GTE of the Northwest; testimony concerning the theory and practice of depreciation accounting under public utility regulation.

Public Utilities Commission of Oregon, Docket No. UM 840, GTE Northwest Incorporated; rebuttal testimony concerning principles of capital recovery.

Pennsylvania Public Utility Commission, Docket No. R-80061235, The Bell Telephone Company of Pennsylvania; testimony concerning the proper

depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. R-811512, General Telephone Company of Pennsylvania; testimony concerning the proper depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. R-811819, The Bell Telephone Company of Pennsylvania; testimony concerning the proper depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. R-822109, General Telephone Company of Pennsylvania; testimony in support of the remaining-life technique.

Pennsylvania Public Utility Commission, Docket No. R-850229, General Telephone Company of Pennsylvania; testimony in support of the remaining-life technique and the proper depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. C-860923, The Bell Telephone Company of Pennsylvania; testimony concerning capital recovery under competition.

Rhode Island Public Utilities Commission, Docket No. 2290, The Narragansett Electric Company; testimony supporting proposed net salvage rates and depreciation rates.

South Carolina Public Service Commission, Docket No. 91-216-E, Duke Power Company; testimony supporting proposed depreciation rates.

Public Utilities Commission of the State of South Dakota, Case No. F-3062, Northern States Power Company; testimony concerning general financial requirements and measurements of financial performance.

Public Utilities Commission of the State of South Dakota, Case No. F-3188, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Securities and Exchange Commission, File No. 3-5749, Northern States Power Company; testimony concerning the financial and ratemaking implications of an affiliation with Lake Superior District Power Company.

Tennessee Public Service Commission, Docket No. 89-11041, United Inter-Mountain Telephone Company; testimony concerning depreciation principles and capital recovery under competition.

State of Vermont Public Service Board, Docket No. 6596, Citizens Communications Company – Vermont Electric Division; testimony supporting recommended depreciation rates.

State of Vermont Public Service Board, Docket No. 6946 and 6988, Central Vermont Public Service Corporation; testimony supporting net salvage rates.

Commonwealth of Virginia State Corporation Commission, Case No. PUE-2002-00364, Washington Gas Light Company; testimony supporting proposed depreciation rates.

Public Service Commission of Wisconsin, Docket No. 2180-DT-3, General Telephone Company of Wisconsin; testimony concerning the equal-life group depreciation procedure.

Other Consulting Activities

Moran Towing Corporation. In Re: Barge TEXAS-97 CIV. 2272 (ADS) and Tug HEIDE MORAN – 97 CIV. 1947 (ADS), United States District Court, Southern District of New York.

John Reigle, et al. v. Baltimore Gas & Electric Co., et al., Case No. C-2001-73230-CN, Circuit Court for Anne Arundel County, Maryland.

SR International Business Insurance Co. vs. WTC Properties et. al., 01,CV–9291 (JSM) and other related cases.

BellSouth Telecommunications, Inc. v. Citizens Utilities Company d/b/a/ Louisiana Gas Service Company, CA No. 95-2207, United States District Court, Eastern District of Louisiana.

Affidavit on behalf of Continental Cablevision, Inc. and its operating cable television systems regarding basic broadcast tier and equipment and installation cost-of-service rate justification.

Office of Chief Counsel, Internal Revenue Service. In Re: Kansas City Southern Railway Co., et. al. Docket Nos. 971-72, 974-72, and 4788-73.

Office of Chief Counsel, Internal Revenue Service. In Re: Northern Pacific Railway Co., Docket No. 4489-69.

United States Department of Justice. In Re: Burlington Northern Inc. v. United States, Ct. Cl. No. 30-72.

Minnesota District Court. In Re: Northern States Power Company v. Ronald G. Blank, *et. al.* File No. 394126; testimony concerning depreciation and engineering economics.

Faculty

Depreciation Programs for public utility commissions, companies, and consultants, sponsored by Depreciation Programs, Inc., in cooperation with Western Michigan University. (1980 - 1999)

United States Telephone Association (USTA), Depreciation Training Seminar, November 1999.

Depreciation Advocacy Workshop, a three-day team-training workshop on preparation, presentation, and defense of contested depreciation issues, sponsored by Gilbert Associates, Inc., October, 1979.

Corporate Economics Course, Employee Education Program, Northern States Power Company. (1968 - 1979)

Perspectives of Top Financial Executives, Course No. 5-300, University of Minnesota, September, 1978.

Depreciation Programs for public utility commissions, companies, and consultants, jointly sponsored by Western Michigan University and Michigan Technological University, 1973.

Professional Associations

Advisory Committee to the Institute for Study of Regulation, sponsored by the American University and The University of Missouri-Columbia.

American Economic Association.

American Gas Association - Edison Electric Institute Depreciation Accounting Committee.

Board of Directors, Iowa State Regulatory Conference.

Edison Electric Institute, Energy Analysis Division, Economic Advisory Committee, 1976-1980.

Financial Management Association.

The Institute of Electrical and Electronics Engineers, Inc., Power Engineering Society, Engineering and Planning Economics Working Group.

Midwest Finance Association.

Society of Depreciation Professionals (Founding Member and Chairman, Policy Committee.

Moderator

Depreciation Open Forum, Iowa State University Regulatory Conference, May 1991.

The Quantification of Risk and Uncertainty in Engineering Economic Studies, Iowa State University Regulatory Conference, May 1989.

Plant Replacement Decisions with Added Revenue from New Service Offerings, Iowa State University Regulatory Conference, May 1988.

Economic Depreciation, Iowa State University Regulatory Conference, May 1987.

Opposing Views on the Use of Customer Discount Rates in Revenue Requirement Comparisons, Iowa State University Regulatory Conference, May 1986.

Cost of Capital Consequences of Depreciation Policy, Iowa State University Regulatory Conference, May 1985.

Concepts of Economic Depreciation, Iowa State University Regulatory Conference, May 1984.

Ratemaking Treatment of Large Capacity Additions, Iowa State University Regulatory Conference, May 1983.

The Economics of Excess Capacity, Iowa State University Regulatory Conference, May 1982.

New Developments in Engineering Economics, Iowa State University Regulatory Conference, May 1980.

Training in Engineering Economy, Iowa State University Regulatory Conference, May 1979.

The Real Time Problem of Capital Recovery, Missouri Public Service Commission, Regulatory Information Systems Conference, September 1974.

Speaker

Group Depreciation Practices of Regulated Utilities (IAS 16 Property, Plant and Equipment), Hydro One Networks, Inc., November 2008.

Economics, Finance and Engineering Valuation. Florida Gulf Coast University, April 2007.

Depreciation Studies for Regulated Utilities, Hydro One Networks, Inc., April 2006.

Depreciation Studies for Cooperatives and Small Utilities. TELERGEE CFO and Controllers Conference, November, 2004.

Finding the "D" in RCNLD (Valuation Applications of Depreciation), Society of Depreciation Professionals Annual Meeting, September 2001.

Capital Asset and Depreciation Accounting, City of Edmonton Value Engineering Workshop, April 2001.

A Valuation View of Economic Depreciation, Society of Depreciation Professionals Annual Meeting, October 1999.

Capital Recovery in a Changing Regulatory Environment, Pennsylvania Electric Association Financial-Accounting Conference, May 1999.

Depreciation Theory and Practice, Southern Natural Gas Company Accounting and Regulatory Seminar, March 1999.

Depreciation Theory Applied to Special Franchise Property, New York Office of Real Property Services, March 1999.

Capital Recovery in a Changing Regulatory Environment, PowerPlan Consultants Annual Client Forum, November 1998.

Economic Depreciation, AGA Accounting Services Committee and EEI Property Accounting and Valuation Committee, May 1998.

Discontinuation of Application of FASB Statement No. 71, Southern Natural Gas Company Accounting Seminar, April 1998.

Forecasting in Depreciation, Society of Depreciation Professionals Annual Meeting, September 1997.

Economic Depreciation In Response to Competitive Market Pricing, 1997 TELUS Depreciation Conference, June 1997.

Valuation of Special Franchise Property, City of New York, Department of Finance Valuation Seminar, March 1997.

Depreciation Implications of FAS Exposure Draft 158-B, 1996 TLG Decommissioning Conference, October 1996.

Why Economic Depreciation?, American Gas Association Depreciation Accounting Committee Meeting, August 1995.

The Theory of Economic Depreciation, Society of Depreciation Professionals Annual Meeting, November 1994.

Vintage Depreciation Issues, G & T Accounting and Finance Association Conference, June 1994.

Pricing and Depreciation Strategies for Segmented Markets (Regulated and Competitive), Iowa State Regulatory Conference, May 1990.

Principles and Practices of Depreciation Accounting, Canadian Electrical Association and Nova Scotia Power Electric Utility Regulatory Seminar, December 1989.

Principles and Practices of Depreciation Accounting, Duke Power Accounting Seminar, September 1989.

The Theory and Practice of Depreciation Accounting Under Public Utility Regulation, GTE Capital Recovery Managers Conference, February 1989.

Valuation Methods for Regulated Utilities, GTE Capital Recovery Managers Conference, January 1988.

Depreciation Principles and Practices for REA Borrowers, NRECA 1985 National Accounting and Finance Conference, September 1985.

Depreciation Principles and Practices for REA Borrowers, Kentucky Association of Electric Cooperatives, Inc., Summer Accountants Association Meeting, June 1985.

Considerations in Conducting a Depreciation Study, NRECA 1984 National Accounting and Finance Conference, October 1984.

Software for Conducting Depreciation Studies on a Personal Computer, United States Independent Telephone Association, September 1984.

Depreciation—An Assessment of Current Practices, NRECA 1983 National Accounting and Finance Conference, September 1983

Depreciation—An Assessment of Current Practices, REA National Field Conference, September 1983.

An Overview of Depreciation Systems, Iowa State Commerce Commission, October 1982.

Depreciation Practices for Gas Utilities, Regulatory Committee of the Canadian

Gas Association, September 1981.

Practice, Theory, and Needed Research on Capital Investment Decisions in the Energy Supply Industry, workshop, sponsored by Michigan State University and the Electric Power Research Institute, November 1977.

Depreciation Concepts Under Regulation, Public Utilities Conference, sponsored by The University of Texas at Dallas, July 1976.

Electric Utility Economics, Mid-Continent Area Power Pool, May 1974.

Honors and Awards

The Society of Sigma Xi.

Professional Achievement Citation in Engineering, Iowa State University, 1993.

Attachment REW–2

2008 Depreciation Rate Study

Aquila Networks

– MPS

– L&P (Electric and Industrial Steam)

Prepared by
Foster Associates, Inc.

FOSTER ASSOCIATES INCORPORATED
ECONOMIC CONSULTANTS

17595 S. Tamiami Trail, Suite 212
Fort Myers, Florida 33908
(239) 267-1600 • FAX (239) 267-5030

Ronald E. White, Ph.D.
Chairman

April 10, 2008

Mr. Larry Mulligan
Manager, Property Accounting
AQUILA NETWORKS, INC.
20 West 9th Street
Kansan City, MO 64105

RE: 2008 Depreciation Rate Study

Dear Mr. Mulligan:

Foster Associates is pleased to submit our report of the 2008 Depreciation Rate Study for Aquila Networks – MPS and Aquila Networks – L&P (Electric and Industrial Steam) operations. This report presents the results of our study leading to a recommendation that the Company seek approval of the Missouri Public Service Commission to a) record depreciation expense for MPS using primary account accrual rates that composite to 2.43 percent; and b) record depreciation expense for L&P using primary account accrual rates that composite to 1.86 percent. These changes represent a reduction of 0.38 percentage points below the present composite rate of 2.82 percent for MPS and a reduction of 0.82 percentage points below the present composite rate of 2.68 percent for L&P.

The study provides a comparison of present and proposed depreciation rates and accruals for calendar year 2008, based upon plant investments and deprecation reserves at December 31, 2007. These rates can be updated to a subsequent date as needed. A continued application of rates currently approved for MPS would provide annual depreciation expense of $42,900,344 compared with an annual expense of $37,053,239 using the rates recommended in this study. Rates currently approved for L&P would provide annual depreciation expense of $10,669,379 compared with an annual expense of $7,395,442 using the recommended rates.

The scope of our investigation included:

- Collection of plant and net salvage data;
- Reconciliation of data to the official records of the Company;
- Discussions with Aquila Networks plant accounting personnel;
- Estimation of projection lives and retirement dispersion patterns;
- Analysis of gross salvage and cost of removal;
- Analysis of recorded depreciation reserves; and
- Development of recommended accrual rates for each rate category.

The results of our investigation are presented in the attached report in four sections. The Executive Summary provides an overview of the study and a discussion of the principal findings. The Study Procedure section describes the steps involved in conducting a depreciation study and the specific procedures used in this engagement. The Statements provide a comparative summary of the present and proposed depreciation parameters, rates and accruals. The report concludes with the Analysis section which provides examples of the supporting schedules prepared for each plant account.

We wish to express our appreciation to you and your staff for this opportunity to serve Aquila Networks and for the assistance provided to us. We would be pleased to discuss the study with you or others at your convenience.

Respectively submitted,
FOSTER ASSOCIATES, INC.
by

Ronald E. White, Ph.D.
Chairman

REW:ml

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EXECUTIVE SUMMARY

INTRODUCTION

This report presents a review and update of depreciation rates and parameters for utility plant owned and operated by Aquila Networks – MPS and Aquila Networks – L&P (Electric and Industrial Steam). Depreciation rates currently used by MPS and L&P (Electric) were approved by the Missouri Public Service Commission pursuant to a Stipulation and Agreement in Case No. ER–2005–0436 (Order dated February 23, 2006). The Order Approving Stipulation and Agreement directed Aquila "... to use depreciation rates set out in Appendix B to the stipulation and agreement."

Depreciation rates currently used by L&P (Industrial Steam) were approved by the Missouri Public Service Commission pursuant to a Stipulation and Agreement in consolidated Case Nos. ER–2004–0034 and HR–2004–0024 (Order dated April 13, 2004). The Order Approving Stipulation and Agreement provided that:

> "... Aquila shall adopt Staff's recommended method of depreciation – cost of removal less salvage. For ratemaking purposes, the net cost of removal is $1,471,339 for MPS, $454,995 for L&P electric and $24,382 for L&P steam. Aquila is to record the difference between these amounts and Aquila's actual net costs of removal in its accumulated depreciation reserve. In Aquila's next general rate case, the parties agree to review this method to determine if this is how Aquila will continue to treat depreciation."

Subsequent to its 2005 Order in consolidated Case Nos. ER–2004–0034 and HR–2004–0024, the Commission reaffirmed the treatment of terminal net salvage for power production facilities adopted in earlier proceedings. In particular, the accrual of any amount of terminal net salvage for production plants is disallowed by the Commission based on the theory that "... generating plants are rarely retired and any allowance for this item would necessarily be purely speculative."[1] The Commission apparently does not intend to abandon this practice.

The Commission, however, has instituted a change in policy regarding the treatment of interim net salvage for mass property accounts.[2] In Case No. ER–2004–0570, the Commission cited its decision in Case No. GR–99–315 noting that:

> "In a recent case, the Commission stated that the fundamental goal of depreciation accounting is to allocate the full cost of an asset, including its Net Salvage cost, over its economic or service life so that utility customers will be charged for the cost of the asset in

[1] In the Matter of Empire District Electric Co., Case No. ER–2004–0570 (Report & Order, issued March 10, 2005).
[2] In the Matter of Laclede Gas Co., Case No. GR–99–315 (3rd Report & Order, issued January 11, 2005).

proportion to the benefit they receive from its consumption.[75] The Commission found in that case that the traditional accrual method used by the utility was consistent with that fundamental goal.[76] It is the policy of this Commission to return to traditional accounting methods for Net Salvage."

Revisions to the 2002 Depreciation Rate Studies conducted by Foster Associates in consolidated Case Nos. ER–2004–0034 and HR–2004–0024 were undertaken at the request of Aquila and filed in Case No. ER–2005–0436. The requested changes reflected: a) the treatment of terminal net salvage prescribed by the Commission for production facilities; b) the change in Commission policy regarding the treatment of interim net salvage for mass property accounts; and c) a change in the estimated year of final retirement for the Jeffery Energy Center (JEC). The change in the service life for JEC was requested to conform to a 2040 year of final retirement estimated by Westar, the majority owner, in April 2005. A 2022 year of final retirement was estimated by Aquila in the 2002 Depreciation Rate Study.

Findings and recommendations of the 2008 Depreciation Rate Study for both MPS and L&P are summarized in Section III of this report. Statement A provides a comparative summary of present and proposed annual depreciation rates for each rate category. Statement B provides a comparison of present and proposed annual depreciation accruals. Statement C provides a comparison of computed and recorded depreciation reserves for each rate category. Statement D provides a summary of the components used to obtain a weighted–average net salvage rate for each plant account. Statement E provides the computation of estimated future net salvage rates for steam and other production facilities. Statement F provides a comparative summary of present and proposed parameters and statistics including projection life, projection curve, average service life, average remaining life, and average and future net salvage rates.

SCOPE OF STUDY

The principal activities undertaken in the current study included:

- Collection of plant and net salvage data;
- Reconciliation of data to the official records of the Company;
- Discussions with Aquila Networks plant accounting personnel;
- Estimation of projection lives and retirement dispersion patterns;
- Analysis of gross salvage and cost of removal;
- Analysis of recorded depreciation reserves; and
- Development of recommended accrual rates for each rate category.

DEPRECIATION SYSTEM

A depreciation rate is formed by combining the elements of a depreciation system. A depreciation system is composed of a method, a procedure and a technique. A depreciation method (*e.g.*, straight–line) describes the component of the system that determines the acceleration or deceleration of depreciation accruals in relation to either time or use. A depreciation procedure (*e.g.*, vintage group) identifies the level of grouping or sub–grouping of assets within a plant category. The level of grouping specifies the weighting used to obtain composite life statistics for an account. A depreciation technique (*e.g.*, remaining–life) describes the life statistic used in the system.

MPS and L&P are presently using a depreciation system composed of the straight–line method, broad group procedure, whole–life technique for all plant categories. Depreciation rates proposed in this study are derived from a system composed of the straight–line method, vintage group procedure, whole–life technique with amortization of reserve imbalances over the estimated remaining life of each rate category. This formulation of the accrual rate is equivalent to a straight–line method, vintage group procedure, remaining–life technique.

The matching and expense recognition principles of accounting provide that the cost of an asset (or group of assets) should be allocated to operations over an estimate of the economic life of the asset in proportion to the consumption of service potential. It is the opinion of Foster Associates that the objectives of depreciation accounting can be more nearly achieved using the vintage–group procedure combined with the remaining–life technique. Unlike the broad group procedure in which each vintage is estimated to have the same average service life, the vintage group procedure distinguishes average service lives among vintages and provides cost apportionment over the estimated weighted–average remaining life or average life of a rate category.

The level of asset grouping identified in the broad group procedure is the total plant in service from all vintages in an account. Each vintage is estimated to have the same average service life. It is highly unlikely, therefore, that compensating deviations (*i.e.*, over and underestimates of average service life) will be created among vintages to achieve cost allocation over the average service life of each vintage. The level of asset grouping identified in the vintage group procedure is the plant in service from each vintage. The average service life (or remaining life) is estimated for each vintage and composite life statistics are computed for each plant account. It is more likely, therefore, that compensating deviations will be created with a vintage group procedure than with a broad group procedure.

The dependency of both the broad group procedure and the vintage group procedure on compensating deviations in the estimate of service lives is attributable to the use of the whole–life technique. A permanent excess or deficiency will

be created in the depreciation reserve by a continued application of the whole–life technique if these deviations are not exactly offsetting. The potential for a permanent reserve imbalance can be eliminated, however, by an application of the remaining–life technique.

The principal distinction between a whole–life rate and a remaining–life rate is the treatment of depreciation reserve imbalances. A reserve imbalance is the difference between a theoretical or computed reserve and the corresponding recorded reserve for a rate category. The remaining–life technique provides a systematic amortization of these differences over the composite weighted average remaining life of a rate category.

PROPOSED DEPRECIATION RATES

Table 1 provides a summary of the changes in annual rates and accruals resulting from adoption of the parameters and depreciation system recommended in the 2008 study for MPS electric operations.

Function	Accrual Rate			2008 Annualized Accrual		
	Present	Proposed	Difference	Present	Proposed	Difference
A	B	C	D=C-B	E	F	G=F-E
Steam Production	2.17%	1.84%	-0.33%	$8,003,437	$6,793,306	($1,210,131)
Other Production	4.07%	3.17%	-0.90%	7,679,078	5,987,487	(1,691,591)
Transmission	2.22%	2.08%	-0.14%	4,911,709	4,586,825	(324,884)
Distribution	2.93%	2.64%	-0.29%	20,551,561	18,551,480	(2,000,081)
General Plant	4.27%	2.76%	-1.51%	1,754,559	1,134,141	(620,418)
Total Utility	2.82%	2.43%	-0.39%	$42,900,344	$37,053,239	($5,847,105)

Table 1. MPS Depreciation Rates and Accruals

Foster Associates is recommending primary account depreciation rates equivalent to a composite rate of 2.43 percent. Depreciation expense is presently accrued at an equivalent composite rate of 2.82 percent. The recommended change in the composite depreciation rate is, therefore, a reduction of 0.39 percentage points.

A continued application of rates currently approved would provide annualized depreciation expense of $42,900,344 compared with an annualized expense of $37,053,239 using the rates developed in this study. The proposed expense reduction is $5,847,105. Of this reduction, $4,944,593 represents amortization of a $128,759,316 reserve imbalance. The remaining portion of the reduction is attributable to recommended changes in service life and net salvage parameters. Of the 47 primary accounts included in the 2008 study, Foster Associates is recommending rate reductions for 36 accounts and rate increases for 11 plant accounts.

Table 2 provides a summary of the changes in annual rates and accruals for L&P (Electric and Industrial Steam) operations resulting from adoption of the parameters and depreciation system recommended in the 2008 study.

Function	Accrual Rate			2008 Annualized Accrual		
	Present	Proposed	Difference	Present	Proposed	Difference
A	B	C	D=C-B	E	F	G=F-E
Steam Production	2.14%	1.70%	-0.44%	$3,311,626	$2,627,212	($684,414)
Other Production	4.21%	0.13%	-4.08%	727,195	22,811	(704,384)
Transmission	2.27%	1.71%	-0.56%	684,736	517,786	(166,950)
Distribution	2.84%	2.10%	-0.74%	4,959,680	3,670,299	(1,289,381)
General Plant	5.19%	2.64%	-2.55%	896,131	456,160	(439,971)
Total Electric	2.68%	1.85%	-0.83%	10,579,368	7,294,268	(3,285,100)
Industrial Steam	2.46%	2.77%	0.31%	90,011	101,174	11,163
Total L&P	2.68%	1.86%	-0.82%	$10,669,379	$7,395,442	($3,273,937)

Table 2. L&P Depreciation Rates and Accruals

Foster Associates is recommending primary account depreciation rates equivalent to a composite rate of 1.86 percent. Depreciation expense is presently accrued at an equivalent composite rate of 2.68 percent. The recommended change in the composite depreciation rate is, therefore, a reduction of 0.82 percentage points.

A continued application of rates currently approved would provide annualized depreciation expense of $10,669,379 compared with an annualized expense of $7,395,442 using the rates developed in this study. The proposed expense reduction is $3,273,937. Of this reduction, $2,918,519 represents amortization of a $75,529,715 reserve imbalance. The remaining portion of the decrease is attributable to recommended changes in service life and net salvage parameters. Of the 52 primary accounts included in the 2008 study, Foster Associates is recommending rate reductions for 39 accounts and rate increases for 13 plant accounts.

STUDY PROCEDURE

INTRODUCTION

The purpose of a depreciation study is to analyze the mortality characteristics, net salvage rates and adequacy of depreciation accruals and recorded depreciation reserves for each rate category. This study provides the foundation and documentation for recommended changes in the depreciation accrual rates used by Aquila Networks – MPS and L&P (Electric and Industrial Steam) operations. The proposed rates are subject to approval by the Missouri Public Service Commission.

SCOPE

The steps involved in conducting a depreciation study can be grouped into five major tasks:

- Data Collection;
- Life Analysis and Estimation;
- Net Salvage Analysis;
- Depreciation Reserve Analysis; and
- Development of Accrual Rates.

The scope of the 2008 study for Aquila Networks included a consideration of each of these tasks as described below.

DATA COLLECTION

The minimum database required to conduct a statistical life study consists of a history of vintage year additions and unaged activity year retirements, transfers and adjustments. These data must be appropriately adjusted for transfers, sales and other plant activity that would otherwise bias the measured service life of normal retirements. The age distribution of surviving plant for unaged data can be estimated by distributing the plant in service at the beginning of the study year to prior vintages in proportion to the theoretical amount surviving from a projection or survivor curve identified in the life study. The statistical methods of life analysis used to examine unaged plant data are known as *semi–actuarial techniques*.

A far more extensive database is required to apply statistical methods of life analysis known as *actuarial techniques*. Plant data used in an actuarial life study most often include age distributions of surviving plant at the beginning of the study year and the vintage year, activity year, and dollar amounts associated with normal retirements, reimbursed retirements, sales, abnormal retirements, transfers, corrections, and extraordinary adjustments over a series of prior activity years. An actuarial database may include age distributions of surviving plant at the beginning of the earliest activity year, rather than at the beginning of the study year. Plant additions, however, must be included in a database containing an opening age distribution to derive aged survivors at the beginning of the study year. All activity year transactions with vintage year identification are coded and stored in a

database. The data are processed by a computer program and transaction summary reports are created in a format reconcilable to the official plant records of the Company. The availability of such detailed information is dependent upon an accounting system that supports aged property records. The Continuing Property Record (CPR) system used by Aquila Networks provides aged transactions for all plant accounts.

The database used in the 2008 study was developed by appending plant and depreciation reserve transactions recorded by Aquila Networks over the period 2002–2007 to the database assembled and used in the 2002 study. The accuracy and completeness of the updated database was verified by Foster Associates for activity years 2002 through 2007 by comparing the beginning plant balance, additions, retirements, transfers and adjustments, and the ending plant balance derived for each activity year to the official plant records of the Company. Age distributions of surviving plant derived at December 31, 2007 were reconciled to age distributions extracted from the CPR system. Activity–year transactions recorded over the period 1998–2001 were reconciled in the 2002 study.

The 2002 database was compiled from two sources. Detailed accounting transactions were extracted from these sources and assigned transaction codes descriptive of the accounting activity. Transaction codes for plant additions, for example, are used to distinguish normal additions from acquisitions, purchases, reimbursements and adjustments. Similar transaction codes are used to distinguish normal retirements from sales, reimbursements, abnormal retirements and adjustments. Transaction codes are also assigned to transfers, capital leases and other accounting activity requiring special treatment in a depreciation study.

The first data source used in developing the 2002 database was an electronic file historically provided to the Missouri Commission to conduct independent analyses. While the file included vintage years since inception through 1997, it did not provide a distinction between additions, transfers, and adjustments. The file, therefore, was recreated by the Company using a legacy system database to provide the appropriate distinctions. A translation program was then used by Foster Associates to create a database in a format compatible with the software used to conduct the depreciation study.

The second source used in developing the 2002 database was the CPR system installed by Aquila in 1998. The database obtained from this system included activity year transactions over the period 1998–2001 and the age distribution of surviving plant at December 31, 2001. Age distributions at December 31, 2001 were used in conjunction with activity year transactions to reverse the transaction flow and generate an age distribution at December 31, 1997. The resulting age distributions were then compared to the age distributions generated by the Commission database. Differences were coded as vintage adjustments in 1997 to interconnect and provide continuity between the two databases. Care was taken in creating the

Foster Associates database to ensure a proper mapping of the legacy system account structure to the current CPR account structure. No attempt was made to reconcile the Foster Associates database to the historical Commission database because of the treatment of adjusting transactions in the Commission database.

LIFE ANALYSIS AND ESTIMATION

Life analysis and life estimation are terms used to describe a two–step procedure for estimating the mortality characteristics of a plant category. The first step (*i.e.*, life analysis) is largely mechanical and primarily concerned with history. Statistical techniques are used in this step to obtain a mathematical description of the forces of retirement acting upon a plant category and an estimate of the *projection life* of the account. Mathematical expressions used to describe these life characteristics are known as *survival functions* or *survivor curves*.

The second step (*i.e.*, life estimation) is concerned with predicting the expected remaining life of property units still exposed to the forces of retirement. It is a process of blending the results of the life analysis with informed judgment (including expectations about the future) to obtain an appropriate projection life and curve. The amount of weight given to the life analysis will depend upon the extent to which past retirement experience is considered descriptive of the future.

The analytical methods used in a life analysis are broadly classified as actuarial and semi–actuarial techniques. Actuarial techniques can be applied to plant accounting records that reveal the age of a plant asset at the time of its retirement from service. Stated differently, each property unit must be identifiable by date of installation and age at retirement. Semi–actuarial techniques can be used to derive service life and dispersion estimates when age identification of retirements is not maintained or readily available. Age identification of retirements was available for all plant accounts included in the 2008 Aquila Networks depreciation study.

An actuarial life analysis program designed and developed by Foster Associates was used in this study. The first step in an actuarial analysis involves a systematic treatment of the available data for the purpose of constructing an observed life table. A complete life table contains the life history of a group of property units installed during the same accounting period and various probability relationships derived from the data. A life table is arranged by age–intervals (usually defined as one year) and shows the number of units (or dollars) entering and leaving each age–interval and probability relationships associated with this activity. A life table minimally shows the age of each survivor and the age of each retirement from a group of units installed in a given accounting year.

A life table can be constructed in any one of at least five methods. The annual–rate or retirement–rate method was used in this study. The mechanics of the annual–rate method require the calculation of a series of ratios obtained by dividing the number of units (or dollars) surviving at the beginning of an age interval

into the number of units (or dollars) retired during the same interval. This ratio (or set of ratios) is commonly referred to as *retirement ratios*. The cumulative proportion surviving is obtained by multiplying the retirement ratio for each age interval by the proportion of the original group surviving at the beginning of that age interval and subtracting this product from the proportion surviving at the beginning of the same interval. The annual–rate method is applied to multiple groups or vintages by combining the retirements and/or survivors of like ages for each vintage included in the analysis.

The second step in an actuarial analysis involves graduating or smoothing the observed life table and fitting the smoothed series to a family of survival functions. The functions used in this study are the Iowa–type curves which are mathematically described in terms of the Pearson frequency curve family. The observed life table was smoothed by a weighted least–squares procedure in which first, second and third degree orthogonal polynomials were fitted to the observed retirement ratios. The resulting function can be expressed as a survivorship function which is numerically integrated to obtain an estimate of the average service life. The smoothed survivorship function is then fitted by a weighted least–squares procedure to the Iowa–curve family to obtain a mathematical description or classification of the dispersion characteristics of the data.

The set of computer programs used in this analysis provides multiple rolling–band, shrinking–band and progressive–band analyses of an account. Observation bands are defined in terms of a "retirement era" that restricts the analysis to the retirement activity of all vintages represented by survivors at the beginning of a selected era. In a rolling–band analysis, a year of retirement experience is added to each successive retirement band and the earliest year from the preceding band is dropped. A shrinking–band analysis begins with the total retirement experience available and the earliest year from the preceding band is dropped for each successive band. A progressive–band analysis adds a year of retirement activity to a previous band without dropping earlier years from the analysis. Rolling, shrinking and progressive band analyses are used to detect the emergence of trends in the behavior of the dispersion and projection life.

Options available in the Foster Associates actuarial life analysis program include the width and location of both placement and observation bands; the interval of years included in a selected band analysis; the estimator of the hazard rate (actuarial, conditional proportion retired, or maximum likelihood); the elements to include on the diagonal of a weight matrix (exposures, inverse of age, inverse of variance, or unweighted); and the age at which an observed life table is truncated. The program also provides tabular and graphics output as an aid in the analysis.

While actuarial and semi–actuarial statistical methods are well suited to an analysis of plant categories containing a large number of homogeneous units (*e.g.*, poles and conductors), the concept of retirement dispersion is applied differently

for plant categories composed of major items of plant that will most likely be retired as a single unit. Plant retirements from an integrated system prior to the retirement of the entire facility are more properly viewed as interim retirements that will be replaced in order to maintain the integrity of the system. Additionally, plant facilities may be added to the existing system (*i.e.*, interim additions) in order to expand or enhance its productive capacity without extending the service life of the existing system. A proper depreciation rate can be developed for an integrated system using a life–span method. Plant accounts classified as Steam or Other Production were identified by unit and treated as life–span categories in the 2008 study.

NET SALVAGE ANALYSIS

Depreciation rates designed to achieve the goals and objectives of depreciation accounting will include a parameter for future net salvage and a variable for average net salvage reflecting both realized and future net salvage rates.

An estimate of the net salvage rate applicable to future retirements typically begins with an analysis of gross salvage and cost of removal realized in the past. An analysis of past experience (including an examination of trends over time) provides an appropriate starting point for estimating future salvage and cost of removal. Following the historical analysis, consideration should be given to events that may cause deviations from net salvage realized in the past. Among the factors that should be considered are the age of plant retirements; the portion of retirements likely to be reused; changes in the method of removing plant; the type of plant to be retired in the future; inflation expectations; the shape of the projection life curve; and economic conditions that may warrant greater or lesser weight to be given to net salvage rates observed in the past.

Special consideration should also be given to the treatment of insurance proceeds and other forms of third–party reimbursements credited to the depreciation reserve. A properly conducted net salvage study will exclude such activity from the estimate of future parameters and include the activity in the computation of realized and average net salvage rates.

A five–year moving average analysis of the ratio of realized salvage and removal expense to the associated retirements was used in the 2008 study to a) estimate a realized net salvage rate; b) detect the emergence of historical trends; and c) establish a basis for estimating a future net salvage rate. Cost of removal and salvage opinions obtained from Company personnel were blended with judgment and historical net salvage indications in developing estimates of the future.

While Foster Associates remains of the opinion that depreciation rates designed to achieve the goals and objective of depreciation accounting should include an allowance for terminal net salvage, the disallowance of such accruals

in Missouri has been reflected in the current study. Depreciation rates developed for steam and other production accounts do not include an allowance for terminal net salvage.

Average net salvage rates were estimated using direct dollar weighting of historical retirements with the historical net salvage rate, and future retirements (*i.e.*, surviving plant) with the estimated future net salvage rate. The computation of the estimated average net salvage rates is shown in Statement D. The computation of future net salvage rates for steam and other production facilities is shown in Statement E.

DEPRECIATION RESERVE ANALYSIS

The purpose of a depreciation reserve analysis is to compare the current level of the recorded reserve with the level required to achieve the goals or objectives of depreciation accounting if the amount and timing of future retirements and net salvage are realized as predicted. The difference between the required depreciation reserve and the recorded reserve provides a measurement of the expected excess or shortfall that will remain in the depreciation reserve if corrective action is not taken to eliminate the reserve imbalance.

Unlike a recorded reserve which represents the net amount of depreciation expense charged to previous periods of operations, a theoretical reserve is a measure of the implied reserve requirement at the beginning of a study year if the timing of future retirements and net salvage is in exact conformance with a survivor curve chosen to predict the probable life of plant units still exposed to the forces of retirement. Stated differently, a theoretical depreciation reserve is the difference between the recorded cost of plant presently in service and the sum of the depreciation expense and net salvage that will be charged in the future if plant retirements are distributed over time according to a specified retirement frequency distribution.

The survivor curve used in the calculation of a theoretical depreciation reserve is intended to describe forces of retirement that will be operative in the future. However, retirements caused by forces such as accidents, physical deterioration and changing technology seldom, if ever, remain stable over time. It is unlikely, therefore, that a probability or retirement frequency distribution can be identified that will accurately describe the age of plant retirements over the complete life cycle of a vintage. It is for this reason that depreciation rates should be reviewed periodically and adjusted for observed or expected changes in the parameters chosen to describe the underlying forces of mortality.

Although reserve records are commonly maintained by various account classifications, the total reserve for a company is the most important measure of the status of the company's depreciation practices. If statistical life studies have not been conducted or retirement dispersion has been ignored in setting depreciation

rates, it is likely that some accounts will be over–depreciated and other accounts will be under–depreciated relative to a calculated theoretical reserve. Differences between the theoretical reserve and the recorded reserve also will arise as a normal occurrence when service lives, dispersion patterns and net salvage estimates are adjusted in the course of depreciation reviews. It is appropriate, therefore, and consistent with group depreciation theory to periodically redistribute or rebalance the total recorded reserve among the various primary accounts based upon the most recent estimates of retirement dispersion and net salvage rates.

In the case of MPS and L&P, recorded reserves have been maintained by primary account (and locations within primary accounts), but these reserves and reserve imbalances were ignored in the development of the current negotiated and approved whole–life accrual rates. This failure to address prior reserve imbalances produces an added dimension of instability in accrual rates beyond the variability attributable to the parameters estimated in the current study.

While it remains appropriate and consistent with group depreciation theory to realign depreciation reserves in conformance with the age distributions and parameters estimated in a current study, it is the opinion of Aquila that it would be difficult and time consuming to allocate rebalanced reserves to the numerous asset groups and subgroups maintained in the current plant accounting system. Absent a corporate commitment to record rebalanced reserves for accounting purposes, it is the opinion of Foster Associates that depreciation rates should not be developed for MPS and L&P with an assumed rebalancing of reserves. Although group depreciation theory would support rebalancing reserves in the development of deprecation rates irrespective of a rebalancing for accounting purposes, this treatment would remove any significance of recorded primary account reserves for other business applications. Pending a corporate decision to record rebalanced reserves for accounting purposes, it is the opinion of Foster Associates that a redistribution of recorded reserves is inadvisable for MPS and L&P at this time. Accordingly, recorded reserves were not rebalanced in the current study.

Statement C provides a comparison of computed and recorded reserves for MPS at December 31, 2007. The recorded reserve was $611,642,159, or 40.2 percent of the depreciable plant investment. The corresponding computed reserve is $482,882,843 or 31.7 percent of the depreciable plant investment. A proportionate amount of the measured reserve imbalance of $128,759,316 will be amortized over the composite weighted–average remaining life of each rate category.

The recorded reserve L&P was $222,741,318, or 56.0 percent of the depreciable plant investment. The corresponding computed reserve is $147,211,603 or 37.0 percent of the depreciable plant investment. A proportionate amount of the measured reserve imbalance of $75,529,715 will be amortized over the composite weighted–average remaining life of each rate category.

DEVELOPMENT OF ACCRUAL RATES

The goal or objective of depreciation accounting is cost allocation over the economic life of an asset in proportion to the consumption of service potential. Ideally, the cost of an asset—which represents the cost of obtaining a bundle of service units—should be allocated to future periods of operation in proportion to the amount of service potential expended during an accounting interval. The service potential of an asset is the present value of future net revenue (*i.e.*, revenue less expenses exclusive of depreciation and other non–cash expenses) or cash inflows attributable to the use of that asset alone.

Cost allocation in proportion to the consumption of service potential is often approximated by the use of depreciation methods employing time rather than net revenue as the apportionment base. Examples of time–based methods include sinking–fund, straight–line, declining balance, and sum–of–the–years' digits. The advantage of using a time–based method is that it does not require an estimate of the remaining amount of service capacity an asset will provide or the amount of capacity actually consumed during an accounting interval. Using a time–based allocation method, however, does not change the goal of depreciation accounting. If it is predictable that the net revenue pattern of an asset will either decrease or increase over time, then an accelerated or decelerated time–based method should be used to approximate the rate at which service potential is actually consumed.

The time period over which the cost of an asset will be allocated to operations is determined by the combination of a procedure and a technique. A depreciation procedure describes the level of grouping or sub–grouping of assets within a plant category. The broad group, vintage group, equal–life group, and item or unit are a few of the more widely used procedures. A depreciation technique describes the life statistic used in a depreciation system. The whole–life and remaining–life (or expectancy) are the most common techniques.

Depreciation rates recommended in this study were developed using a system composed of the straight–line method, vintage group procedure, whole–life technique with amortization of reserve imbalances over the estimated remaining life of each rate category. This formulation of the accrual rate is equivalent to a straight–line method, vintage group procedure, remaining–life technique. It is the opinion of Foster Associates that this system will remain appropriate for MPS and L&P, provided depreciation studies are conducted periodically and parameters are routinely adjusted to reflect changing operating conditions.

STATEMENTS

INTRODUCTION

This section provides a comparative summary of depreciation rates, annual depreciation accruals, recorded and computed depreciation reserves, and present and proposed service life and net salvage statistics recommended for Aquila Networks – MPS and L&P. The content of these statements is briefly described below.

- Statement A provides a comparative summary of present and proposed annual depreciation rates using the vintage group procedure, whole–life technique with amortization of reserve imbalances.
- Statement B provides a comparison of present and proposed annualized 2008 depreciation accruals based upon the rates developed in Statement A.
- Statement C provides a comparison of recorded and computed reserves for each rate category at December 31, 2007.
- Statement D provides a summary of the components used to obtain a weighted average net salvage rate for each rate category.
- Statement E provides the computation of estimated future net salvage rates for steam and other production facilities.
- Statement F provides a comparative summary of present and proposed parameters including projection life, projection curve, average service life, average remaining life, and average and future net salvage rates.

Present depreciation accruals shown on Statement B are the product of the plant investment (Column B) and the original depreciation rates (Column D) shown on Statement A. These are the effective rates used by Aquila Networks for the mix of investments recorded at December 31, 2007. Similarly, proposed depreciation accruals shown on Statement B are the product of the plant investment and the proposed depreciation rates (Column I) shown on Statement A. Proposed accrual rates shown on Statement A are given by:

$$Accrual\ Rate = \frac{1.0 - Average\ Net\ Salvage}{Average\ Life} + \frac{Computed\ Reserve - Recorded\ Reserve}{Remaining\ Life}$$

where *Average Net Salvage*, *Computed Reserve* and *Recorded Reserve* are expressed in percent. This formulation of the accrual rate is equivalent to

$$Accrual\ Rate = \frac{1.0 - Reserve\ Ratio - Future\ Net\ Salvage\ Rate}{Remaining\ Life}.$$

Statements A through F

AQUILA NETWORKS - MPS Statement A

Comparison of Present and Proposed Accrual Rates
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	Present Avg. Life	Present Avg. Net Salvage	Present Accrual Rate	Proposed Avg. Life	Proposed Avg. Net Salvage	Proposed W/L Rate	Proposed Amorti-zation	Proposed R/L Rate
A	B	C	D	E	F	G	H	I=G+H
STEAM PRODUCTION								
311000 Structures and Improvements			1.87%	40.41	-1.9%	2.52%	-1.16%	1.37%
312000 Boiler Plant Equipment			2.16%	38.53	-4.9%	2.73%	-0.86%	1.87%
314000 Turbogenerator Units			2.33%	36.20	-4.0%	2.86%	-0.61%	2.25%
315000 Accessory Electric Equipment			2.39%	43.82	-3.6%	2.37%	-1.04%	1.32%
316000 Miscellaneous Power Plant Equipment			2.56%	37.83	-2.3%	2.70%	-0.43%	2.27%
Total Steam Production Plant			2.17%	38.56	-4.2%	2.70%	-0.86%	1.84%
OTHER PRODUCTION								
341000 Structures and Improvements	60.00	-4.9%	1.75%	29.94	-0.7%	3.36%	0.01%	3.37%
342000 Fuel Holders and Accessories	34.00	-4.9%	3.09%	27.98	-1.0%	3.61%	-0.39%	3.22%
343000 Prime Movers	22.00	-5.8%	4.81%	29.62	-0.9%	3.41%	-0.17%	3.24%
343100 Wind Turbines	22.00	-5.0%	4.77%	24.39	-0.4%	4.12%	-0.23%	3.89%
344000 Generators	28.00	-6.4%	3.80%	29.96	-0.8%	3.36%	-0.52%	2.84%
345000 Accessory Electric Equipment	37.00	-5.4%	2.85%	30.10	-0.8%	3.35%	-0.16%	3.19%
346000 Miscellaneous Power Plant Equipment	28.00		3.57%	32.03		3.12%	0.27%	3.39%
Total Other Production			4.07%	29.68	-0.9%	3.40%	-0.23%	3.17%
TRANSMISSION PLANT								
352000 Structures and Improvements	60.00	-10.0%	1.83%	60.06	-4.9%	1.75%	-0.05%	1.70%
353000 Station Equipment	60.00	-2.0%	1.70%	59.94	4.5%	1.59%	-0.25%	1.34%
354000 Towers and Fixtures	54.00		1.85%	52.51	-9.2%	2.08%	-1.13%	0.95%
355000 Poles and Fixtures	55.00	-61.0%	2.93%	55.05	-60.3%	2.91%	0.03%	2.94%
356000 Overhead Conductors and Devices	62.00	-44.0%	2.32%	61.99	-50.4%	2.43%	-0.05%	2.38%
358000 Underground Conductors and Devices	49.00	-22.0%	2.49%	51.07	-20.0%	2.35%	-0.75%	1.60%
Total Transmission Plant			2.22%	58.72	-28.1%	2.19%	-0.11%	2.08%
DISTRIBUTION PLANT								
361000 Structures and Improvements	62.00		1.61%	62.16	0.2%	1.61%	-0.06%	1.55%
362000 Station Equipment	48.00		2.08%	54.51	5.0%	1.74%	-0.29%	1.45%
364000 Poles, Towers and Fixtures	46.00	-79.0%	3.89%	46.18	-70.3%	3.69%	0.28%	3.97%
365000 Overhead Conductors and Devices	60.00	-31.0%	2.18%	59.98	-30.3%	2.17%	-0.13%	2.04%
366000 Underground Conduit	66.00	-12.0%	1.70%	66.04	-10.1%	1.67%	-0.06%	1.61%
367000 Underground Conductors and Devices	49.00	-22.0%	2.49%	46.91	-15.0%	2.45%	-0.04%	2.41%
368000 Line Transformers	33.00	-14.0%	3.45%	34.87	-10.5%	3.17%	-0.09%	3.08%
369001 Overhead Services	55.00	-100.0%	3.64%	55.22	-105.4%	3.72%	-0.17%	3.55%
369002 Underground Services	38.00	-16.0%	3.05%	38.03	-20.0%	3.16%	-0.19%	2.97%
370001 Meters	53.00	-6.0%	2.00%	53.11	-5.1%	1.98%	-0.43%	1.55%
370002 Load Research Meters	14.00		7.14%	15.01		6.66%	-10.19%	-3.53%
371000 Installations on Customers' Premises	26.00	-33.0%	5.12%	26.24	-7.5%	4.10%	-1.17%	2.93%
373000 Street Lighting and Signal Systems	34.00	-8.0%	3.18%	34.33	-5.1%	3.06%	-0.41%	2.65%
Total Distribution Plant			2.93%	44.54	-23.7%	2.77%	-0.13%	2.64%
GENERAL PLANT								
390001 Structures and Improvements	45.00	-23.0%	2.73%	45.75	-13.2%	2.47%	0.15%	2.62%
391001 Office Furniture and Equipment	24.00		4.17%	25.23	-0.3%	3.98%	-0.98%	3.00%
391200 Computer Hardware	8.00		12.50%	8.34	-0.2%	12.01%	2.02%	14.03%
391300 Computer Software	9.00		11.11%	9.59		10.43%	1.36%	11.79%
392000 Transportation Equipment	8.00	10.0%	11.25%	12.11	6.5%	7.72%	-8.48%	-0.76%
393000 Stores Equipment	27.00		3.70%	30.87		3.24%	-2.30%	0.94%
394000 Tools, Shop and Garage Equipment	28.00	-3.0%	3.68%	30.10	-0.7%	3.35%	-2.20%	1.15%
395000 Laboratory Equipment	28.00	4.0%	3.43%	30.16	0.5%	3.30%	-1.25%	2.05%
396000 Power Operated Equipment	22.00	2.0%	4.45%	24.70	4.8%	3.85%	-1.20%	2.65%
397000 Communication Equipment	27.00		3.70%	27.49	-0.1%	3.64%	-2.01%	1.63%
398000 Miscellaneous Equipment	24.00	11.0%	3.71%	28.17	6.0%	3.34%	-2.58%	0.76%
Total General Plant			4.27%	26.34	-3.6%	3.87%	-1.11%	2.76%
TOTAL UTILITY			2.82%	41.12	-16.2%	2.78%	-0.34%	2.43%

AQUILA NETWORKS - MPS Statement A

Comparison of Present and Proposed Accrual Rates
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	Present Avg. Life	Present Avg. Net Salvage	Present Accrual Rate	Proposed Avg. Life	Proposed Avg. Net Salvage	Proposed W/L Rate	Proposed Amorti-zation	Proposed R/L Rate
A	B	C	D	E	F	G	H	I=G+H
STEAM PRODUCTION								
Jeffery								
311000 Structures and Improvements	54.00	-0.8%	1.87%	53.82	-2.0%	1.90%	-1.25%	0.65%
312000 Boiler Plant Equipment	48.00	-1.0%	2.10%	50.27	-3.0%	2.05%	-1.03%	1.02%
314000 Turbogenerator Units	44.00	-1.7%	2.31%	44.55	-5.6%	2.37%	-0.43%	1.94%
315000 Accessory Electric Equipment	43.00	-1.8%	2.37%	57.08	-2.5%	1.80%	-0.89%	0.91%
316000 Miscellaneous Power Plant Equipment	40.00	-3.4%	2.59%	41.47	-3.4%	2.49%	-0.35%	2.14%
Total Jeffery			2.12%	49.93	-3.3%	2.07%	-0.95%	1.13%
Sibley								
311000 Structures and Improvements	54.00	-1.1%	1.87%	36.11	-1.9%	2.82%	-1.11%	1.71%
312000 Boiler Plant Equipment	48.00	-5.2%	2.19%	35.10	-5.7%	3.01%	-0.79%	2.22%
314000 Turbogenerator Units	44.00	-2.6%	2.33%	34.19	-3.4%	3.02%	-0.67%	2.35%
315000 Accessory Electric Equipment	43.00	-3.0%	2.40%	39.86	-4.0%	2.61%	-1.11%	1.50%
316000 Miscellaneous Power Plant Equipment	40.00	-0.1%	2.50%	32.75	-0.4%	3.07%	-0.56%	2.51%
Total Sibley			2.19%	35.27	-4.5%	2.96%	-0.83%	2.13%

AQUILA NETWORKS - MPS Statement B

Comparison of Present and Proposed Accruals
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	12/31/07 Plant Investment	2008 Annualized Accrual				
			Proposed			
		Present	Whole-Life	Amortization	Total	Difference
A	B	C	D	E	F=D+E	G=F-C
STEAM PRODUCTION						
311000 Structures and Improvements	$57,538,513	$1,075,970	$1,451,376	($664,732)	$786,644	($289,326)
312000 Boiler Plant Equipment	210,689,313	4,558,175	5,745,260	(1,813,568)	3,931,692	(626,483)
314000 Turbogenerator Units	76,618,879	1,781,555	2,194,771	(469,364)	1,725,407	(56,148)
315000 Accessory Electric Equipment	21,556,567	515,421	510,349	(225,079)	285,270	(230,151)
316000 Miscellaneous Power Plant Equipment	2,827,629	72,316	76,336	(12,043)	64,293	(8,023)
Total Steam Production Plant	$369,230,901	$8,003,437	$9,978,092	($3,184,786)	$6,793,306	($1,210,131)
OTHER PRODUCTION						
341000 Structures and Improvements	$13,718,293	$240,070	$460,935	$1,371	$462,306	$222,236
342000 Fuel Holders and Accessories	8,814,573	272,370	318,206	(34,377)	283,829	11,459
343000 Prime Movers	107,297,266	5,160,998	3,658,837	(182,406)	3,476,431	(1,684,567)
343100 Wind Turbines	182,530	8,707	7,520	(420)	7,100	(1,607)
344000 Generators	33,709,718	1,280,969	1,132,647	(175,291)	957,356	(323,613)
345000 Accessory Electric Equipment	24,932,908	710,588	835,252	(39,892)	795,360	84,772
346000 Miscellaneous Power Plant Equipment	150,584	5,376	4,698	407	5,105	(271)
Total Other Production	$188,805,872	$7,679,078	$6,418,095	($430,606)	$5,987,487	($1,691,591)
TRANSMISSION PLANT						
352000 Structures and Improvements	$6,966,236	$127,482	$121,909	($3,483)	$118,426	($9,056)
353000 Station Equipment	96,690,159	1,643,733	1,537,374	(241,726)	1,295,648	(348,085)
354000 Towers and Fixtures	323,639	5,987	6,732	(3,657)	3,075	(2,912)
355000 Poles and Fixtures	68,928,409	2,019,602	2,005,817	20,678	2,026,495	6,893
356000 Overhead Conductors and Devices	47,993,521	1,113,450	1,166,243	(23,997)	1,142,246	28,796
358000 Underground Conductors and Devices	58,426	1,455	1,373	(438)	935	(520)
Total Transmission Plant	$220,960,390	$4,911,709	$4,839,448	($252,623)	$4,586,825	($324,884)
DISTRIBUTION PLANT						
361000 Structures and Improvements	$7,442,639	$119,826	$119,826	($4,465)	$115,361	($4,465)
362000 Station Equipment	83,948,776	1,746,135	1,460,709	(243,452)	1,217,257	(528,878)
364000 Poles, Towers and Fixtures	126,779,588	4,931,726	4,678,167	354,983	5,033,150	101,424
365000 Overhead Conductors and Devices	86,682,278	1,889,674	1,881,005	(112,687)	1,768,318	(121,356)
366000 Underground Conduit	38,985,578	662,755	651,059	(23,391)	627,668	(35,087)
367000 Underground Conductors and Devices	92,155,396	2,294,669	2,257,807	(36,862)	2,220,945	(73,724)
368000 Line Transformers	137,834,023	4,755,274	4,369,339	(124,051)	4,245,288	(509,986)
369001 Overhead Services	13,093,334	476,597	487,072	(22,259)	464,813	(11,784)
369002 Underground Services	48,596,943	1,482,207	1,535,663	(92,334)	1,443,329	(38,878)
370001 Meters	24,832,273	496,645	491,679	(106,779)	384,900	(111,745)
370002 Load Research Meters	2,045,596	146,056	136,237	(208,447)	(72,210)	(218,266)
371000 Installations on Customers' Premises	14,139,906	723,963	579,736	(165,437)	414,299	(309,664)
373000 Street Lighting and Signal Systems	25,975,908	826,034	794,863	(106,501)	688,362	(137,672)
Total Distribution Plant	$702,512,238	$20,551,561	$19,443,162	($891,682)	$18,551,480	($2,000,081)
GENERAL PLANT						
390001 Structures and Improvements	$15,254,362	$416,444	$376,783	$22,881	$399,664	($16,780)
391001 Office Furniture and Equipment	2,483,509	103,562	98,844	(24,339)	74,505	(29,057)
391200 Computer Hardware	1,978,081	247,260	237,568	39,957	277,525	30,265
391300 Computer Software	537,139	59,676	56,024	7,305	63,329	3,653
392000 Transportation Equipment	1,801,353	202,652	139,064	(152,754)	(13,690)	(216,342)
393000 Stores Equipment	107,726	3,986	3,490	(2,477)	1,013	(2,973)
394000 Tools, Shop and Garage Equipment	4,092,664	150,610	137,104	(90,038)	47,066	(103,544)
395000 Laboratory Equipment	2,076,435	71,222	68,522	(25,955)	42,567	(28,655)
396000 Power Operated Equipment	3,470,219	154,425	133,603	(41,642)	91,961	(62,464)
397000 Communication Equipment	9,126,154	337,668	332,192	(183,436)	148,756	(188,912)
398000 Miscellaneous Equipment	190,122	7,054	6,350	(4,905)	1,445	(5,609)
Total General Plant	$41,117,764	$1,754,559	$1,589,544	($455,403)	$1,134,141	($620,418)
TOTAL UTILITY	$1,522,627,165	$42,900,344	$42,268,341	($5,215,102)	$37,053,239	($5,847,105)

AQUILA NETWORKS - MPS Statement B

Comparison of Present and Proposed Accruals
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	12/31/07 Plant Investment	2008 Annualized Accrual				
			Proposed			
		Present	Whole-Life	Amortization	Total	Difference
A	B	C	D	E	F=D+E	G=F-C
STEAM PRODUCTION						
Jeffery						
311000 Structures and Improvements	$18,609,834	$348,004	$353,587	($232,623)	$120,964	($227,040)
312000 Boiler Plant Equipment	62,134,245	1,304,819	1,273,752	(639,983)	633,769	(671,050)
314000 Turbogenerator Units	18,326,065	423,332	434,328	(78,802)	355,526	(67,806)
315000 Accessory Electric Equipment	6,454,018	152,960	116,172	(57,440)	58,732	(94,228)
316000 Miscellaneous Power Plant Equipment	1,805,608	46,765	44,960	(6,320)	38,640	(8,125)
Total Jeffery	$107,329,770	$2,275,880	$2,222,799	($1,015,168)	$1,207,631	($1,068,249)
Sibley						
311000 Structures and Improvements	$38,928,679	$727,966	$1,097,789	($432,109)	$665,680	($62,286)
312000 Boiler Plant Equipment	148,555,068	3,253,356	4,471,508	(1,173,585)	3,297,923	44,567
314000 Turbogenerator Units	58,292,814	1,358,223	1,760,443	(390,562)	1,369,881	11,658
315000 Accessory Electric Equipment	15,102,549	362,461	394,177	(167,639)	226,538	(135,923)
316000 Miscellaneous Power Plant Equipment	1,022,021	25,551	31,376	(5,723)	25,653	102
Total Sibley	$261,901,131	$5,727,557	$7,755,293	($2,169,618)	$5,585,675	($141,882)

AQUILA NETWORKS - MPS
Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2007

Statement C

Account Description	Plant Investment	Recorded Reserve Amount	Recorded Reserve Ratio	Computed Reserve Amount	Computed Reserve Ratio	Reserve Imbalance Amount	Reserve Imbalance Multiple
A	B	C	D=C/B	E	F=E/B	G=C-E	H=G/C
STEAM PRODUCTION							
311000 Structures and Improvements	$57,538,513	$41,225,094	71.65%	$25,401,919	44.15%	$15,823,175	38.38%
312000 Boiler Plant Equipment	210,689,313	124,693,224	59.18%	80,288,727	38.11%	44,404,497	35.61%
314000 Turbogenerator Units	76,618,879	37,902,557	49.47%	27,203,553	35.51%	10,699,004	28.23%
315000 Accessory Electric Equipment	21,556,567	15,131,021	70.19%	9,861,667	45.75%	5,269,354	34.82%
316000 Miscellaneous Power Plant Equipment	2,827,629	1,082,896	38.30%	761,674	26.94%	321,222	29.66%
Total Steam Production Plant	$369,230,901	$220,034,792	59.59%	$143,517,540	38.87%	$76,517,253	34.78%
OTHER PRODUCTION							
341000 Structures and Improvements	$13,718,293	$1,604,866	11.70%	$1,619,515	11.81%	($14,649)	-0.91%
342000 Fuel Holders and Accessories	8,814,573	1,871,361	21.23%	1,014,010	11.50%	857,351	45.81%
343000 Prime Movers	107,297,266	16,029,921	14.94%	11,445,054	10.67%	4,584,867	28.60%
343100 Wind Turbines	182,530	64,640	35.41%	57,781	31.66%	6,859	10.61%
344000 Generators	33,709,718	10,312,663	30.59%	5,943,307	17.63%	4,369,356	42.37%
345000 Accessory Electric Equipment	24,932,908	4,126,760	16.55%	3,047,729	12.22%	1,079,031	26.15%
346000 Miscellaneous Power Plant Equipment	150,584	2,848	1.89%	14,386	9.55%	(11,539)	-405.21%
Total Other Production	$188,805,872	$34,013,058	18.01%	$23,141,781	12.26%	$10,871,277	31.96%
TRANSMISSION PLANT							
352000 Structures and Improvements	$6,966,236	$1,576,559	22.63%	$1,429,304	20.52%	$147,255	9.34%
353000 Station Equipment	96,690,159	31,776,971	32.86%	20,406,076	21.10%	11,370,895	35.78%
354000 Towers and Fixtures	323,639	297,154	91.82%	226,644	70.03%	70,510	23.73%
355000 Poles and Fixtures	68,928,409	19,660,519	28.52%	20,587,031	29.87%	(926,512)	-4.71%
356000 Overhead Conductors and Devices	47,993,521	19,814,467	41.29%	18,846,256	39.27%	968,211	4.89%
358000 Underground Conductors and Devices	58,426	46,801	80.10%	35,776	61.23%	11,024	23.56%
Total Transmission Plant	$220,960,390	$73,172,472	33.12%	$61,531,088	27.85%	$11,641,383	15.91%
DISTRIBUTION PLANT							
361000 Structures and Improvements	$7,442,639	$1,555,011	20.89%	$1,329,320	17.86%	$225,690	14.51%
362000 Station Equipment	83,948,776	24,322,088	28.97%	13,211,421	15.74%	11,110,667	45.68%
364000 Poles, Towers and Fixtures	126,779,588	61,487,866	48.50%	72,601,190	57.27%	(11,113,325)	-18.07%
365000 Overhead Conductors and Devices	86,682,278	28,546,265	32.93%	23,221,934	26.79%	5,324,331	18.65%
366000 Underground Conduit	38,985,578	6,799,603	17.44%	5,531,141	14.19%	1,268,462	18.65%
367000 Underground Conductors and Devices	92,155,396	27,546,759	29.89%	26,138,854	28.36%	1,407,906	5.11%
368000 Line Transformers	137,834,023	49,357,547	35.81%	46,570,863	33.79%	2,786,684	5.65%
369001 Overhead Services	13,093,334	11,264,204	86.03%	10,543,316	80.52%	720,888	6.40%
369002 Underground Services	48,596,943	22,449,105	46.19%	20,256,606	41.68%	2,192,499	9.77%
370001 Meters	24,832,273	12,011,222	48.37%	8,162,038	32.87%	3,849,184	32.05%

AQUILA NETWORKS - MPS
Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2007

Statement C

Account Description	Plant Investment	Recorded Reserve Amount	Recorded Reserve Ratio	Computed Reserve Amount	Computed Reserve Ratio	Reserve Imbalance Amount	Reserve Imbalance Multiple
A	B	C	D=C/B	E	F=E/B	G=C-E	H=G/C
370002 Load Research Meters	2,045,596	2,132,067	104.23%	1,882,057	92.01%	250,010	11.73%
371000 Installations on Customers' Premises	14,139,906	7,614,629	53.85%	4,726,819	33.43%	2,887,810	37.92%
373000 Street Lighting and Signal Systems	25,975,908	7,875,745	30.32%	4,848,861	18.67%	3,026,883	38.43%
Total Distribution Plant	$702,512,238	$262,962,110	37.43%	$239,024,421	34.02%	$23,937,689	9.10%
GENERAL PLANT							
390001 Structures and Improvements	$15,254,362	$3,752,378	24.60%	$4,456,054	29.21%	($703,676)	-18.75%
391001 Office Furniture and Equipment	2,483,509	1,538,025	61.93%	1,230,624	49.55%	307,400	19.99%
391200 Computer Hardware	1,978,081	540,368	27.32%	747,032	37.77%	(206,664)	-38.25%
391300 Computer Software	537,139	212,954	39.65%	250,366	46.61%	(37,412)	-17.57%
392000 Transportation Equipment	1,801,353	1,774,665	98.52%	1,070,124	59.41%	704,541	39.70%
393000 Stores Equipment	107,726	89,617	83.19%	45,052	41.82%	44,566	49.73%
394000 Tools, Shop and Garage Equipment	4,092,664	3,019,423	73.78%	958,549	23.42%	2,060,874	68.25%
395000 Laboratory Equipment	2,076,435	1,309,773	63.08%	845,435	40.72%	464,338	35.45%
396000 Power Operated Equipment	3,470,219	1,943,509	56.01%	1,331,907	38.38%	611,602	31.47%
397000 Communication Equipment	9,126,154	7,118,451	78.00%	4,639,931	50.84%	2,478,521	34.82%
398000 Miscellaneous Equipment	190,122	160,564	84.45%	92,940	48.88%	67,625	42.12%
Total General Plant	$41,117,764	$21,459,728	52.19%	$15,668,013	38.11%	$5,791,714	26.99%
TOTAL UTILITY	$1,522,627,165	$611,642,159	40.17%	$482,882,843	31.71%	$128,759,316	21.05%
STEAM PRODUCTION							
Jeffery							
311000 Structures and Improvements	$18,609,834	$15,186,895	81.61%	$7,960,922	42.78%	$7,225,974	47.58%
312000 Boiler Plant Equipment	62,134,245	43,414,785	69.87%	23,597,405	37.98%	19,817,380	45.65%
314000 Turbogenerator Units	18,326,065	7,588,486	41.41%	5,114,873	27.91%	2,473,613	32.60%
315000 Accessory Electric Equipment	6,454,018	4,684,115	72.58%	2,900,112	44.93%	1,784,002	38.09%
316000 Miscellaneous Power Plant Equipment	1,805,608	614,649	34.04%	418,116	23.16%	196,534	31.97%
Total Jeffery	$107,329,770	$71,488,930	66.61%	$39,991,427	37.26%	$31,497,503	44.06%
Sibley							
311000 Structures and Improvements	$38,928,679	$26,038,198	66.89%	$17,440,997	44.80%	$8,597,201	33.02%
312000 Boiler Plant Equipment	148,555,068	81,278,440	54.71%	56,691,323	38.16%	24,587,117	30.25%
314000 Turbogenerator Units	58,292,814	30,314,071	52.00%	22,088,680	37.89%	8,225,391	27.13%
315000 Accessory Electric Equipment	15,102,549	10,446,907	69.17%	6,961,555	46.10%	3,485,352	33.36%
316000 Miscellaneous Power Plant Equipment	1,022,021	468,247	45.82%	343,558	33.62%	124,689	26.63%
Total Sibley	$261,901,131	$148,545,863	56.72%	$103,526,113	39.53%	$45,019,750	30.31%

AQUILA NETWORKS - MPS
Average Net Salvage

Statement D

Account Description	Plant Investment			Salvage Rate		Net Salvage			Average
	Additions	Retirements	Survivors	Realized	Future	Realized	Future	Total	Rate
A	B	C	D=B-C	E	F	G=E*C	H=F*D	I=G+H	J=I/B
STEAM PRODUCTION									
311000 Structures and Improvements	$59,133,178	$1,594,665	$57,538,513	-24.8%	-1.3%	($395,927)	($744,583)	($1,140,510)	-1.9%
312000 Boiler Plant Equipment	235,454,183	24,764,870	210,689,313	-35.9%	-1.3%	(8,897,724)	(2,690,388)	(11,588,112)	-4.9%
314000 Turbogenerator Units	89,978,272	13,359,393	76,618,879	-19.7%	-1.2%	(2,629,930)	(952,764)	(3,582,694)	-4.0%
315000 Accessory Electric Equipment	26,030,329	4,473,762	21,556,567	-17.9%	-0.7%	(801,532)	(142,247)	(943,779)	-3.6%
316000 Miscellaneous Power Plant Equipment	3,040,784	213,155	2,827,629	-22.9%	-0.7%	(48,777)	(20,577)	(69,354)	-2.3%
Total Steam Production Plant	$413,636,746	$44,405,845	$369,230,901	-28.8%	-1.2%	($12,773,890)	($4,550,559)	($17,324,449)	-4.2%
OTHER PRODUCTION									
341000 Structures and Improvements	$13,927,597	$209,304	$13,718,293	-3.6%	-0.7%	($7,535)	($96,028)	($103,563)	-0.7%
342000 Fuel Holders and Accessories	8,870,822	56,249	8,814,573	-42.0%	-0.7%	(23,625)	(61,702)	(85,327)	-1.0%
343000 Prime Movers	112,461,085	5,163,819	107,297,266	-5.9%	-0.7%	(304,665)	(751,081)	(1,055,746)	-0.9%
343100 Wind Turbines	182,530		182,530		-0.4%		(730)	(730)	-0.4%
344000 Generators	34,761,074	1,051,356	33,709,718	-3.9%	-0.7%	(41,003)	(235,968)	(276,971)	-0.8%
345000 Accessory Electric Equipment	25,085,684	152,776	24,932,908	-13.5%	-0.7%	(20,625)	(174,530)	(195,155)	-0.8%
346000 Miscellaneous Power Plant Equipment	157,528	6,944	150,584						
Total Other Production	$195,446,320	$6,640,448	$188,805,872	-6.0%	-0.7%	($397,452)	($1,320,039)	($1,717,492)	-0.9%
TRANSMISSION PLANT									
352000 Structures and Improvements	$7,026,704	$60,468	$6,966,236	4.1%	-5.0%	$2,479	($348,312)	($345,833)	-4.9%
353000 Station Equipment	102,598,449	5,908,290	96,690,159	-3.5%	5.0%	(206,790)	4,834,508	4,627,718	4.5%
354000 Towers and Fixtures	352,679	29,040	323,639		-10.0%		(32,364)	(32,364)	-9.2%
355000 Poles and Fixtures	74,005,201	5,076,792	68,928,409	-64.7%	-60.0%	(3,284,684)	(41,357,045)	(44,641,730)	-60.3%
356000 Overhead Conductors and Devices	50,960,857	2,967,336	47,993,521	-56.2%	-50.0%	(1,667,643)	(23,996,761)	(25,664,403)	-50.4%
358000 Underground Conductors and Devices	58,426		58,426		-20.0%		(11,685)	(11,685)	-20.0%
Total Transmission Plant	$235,002,316	$14,041,926	$220,960,390	-36.7%	-27.6%	($5,156,638)	($60,911,659)	($66,068,297)	-28.1%
DISTRIBUTION PLANT									
361000 Structures and Improvements	$7,539,480	$96,841	$7,442,639	12.2%		$11,815		$11,815	0.2%
362000 Station Equipment	94,913,609	10,964,833	83,948,776	5.3%	5.0%	581,136	4,197,439	4,778,575	5.0%
364000 Poles, Towers and Fixtures	135,854,704	9,075,116	126,779,588	-74.6%	-70.0%	(6,770,037)	(88,745,712)	(95,515,748)	-70.3%
365000 Overhead Conductors and Devices	94,745,878	8,063,600	86,682,278	-33.1%	-30.0%	(2,669,052)	(26,004,683)	(28,673,735)	-30.3%
366000 Underground Conduit	39,897,526	911,948	38,985,578	-15.1%	-10.0%	(137,704)	(3,898,558)	(4,036,262)	-10.1%
367000 Underground Conductors and Devices	95,712,937	3,557,541	92,155,396	-16.0%	-15.0%	(569,207)	(13,823,309)	(14,392,516)	-15.0%
368000 Line Transformers	160,757,361	22,923,338	137,834,023	-13.3%	-10.0%	(3,048,804)	(13,783,402)	(16,832,206)	-10.5%
369001 Overhead Services	13,685,166	591,832	13,093,334	-226.0%	-100.0%	(1,337,540)	(13,093,334)	(14,430,874)	-105.4%
369002 Underground Services	49,058,382	461,439	48,596,943	-21.6%	-20.0%	(99,671)	(9,719,389)	(9,819,059)	-20.0%
370001 Meters	28,444,891	3,612,618	24,832,273	-5.6%	-5.0%	(202,307)	(1,241,614)	(1,443,920)	-5.1%
370002 Load Research Meters	2,330,669	285,073	2,045,596						
371000 Installations on Customers' Premises	16,945,885	2,805,979	14,139,906	-20.3%	-5.0%	(569,614)	(706,995)	(1,276,609)	-7.5%
373000 Street Lighting and Signal Systems	33,036,147	7,060,239	25,975,908	-5.7%	-5.0%	(402,434)	(1,298,795)	(1,701,229)	-5.1%
Total Distribution Plant	$772,922,635	$70,410,397	$702,512,238	-21.6%	-23.9%	($15,213,417)	($168,118,353)	($183,331,770)	-23.7%

AQUILA NETWORKS - MPS
Average Net Salvage

Statement D

Account Description	Plant Investment			Salvage Rate		Net Salvage			Average
	Additions	Retirements	Survivors	Realized	Future	Realized	Future	Total	Rate
A	B	C	D=B-C	E	F	G=E*C	H=F*D	I=G+H	J=I/B
GENERAL PLANT									
390001 Structures and Improvements	$17,372,097	$2,117,735	$15,254,362	-72.6%	-5.0%	($1,537,476)	($762,718)	($2,300,194)	-13.2%
391001 Office Furniture and Equipment	2,616,157	132,648	2,483,509	-6.2%		(8,224)		(8,224)	-0.3%
391200 Computer Hardware	3,705,081	1,727,000	1,978,081	-0.4%		(6,908)		(6,908)	-0.2%
391300 Computer Software	627,112	89,973	537,139						
392000 Transportation Equipment	4,176,717	2,375,364	1,801,353	7.6%	5.0%	180,528	90,068	270,595	6.5%
393000 Stores Equipment	177,362	69,636	107,726						
394000 Tools, Shop and Garage Equipment	5,600,630	1,507,966	4,092,664	-2.5%		(37,699)		(37,699)	-0.7%
395000 Laboratory Equipment	2,485,040	408,605	2,076,435	3.3%		13,484		13,484	0.5%
396000 Power Operated Equipment	4,233,431	763,212	3,470,219	4.0%	5.0%	30,528	173,511	204,039	4.8%
397000 Communication Equipment	10,562,254	1,436,100	9,126,154	-0.7%		(10,053)		(10,053)	-0.1%
398000 Miscellaneous Equipment	254,748	64,626	190,122	9.1%	5.0%	5,881	9,506	15,387	6.0%
Total General Plant	$51,810,629	$10,692,865	$41,117,764	-12.8%	-1.2%	($1,369,939)	($489,633)	($1,859,572)	-3.6%
TOTAL UTILITY	$1,668,818,646	$146,191,481	$1,522,627,165	-23.9%	-15.5%	($34,911,337)	($235,390,243)	($270,301,580)	-16.2%
STEAM PRODUCTION									
Jeffery									
311000 Structures and Improvements	$18,749,094	$139,260	$18,609,834	-40.8%	-1.7%	($56,818)	($316,367)	($373,185)	-2.0%
312000 Boiler Plant Equipment	68,436,616	6,302,371	62,134,245	-15.8%	-1.7%	(995,775)	(1,056,282)	(2,052,057)	-3.0%
314000 Turbogenerator Units	23,295,648	4,969,583	18,326,065	-20.0%	-1.7%	(993,917)	(311,543)	(1,305,460)	-5.6%
315000 Accessory Electric Equipment	6,747,955	293,937	6,454,018	-40.9%	-0.8%	(120,220)	(51,632)	(171,852)	-2.5%
316000 Miscellaneous Power Plant Equipment	1,906,068	100,460	1,805,608	-49.9%	-0.8%	(50,130)	(14,445)	(64,574)	-3.4%
Total Jeffery	$119,135,381	$11,805,611	$107,329,770	-18.8%	-1.6%	($2,216,859)	($1,750,269)	($3,967,129)	-3.3%
Sibley									
311000 Structures and Improvements	$40,384,084	$1,455,405	$38,928,679	-23.3%	-1.1%	($339,109)	($428,215)	($767,325)	-1.9%
312000 Boiler Plant Equipment	167,017,567	18,462,499	148,555,068	-42.8%	-1.1%	(7,901,950)	(1,634,106)	(9,536,055)	-5.7%
314000 Turbogenerator Units	66,682,624	8,389,810	58,292,814	-19.5%	-1.1%	(1,636,013)	(641,221)	(2,277,234)	-3.4%
315000 Accessory Electric Equipment	19,282,374	4,179,825	15,102,549	-16.3%	-0.6%	(681,311)	(90,615)	(771,927)	-4.0%
316000 Miscellaneous Power Plant Equipment	1,134,716	112,695	1,022,021	1.2%	-0.6%	1,352	(6,132)	(4,780)	-0.4%
Total Sibley	$294,501,365	$32,600,234	$261,901,131	-32.4%	-1.1%	($10,557,031)	($2,800,290)	($13,357,321)	-4.5%

AQUILA NETWORKS - MPS
Future Net Salvage
Steam Production

Statement E

Account Description	12/31/07 Plant Investment	Future Retirements		Net Salvage Rate		Future Net Salvage			Future Rate
		Interim	Final	Interim	Final	Interim	Final	Total	
A	B	C	D=B-C	E	F	G=C*E	H=D*F	I=G+H	J=I/B
STEAM PRODUCTION									
Jeffery									
311000 Structures and Improvements	$18,609,834	$1,589,780	$17,020,054	-20.0%		($317,956)		($317,956)	-1.7%
312000 Boiler Plant Equipment	62,134,245	5,275,701	56,858,544	-20.0%		(1,055,140)		(1,055,140)	-1.7%
314000 Turbogenerator Units	18,326,065	1,532,143	16,793,922	-20.0%		(306,429)		(306,429)	-1.7%
315000 Accessory Electric Equipment	6,454,018	547,331	5,906,687	-10.0%		(54,733)		(54,733)	-0.8%
316000 Miscellaneous Power Plant Equipment	1,805,608	149,328	1,656,280	-10.0%		(14,933)		(14,933)	-0.8%
Total Jeffery	$107,329,770	$9,094,283	$98,235,487	-19.2%		($1,749,191)		($1,749,191)	-1.6%
Sibley									
311000 Structures and Improvements	$38,928,679	$2,056,974	$36,871,705	-20.0%		($411,395)		($411,395)	-1.1%
312000 Boiler Plant Equipment	148,555,068	8,179,766	140,375,302	-20.0%		(1,635,953)		(1,635,953)	-1.1%
314000 Turbogenerator Units	58,292,814	3,209,953	55,082,861	-20.0%		(641,991)		(641,991)	-1.1%
315000 Accessory Electric Equipment	15,102,549	846,588	14,255,961	-10.0%		(84,659)		(84,659)	-0.6%
316000 Miscellaneous Power Plant Equipment	1,022,021	58,665	963,356	-10.0%		(5,867)		(5,867)	-0.6%
Total Sibley	$261,901,131	$14,351,946	$247,549,185	-19.4%		($2,779,864)		($2,779,864)	-1.1%
OTHER PRODUCTION									
341000 Structures and Improvements	$13,718,293	$1,967,880	$11,750,413	-5.0%		($98,394)		($98,394)	-0.7%
342000 Fuel Holders and Accessories	8,814,573	1,173,233	7,641,340	-5.0%		(58,662)		(58,662)	-0.7%
343000 Prime Movers	107,297,266	15,324,080	91,973,186	-5.0%		(766,204)		(766,204)	-0.7%
343100 Wind Turbines	182,530	16,197	166,333	-5.0%		(810)		(810)	-0.4%
344000 Generators	33,709,718	4,545,739	29,163,979	-5.0%		(227,287)		(227,287)	-0.7%
345000 Accessory Electric Equipment	24,932,908	3,578,837	21,354,071	-5.0%		(178,942)		(178,942)	-0.7%
346000 Miscellaneous Power Plant Equipment	150,584	23,812	126,772						
Total Other Production	$188,805,872	$26,629,778	$162,176,094	-5.0%		($1,330,298)		($1,330,298)	-0.7%

AQUILA NETWORKS - MPS
Present and Proposed Parameters
Vintage Group Procedure

Statement F

Account Description	Present Parameters P-Life/ AYFR	Curve Shape	BG ASL	Rem. Life	Avg. Sal.	Fut. Sal.	Proposed Parameters (at December 31, 2007) P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
A	B	C	D	E	F	G	H	I	J	K	L	M
STEAM PRODUCTION												
311000 Structures and Improvements									40.41	22.66	-1.9	-1.3
312000 Boiler Plant Equipment									38.53	23.21	-4.9	-1.3
314000 Turbogenerator Units									36.20	22.89	-4.0	-1.2
315000 Accessory Electric Equipment									43.82	23.24	-3.6	-0.7
316000 Miscellaneous Power Plant Equipment									37.83	27.26	-2.3	-0.7
Total Steam Production Plant									38.56	23.09	-4.2	-1.2
OTHER PRODUCTION												
341000 Structures and Improvements	60.00	R0.5	60.00		-4.9	-4.9	2036	100-SC	29.94	26.43	-0.7	-0.7
342000 Fuel Holders and Accessories	34.00	S6	34.00		-4.9	-4.9	2034	100-SC	27.98	24.71	-1.0	-0.7
343000 Prime Movers	22.00	R2.5	22.00		-5.8	-5.8	2036	100-SC	29.62	26.43	-0.9	-0.7
343100 Wind Turbines	22.00	R2.5	22.00		-5.0	-5.0	2025	100-SC	24.39	16.70	-0.4	-0.4
344000 Generators	28.00	R4	28.00		-6.4	-6.4	2034	100-SC	29.96	24.69	-0.8	-0.7
345000 Accessory Electric Equipment	37.00	R2.5	37.00		-5.4	-5.4	2036	100-SC	30.10	26.42	-0.8	-0.7
346000 Miscellaneous Power Plant Equipment	28.00	S3	28.00				2039	100-SC	32.03	28.97		
Total Other Production									29.68	26.03	-0.9	-0.7
TRANSMISSION PLANT												
352000 Structures and Improvements	60.00	R4	60.00		-10.0	-10.0	60.00	R4	60.06	48.37	-4.9	-5.0
353000 Station Equipment	60.00	R2	60.00		-2.0	-2.0	60.00	R2	59.94	46.38	4.5	5.0
354000 Towers and Fixtures	54.00	L5	54.00				54.00	L5	52.51	19.22	-9.2	-10.0
355000 Poles and Fixtures	55.00	S0.5	55.00		-61.0	-61.0	55.00	S0.5	55.05	44.69	-60.3	-60.0
356000 Overhead Conductors and Devices	62.00	R2.5	62.00		-44.0	-44.0	62.00	R2.5	61.99	45.64	-50.4	-50.0
358000 Underground Conductors and Devices	49.00	S1.5	49.00		-22.0	-22.0	50.00	S1.5	51.07	25.01	-20.0	-20.0
Total Transmission Plant									58.72	45.68	-28.1	-27.6
DISTRIBUTION PLANT												
361000 Structures and Improvements	62.00	R3	62.00				62.00	R3	62.16	51.16	0.2	
362000 Station Equipment	48.00	R1	48.00				55.00	R1	54.51	45.48	5.0	5.0
364000 Poles, Towers and Fixtures	46.00	L4	46.00		-79.0	-79.0	46.00	S3	46.18	30.57	-70.3	-70.0
365000 Overhead Conductors and Devices	60.00	S1.5	60.00		-31.0	-31.0	60.00	S0.5	59.98	47.51	-30.3	-30.0
366000 Underground Conduit	66.00	R2	66.00		-12.0	-12.0	66.00	R2	66.04	57.47	-10.1	-10.0
367000 Underground Conductors and Devices	49.00	S1.5	49.00		-22.0	-22.0	47.00	S2	46.91	35.34	-15.0	-15.0
368000 Line Transformers	33.00	R2	33.00		-14.0	-14.0	35.00	S1.5	34.87	24.05	-10.5	-10.0
369001 Overhead Services	55.00	R4	55.00		-100.0	-100.0	55.00	R4	55.22	32.12	-105.4	-100.0
369002 Underground Services	38.00	R5	38.00		-16.0	-16.0	38.00	R5	38.03	24.82	-20.0	-20.0
370001 Meters	53.00	S1	53.00		-6.0	-6.0	53.00	S1	53.11	36.45	-5.1	-5.0

AQUILA NETWORKS - MPS
Present and Proposed Parameters
Vintage Group Procedure

Statement F

Account Description	Present Parameters P-Life/ AYFR	Curve Shape	BG ASL	Rem. Life	Avg. Sal.	Fut. Sal.	Proposed Parameters (at December 31, 2007) P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
A	B	C	D	E	F	G	H	I	J	K	L	M
370002 Load Research Meters	14.00	S5	14.00				14.00	S5	15.01	1.20		
371000 Installations on Customers' Premises	26.00	R1.5	26.00		-33.0	-33.0	26.00	R1.5	26.24	17.47	-7.5	-5.0
373000 Street Lighting and Signal Systems	34.00	L0	34.00		-8.0	-8.0	34.00	L0	34.33	28.20	-5.1	-5.0
Total Distribution Plant									44.54	32.62	-23.7	-23.9
GENERAL PLANT												
390001 Structures and Improvements	45.00	R1.5	45.00		-23.0	-23.0	45.00	R1.5	45.75	30.63	-13.2	-5.0
391001 Office Furniture and Equipment	24.00	L4	24.00				25.00	R4	25.23	12.69	-0.3	
391200 Computer Hardware	8.00	R0.5	8.00				8.00	L0	8.34	5.18	-0.2	
391300 Computer Software	9.00	S1.5	9.00				9.00	S1.5	9.59	5.12		
392000 Transportation Equipment	8.00	S6	8.00		10.0	10.0	10.00	L2	12.11	4.61	6.5	5.0
393000 Stores Equipment	27.00	L1.5	27.00				28.00	L0	30.87	17.96		
394000 Tools, Shop and Garage Equipment	28.00	L0	28.00		-3.0	-3.0	30.00	SC	30.10	22.89	-0.7	
395000 Laboratory Equipment	28.00	R2.5	28.00		4.0	4.0	30.00	S1	30.16	17.97	0.5	
396000 Power Operated Equipment	22.00	R4	22.00		2.0	2.0	24.00	L2	24.70	14.69	4.8	5.0
397000 Communication Equipment	27.00	S2	27.00				27.00	S2	27.49	13.50	-0.1	
398000 Miscellaneous Equipment	24.00	L3	24.00		11.0	11.0	27.00	L2	28.17	13.82	6.0	5.0
Total General Plant									26.34	15.83	-3.6	-1.2
TOTAL UTILITY									41.12	29.64	-16.2	-15.5
STEAM PRODUCTION												
Jeffery												
311000 Structures and Improvements	54.00	R4	54.00		-0.8	-0.8	2040	200-SC	53.82	31.09	-2.0	-1.7
312000 Boiler Plant Equipment	48.00	R1.5	48.00		-1.0	-1.0	2040	200-SC	50.27	31.10	-3.0	-1.7
314000 Turbogenerator Units	44.00	R2.5	44.00		-1.7	-1.7	2040	200-SC	44.55	31.13	-5.6	-1.7
315000 Accessory Electric Equipment	43.00	S0.5	43.00		-1.8	-1.8	2040	200-SC	57.08	31.11	-2.5	-0.8
316000 Miscellaneous Power Plant Equipment	40.00	R3	40.00		-3.4	-3.4	2040	200-SC	41.47	31.14	-3.4	-0.8
Total Jeffery									49.93	31.11	-3.3	-1.6
Sibley												
311000 Structures and Improvements	54.00	R4	54.00		-1.1	-1.1	2028	200-SC	36.11	19.95	-1.9	-1.1
312000 Boiler Plant Equipment	48.00	R1.5	48.00		-5.2	-5.2	2029	200-SC	35.10	20.90	-5.7	-1.1
314000 Turbogenerator Units	44.00	R2.5	44.00		-2.6	-2.6	2029	200-SC	34.19	20.90	-3.4	-1.1
315000 Accessory Electric Equipment	43.00	S0.5	43.00		-3.0	-3.0	2029	200-SC	39.86	20.89	-4.0	-0.6
316000 Miscellaneous Power Plant Equipment	40.00	R3	40.00		-0.1	-0.1	2030	200-SC	32.75	21.85	-0.4	-0.6
Total Sibley									35.27	20.77	-4.5	-1.1

Statements A through F

AQUILA NETWORKS - L&P Statement A

Comparison of Present and Proposed Accrual Rates
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	Present Avg. Life	Present Avg. Net Salvage	Present Accrual Rate	Proposed Avg. Life	Proposed Avg. Net Salvage	Proposed W/L Rate	Proposed Amorti-zation	Proposed R/L Rate
A	B	C	D	E	F	G	H	I=G+H
STEAM PRODUCTION								
311000 Structures and Improvements			1.89%	36.19	-2.8%	2.84%	-0.28%	2.57%
312001 Boiler Plant Equipment			2.11%	38.50	-2.0%	2.66%	-1.10%	1.56%
314000 Turbogenerator Units			2.32%	40.44	-4.0%	2.58%	-0.92%	1.65%
315000 Accessory Electric Equipment			2.35%	38.45	-1.4%	2.64%	-1.07%	1.57%
316000 Miscellaneous Power Plant Equipment			2.57%	39.16	-5.1%	2.63%	-1.53%	1.10%
Total Steam Production Plant			2.14%	38.52	-2.4%	2.67%	-0.97%	1.70%
OTHER PRODUCTION								
341000 Structures and Improvements	60.00	-5.0%	1.75%	40.67	-0.7%	2.48%	-1.76%	0.72%
342000 Fuel Holders and Accessories	34.00	-5.0%	3.09%	49.28	-0.7%	2.04%	-2.07%	-0.03%
343000 Prime Movers	22.00	-5.1%	4.78%	38.50	-0.9%	2.62%	-2.66%	-0.04%
344000 Generators	28.00	-15.2%	4.11%	40.04	-11.7%	2.79%	-2.78%	0.01%
345000 Accessory Electric Equipment	37.00	-5.0%	2.84%	39.91	-1.2%	2.54%	-1.11%	1.43%
Total Other Production			4.21%	39.35	-3.1%	2.61%	-2.48%	0.13%
TRANSMISSION PLANT								
352000 Structures and Improvements	60.00	-10.0%	1.83%	60.03	-10.1%	1.83%	-0.40%	1.43%
353000 Station Equipment	60.00	-2.0%	1.70%	36.06	5.3%	2.63%	-0.22%	2.41%
355000 Poles and Fixtures	55.00	-61.0%	2.93%	55.84	-30.1%	2.33%	-0.99%	1.34%
356000 Overhead Conductors and Devices	62.00	-44.0%	2.32%	62.46	-17.6%	1.88%	-0.75%	1.13%
357000 Underground Conduit	66.00	-12.0%	1.70%	66.28	-12.0%	1.69%	-0.09%	1.60%
358000 Underground Conductors and Devices	49.00	-22.0%	2.49%	49.69	-22.0%	2.46%	-1.30%	1.16%
Total Transmission Plant			2.27%	46.89	-12.1%	2.33%	-0.61%	1.71%
DISTRIBUTION PLANT								
361000 Structures and Improvements	62.00		1.61%	40.04	-0.3%	2.50%	0.12%	2.62%
362000 Station Equipment	48.00		2.08%	55.71	-0.3%	1.80%	-0.61%	1.19%
364000 Poles, Towers and Fixtures	46.00	-79.0%	3.89%	50.09	-80.5%	3.60%	0.35%	3.95%
365000 Overhead Conductors and Devices	60.00	-31.0%	2.18%	60.45	-23.7%	2.05%	-0.28%	1.77%
366000 Underground Conduit	66.00	-12.0%	1.70%	66.08	-12.3%	1.70%	-0.05%	1.65%
367000 Underground Conductors and Devices	49.00	-22.0%	2.49%	58.11	-5.1%	1.81%	-0.11%	1.70%
368000 Line Transformers	33.00	-14.0%	3.45%	45.21	-10.0%	2.43%	-0.70%	1.73%
369001 Overhead Services	55.00	-100.0%	3.64%	55.29	-106.5%	3.73%	0.28%	4.01%
369002 Underground Services	38.00	-16.0%	3.05%	38.01	-20.1%	3.16%	-0.08%	3.08%
370001 Meters	53.00	-6.0%	2.00%	60.33	-4.6%	1.73%	-0.76%	0.97%
371000 Installations on Customers' Premises	26.00	-33.0%	5.12%	35.32	-3.5%	2.93%	-1.00%	1.93%
373000 Street Lighting and Signal Systems	34.00	-8.0%	3.18%	34.42	-4.8%	3.04%	-0.82%	2.22%
Total Distribution Plant			2.84%	50.66	-22.5%	2.42%	-0.32%	2.10%
GENERAL PLANT								
390001 Structures and Improvements	45.00	-23.0%	2.73%	46.71	-5.1%	2.25%	0.62%	2.87%
391001 Office Furniture and Equipment	24.00		4.17%	19.81	1.3%	4.98%	1.06%	6.04%
391200 Computer Hardware	8.00		12.50%	11.46	3.0%	8.46%	-2.03%	6.43%
391300 Computer Software	9.00		11.11%	9.77	-0.1%	10.25%	-6.03%	4.22%
392000 Transportation Equipment	8.00	10.0%	11.25%	14.57	16.9%	5.70%	-8.07%	-2.37%
393000 Stores Equipment	27.00		3.70%	28.18	0.2%	3.54%	-4.97%	-1.43%
394000 Tools, Shop and Garage Equipment	28.00	-3.0%	3.68%	30.13	-8.2%	3.59%	-1.36%	2.23%
395000 Laboratory Equipment	28.00	4.0%	3.43%	29.31	0.2%	3.40%	-1.13%	2.27%
396000 Power Operated Equipment	22.00	2.0%	4.45%	27.67	7.1%	3.36%	-1.06%	2.30%
397000 Communication Equipment	27.00		3.70%	26.62	-0.7%	3.78%	-0.47%	3.31%
398000 Miscellaneous Equipment	24.00	11.0%	3.71%	29.56	-6.3%	3.60%	-0.77%	2.83%
Total General Plant			5.19%	24.37	2.9%	4.01%	-1.36%	2.64%
TOTAL ELECTRIC			2.68%	42.58	-11.4%	2.59%	-0.74%	1.85%

AQUILA NETWORKS - L&P Statement A

Comparison of Present and Proposed Accrual Rates
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	Present Avg. Life	Present Avg. Net Salvage	Present Accrual Rate	Proposed Avg. Life	Proposed Avg. Net Salvage	Proposed W/L Rate	Proposed Amorti-zation	Proposed R/L Rate
A	B	C	D	E	F	G	H	I=G+H
INDUSTRIAL STEAM PRODUCTION								
311009 Structures and Improvements	45.00		2.22%	82.23	-27.6%	1.55%	4.35%	5.90%
312009 Boiler Plant Equipment	45.00		2.22%	27.11	-9.4%	4.04%	0.04%	4.08%
315009 Accessory Electric Equipment	38.00		2.63%	40.54	-0.9%	2.49%	2.71%	5.20%
375009 Structures and Improvements	45.00		2.22%	32.29	-3.2%	3.20%	0.20%	3.40%
376009 Mains	44.00		2.27%	39.60	-3.4%	2.61%	-0.45%	2.16%
379009 Measuring and Regulating Equipment	44.00		2.27%	36.69	-2.2%	2.79%	0.02%	2.81%
380009 Services	44.00		2.27%	42.97	-0.3%	2.33%	-1.78%	0.55%
381009 Meters	25.00		4.00%	32.71	-0.7%	3.08%	-0.46%	2.62%
Total Industrial Steam Production			2.46%	35.30	-4.2%	2.96%	-0.19%	2.77%
TOTAL L&P			2.68%	42.50	-11.3%	2.59%	-0.73%	1.86%
STEAM PRODUCTION								
Lake Road								
311000 Structures and Improvements	54.00	-2.7%	1.90%	33.68	-3.5%	3.07%	-0.21%	2.86%
312001 Boiler Plant Equipment	48.00	-3.7%	2.16%	33.50	-4.3%	3.11%	-0.99%	2.12%
314000 Turbogenerator Units	44.00	-2.6%	2.33%	35.83	-5.2%	2.94%	-0.91%	2.03%
315000 Accessory Electric Equipment	43.00	-1.8%	2.37%	35.61	-2.5%	2.88%	-1.55%	1.33%
316000 Miscellaneous Power Plant Equipment	40.00	-15.8%	2.90%	37.95	-16.7%	3.08%	-2.77%	0.31%
Total Lake Road			2.16%	34.01	-4.3%	3.06%	-0.88%	2.18%
latan								
311000 Structures and Improvements	54.00	0.5%	1.84%	47.90	-0.5%	2.10%	-0.49%	1.61%
312001 Boiler Plant Equipment	48.00	2.3%	2.04%	47.86	0.9%	2.07%	-1.24%	0.83%
314000 Turbogenerator Units	44.00	-1.2%	2.30%	49.04	-2.2%	2.08%	-0.94%	1.14%
315000 Accessory Electric Equipment	43.00	-0.6%	2.34%	40.14	-0.9%	2.51%	-0.81%	1.70%
316000 Miscellaneous Power Plant Equipment	40.00	0.6%	2.49%	39.45		2.53%	-1.24%	1.29%
Total latan			2.11%	46.91	0.1%	2.13%	-1.09%	1.04%

AQUILA NETWORKS - L&P Statement B

Comparison of Present and Proposed Accruals
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	12/31/07 Plant Investment	2008 Annualized Accrual				
			Proposed			
		Present	Whole-Life	Amortization	Total	Difference
A	B	C	D	E	F=D+E	G=F-C
STEAM PRODUCTION						
311000 Structures and Improvements	$18,706,701	$352,804	$531,895	($51,525)	$480,370	$127,566
312001 Boiler Plant Equipment	97,466,506	2,054,615	2,592,143	(1,070,464)	1,521,679	(532,936)
314000 Turbogenerator Units	26,376,809	611,233	679,549	(243,375)	436,174	(175,059)
315000 Accessory Electric Equipment	11,226,746	263,872	296,175	(119,704)	176,471	(87,401)
316000 Miscellaneous Power Plant Equipment	1,133,423	29,102	29,857	(17,339)	12,518	(16,584)
Total Steam Production Plant	$154,910,185	$3,311,626	$4,129,619	($1,502,407)	$2,627,212	($684,414)
OTHER PRODUCTION						
341000 Structures and Improvements	$1,477,027	$25,848	$36,630	($25,995)	$10,635	($15,213)
342000 Fuel Holders and Accessories	607,317	18,766	12,389	(12,571)	(182)	(18,948)
343000 Prime Movers	10,926,123	522,269	286,264	(290,634)	(4,370)	(526,639)
344000 Generators	3,107,235	127,707	86,692	(86,381)	311	(127,396)
345000 Accessory Electric Equipment	1,148,057	32,605	29,161	(12,744)	16,417	(16,188)
Total Other Production	$17,265,759	$727,195	$451,136	($428,325)	$22,811	($704,384)
TRANSMISSION PLANT						
352000 Structures and Improvements	$384,008	$7,027	$7,027	($1,536)	$5,491	($1,536)
353000 Station Equipment	12,058,696	204,998	317,144	(26,529)	290,615	85,617
355000 Poles and Fixtures	9,954,074	291,654	231,930	(98,545)	133,385	(158,269)
356000 Overhead Conductors and Devices	7,758,331	179,993	145,857	(58,188)	87,669	(92,324)
357000 Underground Conduit	16,148	275	273	(15)	258	(17)
358000 Underground Conductors and Devices	31,692	789	780	(412)	368	(421)
Total Transmission Plant	$30,202,949	$684,736	$703,011	($185,225)	$517,786	($166,950)
DISTRIBUTION PLANT						
361000 Structures and Improvements	$2,082,734	$33,532	$52,068	$2,500	$54,568	$21,036
362000 Station Equipment	35,556,123	739,567	640,010	(216,892)	423,118	(316,449)
364000 Poles, Towers and Fixtures	27,428,454	1,066,967	987,424	96,000	1,083,424	16,457
365000 Overhead Conductors and Devices	22,790,374	496,830	467,203	(63,813)	403,390	(93,440)
366000 Underground Conduit	7,551,120	128,369	128,369	(3,776)	124,593	(3,776)
367000 Underground Conductors and Devices	16,562,355	412,403	299,779	(18,219)	281,560	(130,843)
368000 Line Transformers	31,664,301	1,092,418	769,443	(221,651)	547,792	(544,626)
369001 Overhead Services	4,218,690	153,560	157,357	11,812	169,169	15,609
369002 Underground Services	10,426,575	318,011	329,480	(8,341)	321,139	3,128
370001 Meters	7,260,382	145,208	125,605	(55,179)	70,426	(74,782)
371000 Installations on Customers' Premises	4,205,172	215,305	123,212	(42,052)	81,160	(134,145)
373000 Street Lighting and Signal Systems	4,953,139	157,510	150,575	(40,615)	109,960	(47,550)
Total Distribution Plant	$174,699,419	$4,959,680	$4,230,525	($560,226)	$3,670,299	($1,289,381)
GENERAL PLANT						
390001 Structures and Improvements	$6,652,972	$181,626	$149,692	$41,248	$190,940	$9,314
391001 Office Furniture and Equipment	927,871	38,692	46,208	9,835	56,043	17,351
391200 Computer Hardware	1,266,930	158,366	107,182	(25,718)	81,464	(76,902)
391300 Computer Software	688,311	76,471	70,552	(41,505)	29,047	(47,424)
392000 Transportation Equipment	1,959,322	220,424	111,681	(158,117)	(46,436)	(266,860)
393000 Stores Equipment	112,989	4,181	4,000	(5,616)	(1,616)	(5,797)
394000 Tools, Shop and Garage Equipment	1,881,567	69,242	67,548	(25,589)	41,959	(27,283)
395000 Laboratory Equipment	699,850	24,005	23,795	(7,908)	15,887	(8,118)
396000 Power Operated Equipment	1,235,254	54,969	41,505	(13,094)	28,411	(26,558)
397000 Communication Equipment	1,737,519	64,288	65,678	(8,166)	57,512	(6,776)
398000 Miscellaneous Equipment	104,220	3,867	3,752	(803)	2,949	(918)
Total General Plant	$17,266,805	$896,131	$691,593	($235,433)	$456,160	($439,971)
TOTAL ELECTRIC	$394,345,117	$10,579,368	$10,205,884	($2,911,616)	$7,294,268	($3,285,100)

AQUILA NETWORKS - L&P Statement B

Comparison of Present and Proposed Accruals
Present: BG Procedure / WL Technique
Proposed: VG Procedure / RL Technique

Account Description	12/31/07 Plant Investment	2008 Annualized Accrual				
			Proposed			
		Present	Whole-Life	Amortization	Total	Difference
A	B	C	D	E	F=D+E	G=F-C
INDUSTRIAL STEAM PRODUCTION						
311009 Structures and Improvements	$32,160	$714	$498	$1,399	$1,897	$1,183
312009 Boiler Plant Equipment	665,684	14,778	26,894	266	27,160	12,382
315009 Accessory Electric Equipment	80,600	2,120	2,007	2,184	4,191	2,071
375009 Structures and Improvements	151,660	3,367	4,853	303	5,156	1,789
376009 Mains	1,660,914	37,703	43,350	(7,474)	35,876	(1,827)
379009 Measuring and Regulating Equipment	553,075	12,555	15,431	110	15,541	2,986
380009 Services	100,842	2,289	2,350	(1,795)	555	(1,734)
381009 Meters	412,137	16,485	12,694	(1,896)	10,798	(5,687)
Total Industrial Steam Production	$3,657,072	$90,011	$108,077	($6,903)	$101,174	$11,163
TOTAL L&P	$398,002,189	$10,669,379	$10,313,961	($2,918,519)	$7,395,442	($3,273,937)
STEAM PRODUCTION						
Lake Road						
311000 Structures and Improvements	$14,335,431	$272,373	$440,098	($30,105)	$409,993	$137,620
312001 Boiler Plant Equipment	55,248,645	1,193,371	1,718,233	(546,962)	1,171,271	(22,100)
314000 Turbogenerator Units	15,222,266	354,679	447,535	(138,523)	309,012	(45,667)
315000 Accessory Electric Equipment	3,887,566	92,135	111,962	(60,257)	51,705	(40,430)
316000 Miscellaneous Power Plant Equipment	214,694	6,226	6,613	(5,947)	666	(5,560)
Total Lake Road	$88,908,602	$1,918,784	$2,724,441	($781,794)	$1,942,647	$23,863
Iatan						
311000 Structures and Improvements	$4,371,270	$80,431	$91,797	($21,420)	$70,377	($10,054)
312001 Boiler Plant Equipment	42,217,861	861,244	873,910	(523,502)	350,408	(510,836)
314000 Turbogenerator Units	11,154,543	256,554	232,014	(104,852)	127,162	(129,392)
315000 Accessory Electric Equipment	7,339,180	171,737	184,213	(59,447)	124,766	(46,971)
316000 Miscellaneous Power Plant Equipment	918,729	22,876	23,244	(11,392)	11,852	(11,024)
Total Iatan	$66,001,583	$1,392,842	$1,405,178	($720,613)	$684,565	($708,277)

AQUILA NETWORKS - L&P
Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2007

Statement C

Account Description	Plant Investment	Recorded Reserve Amount	Recorded Reserve Ratio	Computed Reserve Amount	Computed Reserve Ratio	Reserve Imbalance Amount	Reserve Imbalance Multiple
A	B	C	D=C/B	E	F=E/B	G=C-E	H=G/C
STEAM PRODUCTION							
311000 Structures and Improvements	$18,706,701	$8,097,740	43.29%	$6,883,830	36.80%	$1,213,910	14.99%
312001 Boiler Plant Equipment	97,466,506	63,883,962	65.54%	37,970,138	38.96%	25,913,824	40.56%
314000 Turbogenerator Units	26,376,809	16,617,284	63.00%	10,796,570	40.93%	5,820,713	35.03%
315000 Accessory Electric Equipment	11,226,746	6,866,894	61.17%	3,965,007	35.32%	2,901,887	42.26%
316000 Miscellaneous Power Plant Equipment	1,133,423	811,426	71.59%	379,410	33.47%	432,016	53.24%
Total Steam Production Plant	$154,910,185	$96,277,305	62.15%	$59,994,955	38.73%	$36,282,351	37.69%
OTHER PRODUCTION							
341000 Structures and Improvements	$1,477,027	$1,262,548	85.48%	$715,326	48.43%	$547,222	43.34%
342000 Fuel Holders and Accessories	607,317	615,420	101.33%	350,957	57.79%	264,463	42.97%
343000 Prime Movers	10,926,123	11,081,923	101.43%	4,952,567	45.33%	6,129,356	55.31%
344000 Generators	3,107,235	3,119,573	100.40%	1,299,471	41.82%	1,820,102	58.34%
345000 Accessory Electric Equipment	1,148,057	808,824	70.45%	541,278	47.15%	267,546	33.08%
Total Other Production	$17,265,759	$16,888,289	97.81%	$7,859,599	45.52%	$9,028,690	53.46%
TRANSMISSION PLANT							
352000 Structures and Improvements	$384,008	$183,122	47.69%	$114,699	29.87%	$68,423	37.36%
353000 Station Equipment	12,058,696	5,287,264	43.85%	4,674,146	38.76%	613,119	11.60%
355000 Poles and Fixtures	9,954,074	7,879,979	79.16%	4,108,893	41.28%	3,771,085	47.86%
356000 Overhead Conductors and Devices	7,758,331	6,029,250	77.71%	3,855,585	49.70%	2,173,665	36.05%
357000 Underground Conduit	16,148	4,483	27.76%	3,725	23.07%	758	16.92%
358000 Underground Conductors and Devices	31,692	29,071	91.73%	18,356	57.92%	10,716	36.86%
Total Transmission Plant	$30,202,949	$19,413,169	64.28%	$12,775,404	42.30%	$6,637,766	34.19%
DISTRIBUTION PLANT							
361000 Structures and Improvements	$2,082,734	$412,507	19.81%	$485,737	23.32%	($73,231)	-17.75%
362000 Station Equipment	35,556,123	17,260,704	48.54%	7,972,033	22.42%	9,288,671	53.81%
364000 Poles, Towers and Fixtures	27,428,454	13,951,823	50.87%	17,021,275	62.06%	(3,069,452)	-22.00%
365000 Overhead Conductors and Devices	22,790,374	9,801,263	43.01%	6,881,332	30.19%	2,919,931	29.79%
366000 Underground Conduit	7,551,120	1,750,079	23.18%	1,554,497	20.59%	195,583	11.18%
367000 Underground Conductors and Devices	16,562,355	4,298,831	25.96%	3,443,277	20.79%	855,554	19.90%
368000 Line Transformers	31,664,301	17,249,573	54.48%	10,069,402	31.80%	7,180,172	41.63%
369001 Overhead Services	4,218,690	3,045,517	72.19%	3,412,733	80.90%	(367,215)	-12.06%
369002 Underground Services	10,426,575	4,302,001	41.26%	4,094,495	39.27%	207,506	4.82%
370001 Meters	7,260,382	4,529,531	62.39%	2,084,667	28.71%	2,444,864	53.98%

AQUILA NETWORKS - L&P
Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2007

Statement C

Account Description	Plant Investment	Recorded Reserve Amount	Recorded Reserve Ratio	Computed Reserve Amount	Computed Reserve Ratio	Reserve Imbalance Amount	Reserve Imbalance Multiple
A	B	C	D=C/B	E	F=E/B	G=C-E	H=G/C
371000 Installations on Customers' Premises	4,205,172	1,853,625	44.08%	426,137	10.13%	1,427,489	77.01%
373000 Street Lighting and Signal Systems	4,953,139	2,095,811	42.31%	950,962	19.20%	1,144,849	54.63%
Total Distribution Plant	$174,699,419	$80,551,265	46.11%	$58,396,546	33.43%	$22,154,719	27.50%
GENERAL PLANT							
390001 Structures and Improvements	$6,652,972	$1,651,693	24.83%	$2,804,627	42.16%	($1,152,935)	-69.80%
391001 Office Furniture and Equipment	927,871	168,265	18.13%	301,460	32.49%	(133,194)	-79.16%
391200 Computer Hardware	1,266,930	609,898	48.14%	402,610	31.78%	207,288	33.99%
391300 Computer Software	688,311	591,701	85.96%	453,473	65.88%	138,228	23.36%
392000 Transportation Equipment	1,959,322	2,100,059	107.18%	952,085	48.59%	1,147,973	54.66%
393000 Stores Equipment	112,989	130,013	115.07%	70,733	62.60%	59,281	45.60%
394000 Tools, Shop and Garage Equipment	1,881,567	1,119,765	59.51%	655,189	34.82%	464,576	41.49%
395000 Laboratory Equipment	699,850	439,558	62.81%	309,280	44.19%	130,277	29.64%
396000 Power Operated Equipment	1,235,254	559,450	45.29%	304,254	24.63%	255,196	45.62%
397000 Communication Equipment	1,737,519	722,627	41.59%	578,076	33.27%	144,552	20.00%
398000 Miscellaneous Equipment	104,220	52,815	50.68%	38,970	37.39%	13,845	26.21%
Total General Plant	$17,266,805	$8,145,843	47.18%	$6,870,757	39.79%	$1,275,087	15.65%
TOTAL ELECTRIC	$394,345,117	$221,275,872	56.11%	$145,897,260	37.00%	$75,378,612	34.07%
INDUSTRIAL STEAM PRODUCTION							
311009 Structures and Improvements	$32,160	($8,671)	-26.96%	$21,729	67.57%	($30,399)	350.61%
312009 Boiler Plant Equipment	665,684	79,770	11.98%	85,779	12.89%	(6,010)	-7.53%
315009 Accessory Electric Equipment	80,600	(10,432)	-12.94%	37,291	46.27%	(47,724)	457.46%
375009 Structures and Improvements	151,660	39,551	26.08%	46,206	30.47%	(6,655)	-16.83%
376009 Mains	1,660,914	882,530	53.14%	719,167	43.30%	163,364	18.51%
379009 Measuring and Regulating Equipment	553,075	215,845	39.03%	218,269	39.46%	(2,424)	-1.12%
380009 Services	100,842	89,049	88.31%	49,760	49.34%	39,289	44.12%
381009 Meters	412,137	177,803	43.14%	136,142	33.03%	41,661	23.43%
Total Industrial Steam Production	$3,657,072	$1,465,446	40.07%	$1,314,344	35.94%	$151,102	10.31%
TOTAL L&P	$398,002,189	$222,741,318	55.96%	$147,211,603	36.99%	$75,529,715	33.91%

AQUILA NETWORKS - L&P

Statement C

Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2007

Account Description	Plant Investment	Recorded Reserve Amount	Recorded Reserve Ratio	Computed Reserve Amount	Computed Reserve Ratio	Reserve Imbalance Amount	Reserve Imbalance Multiple
A	B	C	D=C/B	E	F=E/B	G=C-E	H=G/C
STEAM PRODUCTION							
Lake Road							
311000 Structures and Improvements	$14,335,431	$5,534,489	38.61%	$4,881,797	34.05%	$652,692	11.79%
312001 Boiler Plant Equipment	55,248,645	30,318,801	54.88%	18,326,800	33.17%	11,992,001	39.55%
314000 Turbogenerator Units	15,222,266	8,662,242	56.91%	5,643,786	37.08%	3,018,456	34.85%
315000 Accessory Electric Equipment	3,887,566	2,782,956	71.59%	1,466,998	37.74%	1,315,958	47.29%
316000 Miscellaneous Power Plant Equipment	214,694	201,464	93.84%	71,859	33.47%	129,604	64.33%
Total Lake Road	$88,908,602	$47,499,952	53.43%	$30,391,240	34.18%	$17,108,711	36.02%
Iatan							
311000 Structures and Improvements	$4,371,270	$2,563,251	58.64%	$2,002,033	45.80%	$561,219	21.89%
312001 Boiler Plant Equipment	42,217,861	33,565,161	79.50%	19,643,337	46.53%	13,921,823	41.48%
314000 Turbogenerator Units	11,154,543	7,955,042	71.32%	5,152,785	46.19%	2,802,257	35.23%
315000 Accessory Electric Equipment	7,339,180	4,083,938	55.65%	2,498,009	34.04%	1,585,929	38.83%
316000 Miscellaneous Power Plant Equipment	918,729	609,962	66.39%	307,551	33.48%	302,411	49.58%
Total Iatan	$66,001,583	$48,777,354	73.90%	$29,603,714	44.85%	$19,173,639	39.31%

AQUILA NETWORKS - L&P
Average Net Salvage

Statement D

Account Description	Plant Investment			Salvage Rate		Net Salvage			Average
	Additions	Retirements	Survivors	Realized	Future	Realized	Future	Total	Rate
A	B	C	D=B-C	E	F	G=E*C	H=F*D	I=G+H	J=I/B
STEAM PRODUCTION									
311000 Structures and Improvements	$19,643,192	$936,491	$18,706,701	-33.5%	-1.2%	($313,676)	($233,223)	($546,899)	-2.8%
312001 Boiler Plant Equipment	109,321,327	11,854,821	97,466,506	-8.2%	-1.3%	(971,690)	(1,254,034)	(2,225,723)	-2.0%
314000 Turbogenerator Units	28,410,167	2,033,358	26,376,809	-38.9%	-1.3%	(790,338)	(338,831)	(1,129,169)	-4.0%
315000 Accessory Electric Equipment	12,846,650	1,619,904	11,226,746	-6.8%	-0.7%	(109,446)	(74,700)	(184,145)	-1.4%
316000 Miscellaneous Power Plant Equipment	1,502,420	368,997	1,133,423	-18.6%	-0.7%	(68,644)	(7,719)	(76,363)	-5.1%
Total Steam Production Plant	$171,723,756	$16,813,571	$154,910,185	-13.4%	-1.2%	($2,253,793)	($1,908,506)	($4,162,300)	-2.4%
OTHER PRODUCTION									
341000 Structures and Improvements	$1,497,377	$20,350	$1,477,027	-6.9%	-0.6%	($1,404)	($8,862)	($10,266)	-0.7%
342000 Fuel Holders and Accessories	610,167	2,850	607,317		-0.7%		(4,251)	(4,251)	-0.7%
343000 Prime Movers	11,098,466	172,343	10,926,123	-19.9%	-0.6%	(34,296)	(65,557)	(99,853)	-0.9%
344000 Generators	3,747,511	640,276	3,107,235	-65.6%	-0.6%	(420,021)	(18,643)	(438,664)	-11.7%
345000 Accessory Electric Equipment	1,164,491	16,434	1,148,057	-40.0%	-0.6%	(6,574)	(6,888)	(13,462)	-1.2%
Total Other Production	$18,118,012	$852,253	$17,265,759	-54.2%	-0.6%	($462,295)	($104,202)	($566,497)	-3.1%
TRANSMISSION PLANT									
352000 Structures and Improvements	$387,495	$3,487	$384,008	-23.8%	-10.0%	($830)	($38,401)	($39,231)	-10.1%
353000 Station Equipment	14,629,509	2,570,813	12,058,696	39.7%	-2.0%	1,020,613	(241,174)	779,439	5.3%
355000 Poles and Fixtures	11,440,848	1,486,774	9,954,074	-30.7%	-30.0%	(456,440)	(2,986,222)	(3,442,662)	-30.1%
356000 Overhead Conductors and Devices	8,829,104	1,070,773	7,758,331	-0.5%	-20.0%	(5,354)	(1,551,666)	(1,557,020)	-17.6%
357000 Underground Conduit	16,148		16,148		-12.0%		(1,938)	(1,938)	-12.0%
358000 Underground Conductors and Devices	31,692		31,692		-22.0%		(6,972)	(6,972)	-22.0%
Total Transmission Plant	$35,334,796	$5,131,847	$30,202,949	10.9%	-16.0%	$557,989	($4,826,373)	($4,268,384)	-12.1%
DISTRIBUTION PLANT									
361000 Structures and Improvements	$2,138,971	$56,237	$2,082,734	-10.1%		($5,680)		($5,680)	-0.3%
362000 Station Equipment	38,011,138	2,455,015	35,556,123	-4.4%		(108,021)		(108,021)	-0.3%
364000 Poles, Towers and Fixtures	29,226,899	1,798,445	27,428,454	-88.7%	-80.0%	(1,595,221)	(21,942,763)	(23,537,984)	-80.5%
365000 Overhead Conductors and Devices	25,931,058	3,140,684	22,790,374	-13.9%	-25.0%	(436,555)	(5,697,594)	(6,134,149)	-23.7%
366000 Underground Conduit	7,655,663	104,543	7,551,120	-34.2%	-12.0%	(35,754)	(906,134)	(941,888)	-12.3%
367000 Underground Conductors and Devices	17,626,934	1,064,579	16,562,355	-6.6%	-5.0%	(70,262)	(828,118)	(898,380)	-5.1%
368000 Line Transformers	34,969,438	3,305,137	31,664,301	-10.5%	-10.0%	(347,039)	(3,166,430)	(3,513,469)	-10.0%
369001 Overhead Services	4,401,658	182,968	4,218,690	-256.4%	-100.0%	(469,130)	(4,218,690)	(4,687,820)	-106.5%
369002 Underground Services	10,517,753	91,178	10,426,575	-34.7%	-20.0%	(31,639)	(2,085,315)	(2,116,954)	-20.1%
370001 Meters	8,265,812	1,005,430	7,260,382	-1.7%	-5.0%	(17,092)	(363,019)	(380,111)	-4.6%
371000 Installations on Customers' Premises	5,628,821	1,423,649	4,205,172	15.6%	-10.0%	222,089	(420,517)	(198,428)	-3.5%
373000 Street Lighting and Signal Systems	5,699,058	745,919	4,953,139	-3.1%	-5.0%	(23,123)	(247,657)	(270,780)	-4.8%
Total Distribution Plant	$190,073,203	$15,373,784	$174,699,419	-19.0%	-22.8%	($2,917,427)	($39,876,237)	($42,793,664)	-22.5%

AQUILA NETWORKS - L&P
Average Net Salvage

Statement D

Account Description	Plant Investment			Salvage Rate		Net Salvage			Average
	Additions	Retirements	Survivors	Realized	Future	Realized	Future	Total	Rate
A	B	C	D=B-C	E	F	G=E*C	H=F*D	I=G+H	J=I/B
GENERAL PLANT									
390001 Structures and Improvements	$6,696,053	$43,081	$6,652,972	-26.4%	-5.0%	($11,373)	($332,649)	($344,022)	-5.1%
391001 Office Furniture and Equipment	1,919,601	991,730	927,871	2.5%		24,793		24,793	1.3%
391200 Computer Hardware	6,865,973	5,599,043	1,266,930	3.7%		207,165		207,165	3.0%
391300 Computer Software	954,752	266,441	688,311	-0.4%		(1,066)		(1,066)	-0.1%
392000 Transportation Equipment	6,537,092	4,577,770	1,959,322	19.8%	10.0%	906,398	195,932	1,102,331	16.9%
393000 Stores Equipment	203,515	90,526	112,989	0.4%		362		362	0.2%
394000 Tools, Shop and Garage Equipment	2,168,535	286,968	1,881,567	-61.9%		(177,633)		(177,633)	-8.2%
395000 Laboratory Equipment	888,309	188,459	699,850	1.0%		1,885		1,885	0.2%
396000 Power Operated Equipment	1,738,049	502,795	1,235,254		10.0%		123,525	123,525	7.1%
397000 Communication Equipment	3,059,615	1,322,096	1,737,519	-1.6%		(21,154)		(21,154)	-0.7%
398000 Miscellaneous Equipment	140,844	36,624	104,220	-24.3%		(8,900)		(8,900)	-6.3%
Total General Plant	$31,172,338	$13,905,533	$17,266,805	6.6%	-0.1%	$920,477	($13,191)	$907,286	2.9%
TOTAL ELECTRIC	$446,422,105	$52,076,988	$394,345,117	-8.0%	-11.8%	($4,155,048)	($46,728,510)	($50,883,558)	-11.4%
INDUSTRIAL STEAM PRODUCTION									
311009 Structures and Improvements	$79,063	$46,903	$32,160	-45.6%	-1.3%	($21,388)	($418)	($21,806)	-27.6%
312009 Boiler Plant Equipment	846,876	181,192	665,684	-40.1%	-1.1%	(72,658)	(7,323)	(79,981)	-9.4%
315009 Accessory Electric Equipment	315,032	234,432	80,600	-1.0%	-0.6%	(2,344)	(484)	(2,828)	-0.9%
375009 Structures and Improvements	159,790	8,130	151,660	-57.3%	-0.3%	(4,658)	(455)	(5,113)	-3.2%
376009 Mains	1,927,558	266,644	1,660,914	-22.7%	-0.3%	(60,528)	(4,983)	(65,511)	-3.4%
379009 Measuring and Regulating Equipment	731,600	178,525	553,075	-8.2%	-0.3%	(14,639)	(1,659)	(16,298)	-2.2%
380009 Services	104,033	3,191	100,842		-0.3%		(303)	(303)	-0.3%
381009 Meters	509,129	96,992	412,137	-2.2%	-0.3%	(2,134)	(1,236)	(3,370)	-0.7%
Total Industrial Steam Production	$4,673,081	$1,016,009	$3,657,072	-17.6%	-0.5%	($178,350)	($16,860)	($195,210)	-4.2%
TOTAL L&P	$451,095,186	$53,092,997	$398,002,189	-8.2%	-11.7%	($4,333,398)	($46,745,370)	($51,078,768)	-11.3%

AQUILA NETWORKS - L&P
Average Net Salvage

Statement D

Account Description	Plant Investment			Salvage Rate		Net Salvage			Average
	Additions	Retirements	Survivors	Realized	Future	Realized	Future	Total	Rate
A	B	C	D=B-C	E	F	G=E*C	H=F*D	I=G+H	J=I/B
STEAM PRODUCTION									
Lake Road									
311000 Structures and Improvements	$15,124,878	$789,447	$14,335,431	-44.8%	-1.2%	($353,672)	($172,025)	($525,697)	-3.5%
312001 Boiler Plant Equipment	62,228,219	6,979,574	55,248,645	-28.8%	-1.2%	(2,010,117)	(662,984)	(2,673,101)	-4.3%
314000 Turbogenerator Units	16,709,767	1,487,501	15,222,266	-46.6%	-1.2%	(693,175)	(182,667)	(875,843)	-5.2%
315000 Accessory Electric Equipment	4,339,228	451,662	3,887,566	-18.8%	-0.6%	(84,912)	(23,325)	(108,238)	-2.5%
316000 Miscellaneous Power Plant Equipment	455,193	240,499	214,694	-31.0%	-0.6%	(74,555)	(1,288)	(75,843)	-16.7%
Total Lake Road	$98,857,285	$9,948,683	$88,908,602	-32.3%	-1.2%	($3,216,432)	($1,042,290)	($4,258,722)	-4.3%
Iatan									
311000 Structures and Improvements	$4,518,314	$147,044	$4,371,270	27.2%	-1.4%	$39,996	($61,198)	($21,202)	-0.5%
312001 Boiler Plant Equipment	47,093,108	4,875,247	42,217,861	21.3%	-1.4%	1,038,428	(591,050)	447,378	0.9%
314000 Turbogenerator Units	11,700,400	545,857	11,154,543	-17.8%	-1.4%	(97,163)	(156,164)	(253,326)	-2.2%
315000 Accessory Electric Equipment	8,507,422	1,168,242	7,339,180	-2.1%	-0.7%	(24,533)	(51,374)	(75,907)	-0.9%
316000 Miscellaneous Power Plant Equipment	1,047,227	128,498	918,729	4.6%	-0.7%	5,911	(6,431)	(520)	
Total Iatan	$72,866,471	$6,864,888	$66,001,583	14.0%	-1.3%	$962,639	($866,217)	$96,422	0.1%

AQUILA NETWORKS - L&P
Future Net Salvage
Steam Production

Statement E

Account Description	12/31/07 Plant Investment	Future Retirements		Net Salvage Rate		Future Net Salvage			Future Rate
		Interim	Final	Interim	Final	Interim	Final	Total	
A	B	C	D=B-C	E	F	G=C*E	H=D*F	I=G+H	J=I/B
STEAM PRODUCTION									
Lake Road									
311000 Structures and Improvements	$14,335,431	$826,628	$13,508,803	-20.0%		($165,326)		($165,326)	-1.2%
312001 Boiler Plant Equipment	55,248,645	3,180,336	52,068,309	-20.0%		(636,067)		(636,067)	-1.2%
314000 Turbogenerator Units	15,222,266	889,032	14,333,234	-20.0%		(177,806)		(177,806)	-1.2%
315000 Accessory Electric Equipment	3,887,566	226,930	3,660,636	-10.0%		(22,693)		(22,693)	-0.6%
316000 Miscellaneous Power Plant Equipment	214,694	12,516	202,178	-10.0%		(1,252)		(1,252)	-0.6%
Total Lake Road	$88,908,602	$5,135,443	$83,773,159	-19.5%		($1,003,144)		($1,003,144)	-1.1%
Iatan									
311000 Structures and Improvements	$4,371,270	$314,250	$4,057,020	-20.0%		($62,850)		($62,850)	-1.4%
312001 Boiler Plant Equipment	42,217,861	3,038,678	39,179,183	-20.0%		(607,736)		(607,736)	-1.4%
314000 Turbogenerator Units	11,154,543	804,404	10,350,139	-20.0%		(160,881)		(160,881)	-1.4%
315000 Accessory Electric Equipment	7,339,180	518,565	6,820,615	-10.0%		(51,856)		(51,856)	-0.7%
316000 Miscellaneous Power Plant Equipment	918,729	64,741	853,988	-10.0%		(6,474)		(6,474)	-0.7%
Total Iatan	$66,001,583	$4,740,638	$61,260,945	-18.8%		($889,797)		($889,797)	-1.3%
INDUSTRIAL STEAM PRODUCTION									
311009 Structures and Improvements	$32,160	$2,124	$30,036	-20.0%		($425)		($425)	-1.3%
312009 Boiler Plant Equipment	665,684	37,960	627,724	-20.0%		(7,592)		(7,592)	-1.1%
315009 Accessory Electric Equipment	80,600	4,705	75,895	-10.0%		(471)		(471)	-0.6%
375009 Structures and Improvements	151,660	8,628	143,032	-5.0%		(431)		(431)	-0.3%
376009 Mains	1,660,914	97,132	1,563,782	-5.0%		(4,857)		(4,857)	-0.3%
379009 Measuring and Regulating Equipment	553,075	31,785	521,290	-5.0%		(1,589)		(1,589)	-0.3%
380009 Services	100,842	5,877	94,965	-5.0%		(294)		(294)	-0.3%
381009 Meters	412,137	23,504	388,633	-5.0%		(1,175)		(1,175)	-0.3%
Total Industrial Steam Production	$3,657,072	$211,715	$3,445,357	-8.0%		($16,834)		($16,834)	-0.5%
OTHER PRODUCTION									
341000 Structures and Improvements	$1,477,027	$187,513	$1,289,514	-5.0%		($9,376)		($9,376)	-0.6%
342000 Fuel Holders and Accessories	607,317	79,659	527,658	-5.0%		(3,983)		(3,983)	-0.7%
343000 Prime Movers	10,926,123	1,350,362	9,575,761	-5.0%		(67,518)		(67,518)	-0.6%
344000 Generators	3,107,235	393,727	2,713,508	-5.0%		(19,686)		(19,686)	-0.6%
345000 Accessory Electric Equipment	1,148,057	142,790	1,005,267	-5.0%		(7,139)		(7,139)	-0.6%
Total Other Production	$17,265,759	$2,154,052	$15,111,707	-5.0%		($107,703)		($107,703)	-0.6%

AQUILA NETWORKS - L&P
Present and Proposed Parameters
Vintage Group Procedure

Statement F

Account Description	Present Parameters P-Life/ AYFR	Curve Shape	BG ASL	Rem. Life	Avg. Sal.	Fut. Sal.	Proposed Parameters (at December 31, 2007) P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
A	B	C	D	E	F	G	H	I	J	K	L	M
STEAM PRODUCTION												
311000 Structures and Improvements									36.19	22.67	-2.8	-1.2
312001 Boiler Plant Equipment									38.50	23.47	-2.0	-1.3
314000 Turbogenerator Units									40.44	23.46	-4.0	-1.3
315000 Accessory Electric Equipment									38.45	24.77	-1.4	-0.7
316000 Miscellaneous Power Plant Equipment									39.16	25.60	-5.1	-0.7
Total Steam Production Plant									38.52	23.48	-2.4	-1.2
OTHER PRODUCTION												
341000 Structures and Improvements	60.00	R0.5	60.00		-5.0	-5.0	2030	100-SC	40.67	21.07	-0.7	-0.6
342000 Fuel Holders and Accessories	34.00	S6	34.00		-5.0	-5.0	2030	100-SC	49.28	21.00	-0.7	-0.7
343000 Prime Movers	22.00	R2.5	22.00		-5.1	-5.1	2030	100-SC	38.50	21.09	-0.9	-0.6
344000 Generators	28.00	R4	28.00		-15.2	-15.2	2030	100-SC	40.04	21.07	-11.7	-0.6
345000 Accessory Electric Equipment	37.00	R2.5	37.00		-5.0	-5.0	2030	100-SC	39.91	21.08	-1.2	-0.6
Total Other Production									39.35	21.08	-3.1	-0.6
TRANSMISSION PLANT												
352000 Structures and Improvements	60.00	R4	60.00		-10.0	-10.0	60.00	R4	60.03	43.69	-10.1	-10.0
353000 Station Equipment	60.00	R2	60.00		-2.0	-2.0	36.00	L2	36.06	24.08	5.3	-2.0
355000 Poles and Fixtures	55.00	S0.5	55.00		-61.0	-61.0	55.00	S0.5	55.84	38.08	-30.1	-30.0
356000 Overhead Conductors and Devices	62.00	R2.5	62.00		-44.0	-44.0	62.00	R2.5	62.46	37.34	-17.6	-20.0
357000 Underground Conduit	66.00	R2	66.00		-12.0	-12.0	66.00	R2	66.28	52.63	-12.0	-12.0
358000 Underground Conductors and Devices	49.00	S1.5	49.00		-22.0	-22.0	49.00	S1.5	49.69	26.10	-22.0	-22.0
Total Transmission Plant									46.89	30.72	-12.1	-16.0
DISTRIBUTION PLANT												
361000 Structures and Improvements	62.00	R3	62.00				40.00	R3	40.04	30.61	-0.3	
362000 Station Equipment	48.00	R1	48.00				55.00	R1	55.71	43.09	-0.3	
364000 Poles, Towers and Fixtures	46.00	L4	46.00		-79.0	-79.0	50.00	S3	50.09	32.73	-80.5	-80.0
365000 Overhead Conductors and Devices	60.00	S1.5	60.00		-31.0	-31.0	60.00	L1	60.45	46.33	-23.7	-25.0
366000 Underground Conduit	66.00	R2	66.00		-12.0	-12.0	66.00	R3	66.08	53.79	-12.3	-12.0
367000 Underground Conductors and Devices	49.00	S1.5	49.00		-22.0	-22.0	58.00	R2	58.11	46.56	-5.1	-5.0
368000 Line Transformers	33.00	R2	33.00		-14.0	-14.0	45.00	R2.5	45.21	32.14	-10.0	-10.0
369001 Overhead Services	55.00	R4	55.00		-100.0	-100.0	55.00	R4	55.29	31.89	-106.5	-100.0
369002 Underground Services	38.00	R5	38.00		-16.0	-16.0	38.00	R5	38.01	25.55	-20.1	-20.0

AQUILA NETWORKS - L&P
Present and Proposed Parameters
Vintage Group Procedure

Statement F

Account Description	Present Parameters P-Life/ AYFR	Curve Shape	BG ASL	Rem. Life	Avg. Sal.	Fut. Sal.	Proposed Parameters (at December 31, 2007) P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
A	B	C	D	E	F	G	H	I	J	K	L	M
370001 Meters	53.00	S1	53.00		-6.0	-6.0	60.00	L1.5	60.33	44.00	-4.6	-5.0
371000 Installations on Customers' Premises	26.00	R1.5	26.00		-33.0	-33.0	35.00	O3	35.32	34.08	-3.5	-10.0
373000 Street Lighting and Signal Systems	34.00	L0	34.00		-8.0	-8.0	34.00	L0	34.42	28.18	-4.8	-5.0
Total Distribution Plant									50.66	37.48	-22.5	-22.8
GENERAL PLANT												
390001 Structures and Improvements	45.00	R1.5	45.00		-23.0	-23.0	45.00	R1.5	46.71	27.93	-5.1	-5.0
391001 Office Furniture and Equipment	24.00	L4	24.00				20.00	L0	19.81	13.55	1.3	
391200 Computer Hardware	8.00	R0.5	8.00				11.00	L0	11.46	8.06	3.0	
391300 Computer Software	9.00	S1.5	9.00				9.00	S1.5	9.77	3.33	-0.1	
392000 Transportation Equipment	8.00	S6	8.00		10.0	10.0	14.00	L0.5	14.57	7.26	16.9	10.0
393000 Stores Equipment	27.00	L1.5	27.00				28.00	S1.5	28.18	10.56	0.2	
394000 Tools, Shop and Garage Equipment	28.00	L0	28.00		-3.0	-3.0	30.00	S1	30.13	18.15	-8.2	
395000 Laboratory Equipment	28.00	R2.5	28.00		4.0	4.0	29.00	S1.5	29.31	16.39	0.2	
396000 Power Operated Equipment	22.00	R4	22.00		2.0	2.0	26.00	L0	27.67	19.47	7.1	10.0
397000 Communication Equipment	27.00	S2	27.00				24.00	O2	26.62	17.64	-0.7	
398000 Miscellaneous Equipment	24.00	L3	24.00		11.0	11.0	29.00	R1.5	29.56	17.41	-6.3	
Total General Plant									24.37	14.63	2.9	-0.1
TOTAL ELECTRIC									42.58	28.41	-11.4	-11.8
INDUSTRIAL STEAM PRODUCTION												
311009 Structures and Improvements	45.00	R0.5	45.00				2030	200-SC	82.23	21.74	-27.6	-1.3
312009 Boiler Plant Equipment	45.00	R2	45.00				2030	200-SC	27.11	21.86	-9.4	-1.1
315009 Accessory Electric Equipment	38.00	R1.5	38.00				2030	200-SC	40.54	21.83	-0.9	-0.6
375009 Structures and Improvements	45.00	R0.5	45.00				2030	200-SC	32.29	21.85	-3.2	-0.3
376009 Mains	44.00	R2	44.00				2030	200-SC	39.60	21.83	-3.4	-0.3
379009 Measuring and Regulating Equipment	44.00	R3	44.00				2030	200-SC	36.69	21.84	-2.2	-0.3
380009 Services	44.00	S5	44.00				2030	200-SC	42.97	21.83	-0.3	-0.3
381009 Meters	25.00	L4	25.00				2030	200-SC	32.71	21.85	-0.7	-0.3
Total Industrial Steam Production									35.30	21.84	-4.2	-0.5
TOTAL L&P									42.50	28.33	-11.3	-11.7

AQUILA NETWORKS - L&P
Present and Proposed Parameters
Vintage Group Procedure

Statement F

Account Description	Present Parameters P-Life/ AYFR	Curve Shape	BG ASL	Rem. Life	Avg. Sal.	Fut. Sal.	Proposed Parameters (at December 31, 2007) P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
A	B	C	D	E	F	G	H	I	J	K	L	M
STEAM PRODUCTION												
Lake Road												
311000 Structures and Improvements	54.00	R4	54.00		-2.7	-2.7	2030	200-SC	33.68	21.85	-3.5	-1.2
312001 Boiler Plant Equipment	48.00	R1.5	48.00		-3.7	-3.7	2030	200-SC	33.50	21.85	-4.3	-1.2
314000 Turbogenerator Units	44.00	R2.5	44.00		-2.6	-2.6	2030	200-SC	35.83	21.84	-5.2	-1.2
315000 Accessory Electric Equipment	43.00	S0.5	43.00		-1.8	-1.8	2030	200-SC	35.61	21.84	-2.5	-0.6
316000 Miscellaneous Power Plant Equipment	40.00	R3	40.00		-15.8	-15.8	2030	200-SC	37.95	21.83	-16.7	-0.6
Total Lake Road									34.01	21.85	-4.3	-1.2
Iatan												
311000 Structures and Improvements	54.00	R4	54.00		0.5	0.5	2035	200-SC	47.90	26.50	-0.5	-1.4
312001 Boiler Plant Equipment	48.00	R1.5	48.00		2.3	2.3	2035	200-SC	47.86	26.50	0.9	-1.4
314000 Turbogenerator Units	44.00	R2.5	44.00		-1.2	-1.2	2035	200-SC	49.04	26.49	-2.2	-1.4
315000 Accessory Electric Equipment	43.00	S0.5	43.00		-0.6	-0.6	2035	200-SC	40.14	26.52	-0.9	-0.7
316000 Miscellaneous Power Plant Equipment	40.00	R3	40.00		0.6	0.6	2035	200-SC	39.45	26.52		-0.7
Total Iatan									46.91	26.50	0.1	-1.3

ANALYSIS

INTRODUCTION

This section provides an explanation of the supporting schedules developed in the Aquila Networks MPS and L&P depreciation study to estimate appropriate projection curves, projection lives and net salvage statistics for each rate category. The form and content of the schedules developed for an account depend upon the method of analysis adopted for the category.

This section also includes an example of the supporting schedules developed for MPS Account 368.00 – Line Transformers. Documentation for all other plant accounts is contained in the study work papers. Supporting schedules developed in the 2008 study include:

Schedule A – Generation Arrangement;

Schedule B – Age Distribution;

Schedule C – Plant History;

Schedule D – Actuarial Life Analysis;

Schedule E – Graphics Analysis; and

Schedule F – Historical Net Salvage Analysis.

The format and content of these schedules are briefly described below.

SCHEDULE A – GENERATION ARRANGEMENT

The purpose of this schedule is to obtain appropriate weighted–average life statistics for a rate category. A weighted–average remaining–life is the sum of Column H divided by the sum of Column I. A weighted average life is the sum of Column C divided by the sum of Column I.

It should be noted that the generation arrangement does not include parameters for net salvage. Computed Net Plant (Column C) and Accruals (Column I) must be adjusted for net salvage to obtain a correct measurement of theoretical reserves and annualized depreciation accruals.

The following table provides a description of each column in the generation arrangement.

Column	Title	Description
A	Vintage	Vintage or placement year of surviving plant.
B	Age	Age of surviving plant at beginning of study year.
C	Surviving Plant	Actual dollar amount of surviving plant.
D	Average Life	Estimated average life of each vintage. This statistic is the sum of the realized life and the unrealized life, which is the product of the remaining life (Column E) and the theoretical proportion surviving.
E	Remaining Life	Estimated remaining life of each vintage.
F	Net Plant Ratio	Theoretical net plant ratio of each vintage.
G	Allocation Factor	A pivotal ratio which determines the amortization period of the difference between the recorded and computed reserve.
H	Computed Net Plant	Plant in service less theoretical reserve for each vintage.
I	Accrual	Ratio of computed net plant (Column H) and remaining life (Column E).

Table 3. Generation Arrangement

SCHEDULE B – AGE DISTRIBUTION

This schedule provides the age distribution and realized life of surviving plant shown in Column C of the Generation Arrangement (Schedule A). The format of the schedule depends upon the availability of either aged or unaged data. Derived additions for vintage years older than the earliest activity year in an account for unaged data are obtained from the age distribution of surviving plant at the beginning of the earliest activity year. The amount surviving from these vintages is shown in Column D. The realized life (Column G) is derived from the dollar years of service provided by a vintage over the period of years the vintage has been in service. Plant additions for vintages older than the earliest activity year in an account are represented by the opening balances shown in Column D.

The computed proportion surviving (Column D) for unaged data is derived from a computed mortality analysis. The average service life displayed in the title block is the life statistic derived for the most recent activity year, given the derived age distribution at the start of the year and the specified retirement dispersion. The realized life (Column F) is obtained by finding the slope of an SC retirement dispersion, which connects the computed survivors of a vintage (Column E) to the recorded vintage addition (Column B). The realized life is the area bounded by the SC dispersion, the computed proportion surviving and the age of the vintage.

SCHEDULE C – PLANT HISTORY

An Unadjusted Plant History schedule provides a summary of recorded plant data extracted from the continuing property records maintained by the Company. Activity year total amounts shown on this schedule for aged data are obtained from a historical arrangement of the database in which all plant accounting transactions are identified by vintage and activity year. Activity year totals for unaged data are obtained from a transaction file without vintage identification. Information displayed in the unadjusted plant history is consistent with regulated investments reported internally by the Company.

An Adjusted Plant History schedule provides a summary of recorded plant data extracted from the continuing property records maintained by the Company with sales, transfers, and adjustments appropriately aged for depreciation study purposes. Activity year total amounts shown on this schedule for aged data are obtained from a historical arrangement of the data base in which all plant accounting transactions are identified by vintage and activity year. Ageing of adjusting transactions is achieved using transaction codes that identify an adjusting year associated with the dollar amount of a transaction. Adjusting transactions processed in the adjusted plant history are not aged in the Company's records or in the unadjusted plant history.

SCHEDULE D – ACTUARIAL LIFE ANALYSIS

These schedules provide a summary of the dispersion and life indications obtained from an actuarial life analysis for a specified placement band. The observation band (Column A) is specified to produce a rolling–band, shrinking–band, or progressive–band analysis depending upon the movement of the end points of the band. The degree of censoring (or point of truncation) of the observed life table is shown in Column B for each observation band. The estimated average service life, best fitting Iowa dispersion, and a statistical measure of the goodness of fit are shown for each degree polynomial (First, Second, and Third) fitted to the estimated hazard rates. Options available in the analysis include the width and location of both the placement and observation bands; the interval of years included in a selected rolling, shrinking, or progressive band analysis; the estimator of the hazard rate (actuarial, conditional proportion retired, or maximum likelihood); the elements to include on the diagonal of a weight matrix (exposures, inverse of age, inverse of variance, or unweighted); and the age at which an observed life table is truncated.

Estimated projection lives (Columns C, F, and I) are flagged with an asterisk if negative hazard rates are indicated by the fitted polynomial. All negative hazard rates are set equal to zero in the calculation of the graduated survivor curve. The Conformance Index (Columns E, H, and K) is the square root of the mean sum–of–squared differences between the graduated survivor curve and the best fitting

Iowa curve. A Conformance Index of zero would indicate a perfect fit.

SCHEDULE E – GRAPHICS ANALYSIS

This schedule provides a graphics plot of a) the observed proportion surviving for a selected placement and observation band; b) the statistically best fitting Iowa dispersion and derived average service life; and c) the projection curve and projection life selected to describe future forces of mortality.

The graphics analysis also provides a plot of the observed hazard rates and graduated hazard function for a selected placement and observation band. The estimator of the hazard rates and weighting used in fitting orthogonal polynomials to the observed data are displayed in the title block of the displayed graph.

SCHEDULE F – HISTORICAL NET SALVAGE ANALYSIS

This schedule provides a moving average analysis of the ratio of realized net salvage (Column I) to the associated retirements (Column B). The schedule also provides a moving average analysis of the components of net salvage related to retirements. The ratio of gross salvage to retirements is shown in Column D and the ratio of cost of removal to retirements is shown in Column G.

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant
Account: 368000 Line Transformers

Dispersion: 35 - S1.5
Procedure: Vintage Group

Generation Arrangement

	December 31, 2007				Net			
Vintage	Age	Surviving Plant	Avg. Life	Rem. Life	Plant Ratio	Alloc. Factor	Computed Net Plant	Accrual
A	B	C	D	E	F	G	H=C*F*G	I=H/E
2007	0.5	7,552,565	34.99	34.50	0.9859	1.0000	7,445,949	215,824
2006	1.5	8,233,087	34.98	33.50	0.9579	1.0000	7,886,240	235,392
2005	2.5	7,462,637	34.92	32.51	0.9309	1.0000	6,946,795	213,678
2004	3.5	5,746,607	34.89	31.53	0.9035	1.0000	5,192,324	164,696
2003	4.5	6,650,423	34.84	30.55	0.8770	1.0000	5,832,202	190,888
2002	5.5	6,876,112	34.75	29.59	0.8516	1.0000	5,855,561	197,880
2001	6.5	6,121,498	34.65	28.64	0.8268	1.0000	5,061,150	176,691
2000	7.5	6,210,359	34.92	27.71	0.7936	1.0000	4,928,426	177,844
1999	8.5	5,477,727	34.95	26.80	0.7668	1.0000	4,200,227	156,744
1998	9.5	5,087,606	35.00	25.90	0.7401	1.0000	3,765,109	145,372
1997	10.5	5,771,763	34.98	25.02	0.7152	1.0000	4,128,131	164,980
1996	11.5	4,784,637	35.04	24.17	0.6897	1.0000	3,299,957	136,558
1995	12.5	4,274,561	35.03	23.33	0.6660	1.0000	2,846,858	122,028
1994	13.5	4,731,525	34.97	22.52	0.6439	1.0000	3,046,820	135,320
1993	14.5	4,581,307	35.06	21.72	0.6196	1.0000	2,838,794	130,677
1992	15.5	4,007,863	35.12	20.95	0.5966	1.0000	2,391,093	114,109
1991	16.5	4,056,571	35.15	20.21	0.5749	1.0000	2,332,070	115,403
1990	17.5	3,259,431	35.28	19.48	0.5523	1.0000	1,800,265	92,398
1989	18.5	3,233,384	34.99	18.78	0.5368	1.0000	1,735,569	92,401
1988	19.5	3,809,401	34.93	18.10	0.5183	1.0000	1,974,227	109,046
1987	20.5	3,735,086	35.01	17.45	0.4984	1.0000	1,861,679	106,699
1986	21.5	2,724,821	34.04	16.81	0.4939	1.0000	1,345,756	80,042
1985	22.5	2,081,022	34.26	16.20	0.4729	1.0000	984,090	60,749
1984	23.5	1,586,484	34.42	15.61	0.4534	1.0000	719,267	46,089
1983	24.5	1,487,024	34.19	15.03	0.4397	1.0000	653,909	43,499
1982	25.5	1,183,140	34.33	14.48	0.4218	1.0000	499,011	34,464
1981	26.5	1,487,632	35.19	13.94	0.3963	1.0000	589,517	42,275
1980	27.5	1,555,752	35.19	13.43	0.3816	1.0000	593,649	44,210
1979	28.5	1,428,742	35.80	12.93	0.3611	1.0000	515,940	39,907
1978	29.5	2,133,325	35.72	12.45	0.3484	1.0000	743,335	59,726
1977	30.5	1,357,102	35.46	11.98	0.3379	1.0000	458,506	38,276
1976	31.5	1,115,593	34.27	11.53	0.3363	1.0000	375,208	32,549
1975	32.5	503,743	33.57	11.09	0.3304	1.0000	166,429	15,006
1974	33.5	969,367	33.29	10.67	0.3204	1.0000	310,606	29,116
1973	34.5	2,173,442	35.85	10.26	0.2861	1.0000	621,895	60,621
1972	35.5	979,571	34.35	9.86	0.2871	1.0000	281,191	28,513
1971	36.5	861,222	31.66	9.48	0.2993	1.0000	257,760	27,198

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant
Account: 368000 Line Transformers

Dispersion: 35 - S1.5
Procedure: Vintage Group

Generation Arrangement

	December 31, 2007				Net			
Vintage	Age	Surviving Plant	Avg. Life	Rem. Life	Plant Ratio	Alloc. Factor	Computed Net Plant	Accrual
A	B	C	D	E	F	G	H=C*F*G	I=H/E
1970	37.5	618,433	32.52	9.10	0.2799	1.0000	173,115	19,016
1966	41.5	1,253,747	34.77	7.71	0.2218	1.0000	278,136	36,058
1964	43.5	78	20.62	7.07	0.3430	1.0000	27	4
1963	44.5	108	32.85	6.76	0.2059	1.0000	22	3
1962	45.5	90	27.34	6.46	0.2364	1.0000	21	3
1961	46.5	378,905	33.91	6.17	0.1819	1.0000	68,909	11,173
1960	47.5	454	29.42	5.88	0.1998	1.0000	91	15
1958	49.5	260,091	31.39	5.32	0.1694	1.0000	44,069	8,287
1957	50.5	4,493	38.37	5.05	0.1315	1.0000	591	117
1955	52.5	19,749	27.64	4.51	0.1633	1.0000	3,225	715
1953	54.5	780	26.69	3.99	0.1496	1.0000	117	29
1951	56.5	3,713	44.95	3.48	0.0775	1.0000	288	83
1950	57.5	515	28.21	3.23	0.1146	1.0000	59	18
1946	61.5	472	29.37	2.23	0.0760	1.0000	36	16
1941	66.5	64	28.54	0.99	0.0346	1.0000	2	2
1937	70.5	8	29.95			1.0000		
1933	74.5	188	33.34			1.0000		
Total	12.8	$137,834,023	34.87	24.05	0.6896	1.0000	$95,054,221	$3,952,404

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

Age Distribution

Vintage	Age as of 12/31/2007	Derived Additions	1960 Opening Balance	Experience to 12/31/2007		
				Amount Surviving	Proportion Surviving	Realized Life
A	B	C	D	E	F=E/(C+D)	G
2007	0.5	7,642,102		7,552,565	0.9883	0.4941
2006	1.5	8,444,210		8,233,087	0.9750	1.4761
2005	2.5	7,845,862		7,462,637	0.9512	2.4245
2004	3.5	6,042,317		5,746,607	0.9511	3.3913
2003	4.5	7,006,824		6,650,423	0.9491	4.3374
2002	5.5	7,367,378		6,876,112	0.9333	5.2446
2001	6.5	6,579,803		6,121,498	0.9303	6.1369
2000	7.5	6,392,988		6,210,359	0.9714	7.4061
1999	8.5	5,577,333		5,477,727	0.9821	8.4241
1998	9.5	5,157,451		5,087,606	0.9865	9.4623
1997	10.5	5,855,009		5,771,763	0.9858	10.4333
1996	11.5	4,831,935		4,784,637	0.9902	11.4644
1995	12.5	4,330,899		4,274,561	0.9870	12.4285
1994	13.5	4,835,097		4,731,525	0.9786	13.3293
1993	14.5	4,681,826		4,581,307	0.9785	14.3787
1992	15.5	4,099,521		4,007,863	0.9776	15.3903
1991	16.5	4,179,804		4,056,571	0.9705	16.3543
1990	17.5	3,334,973		3,259,431	0.9773	17.4030
1989	18.5	3,420,528		3,233,384	0.9453	18.0302
1988	19.5	4,065,009		3,809,401	0.9371	18.8664
1987	20.5	4,024,075		3,735,086	0.9282	19.8173
1986	21.5	3,232,639		2,724,821	0.8429	19.7151
1985	22.5	2,372,525		2,081,022	0.8771	20.7711
1984	23.5	1,785,413		1,586,484	0.8886	21.7593
1983	24.5	1,727,537		1,487,024	0.8608	22.3226
1982	25.5	1,416,692		1,183,140	0.8351	23.2445
1981	26.5	1,688,134		1,487,632	0.8812	24.8569
1980	27.5	1,832,754		1,555,752	0.8489	25.5858
1979	28.5	1,673,814		1,428,742	0.8536	26.8993
1978	29.5	2,658,389		2,133,325	0.8025	27.4909
1977	30.5	1,912,443		1,357,102	0.7096	27.8750
1976	31.5	1,886,414		1,115,593	0.5914	27.3124
1975	32.5	1,099,370		503,743	0.4582	27.1968
1974	33.5	1,737,595		969,367	0.5579	27.4808
1973	34.5	2,965,458		2,173,442	0.7329	30.5697
1972	35.5	1,919,747		979,571	0.5103	29.5717
1971	36.5	1,677,721		861,222	0.5133	27.3516
1970	37.5	1,322,446		618,433	0.4676	28.6493

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

Age Distribution

Vintage	Age as of 12/31/2007	Derived Additions	1960 Opening Balance	Experience to 12/31/2007		
				Amount Surviving	Proportion Surviving	Realized Life
A	B	C	D	E	F=E/(C+D)	G
1968	39.5	805			0.0000	11.0000
1967	40.5	481,178			0.0000	18.7791
1966	41.5	2,761,335		1,253,747	0.4540	32.3677
1965	42.5	387,257			0.0000	25.0978
1964	43.5	46,831		78	0.0017	18.7867
1963	44.5	420,556		108	0.0003	31.2693
1962	45.5	595,365		90	0.0002	25.9735
1961	46.5	1,771,203		378,905	0.2139	32.7503
1960	47.5	13,333		454	0.0340	28.4313
1959	48.5		87		0.0000	18.0000
1958	49.5		1,500,540	260,091	0.1733	30.6984
1957	50.5		16,449	4,493	0.2732	37.8071
1955	52.5		1,531,017	19,749	0.0129	27.2649
1953	54.5		749,419	780	0.0010	26.4598
1952	55.5		1,417		0.0000	41.7706
1951	56.5		10,796	3,713	0.3439	44.8169
1950	57.5		800,705	515	0.0006	28.1069
1946	61.5		506,756	472	0.0009	29.3427
1944	63.5		892		0.0000	41.5818
1941	66.5		265,056	64	0.0002	28.5407
1937	70.5		92,468	8	0.0001	29.9518
1934	73.5		4,126		0.0000	50.1106
1933	74.5		36,292	188	0.0052	33.3364
1932	75.5		116,702		0.0000	33.1050
1924	83.5		22,743		0.0000	46.1843
Total		$155,101,896	$5,655,465	$137,834,023	0.8574	

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

Unadjusted Plant History

Year	Beginning Balance	Additions	Retirements	Sales, Transfers & Adjustments	Ending Balance
A	B	C	D	E	F=B+C-D+E
1970	10,667,634	1,291,331	195,902	(9,021)	11,754,042
1971	11,754,042	1,273,588	118,359		12,909,271
1972	12,909,271	1,769,262	190,665		14,487,868
1973	14,487,868	2,616,074	248,019	(700)	16,855,223
1974	16,855,223	1,842,737	360,413	22,826	18,360,373
1975	18,360,373	2,091,155	314,793	6,930	20,143,665
1976	20,143,665	2,417,478	795,165	(244,091)	21,521,887
1977	21,521,887	2,324,138	283,643	(1,033,456)	22,528,926
1978	22,528,926	2,592,815	329,810	11,150	24,803,081
1979	24,803,081	1,782,747	332,185	23,727	26,277,370
1980	26,277,370	1,869,739	622,757	4,301	27,528,653
1981	27,528,653	1,652,414	287,904	(1,095)	28,892,068
1982	28,892,068	1,308,210	307,397	63,975	29,956,856
1983	29,956,856	1,651,161	262,521	5,693	31,351,189
1984	31,351,189	1,766,763	461,346	(29,157)	32,627,449
1985	32,627,449	2,109,028	240,716	23,398	34,519,159
1986	34,519,159	3,889,885	639,622	40,485	37,809,907
1987	37,809,907	3,328,023	558,914	94,802	40,673,818
1988	40,673,818	4,260,563	1,155,569	(652)	43,778,160
1989	43,778,160	3,822,362	502,817		47,097,705
1990	47,097,705	3,345,175	1,023,043		49,419,837
1991	49,419,837	1,348,164	348,671		50,419,330
1992	50,419,330	6,864,691	1,043,275		56,240,746
1993	56,240,746	4,572,383	762,622	516	60,051,023
1994	60,051,023	4,933,262	563,069		64,421,216
1995	64,421,216	4,072,245	389,323		68,104,138
1996	68,104,138	5,136,104	863,545	(385,599)	71,991,098
1997	71,991,098	4,089,816	363,872	89,158	75,806,200
1998	75,806,200	4,799,621	305,868		80,299,953
1999	80,299,953	3,968,042	135,131		84,132,864
2000	84,132,864	9,905,114	1,340,192	703,508	93,401,295
2001	93,401,295	6,412,310	693,202	(24,471)	99,095,931
2002	99,095,931	7,327,543	803,307	(1,267)	105,618,900
2003	105,618,900	7,271,160	736,401	54,005	112,207,663
2004	112,207,663	6,001,303	1,048,394		117,160,573
2005	117,160,573	7,937,677	1,334,454	(8,276)	123,755,521
2006	123,755,521	8,268,650	875,657	2	131,148,516
2007	131,148,516	7,800,620	1,116,373	1,260	137,834,023

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

Adjusted Plant History

Year	Beginning Balance	Additions	Retirements	Sales, Transfers & Adjustments	Ending Balance
A	B	C	D	E	F=B+C-D+E
1970	10,971,622	1,424,021	195,902	(9,021)	12,190,720
1971	12,190,720	1,548,524	118,359		13,620,885
1972	13,620,885	3,139,846	190,665		16,570,066
1973	16,570,066	2,996,356	248,019	(700)	19,317,703
1974	19,317,703	1,698,568	360,413	22,826	20,678,684
1975	20,678,684	1,203,435	314,793	6,930	21,574,256
1976	21,574,256	1,888,192	795,165	(244,091)	22,423,192
1977	22,423,192	1,901,041	283,643	(1,033,456)	23,007,134
1978	23,007,134	2,608,998	329,810	11,150	25,297,472
1979	25,297,472	1,681,616	332,185	23,727	26,670,629
1980	26,670,629	1,979,261	622,757	4,301	28,031,434
1981	28,031,434	1,676,206	287,904	(1,095)	29,418,641
1982	29,418,641	1,371,991	307,397	63,975	30,547,210
1983	30,547,210	1,730,128	262,521	5,693	32,020,510
1984	32,020,510	1,800,332	461,346	(29,157)	33,330,339
1985	33,330,339	2,449,950	240,716	23,398	35,562,971
1986	35,562,971	3,348,176	639,622	40,485	38,312,010
1987	38,312,010	3,874,335	558,914	94,802	41,722,234
1988	41,722,234	4,516,985	1,155,569	(652)	45,082,998
1989	45,082,998	3,418,959	502,817		47,999,140
1990	47,999,140	2,690,609	1,023,043		49,666,706
1991	49,666,706	4,157,696	348,671		53,475,731
1992	53,475,731	4,100,628	1,043,275		56,533,084
1993	56,533,084	5,066,273	762,622	516	60,837,251
1994	60,837,251	4,785,609	563,069		65,059,791
1995	65,059,791	4,335,084	389,323		69,005,552
1996	69,005,552	4,836,330	863,545	(385,599)	72,592,738
1997	72,592,738	5,841,301	363,872	89,158	78,159,325
1998	78,159,325	3,664,831	305,868		81,518,288
1999	81,518,288	5,959,192	135,131		87,342,349
2000	87,342,349	6,769,706	1,340,192	703,508	93,475,371
2001	93,475,371	6,584,820	693,202	(24,471)	99,342,518
2002	99,342,518	7,368,112	803,307	(1,267)	105,906,055
2003	105,906,055	7,014,098	736,401	54,005	112,237,757
2004	112,237,757	6,044,631	1,048,394		117,233,994
2005	117,233,994	7,847,215	1,335,114	(8,276)	123,737,820
2006	123,737,820	8,444,210	874,997	2	131,307,034
2007	131,307,034	7,642,102	1,115,974	1,260	137,834,422

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

T-Cut: None

Placement Band: 1924-2007

Hazard Function: Proportion Retired

Weighting: Exposures

Rolling Band Life Analysis

Observation Band	Censoring	First Degree			Second Degree			Third Degree		
		Average Life	Dispersion	Conf. Index	Average Life	Dispersion	Conf. Index	Average Life	Dispersion	Conf. Index
A	B	C	D	E	F	G	H	I	J	K
1970-1974	1.0	25.9	L2 *	9.10	25.6	S1.5	6.18	25.7	S2	6.29
1971-1975	1.3	25.7	L2 *	8.17	25.5	S1.5	5.24	25.7	S2	5.34
1972-1976	0.9	22.5	L2 *	5.51	22.8	S1.5	3.76	23.0	S1.5 *	4.13
1973-1977	1.4	22.9	L1.5 *	5.94	23.1	S1	4.07	23.5	S1.5 *	3.96
1974-1978	2.5	23.7	L1.5 *	5.13	23.6	S1	3.91	24.7	L2 *	3.61
1975-1979	2.2	24.4	L1.5 *	4.94	24.3	S1	3.01	25.1	S1.5 *	2.89
1976-1980	2.4	23.8	L2 *	4.69	23.8	S1	2.79	24.2	S1.5 *	2.74
1977-1981	1.6	26.9	L2 *	6.19	26.4	S1.5	3.42	27.6	L3 *	3.39
1978-1982	0.0	27.3	L2 *	6.46	26.9	S1.5	3.39	28.4	L3 *	3.58
1979-1983	0.0	28.4	L2 *	6.33	27.8	S1.5 *	3.12	29.2	L3 *	3.50
1980-1984	0.6	29.0	L2 *	5.71	28.2	S1.5	3.03	30.4	L3 *	3.14
1981-1985	0.3	32.8	L2 *	8.87	31.2	S1.5 *	5.13	35.8	L2 *	5.50
1982-1986	2.3	32.8	L1.5 *	5.96	31.0	S1	3.44	39.3	L1.5 *	3.37
1983-1987	0.3	32.4	L1.5 *	7.50	30.7	S1	4.72	39.4	L1.5 *	5.27
1984-1988	0.0	29.8	L1.5 *	6.12	28.1	S1	2.92	30.1	L2 *	2.83
1985-1989	0.0	31.2	L1.5 *	7.17	28.9	R1.5	3.21	31.5	L2 *	3.02
1986-1990	0.0	28.6	L1.5 *	6.16	27.1	R2	2.78	27.0	R2 *	3.18
1987-1991	0.0	30.2	L1.5 *	7.24	28.4	R2	3.76	28.4	S1.5 *	4.22
1988-1992	0.1	29.0	L1.5 *	8.40	27.8	R2	4.97	27.8	R2.5	5.23
1989-1993	0.2	30.2	L2 *	9.66	29.1	R2.5	5.40	29.0	S2 *	5.46
1990-1994	0.2	30.1	L2 *	10.43	29.4	S2 *	6.20	29.1	S2 *	6.20
1991-1995	0.5	33.3	L2 *	11.07	31.5	S2 *	5.68	31.4	S2 *	5.62
1992-1996	0.1	32.5	L2 *	13.22	31.0	S2 *	8.58	30.9	S2 *	8.47
1993-1997	0.3	36.5	L2 *	16.86	33.7	S2 *	11.60	33.7	S2 *	11.56
1994-1998	3.6	41.6	L1.5 *	20.41	37.1	S2	15.29	37.4	S2	15.33
1995-1999	35.2	48.9	L1.5 *	8.23	42.0	S1.5	16.45	43.5	S1.5 *	14.61
1996-2000	2.3	40.9	L2 *	6.30	37.1	S2	4.37	36.9	R3	4.89
1997-2001	0.1	44.1	L2 *	10.05	39.2	S2 *	3.86	38.8	R3	4.37
1998-2002	0.0	44.4	L1.5 *	11.31	39.2	S2 *	3.65	38.8	R3	3.81
1999-2003	0.0	43.8	L1.5 *	11.16	38.7	R3 *	3.18	38.5	R3	3.28
2000-2004	0.0	42.3	L1.5 *	10.83	37.8	R2.5	3.12	37.6	R3	2.95
2001-2005	0.0	47.9	L1.5 *	14.91	40.1	R2.5	3.62	39.9	R2.5	3.37
2002-2006	0.0	50.4	L1 *	16.82	40.9	R2.5	4.13	41.3	R2.5	4.77
2003-2007	0.0	51.5	L1	16.75	41.3	R2	4.08	43.5	S1.5 *	5.71

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

T-Cut: None

Placement Band: 1924-2006

Hazard Function: Proportion Retired

Weighting: Exposures

Shrinking Band Life Analysis

Observation Band	Censoring	First Degree			Second Degree			Third Degree		
		Average Life	Dispersion	Conf. Index	Average Life	Dispersion	Conf. Index	Average Life	Dispersion	Conf. Index
A	B	C	D	E	F	G	H	I	J	K
1970-2007	0.0	38.4	L1.5 *	5.70	35.3	S1.5	1.65	36.2	S1.5 *	1.33
1972-2007	0.0	38.5	L1.5 *	5.78	35.4	S1.5	1.65	36.2	S1.5 *	1.34
1974-2007	0.0	38.7	L1.5 *	5.93	35.5	S1.5	1.67	36.2	S1.5 *	1.36
1976-2007	0.0	39.1	L1.5 *	6.23	35.7	R2	1.65	36.3	S1.5 *	1.39
1978-2007	0.0	39.6	L1.5 *	6.67	36.0	S1.5	1.66	36.5	S1.5 *	1.46
1980-2007	0.0	39.9	L1.5 *	7.00	36.2	S1.5	1.65	36.6	S1.5 *	1.55
1982-2007	0.0	40.5	L1.5 *	7.52	36.5	R2	1.66	36.8	S1.5	1.63
1984-2007	0.0	40.7	L1.5 *	7.69	36.6	R2	1.69	36.9	S1.5	1.65
1986-2007	0.0	41.0	L1.5 *	8.01	36.7	R2	1.69	37.0	S1.5	1.71
1988-2007	0.0	41.5	L1.5 *	8.66	37.1	R2.5	1.77	37.3	S1.5	1.84
1990-2007	0.0	42.4	L1.5 *	9.38	37.7	R2.5	1.94	37.9	S1.5	2.09
1992-2007	0.0	43.5	L1.5 *	10.25	38.4	R2.5	2.10	38.5	S2	2.27
1994-2007	0.0	45.9	L1.5 *	11.91	39.6	R2.5	2.43	39.8	S2	2.71
1996-2007	0.0	46.9	L1.5 *	12.72	40.0	R2.5	2.69	40.1	R2.5	2.83
1998-2007	0.0	48.2	L1.5 *	14.21	40.5	R2.5	3.19	40.5	R2.5	3.21
2000-2007	0.0	46.0	L1.5 *	12.91	39.4	R2.5	3.26	39.5	R2.5	3.39
2002-2007	0.0	50.8	L1	16.31	41.1	R2.5	3.83	42.0	S1.5 *	5.03
2004-2007	0.0	51.8	L1	12.63	41.4	R2	4.58	52.4	L2 *	4.30
2006-2007	0.0	58.1	L0.5	18.03	43.9	R2	6.61	89.7	O4 *	16.64

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

T-Cut: None

Placement Band: 1924-2007

Hazard Function: Proportion Retired

Weighting: Exposures

Progressing Band Life Analysis

Observation Band	Censoring	First Degree			Second Degree			Third Degree		
		Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index
A	B	C	D	E	F	G	H	I	J	K
1970-1971	6.8	27.7	L2 *	10.09	26.7	S2	8.36	26.6	S2 *	8.82
1970-1973	0.9	26.8	L2 *	9.75	26.2	S2	5.73	26.3	S2 *	5.82
1970-1975	1.0	25.6	L2 *	8.33	25.4	S2	5.20	25.5	S2 *	5.31
1970-1977	1.0	24.2	L1.5 *	6.79	24.1	S1.5	4.44	24.3	S1.5 *	4.42
1970-1979	1.5	25.0	L1.5 *	6.35	24.8	S1.5	3.85	25.1	S1.5 *	3.77
1970-1981	2.3	25.1	L2 *	5.94	24.9	S1.5	3.59	25.3	S1.5 *	3.38
1970-1983	2.9	26.4	L2 *	5.24	26.0	S1.5	3.36	26.8	L3 *	2.85
1970-1985	4.0	27.5	L2 *	4.79	26.9	S1.5	3.92	28.3	L3 *	3.15
1970-1987	5.4	28.1	L2 *	4.73	27.4	S1.5	4.83	30.5	L2 *	3.54
1970-1989	4.2	28.4	L1.5 *	4.50	27.4	S1	3.73	29.4	L2 *	2.67
1970-1991	3.1	28.8	L1.5 *	5.06	27.7	S1.5	3.05	28.2	S1.5 *	2.51
1970-1993	0.8	28.7	L2 *	5.80	27.7	S1.5	2.56	27.6	S1.5 *	2.40
1970-1995	0.9	29.8	L2 *	6.55	28.6	S1.5	2.99	28.5	S1.5	2.88
1970-1997	1.1	30.9	L1.5 *	7.02	29.5	S1.5	3.59	29.5	S1.5	3.43
1970-1999	2.5	33.3	L1.5 *	6.19	31.4	S1.5	4.12	32.0	S1.5 *	3.60
1970-2001	1.0	33.7	L1.5 *	5.24	31.9	S1.5	2.30	32.0	S1.5	2.02
1970-2003	0.0	35.3	L1.5 *	5.63	33.1	S1.5	2.00	33.2	S1.5	1.77
1970-2005	0.0	36.5	L1.5 *	5.36	34.0	S1.5	1.69	34.1	S1.5	1.37
1970-2007	0.0	38.4	L1.5 *	5.70	35.3	S1.5	1.65	36.2	S1.5 *	1.33

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

T-Cut: None

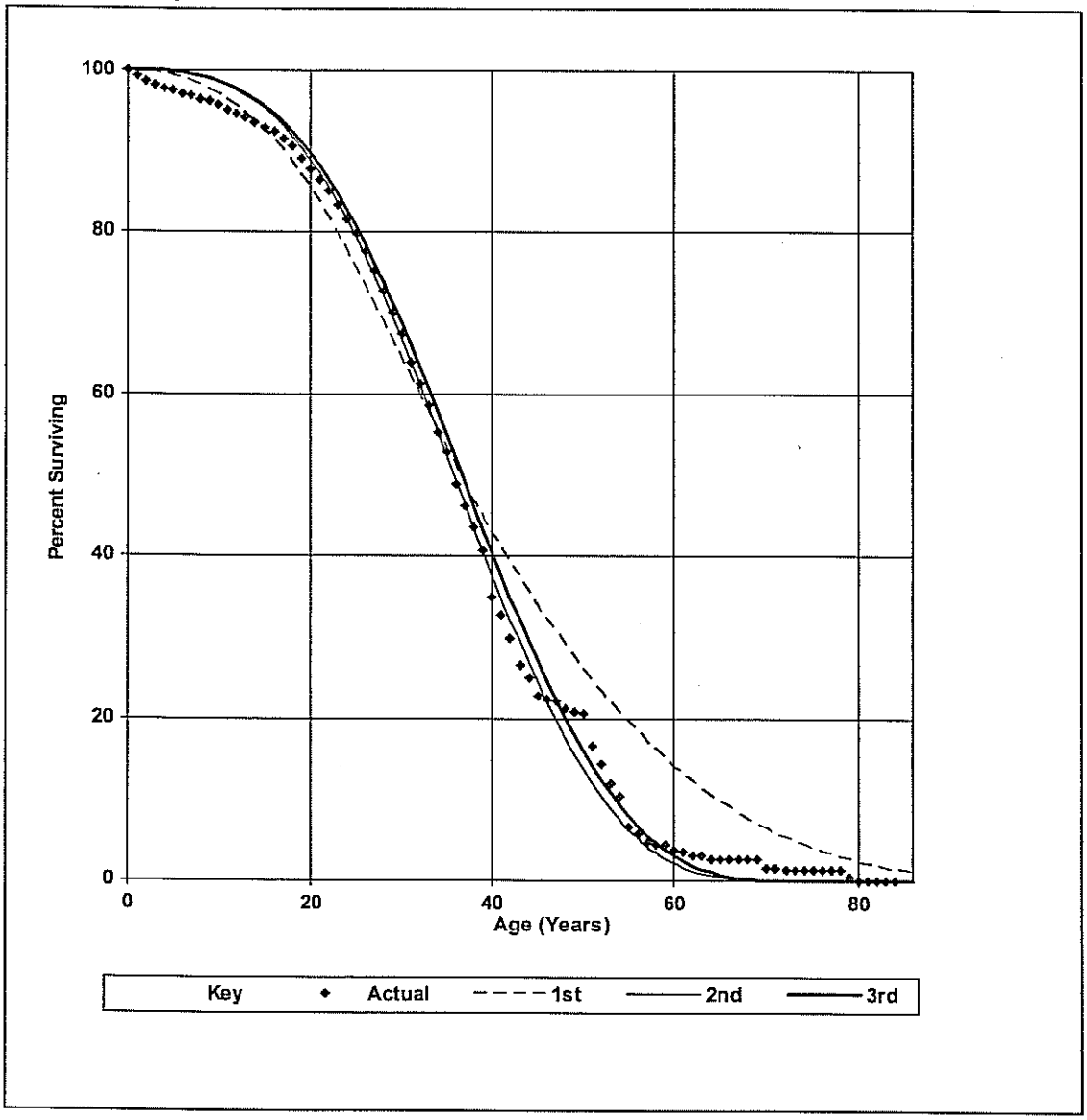
Placement Band: 1924-2007 Observation Band: 1970-2007

Hazard Function: Proportion Retired

Weighting: Exposures

Graphics Analysis

1st: 38.4-L1.5 2nd: 35.3-S1.5 3rd: 36.2-S1.5



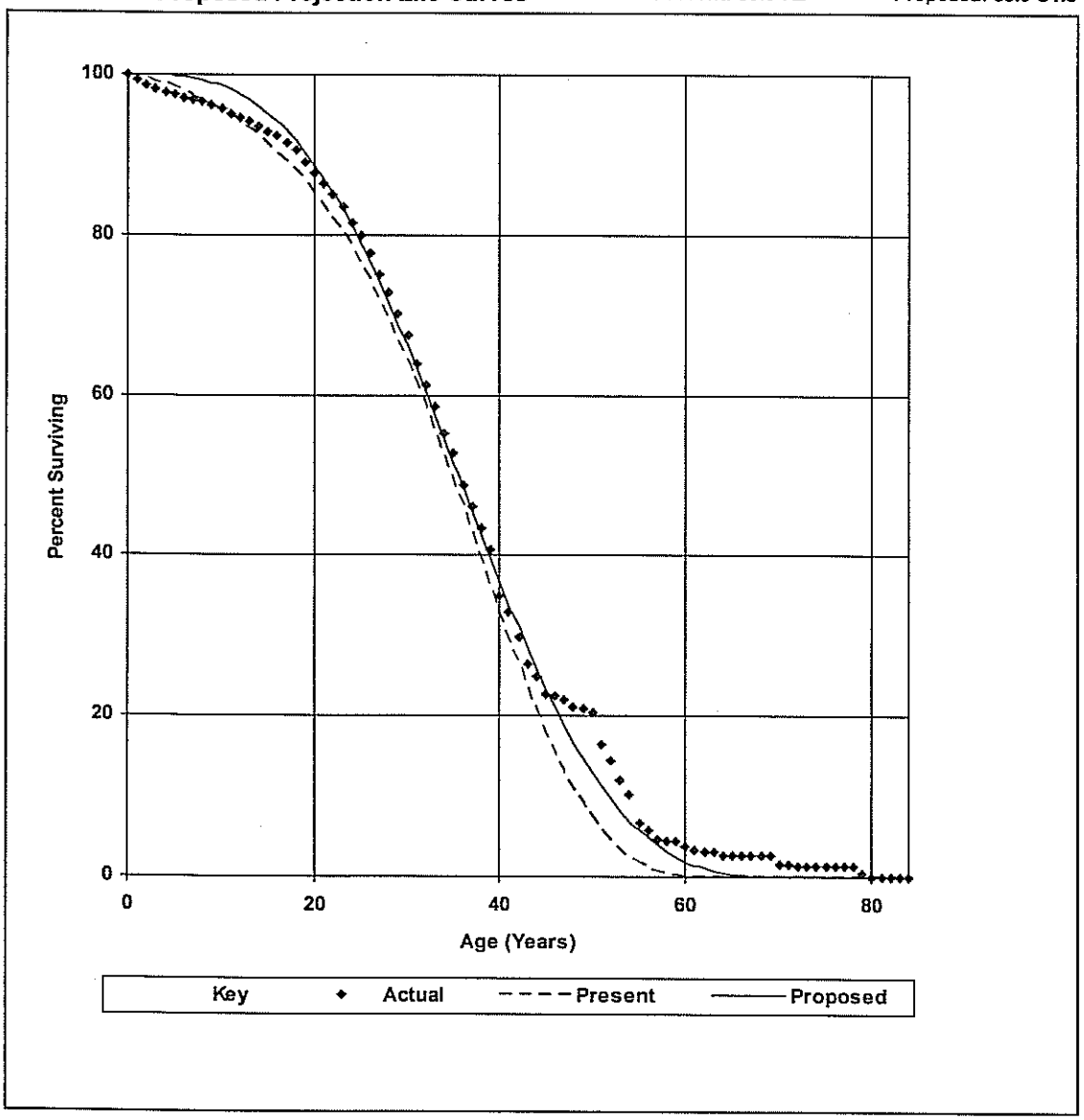
AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

T-Cut: None
Placement Band: 1924-2007
Observation Band: 1970-2007

Present and Proposed Projection Life Curves Present: 33.0-R2 Proposed: 35.0-S1.5



AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

T-Cut: None

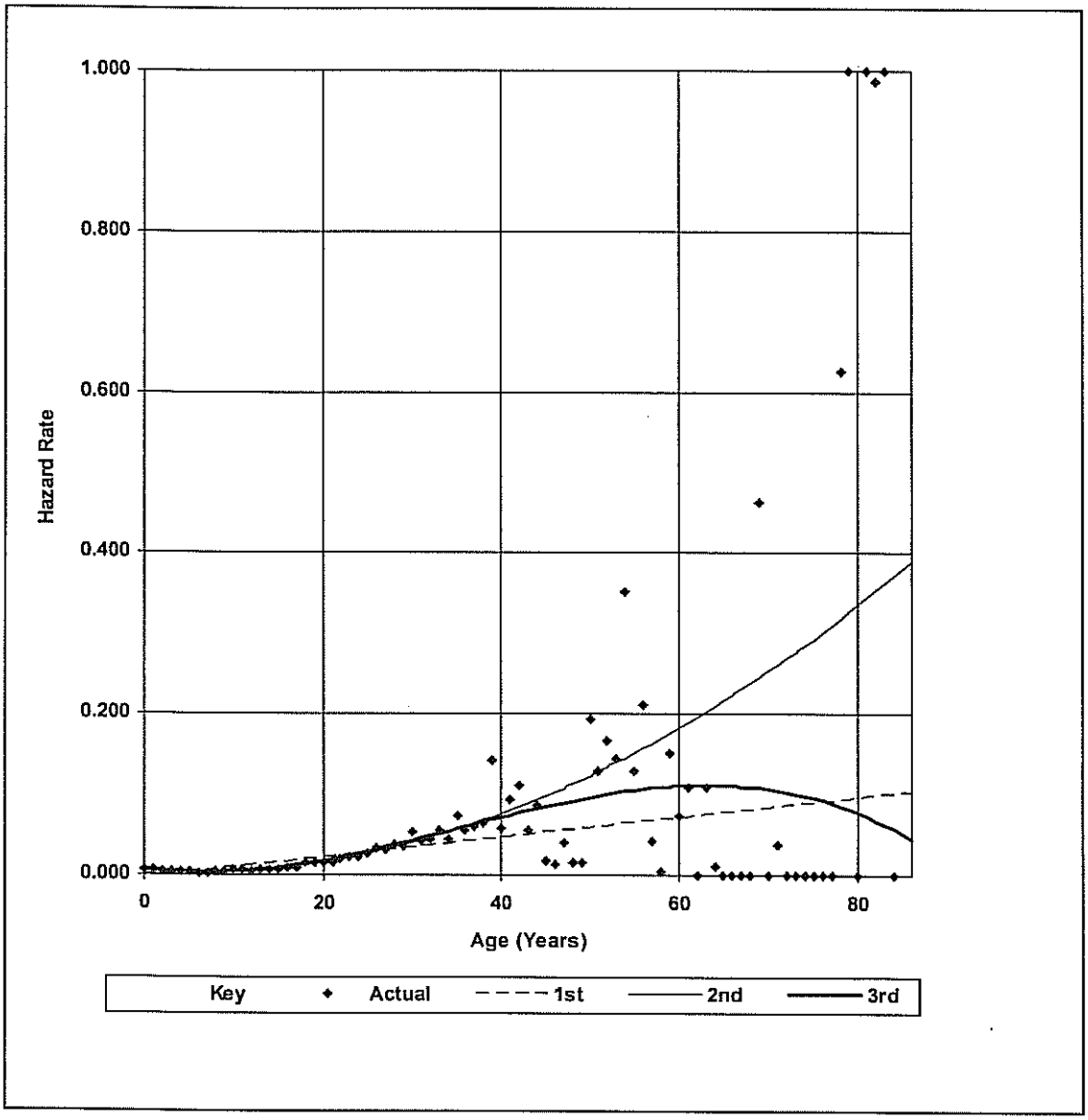
Placement Band: 1924-2007 Observation Band: 1970-2007

Hazard Function: Proportion Retired

Weighting: Exposures

Polynomial Hazard Function

1st: 38.4-L1.5 2nd: 35.3-S1.5 3rd: 36.2-S1.5



AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

Unadjusted Net Salvage History

		Gross Salvage			Cost of Retiring			Net Salvage		
Year	Retirements	Amount	Pct.	5-Yr Avg.	Amount	Pct.	5-Yr Avg.	Amount	Pct.	5-Yr Avg.
A	B	C	D=C/B	E	F	G=F/B	H	I=C-F	J=I/B	K
1985	240,716	41,774	17.4		111,216	46.2		(69,442)	-28.8	
1986	639,622	99,058	15.5		134,011	21.0		(34,953)	-5.5	
1987	558,914	101,435	18.1		186,077	33.3		(84,642)	-15.1	
1988	1,155,569	246,991	21.4		275,370	23.8		(28,379)	-2.5	
1989	502,817	57,602	11.5	17.7	124,792	24.8	26.8	(67,190)	-13.4	-9.2
1990	1,023,043	361,272	35.3	22.3	442,309	43.2	30.0	(81,037)	-7.9	-7.6
1991	348,671	23,205	6.7	22.0	143,315	41.1	32.7	(120,110)	-34.4	-10.6
1992	1,043,275	110,943	10.6	19.6	310,170	29.7	31.8	(199,227)	-19.1	-12.2
1993	762,622	92,471	12.1	17.5	228,748	30.0	33.9	(136,277)	-17.9	-16.4
1994	563,069	53,028	9.4	17.1	184,163	32.7	35.0	(131,135)	-23.3	-17.9
1995	389,323	24,537	6.3	9.8	212,524	54.6	34.7	(187,987)	-48.3	-24.9
1996	863,545	112,017	13.0	10.9	139,003	16.1	29.7	(26,987)	-3.1	-18.8
1997	363,872	28,539	7.8	10.6	105,289	28.9	29.6	(76,750)	-21.1	-19.0
1998	305,868	7,724	2.5	9.1	46,085	15.1	27.6	(38,361)	-12.5	-18.6
1999	135,131	84,050	62.2	12.5		0.0	24.4	84,050	62.2	-12.0
2000	1,340,192	46,392	3.5	9.3	266,586	19.9	18.5	(220,194)	-16.4	-9.2
2001	693,202	114,204	16.5	9.9	241,304	34.8	23.2	(127,100)	-18.3	-13.3
2002	803,307	5,038	0.6	7.9	56,265	7.0	18.6	(51,226)	-6.4	-10.8
2003	736,401	1,170	0.2	6.8	10,230	1.4	15.5	(9,060)	-1.2	-8.7
2004	1,048,394	31,634	3.0	4.3	111,456	10.6	14.8	(79,822)	-7.6	-10.5
2005	1,334,454	122,320	9.2	5.9	304,991	22.9	15.7	(182,671)	-13.7	-9.7
2006	875,657	96,080	11.0	5.3	264,179	30.2	15.6	(168,099)	-19.2	-10.2
2007	1,116,373	139,451	12.5	7.6	337,714	30.3	20.1	(198,263)	-17.8	-12.5
Total	16,844,037	2,000,934	11.9		4,235,796	25.1		(2,234,862)	-13.3	

AQUILA NETWORKS - MPS (ELECTRIC)

Distribution Plant

Account: 368000 Line Transformers

Adjusted Net Salvage History

		Gross Salvage			Cost of Retiring			Net Salvage		
Year	Retirements	Amount	Pct.	5-Yr Avg.	Amount	Pct.	5-Yr Avg.	Amount	Pct.	5-Yr Avg.
A	B	C	D=C/B	E	F	G=F/B	H	I=C-F	J=I/B	K
1985	240,716	41,774	17.4		111,216	46.2		(69,442)	-28.8	
1986	639,622	99,058	15.5		134,011	21.0		(34,953)	-5.5	
1987	558,914	101,435	18.1		186,077	33.3		(84,642)	-15.1	
1988	1,155,569	246,991	21.4		275,370	23.8		(28,379)	-2.5	
1989	502,817	57,602	11.5	17.7	124,792	24.8	26.8	(67,190)	-13.4	-9.2
1990	1,023,043	361,272	35.3	22.3	442,309	43.2	30.0	(81,037)	-7.9	-7.6
1991	348,671	23,205	6.7	22.0	143,315	41.1	32.7	(120,110)	-34.4	-10.6
1992	1,043,275	110,943	10.6	19.6	310,170	29.7	31.8	(199,227)	-19.1	-12.2
1993	762,622	92,471	12.1	17.5	228,748	30.0	33.9	(136,277)	-17.9	-16.4
1994	563,069	53,028	9.4	17.1	184,163	32.7	35.0	(131,135)	-23.3	-17.9
1995	389,323	24,537	6.3	9.8	212,524	54.6	34.7	(187,987)	-48.3	-24.9
1996	863,545	112,017	13.0	10.9	139,003	16.1	29.7	(26,987)	-3.1	-18.8
1997	363,872	28,539	7.8	10.6	105,289	28.9	29.6	(76,750)	-21.1	-19.0
1998	305,868	7,724	2.5	9.1	46,085	15.1	27.6	(38,361)	-12.5	-18.6
1999	135,131	84,050	62.2	12.5		0.0	24.4	84,050	62.2	-12.0
2000	1,340,192	46,392	3.5	9.3	266,586	19.9	18.5	(220,194)	-16.4	-9.2
2001	693,202	114,204	16.5	9.9	241,304	34.8	23.2	(127,100)	-18.3	-13.3
2002	803,307	5,038	0.6	7.9	56,265	7.0	18.6	(51,226)	-6.4	-10.8
2003	736,401	1,170	0.2	6.8	10,230	1.4	15.5	(9,060)	-1.2	-8.7
2004	1,048,394	31,634	3.0	4.3	111,456	10.6	14.8	(79,822)	-7.6	-10.5
2005	1,335,114	122,320	9.2	5.9	304,991	22.8	15.7	(182,671)	-13.7	-9.7
2006	874,997	96,080	11.0	5.3	264,179	30.2	15.6	(168,099)	-19.2	-10.2
2007	1,115,974	139,451	12.5	7.6	337,714	30.3	20.1	(198,263)	-17.8	-12.5
Total	16,843,639	2,000,934	11.9		4,235,796	25.1		(2,234,862)	-13.3	