Exhibit No.:	
Issues:	*Depreciation and Accumulated Depreciation Reserve*
Witness:	*Rosella L. Schad*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Direct Testimony*
Case Nos.:	*ER-2004-0034 and HR-2004-0024 consolidated*
Date Testimony Prepared:	*December 16, 2003*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

ROSELLA L. SCHAD

AQUILA, INC. d/b/a AQUILA NETWORKS-MPS (Electric) AND AQUILA NETWORKS – L&P (Electric and Steam)

CASE NOS. ER-2004-0034 and HR-2004-0024 (Consolidated)

Jefferson City, Missouri
December 2003

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of Aquila, Inc. d/b/a Aquila Networks L&P and Aquila Networks MPS to implement a general rate increase in electricity.	)))	Case No. ER-2004-0034
In the matter of Aquila, Inc. d/b/a Aquila Networks L&P to implement a general rate increase in Steam Rates.	)))	Case No. HR-2004-0024

AFFIDAVIT OF ROSELLA L. SCHAD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Rosella L. Schad, of lawful age, on her oath states: that she has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 16 pages to be presented in the above case; that the answers in the following Direct Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Rosella L. Schad
Rosella L. Schad

Subscribed and sworn to before me this 16th day of December 2003.

Toni M. Charlton
Notary Public

TONI M. CHARLTON
NOTARY SEAL
NOTARY PUBLIC
STATE OF MISSOURI

TONI M. CHARLTON
NOTARY PUBLIC STATE OF MISSOURI
COUNTY OF COLE
My Commission Expires December 28, 2004

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DIRECT TESTIMONY OF

ROSELLA L. SCHAD

AQUILA, INC. d/b/a AQUILA NETWORKS-MPS (Electric) AND AQUILA NETWORKS – L&P (Electric and Steam)

CASE NOS. ER-2004-0034 and HR-2004-0024 (Consolidated)

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DIRECT TESTIMONY

OF

ROSELLA L. SCHAD

AQUILA, INC. D/B/A AQUILA NETWORKS-MPS (ELECTRIC)

AND AQUILA NETWORKS – L&P (ELECTRIC AND STEAM)

CASE NOS. ER-2004-0034 AND HR-2004-0024
(CONSOLIDATED)

Q. Please state your name and business address.

A. Rosella L. Schad, P.O. Box 360, Jefferson City, MO 65102.

Q. By whom are you employed and in what capacity?

A. I am employed by the Missouri Public Service Commission (PSC or Commission) as an Engineer in the Engineering and Management Services Department.

Q. Please describe your educational training and professional background.

A. I received a Bachelor of Science degree (1978) in Mechanical Engineering from the University of Missouri-Columbia. I am a Licensed Professional Engineer in the State of Missouri. I am a member of the National Society of Professional Engineers and the Society of Depreciation Professionals. I was employed by Union Electric (now AmerenUE) as an Engineer Intern during the summer of 1977. I was employed as a Mechanical Engineer by Union Electric in its Nuclear Construction Department from 1978 to 1980. I have been with the Missouri Public Service Commission's Staff since 1999. In my current position I have completed training in depreciation concepts, attended numerous industry seminars for electric, natural gas, telecommunications, water, and wastewater and made on-site tours of many of the electric, natural gas, telecommunications, water, and wastewater utilities operating in the State of Missouri.

Q. Please describe your duties while employed by the Commission.

A. I am responsible for engineering analyses and depreciation rate determinations of companies regulated by the Commission.

Q. Have you previously filed testimony before this Commission?

A. Yes. As shown in Schedule 1, attached to my testimony, is a list in which I have previously filed testimony and the issues that I addressed.

DEPRECIATION ISSUES

Q. Please state the purpose of your testimony in this case.

A. The purpose of my testimony is to make recommendations for Aquila, Inc. d/b/a Aquila Networks-MPS (Electric) and Aquila Networks-L&P (Electric & Steam) (Company) concerning the depreciation rates that will allow the Company to collect the original cost of its investment over the life of these assets. I will also offer testimony regarding the treatment of the plant depreciation reserves.

Staff's proposal in this case is:

1. That Staff's Proposed Depreciation Rates based on Staff's Average Service Lives (ASLs), as shown in the attached Schedule 3-1, be effective on the date of the Commission's order in this case.

2. That the relative magnitude of the Company's over-accrued depreciation reserve be noted but not reduced at this time.

Q. What expert knowledge, skill, experience, training or education do you have in these matters?

A. I have acquired general knowledge of these topics through my experience and analyses in prior rate cases before this Commission as noted above and as I assisted in Staff's

filings in Case Nos. GR-2000-512, WR-2000-844, ER-2001-299, and ER-2001-672. I have also reviewed prior Commission decisions with regard to depreciation issues. I have reviewed the testimony, workpapers and responses to Staff's data requests addressing these issues in prior cases.

I have attended the National Conference of Regulatory Commission Engineers' meeting and symposiums offered on-site on current topics of regulation. I have received formal depreciation training offered by Depreciation Programs, Inc., the Society of Depreciation Professionals, and Gannett Fleming Valuation and Rate Consultants, Inc. I have had on-going discussions with Gannett Fleming technical personnel regarding the functionality of the software, including data input requirements and statistical analysis and interpretation and application of the user's manual.

I have attended electric utility IRP (Integrated Resources Planning) meetings with Staff, where resource planning, capacity upgrades, and proposed generation additions are discussed. I have toured all the major generating facilities of all regulated electric companies in the state of Missouri and met with their engineers, operating personnel and management to discuss plant operations, both past and present, as well as any future activities being considered.

I am currently enrolled at the University of Missouri in a Masters of Public Administration with an anticipated completion date of March 2004. My coursework has included accounting, statistics, research methods, and economics classes. Finally, I successfully passed the Professional Engineering Exam for Mechanical Engineers, which covers engineering design and analysis principles, as well as standards and codes.

Q. When were depreciation rates for the Company last adopted by a Commission order?

A. Depreciation rates were last adopted for the Company by a Stipulation And Agreement in Case Nos. ER-2001-672 and EC-2002-265, effective March 21, 2002 for plant assets of Aquila Networks-MPS-Electric, by a Stipulation And Agreement in Case Nos. ER-99-247 and EC-98-573, effective August 27, 1999 for plant assets of Aquila Networks-L&P-Electric, and by Stipulation And Agreement in Case No HR-99-245, effective August 27, 1999 for plant assets of Aquila Networks-L&P-Steam

DEPRECIATION STUDY

Q. What is the definition of depreciation?

A. Depreciation is the loss, not restored by current maintenance, which is due to all factors causing the ultimate retirement of the property. These factors embrace wear and tear, decay, inadequacy and obsolescence. Annual depreciation is the loss that takes place in a year. Thus, annual depreciation expense, distributed over the life of each asset, yields the full recovery of the original cost of the utility's assets.

Q. Please describe the depreciation study of the Company's electric and steam property that you conducted in this case.

A. I performed a broad group-average life depreciation study. Under the broad group (BG) procedure, all units of plant within a particular depreciation category, usually a plant account or sub account, are considered to be one group. Development of accrual rates is based upon assets' placement history, an estimation of the average service lives (ASL), and dispersion characteristics of the assets' retirements. ASL is a dynamic feature of assets in a plant account, and therefore must be periodically analyzed and revised. The ASL, stated in

units of years, is the average expected life of all units of the group regardless of the placement date. The ASL is determined by an analysis of records of actual annual additions and retirements by vintage (year of placement).

Q. What are the steps involved in life estimation?

A. The four primary steps involve: (1) reviewing the Company's historical placement and retirement plant data for reasonableness and adequacy of sufficient data; (2) touring Company facilities and meeting with Company engineers and plant operations personnel, as well as other Staff, to discuss current developments that may affect the life of plant in service; (3) performing a statistical life analysis of the plant's retirement experience using the Gannett Fleming Depreciation Analysis Software; and (4) applying experience and informed judgment to the results of the software analysis for reasonableness of the ASL results.

Q. If the data are insufficient or the results of the analysis are unreasonable, how does Staff make life estimations?

A. Staff uses informed judgment and recognition of current developments to make a recommendation for life estimation.

Q. How does the Gannett Fleming Depreciation Software develop an ASL?

A. The Company's historical plant data for an account are inputs to the depreciation analyses software. Plant data are plant additions ($) by calendar year, called a vintage, and retirements ($) from each vintage, by calendar year. The software uses a mathematical computation to derive the percentage of dollars surviving, as a function of age, for all vintages combined. The results are graphed as a survivor plot and, using a least

squares method, the results are mathematically fitted to an Iowa-type curve (defined below). A numerical integration of the area under the curve determines the ASL.

Q. What are the Iowa-type curves?

A. The Iowa curves are widely used models of the life characteristics of utility property. The system of Iowa curves is a family of curve shapes empirically derived from analysis of mortality data of 176 types of utility and industrial property. The curves were developed at the Iowa Engineering Experiment Station at what is presently known as Iowa State University. The Iowa curves were first published in 1935 and reconfirmed in 1980.

Q. What are some developments that may be potential reasons that an account's ASL may change over time?

A. Current developments such as technology changes, environmental regulations, regulatory requirements or accounting changes can modify an account's ASL. Changes in the materials from which different vintages of plant were manufactured or changes in the construction process to place these different vintages of plant may affect the number of years newer plant remains in service. This would affect the ASL.

Q. Please describe the depreciation system used by Staff.

A. A depreciation system can be defined with three components: a method, a procedure and a technique. The system used in Staff's depreciation study is the Straight Line Method, a Broad Group Procedure, and the Whole Life Technique. Parameters estimated from service life studies, selection of an appropriate depreciation system, experience and informed knowledge are all utilized to develop an annual depreciation accrual rate.

Q. Why should depreciation studies be conducted periodically?

A. Depreciation studies are needed to assess the continuing reasonableness of parameters and accrual rates derived from prior estimates. Property accounts contain many vintages of plant, placed in service over many years. While the plant function may be the same, the material and construction process may change significantly over time. Other factors that might affect ASL are accounting system changes for designation of unit of property or changes in the method of recording construction costs as current expense or capital investment.

Q. How is an ASL used to establish the annual depreciation expense?

A. An account's ASL divided into 100% (100% / ASL), where the 100% represents all of the plant in service for the account being studied, is the account's depreciation rate, expressed as a percentage. The depreciation rate is used for recovery of original cost of plant over the used and useful life of each account's plant. The Company's annual depreciation expense is the sum of each account's depreciation rate multiplied by the original cost of assets currently in that plant account for each year.

Q. Why is Staff's process for developing an appropriate annual depreciation accrual rate significant to both the Company and the ratepayer?

A. Annual depreciation expense is a portion of the Company's revenue requirement. Allocating costs to the appropriate recovery period is important because it spreads the Company's capital costs over the years that the Company's assets provide services. Development of appropriate depreciation expense is important because the depreciation rates significantly influence the amount that customers will pay to the Company for the capital plant used to provide service.

DEPRECIATION STUDY OF AQUILA NETWORKS-MPS (ELECTRIC) AND L&P (ELECTRIC AND STEAM)

Q. Did you perform a depreciation study of the Company's capital plant?

A. Yes.

Q. Please describe the assignment of the Company's capital plant to the different operating divisions.

A. The Company has two divisions: Aquila Networks-MPS and Aquila Networks-L&P. Aquila Networks-MPS Electric is Total MPS Electric and identifies total MPS electric operations, including Electric, Common, and an allocation of Corporate facilities. Aquila Networks-L&P Electric is Total L&P Electric and identifies total L&P electric operations, including Electric, Common, and an allocation of Corporate facilities. Aquila Networks-L&P Steam is Total L&P Steam and identifies total L&P steam operation, including Steam, Common, and an allocation of Corporate facilities.

Q. Please describe the assignment of general plant to "General," "Common General," and "Corporate General."

A. Assignment of plant to the function "General" is plant specifically used by the utility division for the operation of that service, i.e. electric service. Assignment of plant to the function "Common General" is plant specifically used by the utility division for the shared operation of multiple services in a jurisdiction, i.e. gas, electric and steam services. The Company's two utility divisions' administrative offices are located in Raytown, MO and St. Joseph, MO. Assignment of plant to the function "Corporate General" is plant specifically used at the Company's corporate headquarters at 20 West 9th St, Kansas City, MO. and allocated to each utility division. The corporate headquarters is where the corporate executive's offices and the corporate computer system are located.

Q. How did Staff make a life estimate for the Company's "Steam Production" accounts?

A. Staff made life estimates by using judgment and statistical life analyses of the Sibley steam production plant accounts. Consideration of Account 312.000, Boiler Plant Equipment, provides a range of ASLs from 45 years for the Sibley plant to 75 years for the LakeRoad plant. Additional study of the causes of these widely different ASLs can be completed prior to the Company's next rate filing. However, 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. The results of such data gaps can produce an artificially long ASL. The short history of data and limited retirement history of this account for the Jeffrey Energy Center also limits its statistical review. The Sibley data does not appear to have data gaps. Given these data limitations, Staff recommends its life analyses of the Sibley steam production accounts be utilized to set depreciation rates for the Company's "Steam Production" plant accounts. Given that the plant assets in the respective accounts should be similar, the historical retirement activity should also be similar.

Q. Does Staff have the same data concerns for the Company's "Other Production," "Transmission," "Distribution," and "General" plant accounts?

A. Yes.

Q. How did Staff make a life estimate for the Company's "Other Production," "Transmission," "Distribution," and "General" plant accounts?

A. Staff made life estimates by using judgment and statistical life analyses of the MPS facilities, with the exception of two transmission plant accounts, Account 357.000, Underground Conduit, and Account 358.000, Underground Conductors and Devices. These two accounts had insufficient historical placement and retirement activity for a software analysis. Staff recommends its life analyses of two distribution plant accounts with comparable plant assets, Account 366.000, Underground Conduit, and Account 367.000, Underground Conductors and Devices, be utilized to set depreciation rates for the two transmission plant accounts. Given that the plant assets should be comparable, the historical retirement activity should be comparable.

Additionally, Staff recommends its life analyses of the MPS' "Other Production," "Transmission," "Distribution," and "General" plant accounts be utilized to set depreciation rates for the Company's "Other Production," "Transmission," "Distribution," and "General" plant accounts because the MPS-Electric data does appear to have data gaps. Given that the plant assets in the respective accounts should be similar, the historical retirement activity should also be similar.

Q. How did Staff make a life estimate for the Company's "Common General" and "Corporate General" plant accounts?

A. Again, because of Staff's data concerns with the quality of L&P-Electric's data, Staff made life estimates by using the life analyses from the MPS "General" plant accounts. Staff recommends its life analyses of the MPS' general plant accounts be utilized to set depreciation rates for the Company's "Common General" and "Corporate General" plant accounts. Given that the plant assets in the respective accounts should be similar, the historical retirement activity should also be similar.

Q. How did Staff make a life estimate for the Company's five "Steam Distribution" plant accounts?

A. Staff made life estimates by using judgment and statistical life analyses of L&P's steam distribution plant accounts, with the exception of Account 375.009, Structures and Improvements. Staff recommends its life analysis of a similar steam production account, Account 311.000, Structures and Improvement, be utilized to set depreciation rates for this steam distribution account. Given that the plant assets in the respective accounts should be similar, the historical retirement activity should also be similar.

For the Company's four other "Steam Distribution" accounts, which are unique to the L&P's steam system, Staff reviewed the most recent 40 years of activity. Based on these considerations, Staff recommends its life analyses of these accounts be used to set the depreciation rates for the four remaining "Steam Distribution" accounts.

Q. Has Staff provided the Company the details of Staff's work?

A. Yes. On December 9, 2003 Staff provided the Company a copy of the Schedule 3-1 identifying plant accounts; their respective proposed depreciation rates; proposed ASLs and Iowa Curve selections; currently ordered depreciation rates; the difference in annual depreciation accrual between Staff's proposed depreciation rates and currently ordered depreciation rates as of September 30, 2003; and analysis of the accrued depreciation reserve and theoretical reserve (discussed below) as of December 31, 2002 for corporate accounts and as of December 31, 2001 for the remaining accounts. Staff has also provided the Company on December 9, 2003 a copy of Staff's depreciation study and workpapers.

Q. In summary, what is Staff's recommendation for depreciation rates for the Company's plant accounts?

A. Staff's recommended depreciation rates for the Company's plant assets are presented in Schedule 2-1.

DEPRECIATION RESERVE ANALYSIS

Q. What other analyses are performed in a depreciation study?

A. Another analysis performed in a depreciation study is an examination of the adequacy of the booked depreciation reserve and identification of any reserve over- or under-recovery.

Q. Why does Staff examine the booked depreciation reserve?

A. The analysis is performed to measure how the actual depreciation reserve compares to the dollars that should be in the depreciation reserve based on currently determined ASLs and curve types for each account.

Q. Why is the analysis significant to consumers?

A. This analysis allows the analyst to detect whether prior depreciation estimates have differed significantly from actual experience. Based on this information, the analyst determines whether the cost of service needs adjustment to reflect and correct a significant historical deviation. Cost of service adjustments are reflected in consumer rates.

Q. Did Staff perform an analysis of the booked depreciation reserve?

A. Yes.

Q. Please describe the analysis.

A. An analysis of the booked depreciation reserve is performed by comparing the amount of the booked depreciation reserve as of a certain date to a theoretical depreciation

reserve amount that is determined with the revised average service life and dispersion characteristics of the selected Iowa-type curve on that same date for each account. The theoretical depreciation reserve can be viewed as the **difference** between the original booked cost of plant presently in service and the summation of annual depreciation expense collected between now and the date of final retirement of that plant, using the ASL and dispersion characteristics of the Iowa-type curve selected as the basis for the future depreciation rates. Theoretically, this **difference** is the amount that should be the current booked depreciation reserve, theoretically.

DEPRECIATION RESERVE ANALYSIS FOR AQUILA NETWORKS-MPS (ELECTRIC) AND L&P (ELECTRIC AND STEAM)

Q. What were the results of Staff's examination of the Company's booked depreciation reserve?

A. Staff's results found an approximate $168 million over-accrual of the depreciation accrued reserve for the MPS-Electric and Common plant, an approximate $73 million over-accrual of the depreciation accrued reserve for the L&P-Electric and Common plant, and an approximate $173,000 over-accrual for the L&P-Steam plant. In addition, Staff results found an approximate $10 million under-accrual of the depreciation accrued reserve for MPS' "Corporate General" plant and an approximate $3 million under-accrual of the depreciation accrued reserve for the L&P's "Corporate General" plant.

Q. What are Staff's bases for adjustment for any booked reserve imbalance?

A. The need for, the magnitude of, and the timing of the actual adjustment should be based upon consideration of several factors: the characteristics of the account, the causes of the difference, and the year-to-year volatility of the accumulated provision for depreciation

as well as the magnitude of the imbalance. Future service life cannot be estimated to a degree of certainty that guarantees that the actual life will not be different. In fact, it is possible that the currently determined ASL will differ from the ASL that occurs.

Q. Can Staff identify any factors that created the $168 million dollar over-accrual in the booked reserve for MPS' Electric and Common plant?

A. Yes. Past depreciation rates included a component for cost of removal and gross salvage. The magnitude of this collection was several times the actual amount spent annually. As an example of this, the component of the depreciation rates for cost of removal multiplied times the plant balance for 12-31-2001 generated over $14.5 million annually for cost of removal. As indicated in Staff witness Cary G. Featherstone's direct testimony, the average net amount, for the five years 1998-2002, spent annually for cost of removal was approximately $1.5 million. For interim cost of removal, the Company was on average charging to its MPS-Electric customers over $13 million annually more than the net amount actually spent.

Q. Can Staff identify any factors that created the $10 million under-accrual in the booked reserve for MPS' "Corporate General" plant?

A. Yes. The ordered depreciation rate from Case No. ER-97-394 for "Common General" computer plant accounts was 0%. The ordered depreciation rate from Case No. ER-2001-672 for "Common General" computer plant accounts continued at 0%. It is my understanding that the Company used this ordered rate for the MPS "Corporate General" plant account, creating the existing under-accrual.

Q. What are Staff's recommendations regarding the booked reserve?

A. Staff's first recommendation is that the over-accrual of the booked reserve for the Company's electric, common, and steam assets be noted, but that no adjustment to the reserve made at this time because of the dynamics of depreciation estimation process. After another depreciation study is conducted, trends in the over-accrual can be identified and appropriate steps can be proposed. Evaluation of these booked reserves should be made in future rate filings and, if appropriate, addressed if the relative magnitude changes.

Staff's second recommendation at this time is that the under-accrual of the booked reserve for MPS and L&P's "Corporate General" plant assets be noted, but that no adjustment to the reserve made at this time. Again, after another depreciation study is conducted, trends in the under-accrual can be identified and appropriate steps can be proposed. Evaluation of these booked reserves should be made in future rate filings and, if appropriate, a transfer of dollars from over-accrued accounts to under-accrued accounts be proposed.

Q. Are there any other issues for Staff to address regarding the booked reserve for the Company's "Corporate General" plant accounts?

A. Yes. Staff is currently conducting additional discovery on the booked reserve for these accounts. For further discussion, see Staff witness Steve M. Traxler's direct testimony. Again, Staff is recommending no additional adjustments to the booked reserve be made at this time.

STAFF'S RECOMMENDATIONS

Q. Can you provide a summary of Staff's proposals for depreciation rates and accumulated depreciation reserve?

A. Yes. Staff recommends the Commission order that Staff's Proposed Depreciation Rates based on Staff's ASLs, as shown in the attached Schedule 3-1, be effective on the date of the Commission's order in this case.

Q. Does Staff have any further concerns relating to the Company's depreciation issues?

A. Yes. Staff's concern with the relative magnitude of the Company's net over-accrued depreciation reserve should be noted, but Staff is recommending that the net over-recovery not be reduced at this time. After another depreciation study is conducted, trends in the net over-accrual can be identified and appropriate steps can be proposed. Evaluation of the Company's booked reserves should be made in future rate filings.

Q. Does this conclude your direct testimony?

A. Yes, it does.

CASE PROCEEDING PARTICIPATION

ROSELLA L. SCHAD

COMPANY	CASE NO./ FILING	ISSUES
Union Electric Company d/b/a AmerenUE	GR-2003-0517	Depreciation; Retirement of Production Plant
Northeast Missouri Rural Telephone Company and Modern Telecommunications Company	TM-2002-465 Rebuttal	Depreciation; Plant Upgrades and Improvements
Laclede Gas Company	GR-2002-356 Rebuttal	Decommissioning
Laclede Gas Company	GR-2002-356 Direct	Depreciation
Union Electric Company d/b/a AmerenUE	EC-2002-1 Surrebuttal	Depreciation; Steam Production Plant Retirement Dates; Decommissioning Costs; Callaway Interim Additions
Laclede Gas Company	GR-2001-629 Direct	Depreciation
Ozark Telephone Company	TC-2001-402 Direct	Depreciation Rates
Northeast Missouri Rural Telephone Company	TR-2001-344 Direct, Surrebuttal	Depreciation Rates
Oregon Farmers Mutual Telephone Company	TT-2001-328 Rebuttal	Depreciation Rates
KLM Telephone Company	TT-2001-120 Rebuttal	Depreciation Rates
Holway Telephone Company	TT-2001-119 Rebuttal	Depreciation Rates
Peace Valley Telephone Company	TT-2001-118 Rebuttal	Depreciation Rates
Iamo Telephone Company	TT-2001-116 Rebuttal	Depreciation Rates
Osage Water Company	WR-2000-557 Direct	Depreciation
Osage Water Company	SR-2000-556 Direct	Depreciation

AQUILA, INC. d/b/a AQUILA NETWORKS-MPS (Electric) AND AQUILA NETWORKS – L&P (Electric and Steam) CASE NOS. ER-2004-0034 and HR-2004-0024 (Consolidated)		
ACCOUNT NUMBER	ACCOUNT	Depreciation Rates (%) Staff Proposed
	ER-2004-0034 & HR-2004-0024	
	STEAM PRODUCTION PLANT	
311.000	Structures and Improvements	2.22
312.000	Boiler Plant Eq.	2.22
314.000	Turbogenerator Units	2.22
315.000	Accessory Electric Eq.	2.63
316.000	Miscellaneous Power Plant Eq.	2.86
	STEAM DISTRIBUTION PLANT	
375.009	Structures and Improvements	2.22
376.009	Mains	2.27
379.009	Measuring and Regulating Station Eq.-City Gate	2.27
380.009	Services	2.27
381.009	Meters	4.00
	OTHER PRODUCTION PLANT	
341.000	Structures and Improvements	1.67
342.000	Fuel Holders and Accessories	2.86
343.000	Prime Movers	3.33
344.000	Generators	3.33
345.000	Accessory Electric Eq.	2.63
346.000	Miscellaneous Power Plant Eq.	2.86
	TRANSMISSION PLANT	
352.000	Structures and Improvements	1.67
353.000	Station Eq.	1.92
354.000	Towers and Fixtures	1.85
355.000	Poles and Fixtures	1.85
356.000	Overhead Conductors and Devices	1.67
357.000	Underground Conduit	1.43
358.000	Underground Conductors and Devices	1.92

AQUILA, INC. d/b/a AQUILA NETWORKS-MPS (Electric) AND AQUILA NETWORKS – L&P (Electric and Steam) CASE NOS. ER-2004-0034 and HR-2004-0024 (Consolidated)		
ACCOUNT NUMBER	ACCOUNT	*Depreciation* Rates (%) Staff Proposed
	ER-2004-0034 & HR-2004-0024	
	DISTRIBUTION PLANT	
361.000	Structures and Improvements	1.67
362.000	Station Eq.	1.92
364.000	Poles, Towers and Fixtures	2.27
365.000	Overhead Conductors and Devices	1.82
366.000	Underground Conduit	1.43
367.000	Underground Conductors and Devices	1.92
368.000	Line Transformers	3.23
369.001	Overhead Services	2.27
369.002	Underground Services	2.27
370.001	Meters	2.00
370.002	Load Research Meters	8.33
371.000	Installations on Customers Premises	4.17
373.000	Street Lighting and Signal Systems	3.33
	GENERAL PLANT	
390.001	Structures and Improvements	2.22
391.001	Office Furniture and Eq.	4.55
391.003	Computer Hardware	14.29
391.004	Computer Software	14.29
391.005	Computer Systems Development	14.29
392.000	Transportation Eq.	8.33
393.000	Stores Eq.	3.70
394.000	Tools, Shop and Garage Eq.	3.70
395.000	Laboratory Eq.	3.45
396.000	Power Operated Eq.	6.25
397.000	Communications Eq.	3.45
398.000	Miscellaneous Eq.	4.35

Aquila, Inc. dba Aquila Networks-MPS (Depreciation Rates ER-2004-0034)

ACCOUNT NUMBER	ACCOUNT	Adjusted Jurisdictional Plant Balance ($) 09/30/03	Average Service Life (Years) Staff Proposed	Average Service Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff Proposed	Depreciation Rates (%) Company Proposed	Annual Accrual (Ordered Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	ER-2004-0034 MPS ELECTRIC														
	MPS ELECTRIC														
	STEAM PRODUCTION PLANT														
	JEFFREY ENERGY CENTER PLANT														
311.000	Structures and Improvements	18,021,105	45	39.39	R0.5	3.23	2.22	2.34	582,082	400,069	421,694	18,228,211	12,530,615	4,868,731	7,661,884
312.000	Boiler Plant Eq.	58,268,059	45	37.25	R2	2.58	2.22	2.44	1,503,316	1,293,551	1,421,741	58,347,427	38,461,008	20,965,923	17,495,085
314.000	Turbogenerator Units	17,438,656	45	31.75	R4	3.70	2.22	3.06	645,230	387,138	533,623	16,905,473	7,346,698	5,323,497	2,023,201
315.000	Accessory Electric Eq.	6,282,221	38	44.07	R1.5	3.46	2.63	1.91	217,365	165,222	119,990	5,920,401	3,827,584	2,206,171	1,621,413
316.000	Miscellaneous Power Plant Eq.	1,501,241	35	28.17	R5	3.13	2.86	3.78	46,989	42,935	56,747	1,462,927	373,430	394,298	(20,868)
	Jeffrey Energy Center Steam Production Plant:	101,511,282							2,994,982	2,288,915	2,553,795	100,864,439	62,539,335	33,758,620	28,780,715
	SIBLEY PLANT														
311.000	Structures and Improvements	36,733,820	45	24.68	R0.5	3.23	2.22	4.58	1,186,502	815,491	1,682,409	38,543,083	22,471,308	8,384,301	14,087,007
312.000	Boiler Plant Eq.	137,225,849	45	23.36	R2	2.43	2.22	4.98	3,334,588	3,046,414	6,833,847	132,699,434	66,732,757	36,344,012	30,388,745
314.000	Turbogenerator Units	54,113,141	45	21.28	R4	2.60	2.22	5.37	1,406,942	1,201,312	2,905,876	57,803,236	28,000,921	18,113,825	9,887,096
315.000	Accessory Electric Eq.	14,581,584	38	23.29	R1.5	3.46	2.63	4.86	504,523	383,496	708,665	17,977,336	8,451,115	5,910,595	2,540,520
316.000	Miscellaneous Power Plant Eq.	558,583	35	26.72	R5	3.13	2.86	3.86	17,484	15,975	21,561	610,805	380,481	337,255	43,226
	Sibley Steam Production Plant:	243,212,977							6,450,039	5,462,688	12,152,358	247,633,694	126,036,582	69,089,988	56,946,594
	OTHER PRODUCTION PLANT														
341.000	Structures and Improvements	1,319,412	60	23.25	R2	2.49	1.67	3.34	32,853	22,034	44,068	2,133,946	952,953	296,731	656,222
342.000	Fuel Holders and Accessories	488,703	35	21.81	R5	3.06	2.86	3.58	14,342	13,405	16,780	1,286,981	985,824	352,802	633,022
343.000	Prime Movers	6,676,157	30	19.46	R2	4.15	3.33	4.78	277,061	222,316	319,120	10,957,158	2,990,982	1,464,042	1,526,940
343.001	Wind Turbines	179,373	30	23.45	R2	4.15	3.33	4.22	7,444	5,973	7,570	179,373	20,756	13,399	7,357
344.000	Generators	8,682,169	30	23.43	R5	3.13	3.33	3.39	271,752	289,116	294,326	11,133,659	5,939,906	3,438,867	2,501,039
345.000	Accessory Electric Eq.	1,996,503	38	21.58	R1.5	3.19	2.63	3.70	63,688	52,508	73,871	3,049,611	1,492,284	582,807	909,477
346.000	Miscellaneous Power Plant Eq.	20,000	35	13.66	R5	2.75	2.86	7.13	550	572	1,426	851,895	(36,277)	17,507	(53,784)
	Other Production Plant:	19,342,317							667,691	605,924	757,160	29,592,623	12,346,428	6,166,155	6,180,273
	GREENWOOD ENERGY CENTER PLANT														
341.000	Structures and Improvements	1,940,749	60	23.25	R2	2.49	1.67	3.34	48,325	32,411	64,821	0	0		
342.000	Fuel Holders and Accessories	1,949,278	35	21.81	R5	3.06	2.86	3.58	59,648	55,749	69,784	0	0		
343.000	Prime Movers	28,128,541	30	19.46	R2	4.15	3.33	4.78	1,167,334	936,680	1,344,544	0	0		
344.000	Generators	6,656,186	30	23.43	R5	3.13	3.33	3.39	208,339	221,651	225,645	0	0		
345.000	Accessory Electric Eq.	4,675,977	38	21.58	R1.5	3.19	2.63	3.70	155,544	128,238	180,411	0	0		
346.000	Miscellaneous Power Plant Eq.	0	35	13.66	R5	2.75	2.86	7.13	0	0	0	0	0		
	Greenwood Energy Center Plant:	43,550,731							1,639,189	1,374,729	1,885,205	0	0		
	TRANSMISSION PLANT														
352.000	Structures and Improvements	2,816,863	60	60.36	S6	2.22	1.67	1.60	62,534	47,042	45,070	2,641,211	1,060,357	894,446	165,911
353.000	Station Eq.	70,732,971	52	60.17	R1.5	2.00	1.92	1.63	1,414,659	1,358,073	1,152,947	70,387,348	23,303,271	16,101,158	7,202,113
354.000	Towers and Fixtures	319,399	54	53.92	L5	1.82	1.85	1.35	5,813	5,909	4,312	332,143	265,873	178,905	86,968
355.000	Poles and Fixtures	45,766,593	54	55.05	S0.5	2.08	1.85	2.71	951,945	846,682	1,240,275	40,942,159	13,674,165	8,523,615	5,150,550
356.000	Overhead Conductors and Devices	39,817,040	60	59.92	R2	1.85	1.67	2.12	736,615	664,945	844,121	36,918,960	15,581,196	9,095,284	6,485,912
357.000	Underground Conduit	0	70		R2		1.43		0	0	0	0	0		0
358.000	Underground Conductors and Devices	57,200	52	60.27	L2	3.13	1.92	1.69	1,790	198	967	57,959	37,602	23,075	14,527
	Transmission Plant:	159,510,066							3,173,358	2,923,749	3,287,692	151,279,780	53,922,464	34,816,483	19,105,981

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ACCOUNT NUMBER	ACCOUNT	Adjusted Jurisdictional Plant Balance ($) 09/30/03	Average Service Life (Years) Staff Proposed	Average Service Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff Proposed	Depreciation Rates (%) Company Proposed	Annual Accrual (Ordered Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	DISTRIBUTION PLANT														
361.000	Structures and Improvements	4,431,460	60	60.04	R3	2.33	1.67	1.82	103,253	74,005	80,653	3,354,806	955,391	747,013	208,378
362.000	Station Eq.	62,330,057	52	54.62	R1	2.27	1.92	1.89	1,414,892	1,196,737	1,178,038	56,207,405	16,606,811	9,841,286	6,765,525
364.000	Poles, Towers and Fixtures	106,567,056	44	43.16	L4	2.50	2.27	4.03	2,664,176	2,419,072	4,294,652	96,704,253	45,902,961	32,358,677	13,544,284
365.000	Overhead Conductors and Devices	63,276,199	55	54.82	R2	2.00	1.82	2.36	1,265,524	1,151,627	1,493,318	59,931,318	23,158,544	14,742,573	8,415,971
366.000	Underground Conduit	27,122,517	70	54.91	R2	1.82	1.43	2.00	493,630	387,852	542,450	22,660,951	4,350,642	2,601,935	1,748,707
367.000	Underground Conductors and Devices	73,336,707	52	44.91	L2	2.70	1.92	2.66	1,980,091	1,408,065	1,950,756	66,527,910	18,350,441	12,250,922	6,099,519
368.000	Line Transformers	110,051,478	31	30.02	R2.5	3.45	3.23	3.80	3,796,776	3,554,663	5,181,956	99,095,931	31,934,540	31,757,096	177,444
369.001	Overhead Services	12,115,199	44	55.07	R5	2.08	2.27	4.58	251,996	275,015	554,876	11,774,224	9,420,248	5,358,032	4,062,216
369.002	Underground Services	39,996,050	44	35.05	S3	3.57	2.27	3.26	1,427,859	907,910	1,303,870	36,748,862	15,010,918	8,802,640	6,208,278
370.001	Meters	22,909,713	50	50.18	R3	2.50	2.00	2.08	572,743	458,194	476,522	21,420,615	10,142,768	7,051,265	3,091,503
370.002	Load Research Meters	2,036,703	12	12.16	S6	10.00	8.33	7.95	203,670	169,657	161,918	2,045,596	1,081,366	1,239,048	(157,682)
371.000	Installations on Customers Premises	12,001,385	24	24.97	R2	5.00	4.17	5.19	600,069	500,458	622,872	11,384,984	4,968,709	3,437,371	1,531,338
373.000	Street Lighting and Signal Systems	19,929,409	30	30.36	L1	3.70	3.33	3.59	737,388	663,649	715,466	18,265,202	6,237,359	4,496,592	1,740,767
	Distribution Plant:	556,103,933							15,512,069	13,166,904	17,557,349	506,122,057	188,120,698	134,684,450	53,436,248
	GENERAL PLANT														
390.001	Structures and Improvements	8,846,812	45	40.26	R1.5	2.22	2.22	2.74	196,399	196,399	242,403	8,627,571	847,289	2,092,511	(1,245,222)
391.001	Office Furniture and Eq.	1,197,081	22	18.17	L4	3.60	4.55	4.76	43,095	54,467	56,981	843,885	90,631	216,147	(125,516)
391.003	Computer Hardware	1,600,957	7	5.99	S2	10.00	14.29	13.10	160,096	228,777	209,725	1,981,733	108,350	851,544	(743,194)
391.004	Computer Software	226,663	7	6.02	S2	10.00	14.29	8.33	22,666	32,390	18,881	247,261	45,720	116,614	(70,894)
391.005	Computer Systems Development	39,699	7		S2		14.29		0	5,673	0	0	0	0	0
392.000	Transportation Eq.	1,966,925	12	13.46	S5	0.00	8.33	5.38	0	163,845	105,821	466,243	262,289	198,356	63,933
393.000	Stores Eq.	90,682	27	26.25	L1	5.56	3.70	3.09	5,042	3,355	2,802	98,332	61,831	35,341	26,490
394.000	Tools, Shop and Garage Eq.	3,032,056	27	23.37	L0	6.25	3.70	3.79	189,504	112,186	114,915	2,467,415	2,105,229	597,735	1,507,494
395.000	Laboratory Eq.	1,879,224	29	27.98	R2.5	4.00	3.45	2.94	75,169	64,833	55,249	1,805,261	920,506	591,852	328,654
396.000	Power Operated Eq.	3,504,203	16	14.65	S6	0.00	6.25	5.42	0	219,013	189,928	2,583,837	1,119,345	1,262,893	(143,548)
397.000	Communications Eq.	6,915,177	29	26.50	S2	6.25	3.45	3.08	432,199	238,574	212,987	5,962,555	5,091,471	2,287,200	2,804,271
398.000	Miscellaneous Eq.	133,162	23	22.41	L4	5.00	4.35	3.23	6,658	5,793	4,301	121,170	92,462	53,523	38,939
	General Plant:	29,432,641							1,130,827	1,325,305	1,213,993	25,205,263	10,745,123	8,303,716	2,441,407
	MPS Electric Utility Plant	1,152,663,947							31,568,154	27,148,214	39,407,552	1,060,697,856	453,710,630	286,819,412	166,891,218
	MPS ELECTRIC COMMON GENERAL UTILITY														
390.001	Structures and Improvements	6,093,869	45	39.73	R1.5	2.22	2.22	2.44	135,284	135,284	148,690	6,228,235	1,038,051	1,322,663	(284,612)
391.001	Office Furniture and Eq.	1,039,834	22	19.72	L4	7.69	4.55	3.88	79,963	47,312	40,348	1,241,962	900,971	689,908	211,063
391.003	Computer Hardware	401,322	7	10.04	S2	0.00	14.29	7.65	0	57,349	30,701	150,782	102,362	47,901	54,461
391.004	Computer Software	1,288	7		S2	0.00	14.29		0	184	0	0	0	0	0
391.005	Computer Systems Development	0	7		S2		14.29		0	0	0	0	0	0	0
392.000	Transportation Eq.	1,327,961	12	11.23	S5	11.11	8.33	3.13	147,536	110,619	41,565	7,043,398	6,093,508	5,180,162	913,346
393.000	Stores Eq.	(91,571)	27	15.91	L1	5.56	3.70	4.33	0	0	0	14,724	4,337	6,247	(1,910)
394.000	Tools, Shop and Garage Eq.	137,159	27	15.77	L0		3.70	3.19	0	5,075	4,375	141,872	115,570	28,430	87,140
395.000	Laboratory Eq.	18,139	29	15.20	R2.5		3.45	4.40	0	626	798	17,867	6,203	3,742	2,461
396.000	Power Operated Eq.	145,847	16	13.11	R6	6.67	6.25	4.59	9,728	9,115	6,694	1,408,853	1,104,358	826,014	278,344
397.000	Communications Eq.	1,616,019	29	26.31	S2	5.00	3.45	2.83	80,801	55,753	45,733	2,755,152	1,247,278	1,044,721	202,557
398.000	Miscellaneous Eq.	(42,807)	23	24.79	L4	5.56	4.35	3.01	(2,380)	(1,862)	(1,288)	67,991	55,945	39,656	16,289
	MPS Electric Common General Plant	10,647,060							450,932	419,455	317,314	19,070,836	10,668,583	9,189,444	1,479,139
	MPS Electric and Common Utility Plant	1,163,311,007							32,019,086	27,567,669	39,724,866	1,079,768,692	464,379,213	296,008,856	168,370,357

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ACCOUNT NUMBER	ACCOUNT	Adjusted Jurisdictional Plant Balance ($) 09/30/03	Average Service Life (Years) Staff Proposed	Average Service Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff Proposed	Depreciation Rates (%) Company Proposed	Annual Accrual (Ordered Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	MPS ELECTRIC CORPORATE PLANT											12/31/02	MO %12/31/2002	MO %12/31/2002	MO %12/31/2002
	GENERAL PLANT														
390.001	Structures and Improvements	11,879,817	45	44.97	R1.5	2.22	2.22	2.44	263,732	263,732	289,868	16,586,756	1,126,697	1,356,030	(229,333)
391.001	Office Furniture and Eq.	2,848,821	22	19.95	L4	7.69	4.55	5.78	219,074	129,621	164,682	3,283,822	289,291	536,306	(247,015)
391.003	Computers-Hardware	3,298,270	7	4.95	S2		14.29	33.16	0	471,323	1,093,706	3,847,681	(465,078)	1,097,260	(1,562,338)
391.004	Computers-Software	18,492,597	7	9.85	S2		14.29	13.74	0	2,642,592	2,540,683	21,104,602	2,808,430	7,991,550	(5,383,120)
391.005	Computer Systems Development	5,223,306	7	9.37	S2		14.29	19.87	0	746,410	1,037,871	5,636,230	1,249,231	3,655,660	(2,406,429)
392.004	Transportation Eq.	5,183	12	11.27	S5	11.11	8.33	48.33	576	432	2,505	5,688	(2,813)	2,247	(5,060)
393.000	Stores Eq.	0	27		L1		3.70		0	0	0	0	0	0	0
394.000	Tools, Shop and Garage Eq.	68,753	27	20.39	L0		3.70	7.70	0	2,544	5,294	83,065	66,090	17,080	49,010
395.000	Laboratory Eq.	14,764	29	15.11	R2.5		3.45	15.25	0	509	2,252	16,201	1,867	4,800	(2,933)
396.000	Power Operated Eq.	0	16		R6		6.25		0	0	0	0	0	0	0
397.000	Communication Eq.	2,507,367	29	9.97	S2	5.00	3.45	16.01	125,368	86,504	401,429	2,065,696	220,960	314,718	(93,758)
398.000	Miscellaneous Eq.	113,111	23	10.07	L4	5.56	4.35	16.58	6,289	4,920	18,754	146,187	74,307	29,899	44,408
	MPS Electric Corporate General Plant:	44,451,989							615,039	4,348,587	5,557,224	52,775,928	5,168,982	15,005,550	(9,836,568)
	Total MPS Electric Utility Plant	1,207,762,996							32,634,125	31,916,256	45,282,090	1,132,544,620	469,548,195	311,014,406	158,533,789

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ACCOUNT NUMBER	ACCOUNT	Adjusted Jurisdictional Plant Balance ($) 09/30/03	Average Service Life (Years) Staff Proposed	Average Service Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff Proposed	Depreciation Rates (%) Company Proposed	Annual Accrual (Current Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	ER-2004-0034 SJLP ELECTRIC														
	SJLP ELECTRIC														
	STEAM PRODUCTION PLANT														
	LAKE ROAD PLANT														
311.000	Structures and Improvements	9,978,408	45	20.82	R0.5	4.40	2.22	5.59	439,050	221,521	557,793	10,872,761	3,755,763	2,432,979	1,322,784
312.000	Boiler Plant Eq.	38,555,273	45	20.26	R2	4.00	2.22	5.76	1,542,211	855,927	2,220,784	43,130,173	24,090,086	12,493,030	11,597,056
314.000	Turbogenerator Units	12,205,371	45	24.16	R4	3.90	2.22	4.83	476,009	270,959	589,519	11,050,685	7,725,161	5,540,130	2,185,031
315.000	Accessory Electric Eq.	2,609,074	38	23.29	R1.5	3.80	2.63	4.95	99,145	68,619	129,149	3,170,631	2,332,554	1,293,861	1,038,693
316.000	Miscellaneous Power Plant Eq.	168,786	35	19.26	R5	3.50	2.86	6.41	5,908	4,827	10,819	241,084	160,176	97,510	62,666
	Lake Road Steam Production Plant	63,516,912							2,562,323	1,421,853	3,508,064	68,465,334	38,063,740	21,857,510	16,206,230
	IATAN PLANT														
311.000	Structures and Improvements	4,280,260	45	29.64	R0.5	3.30	2.22	3.76	141,249	95,022	160,938	4,330,795	1,946,278	1,086,471	859,807
312.000	Boiler Plant Eq.	40,164,398	45	32.14	R2	3.60	2.22	3.39	1,445,918	891,650	1,361,573	39,984,117	28,338,286	17,839,348	10,498,938
314.000	Turbogenerator Units	10,918,920	45	32.62	R4	3.10	2.22	3.47	338,487	242,400	378,887	10,812,431	6,493,364	4,857,356	1,636,008
315.000	Accessory Electric Eq.	4,421,744	38	31.72	R1.5	3.20	2.63	3.54	141,496	116,292	156,530	5,198,475	4,005,632	2,085,208	1,920,424
316.000	Miscellaneous Power Plant Eq.	774,574	35	25.41	R5	3.50	2.86	4.34	27,110	22,153	33,617	723,964	493,682	306,729	186,953
	Iatan Steam Production Plant	60,559,896							2,094,259	1,367,516	2,091,544	61,049,782	41,277,242	26,175,112	15,102,130
	OTHER PRODUCTION PLANT														
341.000	Structures and Improvements	1,297,205	60	35.49	R2	0.00	1.67	0.34	0	21,663	4,410	1,298,083	1,186,441	435,024	751,417
342.000	Fuel Holders and Accessories	605,108	35	38.64	R5	0.00	2.86	(0.06)	0	17,306	(363)	605,108	601,415	442,712	158,703
343.000	Prime Movers	10,773,255	30	28.00	R2	4.70	3.33	1.65	506,343	358,749	177,759	10,409,845	8,469,967	4,505,872	3,964,095
344.000	Generators	2,750,470	30	33.49	R5	0.00	3.33	1.13	0	91,591	31,080	2,792,302	2,792,302	2,018,946	773,356
345.000	Accessory Electric Eq.	1,126,064	38	29.36	R1.5	4.80	2.63	1.36	54,051	29,615	15,314	1,116,283	687,372	385,550	301,822
346.000	Miscellaneous Power Plant Eq.	0	35		R5		2.86		0	0	0	0	0	0	0
	Other Production Plant	16,552,102							560,394	518,925	228,201	16,221,621	13,737,497	7,788,104	5,949,393
	TRANSMISSION PLANT														
352.000	Structures and Improvements	272,023	60	60.02	S6	1.90	1.67	1.38	5,168	4,543	3,754	272,023	155,256	77,057	78,199
353.000	Station Eq.	10,794,682	52	30.17	R1.5	3.90	1.92	1.77	420,993	207,258	191,066	8,619,075	4,013,883	1,776,795	2,237,088
354.000	Towers and Fixtures	0	54		L5		1.85		0	0	0	- 0	0	0	0
355.000	Poles and Fixtures	8,440,304	54	60.76	S0.5	2.60	1.85	1.64	219,448	156,146	138,421	9,088,521	7,473,943	2,746,320	4,727,623
356.000	Overhead Conductors and Devices	7,514,142	60	60.30	R2	2.30	1.67	1.37	172,825	125,486	102,944	7,949,371	5,606,990	2,675,833	2,931,157
357.000	Underground Conduit	16,148	70	60.00	R2	1.70	1.43	1.55	275	231	250	16,148	2,890	1,912	978
358.000	Underground Conductors and Devices	31,692	52	60.75	L2	2.40	1.92	1.32	761	608	418	31,692	24,684	11,173	13,511
	Transmission Plant	27,068,991							819,469	494,272	436,853	25,976,830	17,277,646	7,289,090	9,988,556

Aquila, Inc. dba Aquila Networks-SJLP (Depreciation Rates ER-2004-0034)

ACCOUNT NUMBER	ACCOUNT	Adjusted Jurisdictional Plant Balance ($) 09/30/03	Average Service Life (Years) Staff Proposed	Average Service Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff *Proposed*	Depreciation Rates (%) Company *Proposed*	Annual Accrual (Current Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	DISTRIBUTION PLANT														
361.000	Structures and Improvements	1,894,316	60	50.15	R3	2.00	1.67	2.16	37,886	31,635	40,917	1,892,325	205,256	153,343	51,913
362.000	Station Eq.	30,678,517	52	50.27	R1	3.90	1.92	2.26	1,196,462	589,028	693,334	29,270,625	12,370,556	5,754,930	6,615,626
364.000	Poles, Towers and Fixtures	23,297,078	44	45.37	L4	3.50	2.27	3.36	815,398	528,844	782,782	21,560,742	9,970,543	7,878,760	2,091,783
365.000	Overhead Conductors and Devices	19,704,156	55	55.30	R2	2.90	1.82	2.33	571,421	358,616	459,107	19,226,885	8,655,258	5,351,255	3,304,003
366.000	Underground Conduit	5,768,601	70	55.03	R2	2.00	1.43	2.45	115,372	82,491	141,331	5,089,186	1,182,646	728,385	454,261
367.000	Underground Conductors and Devices	13,728,336	52	49.98	L2	2.00	1.92	2.22	274,567	263,584	304,769	12,922,690	3,168,535	2,412,439	756,096
368.000	Line Transformers	25,227,624	31	40.22	R2.5	2.80	3.23	2.75	706,373	814,852	693,760	22,711,503	13,137,259	8,864,139	4,273,120
369.001	Services-Overhead	2,807,919	44	50.22	R5	4.50	2.27	3.64	126,356	63,740	102,208	2,565,101	2,547,403	1,618,148	929,255
369.002	Services-Underground	7,451,826	44	35.07	S3	4.50	2.27	2.96	335,332	169,156	220,574	7,294,246	2,696,509	1,673,063	1,023,446
370.001	Meters	6,705,770	50	40.63	R3	3.40	2.00	2.20	227,996	134,115	147,527	6,465,205	3,998,735	2,249,685	1,749,050
370.002	Load Research Meters	0	12	40.63	S6	3.40	8.33	2.20	0	0	0			0	0
371.000	Installations on Customers Premises	3,318,858	24	17.07	R2	7.20	4.17	5.00	238,958	138,396	165,943	3,010,295	888,793	813,455	75,338
373.000	Street Lighting and Signal Systems	3,947,695	30	25.29	L1	6.90	3.33	4.44	272,391	131,458	175,278	3,771,314	1,238,032	721,864	516,168
	Distribution Plant	144,530,696							4,918,512	3,305,915	3,927,530	135,780,117	60,059,525	38,219,466	21,840,059
	GENERAL PLANT														
390.001	Structures and Improvements	4,922,591	45		R1.5	3.10	2.22			109,282	0	0	0	0	0
391.001	Office Furniture and Eq.	711,111	22	16.11	L4	7.00	4.55	1.97	49,778	32,356	14,009	220,641	29,353	79,766	(50,413)
391.003	Computer Hardware	1,059,091	7	10.01	S2	0.00	14.29	5.74	0	151,344	60,792	235,792	151,793	71,506	80,287
391.004	Computer Software	579,791	7	11.09	S2	14.30	14.29	4.59	82,910	82,852	26,612	265,517	88,224	138,001	(49,777)
391.005	Computer Systems Development	0	7		S2		14.29		0	0	0	0	0	0	0
392.000	Transportation Eq.	1,396,807	12		S5	6.20	8.33		86,602	116,354	0	270,805	276,950	228,848	48,102
393.000	Stores Eq.	13,468	27	26.78	L1	5.00	3.70	1.05	673	498	141	13,539	8,637	4,434	4,203
394.000	Tools, Shop and Garage Eq.	1,604,988	27	24.38	L0	4.40	3.70	6.78	70,619	59,385	108,818	536,660	263,667	94,437	169,230
395.000	Laboratory Eq.	329,095	29	23.27	R2.5	3.40	3.45	(0.76)	11,189	11,354	(2,501)	325,874	171,329	119,298	52,031
396.000	Power Operated Eq.	915,398	16		R6	3.90	6.25		35,701	57,212	0	864,775	326,888	564,109	(237,221)
397.000	Communications Eq.	188,917	29	25.36	S2	4.90	3.45	0.55	9,257	6,518	1,039	598,798	407,609	232,822	174,787
398.000	Miscellaneous Eq.	83,250	23	25.69	L4	3.60	4.35	3.04	2,997	3,621	2,531	33,963	13,914	16,557	(2,643)
	General Plant	11,804,507							349,726	630,775	211,441	3,366,364	1,738,364	1,549,778	188,586
	SJLP Electric Utility Plant	324,033,104							11,304,684	7,739,257	10,403,633	310,860,048	172,154,014	102,879,060	69,274,954
	SJLP ELECTRIC COMMON GENERAL PLANT														
390.001	Structures and Improvements	5,983,973	45	40.19	R1.5	3.10	2.22	1.66	185,503	132,844	99,334	10,660,323	4,778,843	3,323,652	1,455,191
391.001	Office Furniture and Eq.	37,897	22	20.17	L4	7.00	4.55	3.43	2,653	1,724	1,300	1,425,582	604,510	707,255	(102,745)
391.003	Computer Hardware	311,916	7	13.97	S2	0.00	14.29	4.02	0	44,573	12,539	3,783,535	3,608,923	2,950,279	658,644
391.004	Computer Software	2,918	7	13.40	S2	14.30	14.29	5.15	417	417	150	3,831,650	3,831,650	2,663,908	1,167,742
391.005	Computer Systems Development	0	7		S2		14.29		0	0	0	0	0	0	0
392.000	Transportation Eq.	958,707	12	12.99	S5	6.20	8.33	3.17	59,440	79,860	30,391	4,214,102	3,025,869	2,735,607	290,262
393.000	Stores Eq.	137,247	27	30.66	L1	5.00	3.70	1.45	6,862	5,078	1,990	137,302	108,389	56,290	52,099
394.000	Tools, Shop and Garage Eq.	72,056	27	25.59	L0	4.40	3.70	2.71	3,170	2,666	1,953	1,164,568	464,922	247,411	217,511
395.000	Laboratory Eq.	274,928	29	26.34	R2.5	3.40	3.45	2.04	9,348	9,485	5,609	225,497	146,827	96,132	50,695
396.000	Power Operated Eq.	346,710	16	18.91	R6	3.90	6.25	2.07	13,522	21,669	7,177	470,793	221,076	335,227	(114,151)
397.000	Communications Eq.	663,665	29	4.90	S2	4.90	3.45	3.23	32,520	22,896	21,436	2,398,872	1,154,481	685,158	469,323
398.000	Miscellaneous Eq.	20,631	23	25.62	L4	3.60	4.35	3.19	743	897	658	107,147	45,782	43,067	2,715
	SJLP Electric Common General Plant	8,810,648							314,177	322,111	182,537	28,419,371	17,991,272	13,843,986	4,147,286
	SJLP Electric And Common Utility Plant	332,843,752							11,618,862	8,061,368	10,586,170	339,279,419	190,145,286	116,723,046	73,422,240

Aquila, Inc. dba Aquila Networks-SJLP (Depreciation Rates ER-2004-0034)

ACCOUNT NUMBER	ACCOUNT	Adjusted Jurisdictional Plant Balance ($) 09/30/03	Average Service Life (Years) Staff Proposed	Average Service Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff Proposed	Depreciation Rates (%) Company Proposed	Annual Accrual (Current Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	SJLP ELECTRIC CORPORATE PLANT											12/31/02	MO %12/31/2002	MO %12/31/2002	MO %12/31/2002
	GENERAL PLANT														
390.001	Structures and Improvements	4,272,094	45	44.97	R1.5	2.22	2.22	2.44	94,840	94,840	104,239	5,376,667	364,751	438,996	(74,245)
391.001	Office Furniture and Eq.	1,008,321	22	19.95	L4	7.69	4.55	5.78	77,540	45,879	58,281	1,064,429	93,701	173,709	(80,008)
391.003	Computers-Hardware	1,127,481	7	4.95	S2		14.29	33.10	0	161,117	373,196	1,222,539	(149,101)	351,775	(500,876)
391.004	Computers-Software	6,036,087	7	9.85	S2		14.29	13.73	0	862,557	828,755	6,356,093	795,206	2,436,310	(1,641,104)
391.005	Computer Systems Development	2,289,622	7	9.37	S2		14.29	19.82	0	327,187	453,803	2,249,268	498,535	1,458,880	(960,345)
392.004	Transportation Eq.	1,826	12	11.27	S5	11.11	8.33	48.13	203	152	879	1,851	(915)	1,561	(2,476)
393.000	Stores Eq.	0	27		L1		3.70		0	0	0	0	0	0	0
394.000	Tools, Shop and Garage Eq.	24,755	27	20.39	L0		3.70	7.68	0	916	1,901	27,014	21,512	5,560	15,952
395.000	Laboratory Eq.	5,202	29	15.11	R2.5		3.45	15.20	0	179	791	5,273	608	1,563	(955)
396.000	Power Operated Eq.	0	16		R6		6.25		0	0	0	0	0	0	0
397.000	Communication Eq.	858,258	29	9.97	S2	5.00	3.45	15.97	42,913	29,610	137,064	742,934	79,625	113,412	(33,787)
398.000	Miscellaneous Eq.	40,685	23	10.07	L4	5.56	4.35	16.55	2,262	1,770	6,733	47,361	24,069	9,685	14,384
	SJLP Electric Corporate General Plant	15,664,331							217,758	1,524,207	1,965,642	17,093,429	1,727,991	4,991,451	(3,263,460)
	Total SJLP Electric Utility Plant	348,508,083							11,836,620	9,585,575	12,551,812	356,372,848	191,873,277	121,714,497	70,158,780

Aquila, Inc. dba Aquila Networks-SJLP (Depreciation Rates HR-2004-0024)

ACCOUNT NUMBER	ACCOUNT	Adjusted Jurisdictional Plant Balance ($) 09/30/03	Average Service Life (Years) Staff Proposed	Average Service Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff Proposed	Depreciation Rates (%) Company Proposed	Annual Accrual (Ordered Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	HR-2004-0024 SJLP INDUSTRIAL STEAM														
	SJLP INDUSTRIAL STEAM														
	INDUSTRIAL STEAM PRODUCTION PLANT														
311.009	Structures and Improvements	64,204	45	35.49	R0.5	4.40	2.22	0.34	2,825	1,425	218	84,675	1,513	44,025	(42,512)
312.009	Boiler Plant Eq.	267,625	45	38.64	R2	4.00	2.22	(0.06)	10,705	5,941	(161)	294,172	68,903	160,183	(91,280)
315.009	Accessory Electric Eq.	270,852	38	28.00	R4	3.80	2.63	1.65	10,292	7,123	4,469	270,046	123,025	81,271	41,754
316.009	Miscellaneous Power Plant Eq.	0	35	33.49	R5	3.50	2.86	1.13	0	0	0	0	0	0	0
	Industrial Steam Production Plant:	602,681							23,822	14,490	4,527	648,893	193,441	285,479	(92,038)
	DISTRIBUTION PLANT														
375.009	Structures and Improvements	75,947	45	22.48	R0.5	2.0	2.22	6.28	1,519	1,686	4,769	78,278	28,069	15,089	12,980
376.009	Mains-Steam	1,491,076	44	26.72	R2	2.5	2.27	5.86	37,277	33,847	87,377	1,448,150	695,327	559,347	135,980
379.009	Measuring and Regulating Station Eq.-City Gate	585,299	44	21.49	R3	3.0	2.27	6.55	17,559	13,286	38,337	582,661	254,868	157,940	96,928
380.009	Services-Steam	101,492	44	25.79	S5	3.0	2.27	6.00	3,045	2,304	6,090	102,362	72,671	38,455	34,216
381.009	Meters-Steam	290,942	25	19.19	L4	4.0	4.00	6.64	11,638	11,638	19,319	302,006	114,834	129,708	(14,874)
	Industrial Steam Distribution Plant:	2,544,756							71,037	62,761	155,892	2,513,457	1,165,769	900,539	265,230
	SJLP Industrial Steam Utility Plant:	3,147,437							77,251	160,418		3,162,350	1,359,210	1,186,018	173,192
	STEAM PRODUCTION PLANT														
	LAKE ROAD PLANT														
311.000	Structures and Improvements	784,612	45	20.82	R0.5	4.40	2.22	5.59	34,523	17,418	43,860				
312.000	Boiler Plant Eq.	4,864,752	21	20.26	R2.5	4.00	4.76	5.76	194,590	231,562	280,210				
314.000	Turbogenerator Units	17,346	22	24.16	R1	3.90	4.55	4.83	676	789	838				
315.000	Accessory Electric Eq.	62,686	38	23.29	R1.5	3.80	2.63	4.95	2,382	1,649	3,103				
316.000	Miscellaneous Power Plant Eq.	19,023	35	19.26	R5	3.50	2.86	6.41	666	544	1,219				
	Lake Road Steam Production Plant:	5,748,419							232,837	251,963	329,230				
	GENERAL PLANT														
390.001	Structures and Improvements	0	45		R1.5	3.10	2.22			0	0				
391.001	Office Furniture and Eq.	35,539	22	16.11	L4	7.00	4.55	1.97	2,488	1,617	700				
391.003	Computer Hardware	32,040	7	10.01	S2	0.00	14.29	5.74	0	4,579	1,839				
391.004	Computer Software	8,956	7	11.09	S2	14.30	14.29	4.59	1,281	1,280	411				
391.005	Computer Systems Development	0	7		S2		14.29		0	0	0				
392.000	Transportation Eq.	24,971	12		S5	6.20	8.33		1,548	2,080	0				
393.000	Stores Eq.	71	27	26.78	L1	5.00	3.70	1.05	4	3	1				
394.000	Tools, Shop and Garage Eq.	36,850	27	24.38	L0	4.40	3.70	6.78	1,621	1,363	2,498				
395.000	Laboratory Eq.	30,309	29	23.27	R2.5	3.40	3.45	(0.76)	1,031	1,046	(230)				
396.000	Power Operated Eq.	84,305	16		R6	3.90	6.25		3,288	5,269	0				
397.000	Communications Eq.	9,377	29	25.36	S2	4.90	3.45	0.55	459	324	52				
398.000	Miscellaneous Eq.	863	23	25.69	L4	3.60	4.35	3.04	31	38	26				
	General Plant:	263,281							11,751	17,597	5,297				

Aquila, Inc. dba Aquila Networks-SJLP (Depreciation Rates HR-2004-0024)

ACCOUNT NUMBER	ACCOUNT	*Adjusted* Jurisdictional Plant Balance ($) 09/30/03	Average *Service* Life (Years) Staff Proposed	Average *Service* Life (Years) Company Proposed	Iowa Curve Staff Proposed	Depreciation Rates (%) Ordered	Depreciation Rates (%) Staff *Proposed*	Depreciation Rates (%) Company *Proposed*	Annual Accrual (Ordered Depreciation Rates) ($) 9/30/03	Annual Accrual (Staff Proposed Depreciation Rates) ($) 9/30/03	Annual Accrual (Company Proposed Depreciation Rates) ($) 9/30/03	Plant Balance ($) 12/31/01	Accrued Reserve ($) 12/31/01	Theoretical Reserve ($) 12/31/01	(Accrued - Theoretical Reserve) Difference ($) 12/31/01
	SJLP ELECTRIC COMMON GENERAL PLANT														
390.001	Structures and Improvements	37,938	45	40.19	R1.5	3.10	2.22	1.66	1,176	842	630				
391.001	Office Furniture and Eq.	240	22	20.17	L4	7.00	4.55	3.43	17	11	8				
391.003	Computer Hardware	1,977	7	13.97	S2	0.00	14.29	4.02	0	283	79				
391.004	Computer Software	19	7	13.40	S2	14.30	14.29	5.15	3	3	1				
391.005	Computer Systems Development		7		S2		14.29		0	0	0				
392.000	Transportation Eq.	6,078	12	12.99	S5	6.20	8.33	3.17	377	506	193				
393.000	Stores Eq.	33	27	30.66	L1	5.00	3.70	1.45	2	1	0				
394.000	Tools, Shop and Garage Eq.	457	27	25.59	L0	4.40	3.70	2.71	20	17	12				
395.000	Laboratory Eq.	0	29	26.34	R2.5	3.40	3.45	2.04	0	0	0				
396.000	Power Operated Eq.	2,198	16	18.91	R6	3.90	6.25	2.07	86	137	45				
397.000	Communications Eq.	4,208	29	4.90	S2	4.90	3.45	3.23	206	145	136				
398.000	Miscellaneous Eq.	131	23	25.62	L4	3.60	4.35	3.19	5	6	4				
	SJLP Electric Common General Plant:	53,279							1,891	1,951	1,110				
	SJLP Electric And Common Utility Plant:	6,064,979							246,479	271,511	335,636				
	SJLP ELECTRIC CORPORATE PLANT														
	GENERAL PLANT														
390.001	Structures and Improvements	0	45	44.97	R1.5	2.22	2.22	2.44	0	0	0				
391.001	Office Furniture and Eq.	896	22	19.95	L4	7.69	4.55	5.78	69	41	52				
391.003	Computers-Hardware	1,893	7	4.95	S2		14.29	33.10	0	271	627				
391.004	Computers-Software	10,835	7	9.85	S2		14.29	13.73	0	1,548	1,488				
391.005	Computer Systems Development	0	7	9.37	S2		14.29	19.82	0	0	0				
392.004	Transportation Eq.	0	12	11.27	S5	11.11	8.33	48.13	0	0	0				
393.000	Stores Eq.	0	27		L1		3.70		0	0	0				
394.000	Tools, Shop and Garage Eq.	0	27	20.39	L0		3.70	7.68	0	0	0				
395.000	Laboratory Eq.	0	29	15.11	R2.5		3.45	15.20	0	0	0				
396.000	Power Operated Eq.	0	16		R6		6.25		0	0	0				
397.000	Communication Eq.	4,000	29	9.97	S2	5.00	3.45	15.97	200	138	639				
398.000	Miscellaneous Eq.	0	23	10.07	L4	5.56	4.35	16.55	0	0	0				
	SJLP Electric Corporate General Plant:	17,624							269	1,998	2,805				
	Total SJLP Industrial Steam Utility Plant:	9,230,040							323,999	433,927	338,441	3,162,350	1,359,210	1,186,018	173,192