STATE CORPORATION COMMISSION

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STATE OF KANSAS

BEFORE THE KANSAS CORPORATION COMMISSION

Application for Revised Rates, Tariffs, and Rate Design Changes

of

Mid-Kansas Electric Company, LLC

Docket No. 10-MKEE- 439 -RTS

December 8, 2010

PREFILED DIRECT TESTIMONY RICHARD J. MACKE VICE PRESIDENT, RATES AND FINANCIAL PLANNING POWER SYSTEM ENGINEERING, INC.

> ON BEHALF OF MID-KANSAS ELECTRIC COMPANY, LLC

TABLE OF CONTENTS

PART I - QUALIFICATIONS	
PART II - INTRODUCTION	
PART III - SUMMARY OF DIRECT TESTIMONY	
PART IV - REVENUE REQUIREMENTS	
PART V - COST OF SERVICE ANALYSIS	
PART VI - RATE DESIGN	

TABLES

Table 1 - Wheatland Division Revenue Requirements Summary TIER = 2.00 Objective	. 9
Table 2 - Wheatland Division Cost of Service Summary	10
Table 3 - Comparison of Actual 2009 and 2010 YTD Wholesale ECA	16
Table 4 - Wheatland Division Statement of Operations - Present Rates	19
Table 5 - Wheatland Division Revenue Requirements Summary TIER = 2.00 Objective	20
Table 6 - Summary of TIER (2005-2009 Median Values) Source: CFC Key Ratio	
Trend Analysis	22
Table 7 - Wheatland Equity Position As of 12/31/09	23
Table 8 - Wheatland Division Cost of Service Summary	33
Table 9 - Wheatland Division Cost Allocation Summary	33
Table 10 - Wheatland Division Unit Cost Summary	34
Table 11 - Wheatland Division Phase 1 Comparison of Revenue Present and	
Proposed Rates	41
Table 12 - Wheatland Division Phase 2 Comparison of Revenue Present and	
Proposed Rates	42

EXHIBITS

Exhibit (RJM-WH-1) -	Curriculum Vitae - Richard J. Macke
Exhibit (RJM-WH-2) -	Statement of Operations - Present Rates
Exhibit (RJM-WH-3) -	Revenue Requirements
Exhibit (RJM-WH-4) -	Cost of Service Analysis
Exhibit (RJM-WH-5) -	Local Access Charge Cost of Service Analysis
Exhibit (RJM-WH-6) -	Proposed Rate Increase Phase In
Exhibit (RJM-WH-7) -	Statement of Operations - Proposed Rates
Exhibit (RJM-WH-8) -	Summary of Consumers, Energy Sales and Revenue - Proposed

TABLE OF CONTENTS

Rates Phase 1

Exhibit (RJM-WH-9) -	Comparison of Present and Proposed Rate Schedules Phase 1
Exhibit(RJM-WH-10) -	Summary of Consumers, Energy Sales and Revenue - Proposed
	Rates Phase 2
Exhibit(RJM-WH-11) -	Comparison of Present and Proposed Rate Schedules Phase 2
Exhibit (RJM-WH-12) -	Calculation of ECA Base
Exhibit (RJM-WH-13) -	Present Rate Schedules
Exhibit (RJM-WH-14) -	Present Rate Schedules with Redline Proposed Changes
Exhibit (RJM-WH-15) -	Proposed Rate Schedules

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	Testimony of Richard J. Macke, page 1
1	PREFILED DIRECT TESTIMONY
2	RICHARD J. MACKE VICE PRESIDENT, RATES AND FINANCIAL PLANNING
3	POWER SYSTEM ENGINEERING, INC.
4	ON BEHALF OF <u>MID-KANSAS ELECTRIC COMPANY, LLC</u>
5	
6	PART I - QUALIFICATIONS
7	Q. Please state your name and business address.
8	A. My name is Richard J. Macke. My business address is 10710 Town Square Drive NE,
9	Suite 201, Minneapolis, Minnesota 55449.
10	
11	Q. What is your profession?
12	A. I am a Vice President and lead the Rates and Financial Planning Department at Power
13	System Engineering, Inc. ("PSE"), which is headquartered at 1532 W. Broadway,
14	Madison, Wisconsin 53713.
15	
16	Q. Please describe the business activities of PSE.
17	A. Power System Engineering, Inc. is a consulting firm serving electric utilities across the
18	country, but primarily in the Midwest. Our headquarters are in Madison, Wisconsin with
19	regional offices in Indianapolis, Indiana; Minneapolis, Minnesota; Marietta, Ohio; and
20	Sioux Falls, South Dakota. PSE is involved in: power supply, transmission and
21	distribution system planning; distribution, substation and transmission design;
22	construction contracting and supervision; retail and wholesale rate and cost of service
23	("COS") studies; economic feasibility studies; merger and acquisition feasibility analysis;
24	load forecasting; financial and operating consultation; telecommunication and network
25	

1	1				
	Testimony of Richard J. Macke, page 2				
1	design, mapping/GIS; and system automation including Supervisory Control and Data				
2	Acquisition ("SCADA"), Demand Side Management ("DSM"), metering, and outage				
3	management systems.				
4					
5	Q. Please describe your responsibilities with PSE.				
6	A. I lead and direct staff in both Minnesota and Indiana who provide financial and rate-				
7	related consulting services predominantly to electric cooperative and municipal utilities.				
8	These services include:				
9	Cost of Service Studies; Line Extension Policies/Charges;				
10	 Retail Rate Design and Analysis; Load Management Analysis; Load Management Analysis; Merger Analysis; 				
11	 Individual Customer Profitability; Financial Forecasting; Rate Consolidation; Pole Attachment Charges; 				
12	 Capital Credit Allocations; Special Fees and Charges; Distributed Generation Rates; and Power Cost Adjustments. 				
13					
14	Q. What is your educational background?				
15	A. I graduated from Bethel University in St. Paul, Minnesota in 1996 with a Bachelor of Arts				
16	degree in Business, which included an emphasis in Finance and Marketing. In 2007, I				
17	received my Masters of Business Administration degree, with an emphasis in Finance and				
18	Strategic Management, from the University of Minnesota in Minneapolis, Minnesota.				
19					
20	Q. What is your professional background?				
21	A. From 1996 to 1998, I was employed by PSE in its Blaine, Minnesota office as a Financial				
22	Analyst in the Utility Planning and Rates Department. My work responsibilities primarily				
23	were focused on retail rate studies, including revenue requirements and				
24					
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bundled/unbundled COS studies. I also provided analysis used to support testimony, mergers and acquisitions analysis and financial forecasting.

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From 1998 to 1999, I was employed as a Senior Analyst by Energy & Resource Consulting Group, LLC in Denver, Colorado, a financial, engineering and management consulting firm. I performed consulting services related to electric, gas and water rate studies. As part of the Legend Consulting Advisor Team contracted to the City Council of the City of New Orleans, Louisiana, I assisted in various electric and gas utility matters. I also provided general financial, management and public policy support to clients.

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11 I rejoined PSE in 1999; and from 1999 to 2002, I held the position of Rate and Financial 12 Analyst in the Rates and Financial Planning Department. From 2002 to March 2008, I 13 held the position of Senior Rate and Financial Analyst in the Utility Planning and Rate 14 Division. My responsibilities have included performing complex financial analyses, such 15 as rate studies consisting of determination of revenue requirements, bundled and 16 unbundled COS analysis, and rate design. Other responsibilities included performing 17 analysis of special rates and programs, key account analyses, financial forecasting, merger 18 and acquisition analysis, activity-based costing, policy development and evaluation, and 19 other financial analyses for various PSE clients. Additional responsibilities included 20 strategic planning, litigation support, regulatory compliance, capital expenditure and 21 operational assessments and advisement. From April 2008 to June 2010, I held the position of Leader, Rates and Financial Planning. Since July 2010, I have held the 22 23 position of Vice President, Rates and Financial Planning. In this capacity, I continue to 24 provide, amongst other things: 1) rate, financial and economic consulting services to

clients, 2) management and leadership to the Rates and Financial Planning Department, and 3) management and leadership at the corporate level to PSE through participation on the Executive Committee and Board of Directors.

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Q. Have you previously presented testimony before the Kansas Corporation Commission ("KCC" or "Commission") relative to rate change applications?

A. Yes. I submitted testimony on behalf of: Pioneer Electric Cooperative, Inc. in Docket No.
09-PNRE-563-RTS; Wheatland Electric Cooperative, Inc. in Docket No. 09-WHLE-681RTS; and Mid-Kansas Electric Company, LLC in Docket No. 09-MKEE-969-RTS.

10

11 **Q.** Do you have any other rate-related experience?

A. Yes. I have directed well over 100 rate and COS studies and numerous other rate and financial related projects. Many times these projects were conducted for self-regulated electric utilities. I have also performed such analysis, which was filed in regulated rate cases, on behalf of cooperatives in Iowa, Kansas, Michigan, Minnesota and New Hampshire.

17

I have also conducted seminars and made presentations to utilities, consumers and
industry groups on a variety of topics, including: COS, rate change communications, line
extension policies, mergers and acquisitions, DSM, conservation and energy efficiency,
industry trends and rate design strategic planning.

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1	PART II - INTRODUCTION
2	Q. What is the purpose of your testimony in this proceeding?
3	A. The purpose of my testimony is to present my analysis of Mid-Kansas Electric Company,
4	LLC's ("Mid-Kansas") retail revenue requirements, class cost of service ("COS") study
5	and proposed rates for the Wheatland Electric Cooperative, Inc. ("Wheatland") division.
6	
7	Q. Please describe Mid-Kansas' Wheatland division.
8	A. It is the Aquila, Inc. ("Aquila") electric system that was acquired by Mid-Kansas, which is
9	served in part under contracts with its six distribution Member-System owners. The
10	Wheatland division refers to the area acquired by Mid-Kansas and that is served at the
11	distribution level by Wheatland. My testimony and analysis is structured around
12	evaluating retail rates and costs for service of customers in the geographical area of Mid-
13	Kansas' certificated territory served by Wheatland given the unique characteristics of that
14	portion of the acquired area.
15	
16	Q. Did you previously provide testimony supporting the changing of retail rates for the
17	other Mid-Kansas divisions?
18	A. Yes. In Docket No. 09-MKEE-969-RTS ("Docket 969"), I provided testimony supporting
19	retail rates for the other Mid-Kansas divisions. The other Mid-Kansas Member-System
20	owners are as follows:
21	 Lane-Scott Electric Cooperative, Inc. ("Lane-Scott"); Prairie Land Electric Cooperative, Inc. ("Prairie Land");
22	• Southern Pioneer Electric Company, Inc. ("Southern Pioneer");
23	 Victory Electric Cooperative Association, Inc. ("Victory"); and Western Cooperative Electric Association, Inc. ("Western").
24	
25	

Q. What are Mid-Kansas' objectives in filing this rate application?

A. Mid-Kansas has three primary objectives in filing this rate application. The first objective is to continue the process toward the ultimate goal of transferring the certificated territory to each of the Member-Systems. The distribution facilities, including the 34.5 kV facilities, were transferred to the Member-Systems on December 31, 2007. In order for the transfer of the retail consumers and certificated territory to take place, it is necessary to establish retail rates that reflect the cost of service for each Member-System's assigned service area.

10 The second objective is financial. The cost of serving the subject areas has risen since the 11 last rate change, which became effective on March 30, 2005, based upon a 2004 Test Year 12 (Docket No. 04-AQLE-1065-RTS). The cost increases since the last rate case make an 13 increase in rates necessary and unavoidable; and this rate application will allow Mid-14 Kansas to receive an increase in operating revenues needed to achieve acceptable financial 15 operating results.

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17 The third objective of this rate application is to modify rate design to ensure fair and 18 equitable recovery of costs by rate class and rate components. The 2005 rate application 19 by Aquila did not include a class COS study, a fact which concerned Commission Staff 20 and which the Commission stated was problematic (Commission Order, Docket No. 04-21 AQLE-1065-RTS, page 43, paragraph 131). A new class COS study has been completed 22 and is being submitted by Mid-Kansas for the Wheatland division. Using the COS study 23 results in determining the proposed rate design will ensure that cost recovery is achieved 24 in a way that is fair and equitable between and within the various rate classes.



2 Q. Are you sponsoring any exhibits?

3 A. Yes. I have included the following exhibits detailing the analysis completed:

4	Exhibit (RJM-WH-1) - Curriculum Vitae - Richard J. Macke.
	Exhibit (RJM-WH-2) - Statement of Operations - Present Rates.
5	Exhibit (RJM-WH-3) - Revenue Requirements.
	Exhibit (RJM-WH-4) - Cost of Service Analysis.
6	Exhibit (RJM-WH-5) - Local Access Charge Cost of Service Analysis.
Ŭ	Exhibit (RJM-WH-6) - Proposed Rate Increase Phase In.
7	Exhibit (RJM-WH-7) - Statement of Operations - Proposed Rates.
	Exhibit (RJM-WH-8) - Summary of Consumers, Energy Sales and Revenue -
8	Proposed Rates Phase 1
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0	Exhibit (RJM-WH-9) - Comparison of Present and Proposed Rate Schedules
9	Phase 1.
10	Exhibit (RJM-WH-10) - Summary of Consumers, Energy Sales and Revenue -
10	Proposed Rates Phase 2
	Exhibit (RJM-WH-11) - Comparison of Present and Proposed Rate Schedules
11	Phase 2.
	Exhibit (RJM-WH-12) - Calculation of ECA Base.
12	Exhibit (RJM-WH-13) - Present Rate Schedules.
	Exhibit(RJM-WH-14) - Present Rate Schedules with Redline Proposed Changes.
13	Exhibit (RJM-WH-15) - Proposed Rate Schedules.
14	
15	Q. Have the exhibits been prepared by you or by others under your supervision?
15	Q. Have the exhibits been prepared by you or by others under your supervision?
15 16	Q. Have the exhibits been prepared by you or by others under your supervision? A. Yes.
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PART III - SUMMARY OF DIRECT TESTIMONY

Q. Please summarize the increase being requested for the Wheatland division.

A. A rate increase of \$4,264,081 or 19.4 percent is being requested for the Wheatland division.

Q. Please summarize the revenue requirements analysis you prepared for the Wheatland division.

A. With Pro Forma Test Year Operating Expenses of \$23,284,752 and Long-Term ("LT")
Interest and net Margin Requirements of \$3,180,990, the total Pro Forma Test Year
Revenue Requirements are calculated to be \$26,465,742. Operating Revenue under
present rates on a Pro Forma Test Year basis is determined to be \$22,198,091. To achieve
the targeted Times Interest Earned Ratio ("TIER") of 2.00, revenue must be increased by
\$4,267,651. Expressed as a percentage of tariff revenue, this is equivalent to a 19.45
percent increase requirement. Table 1 presents a summary of revenue requirements
analysis for the Test Year.

	Table 1	
	Revenue Requirements Summary	
	TIER = 2.00 Objective	
	1. Operating Expenses (Excluding Interest)	(\$) 23,284,752
	2. Margin Requirements	
		1,762,127
	c. Total Margin Requirements (Before Interest)	3,524,255
		-
		<u>343,265</u> 3,180,990
	3. Total Revenue Requirements	26,465,742
		21,943,468
		254,623
	c. Total Revenue	22,198,091
	5. Required Increase (Decrease) or	4,267,651 19.45%
	immerize the results of the COS study you performed f	or Mid-Kansas i
		of tynu-Kansas (
each retai	il rate class with the revenue generated under the present rates	by that class.
	the Whe A. The follo	Wheatland Division Revenue Requirements Summary TIER = 2.00 Objective 1. Operating Expenses (Excluding Interest) 2. Margin Requirements a. Interest Expense b. Target TIER c. Total Margin Requirements (Before Interest) d. Less: Capital Credits e. Less: Non-Operating Income f. Net Operating Income Required 3. Total Revenue Requirements 4. Revenue From Present Rates a. Tariff Revenue b. Other Operating Revenue c. Total Revenue 5. Required Increase (Decrease)

1	Table 2 Wheatland Division				
2	Cost of Service Summary Revenue Increase (Decrea)ecrease)	
3	Rate Class	Present Rates ¹	Revenue Requirement	Amount	Percent ²
4		(\$)	(\$)	(\$)	(%)
	Residential (04-RS)	10,464,800	12,626,046	2,161,245	20.9
5	GS Small (04-GSS)	939,173	1,281,201	342,028	36.9
	GS Small W/Space Heat (04-Rider 1)	27,743	61,654	33,911	123.7
6	GS Large (04-GSL)	8,428,985	9,892,594	1,463,609	17.6
_	GS Large W/Space Heat (04-Rider 1)	285,866	383,483	97,617	34.6
7	Industrial (04-IS)	440,461	518,902	78,441	18.0
	Municipal Power (04-M-I)	11,475	17,963	6,488	57.2
8	Water Pumping (04-WP)	91,057	120,106	29,049	32.3
_	Irrigation (04-IP-I)	45,604	47,821	2,217	4.9
9	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)	559,168	560,177	1,009	0.2
10	Total ³	21,294,333	25,509,948	4,215,615	19.8
10					
11	The above table summarizes the COS st	udy prepared f	for retail custom	ers. A separ	ate
12	COS was prepared to evaluate the cost of providing local access delivery service for				for
13	wholesale customers.				
14	Q. Please describe your rate change propos	sal?			
15	A. Mid-Kansas is proposing a two-phase approach to achieve the overall increase request for				
16	the Wheatland division. Phase 1 would be effective with the Commission order, and				
17	Phase 2 would be effective one year later.	The rate increa	ase requested is a	s follows:	
18		68 or 10.9 perc			
			ent (incremental)) ⁴	
19	Total increase: \$4,264,0	81 or 19.4 perc	ent		
20	¹ Includes an allocated share of Other Opera	ting Revenue.			
21	² Percentage is calculated using only ra	te schedule re	evenue (excludes	s Other Ope	rating
22	Revenue).		、	- 1, -	U
23	³ The class COS excludes rate classes or cor Also excluded is the Local Access Charge				rates.
24	⁴ The Phase 2 percentage increase is expressed as the incremental increase over Phase 1 rates.			ates.	
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PART IV - REVENUE REQUIREMENTS

2 **Q.** Please provide an overview of the revenue requirements analysis.

A. In order to ensure financial viability, a utility's retail rates must be designed to generate
sufficient revenue to meet operating expenses and margin requirements. The margin
requirements must be adequate to cover interest expense and accomplish other capital
management objectives such as rotating patronage capital and maintaining (or achieving) a
desired equity position. In this testimony I will refer to the total operating expense and
margin requirements as the "revenue requirements." This is expressed by the following
equation:

10 REVENUE REQUIREMENTS = OPERATING EXPENSE + MARGIN REQUIREMENTS

To evaluate a utility's revenue requirements and the adequacy of its present rate structure
to meet these requirements, it is common practice to analyze revenue and costs for a 12month period of time, commonly referred to as the "Pro Forma Test Year" or simply "Test
Year."

16

11

17 **Q.** What Test Year did you use to establish the revenue requirements?

18 A. The Test Year revenue requirements were based on actual historical results for 12 months
ending December 2009, adjusted for known and measurable changes that either occurred
during the historical period or within a reasonable time thereafter.

21

Q. Please describe the revenue requirements analysis you completed for the Wheatland division.

A. Exhibit __(RJM-WH-2) provides a Statement of Operations for the Test Year based on the
 revenue generated by the present rates. This provides much of the framework for the
 revenue requirements determination.

Page 1 of Exhibit __(RJM-WH-2) provides a summary of the Statement of Operations for
the 2009 Historical Test Year period. The results shown in Column (c) reflect an
unadjusted Test Year as actually recorded on Wheatland's books. Column (d) summarizes
the various adjustments for known and measurable changes to the revenue and expense
accounts with the resulting adjusted Pro Forma Test Year shown in Column (e).

Page 2 of Exhibit __(RJM-WH-2) provides a summary of each of the proposed
adjustments. Pages 4 through 22 of Exhibit __(RJM-WH-2) provide the detailed
calculations for the adjustments, including:

- Purchased Power Expense; 15 Payroll Expense; • Payroll Related Expense; • 16 Depreciation Expense; • Interest on Long-Term Debt Expense; • 17 Rate Case Expense; • Property Tax Expense; and • 18 Non-Operating Income. • 19 Pages 3 and 4 of Exhibit (RJM-WH-2) present the average number of consumers, 20energy sales, billing demand and revenue for the rate classes as recorded for the Historical 21 and the Pro Forma Test Year. 22 23
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Revenue;

Pages 5 through 8 of Exhibit __(RJM-WH-2) present the calculation of revenue under present rates for the Pro Forma Test Year. Pro Forma Test Year number of consumers, energy sales and billing demand (page 5) are multiplied by appropriate rate schedules to determine the class and system revenue for the Pro Forma Test Year. These revenue calculations are based on the rates currently in effect.

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Q. To calculate the adjustment to revenue under present rates, how were the pro forma billing determinants determined?

9 A. The revenue adjustment reflects the difference between the historical recorded revenue 10 and the pro forma test year revenue as calculated using the pro forma billing determinants 11 contained in Exhibit (RJM-WH-2). The pro forma average number of consumers is 12 based on the number of consumers as of December 2009. As indicated in the footnotes on page 4 of Exhibit (RJM-WH-2), adjustments were made to reflect the expiring of 13 14 Economic Development Credits and the net effect of losing and gaining a consumer 15 during 2009. Otherwise, the pro forma energy by rate class is the actual test year average 16 usage by consumer multiplied by the number of pro forma consumers. Pro forma year 17 demand was calculated by scaling the actual test year demand by the ratio of actual test 18 year to pro forma year energy; i.e., I have adopted the 2009 class average load factor.

19

20 Q. Please explain the rate class labeled as Local Access Charge ("LAC")?

A. Mid-Kansas through Wheatland provides delivery service to wholesale users of its 34.5
kV facilities under the former Aquila LAC rate of \$1.48 per kW. This rate class refers to
the billing determinants and revenue from the LAC that should be included in the Test
Year for this service.

Q. You have treated the LAC differently than what was experienced in 2009. Please explain why this change was necessary.

4 A. During 2009, Wheatland submitted its expenses for ownership and maintenance of these 5 facilities to Mid-Kansas for reimbursement. Mid-Kansas then collected this cost from Wheatland via its wholesale rate formula that was in effect during 2009, along with a 6 7 portion from the third-party users of the 34.5 kV facilities. The revenue collected from third-party users was based on the former Aquila rate of \$1.48 per kW. As of the Mid-8 9 Kansas wholesale rate that went into effect in early 2010, this reimbursement and 10 wholesale rate recovery ceased. Mid-Kansas continues to bill and collect from the third-11 party users (i.e., wholesale customers) and remits the revenue collected to Wheatland 12 based on the \$1.48 per kW. I have, therefore, included the \$105,512 of LAC revenue as 13 rate schedule revenue which is based upon 2009 billing units.

14

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Q. How was the retail Energy Cost Adjustment ("ECA") determined in the calculation of revenue under present rates?

A. The ECA used to determine revenue under present rates was determined based on the
wholesale ECA collected from Wheatland during 2009 out of the revenues collected by
Wheatland under Mid-Kansas' current rates and tariffs. The ECA is a pass through of the
Mid-Kansas wholesale ECA.

- 21
- Q. Did the Stipulation and Agreement ("S&A") approved by the Commission in Docket
 969 include a wholesale ECA revenue requirement component?
- 24 || A. Yes.
- 25

Q. Why have you used the historical wholesale ECA charges to Wheatland rather than the wholesale ECA charge as was contained in the S&A?

A. I believe the actual wholesale ECA charges from Mid-Kansas to Wheatland are more appropriate to use in this case. The wholesale ECA amounts contained in the S&A were based on that filing's test year and the stipulated rate design. Therefore, while it is the best estimate of the wholesale ECA under the new wholesale rate design, it is still an estimate; and the amount Wheatland will pay in ECA charges under the new wholesale rate will be based upon future, unknowable factors. Use of the historical ECA charges is more reliable versus speculating on what they will be in the future.

2 Q. Have you compared the 2009 ECA charges with the ECA charges so far under the 3 2010 Mid-Kansas wholesale rate?

A. Yes. The 2009 ECA and the YTD 2010 ECA are shown in the following Table 3.

Table 3Comparison of Actual 2009 and2010 YTD Wholesale ECA		
2009 Actual ECA	2010 YTD Wholesale ECA	
(\$/kWh)	(\$/kWh)	
0.03645	0.04214	
0.02847	0.03517	
0.02939	0.03518	
0.02754	0.03305	
0.02575	0.03140	
0.02599	0.03722	
0.03103	0.04322	
0.03212	0.04395	
r 0.03167	0.03602	
0.03733		
r 0.03664		
0.03300		
0.3128	0.03751	
	Comparison of Actu 2010 YTD Wholes 2009 Actual ECA (\$/kWh) 0.03645 0.02847 0.02939 0.02754 0.02575 0.02599 0.03103 0.03212 r 0.03167 0.03733 r 0.03664 c 0.03300	

11

Q. If you were to use the 2010 ECA charges, how would the results of your revenue requirements analysis change?

A. There would be no net effect. The power costs would increase; however, because the
retail ECA is a pass through, the revenue would change by the same amount. In that
sense, it does not matter what ECA is used for purposes of determining the overall rate
change needed for the Wheatland division.

18

19 Q. Please describe the pro forma adjustments to the purchased power expense.

A. The pro forma Test Year purchased power expense is based on the Mid-Kansas wholesale
rate as approved by the Commission in its January 11, 2010 order in Docket 969. The
exception as noted above is that the ECA is per actual amounts billed to Wheatland.

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1 Q. Please explain the remaining pro forma adjustments to the actual operating 2 expenses.

3 A. The following briefly describes these adjustments.

- 4 <u>Payroll Expense</u> was adjusted to reflect the annual effect of the December 2009 wage
 5 increase.
- 6 Payroll Related Expense was adjusted to reflect the changes in payroll expense and the
 7 known rate changes.
- 8 <u>Depreciation Expense</u> was adjusted to reflect the annualization of December 2009
 9 depreciation expense less the acquisition premium amortization.
- Interest on Long-Term Debt was adjusted to reflect the annualization of the LT interest
 expense as of December 31, 2009. An adjustment was also made to reflect the refinancing
 of Wheatland's line-of-credit ("LOC") in the amount of \$2,580,098.50 into a long-term
- 13 note at an annual interest rate of 3.15 percent, which originated on June 28, 2010.
- 14 <u>Rate Case Expense</u> is an adjustment to Administrative and General ("A&G") based on an
- 15 estimated rate case expense amortized over three years.
- 16 Property Tax Expense was adjusted for property taxes payable for 2010.

17 Non-Operating Income was adjusted to: 1) remove the Mid-Kansas reimbursements of

- 18 2009 34.5 kV expenses, 2) add back in the amortization of the acquisition premium below
- 19 the line, and 3) add in 2009 K-1 income allocated to Wheatland by Mid-Kansas.
- 20
- Q. Why was it necessary to remove the Mid-Kansas reimbursements to Wheatland for
 2009 34.5 kV expenses?
- A. This was necessary to reflect the change in how the cost is recovered under the new MidKansas wholesale rate and the divisional retail rates. During 2009, Wheatland submitted
- 25

1	costs of owning, operating and maintaining its 34.5 kV facilities to Mid-Kansas for
2	reimbursement. Wheatland recorded these reimbursements as non-operating income
3	during 2009. This situation ceased when Mid-Kansas' new wholesale rate went into effect
4	in early 2010. It is, therefore, appropriate to remove the reimbursements booked during
5	2009 since they will not be recurring and in fact are currently not occurring.
6	
7	Q. Why did you make an adjustment to include amortization of the Acquisition
8	Premium below-the-line as a non-operating expense?
9	A. During 2009, Wheatland had booked the amortization of the acquisition premium, related
10	to the Aquila acquisition, above-the-line in the category for Depreciation and
11	Amortization Expense. However, the S&A in Docket No. 06-MKEE-524-ACQ ("Docket
12	524") on page 12 states:
13	"21. The Acquisition Premium ("AP") relating to this transaction shall be amortized over a thirty-year period beginning with the Effective Date, and shall be included below-the-
14	line in subsequent Mid-Kansas, Distribution Cooperative(s) and Southern Pioneer rate proceedings. The AP shall be considered for purposes of calculating TIER and other
15	financial ratios and shall be considered in the calculation of TIER for purposes of determining if a refund is due as provided for herein."
16	
17	I have, therefore, made an adjustment to Depreciation and Amortization Expense which is
18	an above-the-line expense to remove the AP amortization. To include it below-the-line, I
19	have adjusted Wheatland's non-operating expense by the same amount.
20	
21	Q. Does the effect of your adjustment treat the amortization of the AP consistent with
22	your understanding of the S&A in Docket 524?
23	A. Yes, it does. It seems clear from the above excerpt that the AP: 1) shall be amortized
24	over thirty years, 2) shall be included below-the-line in subsequent rate proceedings and 3)
25	

	Testimony of Richard J. Macke, page 19			
1	shall be considered for purposes of calculating TIER. My treatment of the amortization of			
2	the AP meets each of these directives of	of the S&A.		
3				
4	Q. What are Wheatland's operating res	sults for the 2009 a	and the Test Year?	
5	A. Exhibit(RJM-WH-3) summarizes	the operating rest	ults for Wheatland	on both an
6	unadjusted and an adjusted basis for	the Test Year end	ing on December 3	1, 2009. A
7	summary of the Operating Statement i	s provided in Table	4.	
8		Table 4 heatland Division		
9		Operations - Prese	ent Rates	
10		12 Months Ending	Pro Forma	
11	Description	<u>12/31/09</u> (\$)	Test Year (\$)	
12	Operating Revenue Operating Expenses ⁵	22,068,352 24,262,725	22,198,091 23,284,752	
13	Net Operating Income	(2,194,373)	(1,086,662)	
14	It should be emphasized that the N	et Operating Incor	ne is stated <u>before</u>	LT interest
15	expense on LT debt is deducted, sinc	e LT interest plus	margin requirements	are treated
16	together as the margin requirement.			
17				
18	Q. Please identify the Net Operating In	ncome required in	the Test Year to acl	nieve a 2.00
19	TIER.			
20	A. To achieve a TIER of 2.00, Wheatlar	nd needs to generat	e Net Operating Inco	ome (before
21	LT interest) of \$3,180,990.			
22				
23	Q. Please summarize the increase Mid-	Kansas is requesti	ng for the Wheatlan	d division.
24	⁵ Before interest expense is deducted.			
25				

A. With Pro Forma Test Year Operating Expenses of \$23,284,752 and LT Interest and Margin Requirements of \$3,180,990, the total Pro Forma Test Year Revenue Requirements are calculated to be \$26,465,742. Revenue for the present rates on a Pro Forma Test Year basis is determined to be \$21,943,468. To achieve the targeted TIER of 2.00, revenue must therefore be increased by \$4,267,651 or 19.45 percent. The following Table 5 presents a summary of revenue requirements analysis for the Test Year.

7 8	Table 5Wheatland DivisionRevenue Requirements Summary	
	TIER = 2.00 Objective	
9	1. Operating Expenses (Excluding Interest)	(\$) 23,284,752
10 11	2. Margin Requirements a. Interest Expense	1,762,127
12	b. Target TIER c. Total Margin Requirements (Before Interest)	2.00 3,524,255
13	d. Less: Capital Credits e. Less: Non-Operating Income	
14	f. Net Operating Income Required3. Total Revenue Requirements	3,180,990 26,465,742
15	4. Revenue From Present Rates	
16	a. Tariff Revenue b. Other Operating Revenue	21,943,468 254,623
17	c. Total Revenue	22,198,091
18	5. Required Increase (Decrease)	4,267,651 19.45%
19		

20

Q. How have you determined the margin requirements for each Mid-Kansas division?

A. The margin requirements were determined using a TIER coverage ratio. TIER measures
 the ability of Wheatland to meet LT debt obligations. This is a common means of
 determining the margin requirements for electric cooperatives around the country,
 including in Kansas.

	Testimony of Richard J. Macke, page 21
1	
2	The basic formula for TIER is as follows:
3	TIER = <u>Patronage Capital and Margins plus Long-Term Interest Expense</u> Long-Term Interest Expense
5	Q. What is the TIER for purposes of determining the margin requirements in this
6	application?
7	A. After considering a number of factors, I recommend that the targeted TIER be set at 2.00.
8	It is important that the retail rates produce adequate margins to allow the Wheatland
9	division through the Mid-Kansas rates to: 1) achieve and maintain an adequate capital
10	structure, 2) provide stability in terms of handling contingencies and extending the time in
11	between rate adjustments, 3) retire member equity (often referred to as capital credits) and
12	4) provide members an ownership stake in the Cooperative.
13	
14	While I believe there is support for a higher TIER, the KCC Staff has historically
15	advocated for a 2.00 TIER in the rate regulation of electric cooperatives. For purposes of
16	this case, Mid-Kansas has determined that a 2.00 TIER is appropriate.
17	
18	Q. How does the requested TIER compare to industry results?
19	A. According to the most recent information available from the National Rural Utilities
20	Cooperative Finance Corporation ("CFC") for its electric cooperative borrowers, the TIER
21	for cooperatives on a national and state level is shown in the following Table 6.
22	
23	
24	
25	

Table 6Summary of TIER(2005-2009 Median Values)Source: CFC Key Ratio Trend Analysis				
Year	National	Kansas	National (2 best of 3 yrs)	Kansas (2 best of 3 yrs)
2005	2.20	2.49	2.47	2.67
2006	2.29	2.29	2.49	2.86
2007	2.24	2.36	2.40	2.81
2008	2.27	1.93	2.46	2.46
2009	2.30	2.47	2.48	2.61
Ave.	2.26	2.31	2.46	2.82

As can be seen in the above table, the median TIER in Kansas has recently ranged from 1.93 to 2.49, with an average of 2.31. When considering the two best of the three most recent calendar years, the range in Kansas is 2.46 to 2.86, with an average of 2.82.

It is important to keep in mind that compared to these national and state medians, Wheatland is somewhat unique. For example, since the acquisition was financed with debt, there is currently very little, if any, equity. In order to migrate towards a more balanced capital structure required to maintain access to lower cost debt, build reserves against contingencies, provide members with an ownership stake, and fund a portion of plant renewals, replacements and growth, Wheatland needs to achieve an adequate equity ratio. Without adequate funding of operations and plant investments from rates, the capital structure of Wheatland will continue to be dominated by debt, which potentially limits access to needed financing and increases debt costs and business risk. It also would cause Wheatland's native system members (i.e., those existing prior to the acquisition) to subsidize the acquired system members.

Q. What is the equity ratio for Wheatland?

A. Using 2009 year-end financial statements, I have summarized Wheatland's equity in Table

Table 7 Wheatland Equity Position As of 12/31/09			
1. Equity Percent o	f Total Capitalization		
Mid-Kansas		Total	Equity
Member	Equity	Capitalization	Ratio
	(\$)	(\$)	(%)
Wheatland East	-4,511,814	38,231,275	-11.8
National Median (CFC	borrowers for 2009)		47.63
State Median (CFC bor			45.23
2. Equity Percent o	f Assets		
Mid-Kansas			Equity
Member	Equity	Assets	Ratio
	(\$)	(\$)	(%)
Wheatland East	-4,511,814	44,512,367	-10.1
National Median (CFC	borrowers for 2009)		41.26
	rowers for 2009)		39.53

7 in terms of 1) percent of total capitalization and 2) percent of assets.

16

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18

Q. What happens to the margins achieved through rates for Wheatland?

A. Wheatland is structured as a cooperative. As such, at the end of the year, any operating margins generated during the year are allocated to the member-consumers, who are also the owners of the Cooperative, in proportion to each member-consumer's patronage. These margins are retained by the Cooperative for a period of time. Eventually these retained margins, sometimes referred to as patronage capital, will be retired or paid back to the members as capital credits. In the meantime, the margins are invested back into the system

is

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1	and provide the largest component of the Cooperative's equity. This helps to: 1) lower the
2	cost and amount of borrowing and 2) contributes to financial stability, thereby reducing risk.
3	Wheatland has no "outside" investors and has no incentive to increase margins to the
4	detriment of the consumer since every consumer participates in ownership of the
5	Cooperative. Rather, the objective is to provide safe, reliable electricity at the most
6	economical price to the membership.
7	
8	Q. Has the TIER approach to setting margin requirements for rural electric
9	cooperatives been endorsed by the KCC in prior cases?
10	A. Yes. KCC Staff regularly considers TIER in evaluating rate change needs of electric
11	cooperatives.
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PART V - COST OF SERVICE ANALYSIS

Q. Have you prepared a retail COS study for each Mid-Kansas Member-System division?

4 A. Yes. A class COS analysis has been prepared to provide information that will be used in 5 evaluating and designing proposed retail rates for Wheatland. The basic objective of a COS is to identify the cost of providing service to each rate class as a function of load and 6 7 service characteristics. The methodology employed is often referred to as the "fully 8 allocated average embedded" COS approach, meaning that: 1) costs are allocated on an 9 average system-wide basis, and 2) embedded or accounting costs as recorded on the 10 Cooperative's books are used in the analysis. I believe that this is generally the most 11 appropriate technique to use in allocating cost responsibility to the various classes and 12 developing rate design data for rural electric cooperatives.

13

14 || Q. Please describe the general class COS you prepared for the Wheatland division.

A. Exhibit __(RJM-WH-4) includes the COS analysis for the Wheatland division. The detailed calculations and assumptions that go into the analysis are as follows:

17	Page	Description
18	1-3	Cost of Service Summary
	4-5	Classification of Plant in Service
19	6-11	Classification of Revenue Requirements
	12-13	Adjusted Statement of Operations
20	14-17	Summary of Classification Factors
	18	Summary of Allocation of Revenue Requirements to Rate Classes
21	19	Allocation of Plant in Service to Rate Classes
	20-22	Allocation of Revenue Requirements to Rate Classes
22	23	Rate Class Weighting Factors
	24	Summary of Class Demands
23	25-26	Calculation of Class Demand Characteristics
	27	Calculation of Outdoor Lighting Demand Characteristics
24	28-29	Development of Allocation Factors.
25		

1	Q. Please explain the general procedure for conducting a COS study.
2	A. The basic procedure used to determine the cost responsibility of each consumer
3	classification is as follows:
4	Step 1 - Classify the plant account records into basic cost causative categories.
5	Step 2 - Classify the Test Year expenses and margin requirement into the same cost
6	causative categories.
7	Step 3 - Develop allocation factors for each rate class.
8	Step 4 - Allocate costs to the various rate classes using the class allocation factors
9	developed for each cost causative category.
10	
11	Q. Please explain the process of classification into cost causative categories.
12	A. Plant investments, Test Year expenses and margin requirement are classified into the
13	following cost causative categories:
14	1. Direct - Costs which are directly attributable to one specific customer
15	classification. Expense associated with security and street lighting is an example
16	of a Direct Expense.
17	2. <u>Consumer</u> - Costs that are directly related to the number of customers and which
18	do not vary significantly with the demand imposed on the system or the amount of
19	energy consumed. Metering and customer accounting expenses best illustrate this
20	type of expense.
21	3. <u>Capacity</u> - Costs which result from providing and maintaining in readiness for
22	operation facilities required to meet the peak demand, whether it be the system
23	peak, circuit peak or individual customer service peak. The expense of owning,
24	
25	

	Testimony of Richard J. Macke, page 27			
1	operating and maintaining a three-phase backbone feeder would fall within this			
2	category as would the demand charge from the purchased power expense.			
3	4. <u>Energy</u> - Costs which are related to the amount of energy used. The major items in			
4	this category are the Energy Charge and ECA in the purchased power rate.			
5				
6	Each of these general cost causative categories is further subdivided as follows:			
7	<u>Direct</u> <u>Consumer</u> <u>Capacity</u> <u>Energy</u>			
8 9	As Assigned Secondary & Service Power Supply Power Supply Meter Distribution Substation Customer Accounting Primary Line			
10	Line Transformer			
11	Q. Please explain the methodology used in assigning plant accounts to cost causative			
12	categories.			
13	A. The cost causative classification of the various electric plant accounts is presented on			
14	pages 4 and 5 of Exhibit(RJM-WH-4). The methodology used in assigning the plant			
15	accounts to the cost causative categories is discussed as follows:			
16	1. Intangible Plant (Acct. 301 to 303) - The Intangible Plant accounts were prorated			
17	to the cost categories in the same relationship as the distribution plant allocations.			
18	2. Land, Structures, Station and Battery (Accts. 360 to 363) - The Land and Land			
19	Rights, Structures and Improvements, Station Equipment, and Battery accounts			
20	were classified as capacity related since the facilities represented by the investment			
21	are generally dictated by capacity considerations.			
22	3. Primary Line and Devices (Accts. 364, 365, 366, 367) - The Primary Line and			
23	Device accounts were assigned to the capacity component.			
24				
25				

	Testimony of Richard J. Macke, page 28			
1	1 4. Line Transformers (Acct. 368) - Classification of	the Line Transformer account		
2				
3				
4		it was assigned entirely to the		
5	5 customer component.			
6	6 6. <u>Consumer Premise (Acct. 371)</u> - The investment i	n installations on Consumer's		
7	7 Premises was assigned to Primary Line.			
8	8 7. <u>Street Lighting (Acct. 373)</u> - Investment in street or	security lighting facilities was		
9	9 assigned directly to the Lighting Class.			
10	10 8. <u>General Plant Accounts (Accts. 389 to 399)</u> - The	General Plant accounts were		
11	11 assigned to the cost causative categories in the s	ame relationship as the total		
12	12 distribution plant allocations. Because the assignme	nt of the investment in general		
13	13 plant has minimal impact on the classification o	f Test Year expenses, which		
14	14 ultimately is used to determine class COS responsib	oility, a more detailed analysis		
15	15 of general plant investment was not warranted.			
16	16			
17	17 Q. Please explain how revenue requirements were classified	•		
18				
19	19 the basis for the COS analysis. Actual expenses by accou	nt for the historical 12-month		
20	20 period were used to establish the pattern of the Test Year	period were used to establish the pattern of the Test Year cost breakdown to the various		
21	21 accounts.			
22	22			
23	23 The various components of the revenue requirements were of	classified to the four basic cost		
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	ll			

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 factors used in the expense classification are summarized on pages 14 through 17 of

 2
 Exhibit __(RJM-WH-4). The methodology and rationale for that methodology is

 3
 discussed below:

- Purchased Power (Acct. 555) The demand and energy charge portions of the cost of Purchased Power were assigned to the capacity and energy components, respectively.
- 7 2. Distribution Operation and Maintenance (Accts. 580 - 598) - Distribution expense 8 accounts that are related to specific plant accounts (Accts. 582, 583, 584, 585, 586, 9 587, 591, 592, 593, 594, 595, 596 and 597) were classified in proportion to the 10 corresponding plant accounts. These expenses result from operating and 11 maintaining the distribution plant and thus may be considered plant related. The 12 remaining distribution expense accounts (Accts. 580, 581, 588, 589, 590 and 598) 13 were prorated on the basis of the sum of the previously assigned distribution 14 expense accounts. These accounts basically represent overhead or general 15 distribution expenses.
- Consumer Accounting (Accts. 901 905) Consumer Accounting expenses were
 assigned in total to the consumer component since this expense is basically
 independent of energy usage or capacity requirements. Instead, these accounts are
 related to the number of consumers.
- 20
 4. <u>Consumer Service and Information and Sales (Accts. 907 916)</u> Consumer
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 21</li
- 23 5. <u>Administrative and General (Accts. 920 932)</u> A&G expenses are common costs
 24 for which there exists no obvious relationship to the functional categories. Thus,
- 25

4

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Testimony of Richard J. Macke, page 30 1 we have assigned them in proportion to the total of all other expenses without 2 power supply. 3 6. Depreciation and Amortization (Accts. 403 - 407) - Depreciation and Amortization expense was allocated in proportion to the total plant account assignments. 4 5 7. Property Taxes (Acct. 408) - Property Taxes were assigned in proportion to the 6 total plant account assignments. 8. Other Taxes, Other Interest, and Other Deductions - Other Taxes, Other Interest, 7 and Other Deductions were assigned in a manner similar to the A&G Accounts. 8 9 9. Net Operating Income (Margin Requirement) - Since margin is comprised of 10 interest expense, which is a function of plant investment, it is reasonable to classify 11 this cost in proportion to the total plant assignments. This approach most nearly 12 parallels the method used to determine target margin requirements (i.e., TIER 13 method). 14 15 **O.** Please discuss the allocation of costs to rate classes. A. The allocation of the revenue requirement to each consumer classification is presented on 16 17 page 18 of Exhibit (RJM-WH-4). The allocations are based on various allocation 18 factors that reflect certain cost causative drivers as discussed below: 19 1. Direct Cost Allocation - Costs specifically associated with street or security 20 lighting facilities (investment and O&M) directly assigned to the Lighting Class 21 are an example of a possible direct cost allocation. 22 2. Consumer Costs Allocations - Generally speaking, consumer-related costs were 23 allocated to the various classes on the basis of the total number of consumers in 24 each class. However, several adjustments were made in the general allocation

1	procedure to reflect differences in the cost of providing basic service. Weighting
2	factors were developed on page 23 of Exhibit(RJM-WH-4) to recognize the
3	higher cost of three-phase service versus standard single-phase service for each
4	subcategory of consumer-related cost. A "weighting factor" of 0.02 was used to
5	allocate the consumer expense related to providing basic service to an individual
6	security or street light. Because these lights make use of facilities and services
7	which have been primarily provided for under other rate schedules, it may be
8	argued that it costs no more to prepare a bill for a consumer with a security light
9	than for one without. However, it seems only fair that the lighting classes should
10	be required to pay a token portion of the consumer-related expense; hence, the 0.02
11	weighting factor.
12	3. <u>Capacity Cost Allocations</u> - Three different allocation factors were developed for

- the capacity component. (See pages 24 to 27 of Exhibit __(RJM-WH-4) for the development of class demands):
- a. Line transformer capacity-related costs were allocated in accordance with the
 estimated, undiversified non-coincidental peak demand of each consumer in
 each class as this definition of demand most closely approximates transformer
 capacity requirements.
- b. Primary line and substation capacity allocated costs were allocated using the
 Average and Excess Demand Method based on the average monthly
 coincidental demand for each class (not necessarily coincidental with the
 system). Distribution system capacity-related costs are a function not only of
 the system peak, but also the individual circuit and even consumer peak
 demand. The Average and Excess Demand Method gives recognition to the

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	Testimony of Richard J. Macke, page 32
	restimony of Kichard J. Macke, page 32
1	average demand imposed on the system by each class as well as the average
2	monthly peak demand of the class (non-coincidental) and prevents any class
3	from getting a "free ride" from a capacity standpoint.
4	c. Purchased power demand charges were allocated in accordance with the
5	average monthly coincidental class demands ("12CP").
6	4. Energy Cost Allocations - Energy-related costs were allocated on the basis of total
7	energy sales in each rate class.
8	Allocation factors for each category are developed on pages 28 and 29 of Exhibit(RJM-
9	WH-4).
10	
11	Q. Please summarize the results of the COS study you performed for the Wheatland
12	division.
13	A. Results obtained from the COS analysis are summarized in Tables 8, 9 and 10 on the
14	following pages. Table 8 provides a comparison of the calculated cost of providing
15	service to each rate class with the revenue generated under the present rates by that class.
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L 2	Table 8 Wheatland Division Cost of Service Summary							
3	Rate Class	Revenue Present Rates ⁶	Revenue Requirement	Increase (I Amount	Decrease) Percent ⁷			
ŧ		(\$)	(\$)	(\$)	(%)			
	Residential (04-RS)	10,464,800	12,626,046	2,161,245	20.9			
5	GS Small (04-GSS)	939,173	1,281,201	342,028	36.9			
	GS Small W/Space Heat (04-Rider 1)	27,743	61,654	33,911	123.7			
5	GS Large (04-GSL)	8,428,985	9,892,594	1,463,609	17.6			
	GS Large W/Space Heat (04-Rider 1)	285,866	383,483	97,617	34.6			
7	Industrial (04-IS)	440,461	518,902	78,441	18.0			
	Municipal Power (04-M-I)	11,475	17,963	6,488	57.2			
3	Water Pumping (04-WP)	91,057	120,106	29,049	32.3			
	Irrigation (04-IP-I)	45,604	47,821	2,217	4.9			
)	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)	559,168	560,177	1,009	0.2			
)	Total ⁸	21,294,333	25,509,948	4,215,615	19.8			

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Table 9 shows a breakdown of the COS by cost category for each class.

1	1	
1	2	

2 3	Table 9 Wheatland Division Cost Allocation Summary							
	Power Supply		Trans-	Distrit	oution	Total		
4 Rate Class	Capacity	Energy	mission	Consumer	Capacity	COS		
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)		
5 Residential (04-RS)	2,383,799	4,792,033	195,326	1,241,247	4,013,640	12,626,046		
GS Small (04-GSS)	234,738	437,533	18,889	216,371	373,670	1,281,201		
6 GS Small W/Space Heat (04-Rider 1)	14,305	22,736	1,112	3,055	20,446	61,654		
GS Large (04-GSL)	1,845,161	4,400,400	158,127	466,096	3,022,810	9,892,594		
7 GS Large W/Space Heat (04-Rider 1)	86,737	150,168	6,864	12,522	127,192	383,483		
Industrial (04-IS)	96,240	250,115	8,454	2,928	161,165	518,902		
8 Municipal Power (04-M-I)	3,006	4,250	228	5,488	4,991	17,963		
Water Pumping (04-WP)	25,334	46,185	2,028	8,509	38,050	120,106		
9 Irrigation (04-IP-I)	9,240	13,876	710	5,673	18,322	47,821		
Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)	53,334	167,022	7,107	156,201	176,512	560,177		
0 Total	4,751,895	10,284,318	398,847	2,118,089	7,956,799	25,509,948		

21

6 Includes an allocated share of Other Operating Revenue. 22

7 Percentage is calculated using only rate schedule revenue (excludes Other Operating 23 Revenue).

24 8 The class COS excludes rate classes or consumers which are served under non-standard rates. Also excluded is the Local Access Charge category as that was evaluated separately.

Table 10 provides total costs by class expressed in terms of \$/customer/month (consumer

3 Table 10 Wheatland Division **Unit Cost Summary** 4 **Power Supply** Distribution Trans-Total Capacity Consumer Capacity **Rate Class** Energy mission Cost 5 (¢/kWh) (¢/kWh) (¢/kWh) (\$/mo.) (¢/kWh) (¢/kWh) 2.19 9.35 Residential (04-RS) 4.40 0.18 3.68 11.59 6 GS Small (04-GSS) 2.36 4.40 0.19 9.54 3.76 12.88 GS Small W/Space Heat (04-Rider 1) 2.77 4.40 0.22 14.14 3.95 11.92 7 GS Large (04-GSL) 1.84 4.40 0.16 35.25 3.02 9.89 GS Large W/Space Heat (04-Rider 1) 2.54 4.40 0.20 34.78 3.72 11.23 8 Industrial (04-IS) 2.83 1.69 4.40 0.15 40.67 9.12 Municipal Power (04-M-I) 3.11 4.40 0.24 13.45 5.16 18.59 9 Water Pumping (04-WP) 2.41 26.26 3.62 4.40 0.19 11.44 Irrigation (04-IP-I) 2.93 4.40 0.23 26.26 5.81 15.16 10 Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I) 1.40 4.40 0.19 4.65 0.19 14.75 2.03 4.40 0.17 8.80 3.40 Total - Average 10.91 11

component) and e/kWh (capacity and energy components).

12 Q. Please describe how you determined the 34.5 kV system revenue requirements which

13 is the basis for the LAC rate.

A. The 34.5 kV system provides subtransmission/distribution service to both retail and
wholesale customers. A separate COS study was therefore performed to determine the
cost of providing local access service on the 34.5 kV facilities. The resulting 34.5 kV Test
Year revenue requirements were then divided by the total wholesale and retail monthly
coincidental billing demands for the Test Year to produce the proposed monthly LAC.

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$20 \parallel \mathbf{Q}$. How did you determine the COS and rate methodology?

A. I have used the same methodology as was applied in determining the LAC for the other
five Mid-Kansas Member-Systems in Docket 969. This methodology is based on
principles of cost causation. The COS is contained in Exhibit (RJM-WH-5).

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- 25

1 || Q. Please summarize the resulting proposed LAC for the Wheatland division.

- 2 A. I have determined the proposed LAC at \$2.21 per kW-month.

Q. Will each of the Wheatland division's customers pay this LAC?

A. Yes. The proposed Wheatland divisional retail rates are based on the full revenue requirements of Wheatland including the local access facilities. The amount of wholesale or third-party LAC revenue is used as an offset to this revenue requirement as determined by the proposed LAC and wholesale billing units. Thus, the retail and wholesale customers using Wheatland's divisional local access facilities will pay the same LAC.

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PART VI - RATE DESIGN

Q. How should the results of a COS be applied?

A. It is vital to recognize some of the inherent limitations of a COS study. First, it must be emphasized that a COS analysis, while basically an engineering and economic evaluation, is an art, not an exact science. There are many different methodologies, techniques and assumptions that have been and will continue to be advocated by rate analysts. Because the various philosophies and assumptions can significantly affect the results of the analysis, the results should be treated as providing an indication of the general range of class cost responsibility, not as precise values.

10

Second, a COS analysis is of necessity directed at determining the cost imposed by a rate class on the system rather than at determining the cost imposed by individual consumers within each classification. The cost responsibility of a specific individual consumer may or may not be entirely consistent with the cost allocations made to their assigned consumer classification. Furthermore, the study does not address the problem of maintaining relatively smooth transitions between the various rate classes or subclasses of consumers which may be eligible to receive service under more than one rate schedule.

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Third, accurate demand characteristics and load factor data for individual consumer classes are often unavailable. Capacity allocations must therefore be made on the basis of estimates or "typical" data. These assumptions or estimates can have an effect on the end results.

- 24
- 25

1	Fourth, a COS analysis does not address itself to many of the other legitimate objectives
2	of rate design such as consumer acceptance or the avoidance of excessively abrupt
3	changes from the historical rate policies of the cooperative. In addition, it does not
4	recognize the desire to keep each rate schedule competitive, in as much as possible, with
5	the corresponding rate schedule of neighboring utilities or the need to keep the rate
6	structure simple so that it is easily administered and understood by consumers.
7	
8	With the above limitations in mind, a COS study may be used as a general guide for
9	assigning cost responsibility (i.e., revenue requirements) to each of the customer
10	classifications in a manner which avoids unjustifiable price discrimination. The study also
11	provides information useful in designing the individual rate schedules and provides
12	support for justifying rate differentials to retail customers.
13	
14	Q. What objectives have you considered in developing the proposed rates?
14 15	Q. What objectives have you considered in developing the proposed rates?A. There are many legitimate objectives that influence the design of rates. Some of the more
15	A. There are many legitimate objectives that influence the design of rates. Some of the more
15 16	A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows:
15 16 17	 A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows: 1. The proposed rates must develop the requisite total revenue.
15 16 17 18	 A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows: 1. The proposed rates must develop the requisite total revenue. 2. The proposed rates should reflect the cost of providing service. No class or
15 16 17 18 19	 A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows: The proposed rates must develop the requisite total revenue. The proposed rates should reflect the cost of providing service. No class or subclass should subsidize or be subsidized by another.
15 16 17 18 19 20	 A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows: The proposed rates must develop the requisite total revenue. The proposed rates should reflect the cost of providing service. No class or subclass should subsidize or be subsidized by another. The rate schedules should be simple and concise to facilitate consumer acceptance
 15 16 17 18 19 20 21 	 A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows: The proposed rates must develop the requisite total revenue. The proposed rates should reflect the cost of providing service. No class or subclass should subsidize or be subsidized by another. The rate schedules should be simple and concise to facilitate consumer acceptance and administration.
 15 16 17 18 19 20 21 22 	 A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows: The proposed rates must develop the requisite total revenue. The proposed rates should reflect the cost of providing service. No class or subclass should subsidize or be subsidized by another. The rate schedules should be simple and concise to facilitate consumer acceptance and administration. Abrupt departures from historical rate practices and levels should be avoided.
 15 16 17 18 19 20 21 22 23 	 A. There are many legitimate objectives that influence the design of rates. Some of the more important ones are as follows: The proposed rates must develop the requisite total revenue. The proposed rates should reflect the cost of providing service. No class or subclass should subsidize or be subsidized by another. The rate schedules should be simple and concise to facilitate consumer acceptance and administration. Abrupt departures from historical rate practices and levels should be avoided.

	Testimony of Richard J. Macke, page 38
1	6. Where there is a possibility of a consumer being eligible to receive service under
2	more than one rate schedule, the transition should be made as smoothly as
3	possible.
4	7. The rates should promote the efficient use of energy and system capacity.
5	8. Whenever possible, the rate schedule should be competitive with those of
6	neighboring utilities and alternative energy sources.
7	
8	It is generally not possible to fully accomplish all of the above objectives in developing
9	rate schedules. Compromises based on judgment reflecting the policy of the utility must
10	be made.
11	
12	Q. You previously indicated that you propose to phase-in the required increase. Please
13	explain.
14	A. The overall increase being proposed for the Wheatland division is \$4,264,081 or 19.4
15	percent. Mid-Kansas acknowledges the significance of this increase and the impact it will
16	have on its consumers, especially in this current economic climate. In order to balance the
17	need for immediate financial relief and longer term financial sustainability with the
18	concern for the rate and bill impact, Mid-Kansas is proposing to phase-in the increase over
19	a two-year period. The first increase would go into effect with the Commission order, and
20	the second is proposed to be effective 12 months later.
21	
22	Q. How are you proposing to determine the required increase for the two-year phase-
23	in?
24	
25	

1	
1	A. The Phase 1 increase is designed around Wheatland achieving its minimum debt service
2	coverage ("MDSC") ratio as determined by CFC. CFC requires Wheatland to achieve a
3	minimum MDSC ratio of 1.35 based on adjusted test year debt service payments of
4	\$2,244,443. The Phase 2 increase then represents the difference between this "bare bone"
5	minimum margin requirement and the margin requirements determined on a 2.00 TIER.
6	The distribution of the proposed increase between Phase 1 and Phase 2 is shown below:
7	Phase 1 increase target: \$2,384,968 or 10.9 percent
8	Phase 2 increase target:\$1,879,113 or7.7 percentTotal increase target:\$4,264,081 or19.4 percent
9	
10	Q. Please describe how you allocated the rate increase between rate classes.
11	A. The first step in designing the proposed rates was to establish the Phase 2 proposed or
12	targeted increase for each class. While the COS analysis played an important role in
13	establishing the targeted increase for each class, other rate design objectives were
14	considered, such as the need to avoid abrupt changes. In general, it is my belief that the
15	principle of rate moderation (i.e., the need to avoid abrupt changes) should be used to
16	temper the results of the COS analysis. Thus, the dollar and percentage change for each
17	class as shown in Table 8, Cost of Service Summary, was tempered by experienced
18	judgment in order to accomplish the overall rate design objectives.
19	
20	Once the Phase 2 rates were determined, I established the Phase 1 rates in a manner that
21	would step each rate and the rate design towards the ultimate Phase 2 rates while
22	achieving the Phase 1 increase allocation.
23	
24	⁹ The Phase 2 percentage increase is expressed as the incremental increase over Phase 1 rates.
25	

1Q. Have you established general guidelines for moderating the distribution of the2requisite rate increase to the various classes?

A. Yes. Recognizing the principle of "rate moderation," I have adopted the following general guidelines in distributing the requisite rate increase to the various classes:

- 1. No class should receive an increase greater than one-and-one-half times the average.
 - 2. No class should receive a rate decrease.

9 **Q.** Summarize the revenue impact of your proposed Phase 1 rates.

10 A. The rate design recommendations contained and discussed herein result in a \$2,384,968
11 revenue increase, or 10.9 percent. This breaks down to a \$2,332,925, or 10.7 percent,
12 increase in retail rates and \$52,043, or 49.3 percent, in the LAC rate charged to wholesale
13 customers.

14

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15 Q. Have you prepared a comparison of the Present and Proposed Rates for Phase 1?

A. Yes, I have. Exhibit __(RJM-WH-9) provides a comparison of the present versus
 proposed Phase 1 rates. The following Table 11 summarizes this comparison.

	Table 11				
Wheatland Division Phase 1					
(1)	Present and Pro			(5)	
(1)	(2)	(3)	(4)	(5)	(6)
. .		Revenue	Revenue		
Line		Present	Proposed	Increase (I	
No.	Rate Class	Rates	Rates	Amount	Percen
		(\$)	(\$)	(\$)	(%)
1	Residential Service (04-RS)	10,339,670	11,534,315	1,194,646	11.6
2	General Service Small (04-GSS)	927,943	1,076,765	148,822	16.0
3	General Service Large (04-GSL)	8,328,197	9,141,629	813,432	9.8
4	General Service Space Heating (04-Rider No. 1)	309,859	359,309	49,450	16.0
5	Industrial Service (04-IS)	435,195	478,508	43,314	10.0
6	Interruptible Industrial Service (04-INT)	660,257	724,811	64,554	9.8
7	Economic Development (04-EDR)	-	-	-	0.0
8	Real -Time Pricing (4-RTP)	129,461	130,107	646	0.5
9	Municipal Power Service (04-M-I)	11,337	13,148	1,810	16.0
10 11	Water Pumping Service (04-WP)	89,968	104,307	14,339	15.9
11	Irrigation Service (04-IP-I)) Temporary Service (04-CS)	45,059 8,528	46,236 9,438	1,177 910	2.6 10.7
12	Lighting	6, <i>32</i> 6 552,482	552,308	(174)	0.0
14	Total Retail Rates	21,837,956	24,170,881	2,332,925	10.7
15					
16	Local Access Charge Revenue - Third Party	105,512	157,555	52,043	49.3
17					
18	Total All Rates	21,943,468	24,328,436	2,384,968	10.9
A. T ir tł	ummarize the revenue impact of your propose the retail rate design recommendations contain incremental \$1,879,113, or 7.7 percent increase. The Phase 1 rates. This increase would allow Whe test year conditions.	ined and dis By incremen	cussed herein	e increase ov	er
i.					
Q. H A. Y	ave you prepared a comparison of the Presen es, I have. Exhibit(RJM-WH-11) provide roposed Phase 2 rates. The following Table 12 s	es a compar	ison of the	present vers	us

Testimony of Richard J. Macke, page 42 1 Table 12 Wheatland Division 2 Phase 2 **Comparison of Revenue** 3 **Present and Proposed Rates** (1)(2)(3)(4) (5) (6) 4 Revenue Revenue Line Present Proposed **Increase (Decrease)** 5 Rates Amount Percent No. **Rate Class** Rates (\$) (\$) (\$) (%) 6 Residential Service (04-RS) 11,534,315 12,498,592 964,277 8.4 1 General Service Small (04-GSS) 1.076.765 1.199,406 122,641 11.4 2 7 General Service Large (04-GSL) 9,792,598 650,969 3 9,141,629 7.1 General Service Space Heating (04-Rider No. 1) 4 359,309 400,366 41,057 11.4 8 5 Industrial Service (04-IS) 478,508 513,173 34.664 7.2 6 Interruptible Industrial Service (04-INT) 724,811 773,879 49,068 6.8 9 Economic Development (04-EDR) 7 0.0 --8 Real -Time Pricing (4-RTP) 130,107 130,775 668 0.5 Municipal Power Service (04-M-I) 9 14.659 10 13.148 1,511 11.5 Water Pumping Service (04-WP) 104.307 116,331 11.5 10 12,024 Irrigation Service (04-IP-I)) 1,010 2.2 11 46.236 47.246 11 Temporary Service (04-CS) 7.6 9,438 10,156 718 12 13 Lighting 552,308 552,814 506 0.1 12 14 **Total Retail Rates** 24,170,881 26,049,994 1,879,113 7.8 13 15 Local Access Charge Revenue - Third Party 16 157,555 157,555 14 17 18 26,207,549 1,879,113 7.7 **Total All Rates** 24,328,436 15 16 Q. What type of ECA is being proposed for the Wheatland division? A. Wheatland is proposing a monthly ECA that captures the difference between the actual 17 monthly average purchased power expense per kWh sold and the base purchased power 18 19 expense per kWh sold as contained in this application. This is sometimes referred to as an ECA-2 and is the same type of ECA that was approved by the Commission for use in the 20 other five Mid-Kansas division retail rates. 21 22 23

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- 25

Q. Have you determined the base to be used in calculating the future ECA? 1

- 2 A. Yes. In Exhibit (RJM-WH-12), I have calculated the ECA base at \$0.064303 per kWh sold. 3
- 5 Q. Is Mid-Kansas proposing changes to other charges in addition to the rate schedules 6 identified above?
 - A. No.

4

7

8

Q. Have you prepared rate schedules reflecting the proposed changes discussed in your 9 testimony? 10

- A. Yes. Exhibit (RJM-WH-13) includes the present rate schedules. This exhibit is 11 followed by Exhibit (RJM-WH-14) that includes redline versions of present rate 12 schedules showing all the proposed changes, additions and deletions. Finally, Exhibit 13 (RJM-WH-15) presents a "clean" version of proposed rate schedules. 14
- 15

16

Q. Why haven't you included a proposed Schedule PGS?

- A. Under a separate docket, Mid-Kansas has applied for changes to this schedule on behalf of 17 all the Mid-Kansas Member-Systems. I am deferring to that separate filing to determine any changes being proposed for this and related rate schedules. 19
- 20

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25

Q. Does this conclude your prefiled Direct Testimony for the Mid-Kansas rates?

A. Yes, it does. 22

STATE OF MINNESOTA)	
) ss.	•
COUNTY OF ISANTI)	

VERIFICATION

Richard J. Macke, being duly sworn upon his oath, deposes and says that he is Richard J. Macke referred to in the foregoing document entitled "Prefiled Direct Testimony and Exhibits of Richard J. Macke" before the State Corporation Commission of the State of Kansas and that the statements therein were prepared by him or under his directions and are true and correct to the best of his knowledge, information, and belief.

Richard J. Marke

Subscribed and sworn to me this 24th day of <u>November</u>, 2010.

<u>Marilyn M. Cuellar</u> Notary Public

My Appointment Expires:

1/31/15



Exhibit 1 - Curriculum Vitae -Richard J. Macke

I



RICHARD J. MACKE VICE PRESIDENT, RATES AND FINANCIAL PLANNING

SUMMARY OF EXPERIENCE AND EXPERTISE

- Over 14 years of experience in electric utility consulting.
- Specialized expertise in financial analyses with particular emphasis on utility finance, rate and cost of service matters, financial planning, and financial modeling.

PROFESSIONAL EXPERIENCE

Power System Engineering, Inc. – Minneapolis, MN (1999-present)

Vice President, Rates and Financial Planning (July 2010-present) Leader, Rates and Financial Planning (April 2008-June 2010) Senior Rate and Financial Analyst (2002-March 2008) Rate and Financial Analyst (1999-2002)

As Vice President of Rates and Financial Planning Department at PSE, responsibilities include providing senior level consulting services to clients in the areas of cost of service, rate design, financial planning and forecasting, merger and acquisition analysis, and support. Additional responsibilities include strategic planning, litigation support, regulatory compliance, capital expenditure, and operational assessments and advisement.

Energy & Resource Consulting Group, LLC – Denver, CO (1998-1999)

Senior Analyst

Senior Analyst for financial, engineering and management consulting firm. Performed consulting services related to electric, gas, and water rate studies. Part of the Financial and Engineering Advisor Team contracted to the City Council of the City of New Orleans, LA to assist in various electric and gas utility matters. Provided expert testimony and participated in various regulatory proceedings involving the City Council, the Public Utilities Commission of Texas, and the Public Utilities Commission of Nevada. Provided general financial, management, and public policy support to clients.

Power System Engineering, Inc. - Blaine, MN (1996-1998)

Financial Analyst

Financial Analyst in Utility Planning and Rates Division. Emphasis on retail rate studies, including revenue requirements, and bundled/unbundled cost of service studies. Provided analysis used to support testimony, mergers and acquisitions cases, and financial forecasting.

Cenerprise, Inc. – Minneapolis, MN (February-May 1996)

Energy Sales Analyst Intern for NSP Subsidiary

Performed cost savings analyses for businesses, schools, and hospitals. Created training packages for use in other Cenerprise offices consisting of rate tariffs, preliminary consumption analysis, savings analysis, cost projections, and financial analysis.

RICHARD J. MACKE

EDUCATION

University of Minnesota, Minneapolis, MN

Masters of Business Administration (emphasis on Finance and Strategic Management), 2007

Bethel University, St. Paul, MN

Bachelor of Arts Degree in Business (emphasis on Finance and Marketing), Minor: Economics, 1996

ADDENDUM REFERENCES

Expert Testimony



PSE

RICHARD J. MACKE ADDENDUM - EXPERT TESTIMONY

Case or Jurisdiction	<u>Docket No.</u>	Description
Kansas	09-MKEE-969 -RTS	Mid-Kansas Electric Company, LLC, application for approval to make certain changes in the charges for electric services. Filed on behalf of Mid-Kansas and its member-owners: Lane- Scott Electric Cooperative, Inc.; Prairie Land Electric Cooperative, Inc.; Southern Pioneer Electric Company, Inc.; Victory Electric Cooperative Association, Inc.; Western Cooperative Electric Association, Inc.; and Wheatland Electric Cooperative, Inc.
Kansas	09-PNRE-563 -RTS	Pioneer Electric Cooperative, Inc., application to increase rates. Testimony filed on behalf of Pioneer.
Kansas	09-WHLE-681 -RTS	Wheatland Electric Cooperative, Inc., application to increase rates. Testimony filed on behalf of Wheatland.
Minnesota	E-111/ GR-03-261	Dakota Electric Association, application to increase rates. Testimony filed on behalf of Dakota.
Texas	2150	North Star Steel, appropriateness of settlement rates being charged by Entergy Gulf States, Inc. Testimony filed on behalf of North Star Steel before the Public Utilities Commission of Texas.



Exhibit 2 - Statement of Operations - Present Rates

Statement of Operations Present Rates For the Test Year Ended 12/31/09

(a)	(b)	(c)	(d)	(e)
Line		Actual		Pro Forma
No.	Description	Test Year ¹	Adjustments ²	Test Year
1	Operating Revenue			
2	Sales of Electricity	21,813,729	\$ 129,739	\$ 21,943,468
3	Other	254,623		254,623
4	Total Operating Revenue	\$ 22,068,352	\$ 129,739	\$ 22,198,091
5				
6	Operating Expenses			
7	Cost of Purchased Power	16,690,867	(1,063,490)	15,627,377
8	Transmission - O & M	94,681	9,655	104,337
9	Distribution - Operation	1,252,356	110,480	1,362,836
10	Distribution - Maintenance	715,897	40,112	756,009
11	Consumer Accounts	589,067	31,520	620,587
12	Consumer Service & Information	20		20
13	Sales	22,655		22,655
14	Administrative & General	1,837,953	34,028	1,871,981
15	Depreciation & Amortization	1,868,481	(140,278)	1,728,203
16	Taxes - Property	855,925		855,925
17	Taxes - Other	146,954		146,954
18	Interest on Long Term Debt	1,691,914	70,213	1,762,127
19	Other Interest Expense	139,972		139,972
20	Other Deductions	47,896		47,896
21	Total Operating Expenses	\$ 25,954,639	\$ (907,759)	\$ 25,046,880
22				
23	Net Operating Margins	\$ (3,886,287)	\$ 1,037,498	\$ (2,848,789)
24				
25	Non-Operating Margins			
26	Capital Credits	-		-
27	Non-Operating Margins - Interest	1,407		1,407
28	Non-Operating Margins - Other	1,418,309	(1,076,451)	341,858
29	Total Non-Operating Margins	\$ 1,419,716	\$ (1,076,451)	\$ 343,265
30		<u>`</u> `		
31	Total Patronage Capital & Margins	\$ (2,466,571)	\$ (38,953)	\$ (2,505,524)

¹ See WH-Workpaper A for the 2009 statement of operations.

² See Page 2 for a summary of adjustments and page reference to supporting schedules.

Supporting	Adjustment Schedules
Summa	ry of Adjustments

Summary of Aujusti	ients		
(a)	(b)		(c)
Description	Page	_	Amounts
I. Revenues			
Schedule A - Adjustment to Revenue	4	\$	129,739
II. Purchased Power Expense			
Schedule B - Purchased Power	9	\$	(1,063,490)
III. Transmission O&M Expense			
Schedule C - Payroll	10	\$	183
Schedule D - Payroll Related Expenses	13	\$	400
Schedule H - Property Tax Expense	15	\$	9,256
		\$	9,655
IV. Distribution - Operations Expense			
Schedule C - Payroll	10	\$	30,044
Schedule D - Payroll Related Expenses	13	\$	65,671
Schedule H - Property Tax Expense	15	\$	14,765
		\$	110,480
V. Distribution - Maintenance Expense			
Schedule C - Payroll	10	\$	7,956
Schedule D - Payroll Related Expenses	13	\$	17,391
Schedule H - Property Tax Expense	15	\$	14,765
Sonoano II Tropony Tan Enpense	10	\$	40,112
VI. Consumer Accounts Expense			
Schedule C - Payroll	10	\$	9,894
Schedule D - Payroll Related Expenses	13	\$	21,626
			31,520
VII. Administrative and General Expense			
Schedule C - Payroll	10	\$	6,496
Schedule D - Payroll Related Expenses	13	\$	14,199
Schedule G - Rate Case Expense	15	\$	13,333
Schedule H - Property Tax Expense	15	\$	2,645
		\$	34,028
VIII. Depreciation Expense			
Schedule E - Depreciation	14	\$	(140,278)
IX. Interest on Long Term Debt Expense		Φ.	70.010
Schedule F - Long Term Interest Expense	14		70,213
X. Non-Operating Income			
Schedule I - 34.5kV Reimbursement	15	\$	(1,076,451)

(a)	(b)	(c)	(d)	(e)	(f)
Line		Avg. No.	Energy	Billing	
No.	Description	Cons. ¹	Sales	Demand ¹	Revenue ¹
			(kWh)	(kW)	(\$)
1	Residential Service (04-RS)	11,080	109,108,745	N.A.	10,314,531
2	General Service Small (04-GSS)	1,922	10,112,604	N.A.	937,787
3	General Service Large (04-GSL)	1,061	102,665,774	273,838.6	8,233,328
4	General Service Space Heating (04-Rider No. 1)	50	4,095,668	12,976.0	318,666
5	Industrial Service (04-IS)	6	4,769,849	12,289.6	377,854
6	Interruptible Industrial Service (04-INT)	2	7,727,200	30,962.0	656,149
7	Economic Development (04-EDR)	2	1,859,278	5,638.7	122,913
8	Real -Time Pricing (4-RTP)	2	2,020,983	3,282.0	129,461
9	Municipal Power Service (04-M-I)	34	96,641	N.A.	11,162
10	Water Pumping Service (04-WP)	27	1,050,253	N.A.	89,518
11	Irrigation Service (04-IP-I))	18	315,540	N.A.	45,009
12	Temporary Service (04-CS)	27	51,293	N.A.	8,587
13	Lighting	4,484	3,798,089	N.A.	568,824
14					
15	Total ²	14,231	247,671,917	338,986.8	21,813,787

I. Consumer and Sales Data for Test Year Ended 12/31/09 (As Recorded)

¹ Figures for test year ended Dec 31, 2009 as reported by Wheatland and contained in WH-Workpaper-B and WH-Workpaper-C.

² Total number of consumers excludes Security Lighting.

(a)	(b)	(c)	(d)	(e)	(f)
Line		Avg. No.	Energy	Billing	
No.	Description	Cons. ¹	Sales ²	Demand	Revenue ³
			(kWh)	(kW)	(\$)
1	Residential Service (04-RS)	11,066	108,970,882	N.A.	10,339,670
2	General Service Small (04-GSS)	1,891	9,949,497	N.A.	927,943
3	General Service Large (04-GSL) ^{4,5}	1,102	100,065,139	272,432.2	8,328,197
4	General Service Space Heating (04-Rider No. 1)	48	3,931,841	12,976.0	309,859
5	Industrial Service (04-IS) ⁴	6	5,687,609	14,209.5	435,195
6	Interruptible Industrial Service (04-INT)	2	7,727,200	30,962.0	660,257
7	Economic Development (04-EDR) ⁴	-	-	-	-
8	Real -Time Pricing (4-RTP)	2	2,020,983	3,282.0	129,461
9	Municipal Power Service (04-M-I)	34	96,641	N.A.	11,337
10	Water Pumping Service (04-WP)	27	1,050,253	N.A.	89,968
11	Irrigation Service (04-IP-I))	18	315,540	N.A.	45,059
12	Temporary Service (04-CS)	27	51,293	N.A.	8,528
13	Lighting	4,484	3,798,089	N.A.	552,482
14	Local Acces Charge		_	71,292	105,512
15	Total ⁶	14,175	243,664,968	405,153.4	21,943,468
					01.012.722
	Historical Revenue			-	21,813,729
	Adjustment				129,739

II. Consumer and Sales Data for Pro Forma Test Year

¹ Figures for test year ended Dec 31, 2009 as reported by Wheatland and contained in WH-Workpaper-B and WH-Workpaper-C.

² Energy sales are based on historical average energy usage per consumer.

³ See Schedule A, pages 5 - 8.

4	Expired Economic Development (04-EDR) Credits					
	Date of EDR GSL Expiration; Customer A - Feb 09, Customer	B - May 09, Cus	tomer C - Jun 09			
	Moved to General Service Large (04-GSL)	1	941,518	3,370.8		
	Moved to Industrial Service (04-IS), expired Sept 09	1	917,760	1,919.9		
5	Adjustment for known additional customer in General Service Large (04-GSL) contained in WH-Workpaper-B					
	Customer Added	1	1,463,385	3,906.0		

⁶ Total number of consumers excludes Security Lighting.

II. Estimate of Pro Forma Test Year Revenue Under Present Rates Billing

	Billing			
Rate Class	Determinants	Units	Rate	Revenue
Residential Service (04-RS)				\$
Customer Charge	11,066	cons	\$8.39	1,114,12
Delivery Charge				
Summer - All kWh	45,397,188	kWh	\$0.06011	2,728,82
Winter (Nov-Jun)	60,772,192	kWh	\$0.04576	2,780,93
Electric Heat Winter				
801-5800 kWh	2,801,502	kWh	\$0.01901	53,25
Energy Cost Adjustment ¹	108,970,882	kWh	\$0.03361	3,662,52
General Service Small (04-GSS)				10,339,67
Customer Charge	1,891	cons	\$9.78	221,92
Delivery Charge	1,071	cons	ψ2.70	221,92
Summer (July to Oct.)	3,672,710	kWh	\$0.04504	165,41
Winter (Nov-Jun)	6,276,788	kWh	\$0.03285	206,19
Energy Cost Adjustment ¹	9,949,497	. kWh	\$0.03361	334,40
Ellergy Cost Augustilent	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	K VV II	\$0.05501 <u></u>	927,94
General Service Large (04-GSL)				
Customer Charge	1,102	cons	\$11.18	147,84
Demand Charge per kW>9				
Summer (July to Oct.)	106,240.1	kW	\$6.99	742,61
Winter (Nov-Jun)	166,192.1	kW	\$4.47	742,87
Delivery Charge				
Summer (July to Oct.)	37,965,659	kWh	\$0.03978	1,510,27
Winter (Nov-Jun)	62,099,480	kWh	\$0.02933	1,821,37
Energy Cost Adjustment ¹	100,065,139	kWh	\$0.03361 _	3,363,20
General Service Space Heating (04-Rider No. 1)				8,328,19
Customer Charge GSS	18		\$9.78	2,11
Customer Charge GSL	30		\$11.18	4,02
Demand Charge per kW>9	50		\$11.10	1,02
Summer (July to Oct.)	4,385.0	kW	\$6.99	30,65
Winter (Nov-Jun)	8,591.0	kW	\$4.47	38,40
Energy Charge	0,571.0	K VV	ψ/	50,40
Summer (July to Oct.) GSS	37,076	kWh	\$0.04504	1,67
Summer (July to Oct.) GSL	1,340,002	kWh	\$0.03978	53,30
Winter (Nov-Jun)	2,554,764	kWh	\$0.01861	47,54
Energy Cost Adjustment 1	3,931,841	kWh	\$0.03361	132,15
Energy Cost Aujustment	5,951,041	K W II	\$0.05501 _	309,85
Industrial Service (04-IS)				,
Customer Charge	6	cons	\$100.62	7,24
Demand Charge				
Summer (July to Oct.)	4,964.5	kW	\$10.62	52,72
Winter (Nov-Jun)	9,245.0	kW	\$7.43	68,69
Delivery Charge				
Summer (July to Oct.)	2,041,695	kWh	\$0.02717	55,47
Winter (Nov-Jun)	3,645,914	kWh	\$0.01643	59,902
Energy Cost Adjustment ¹	5,687,609	kWh	\$0.03361	191,16
				435,19

¹ See footnote 3 on page 9.

II. Estimate of Pro Forma Test Year Revenue Under Present Rates

	Billing						
Rate Class	Determinants	Units	Rate	Revenue			
Interruptible Industrial Service (04-INT)				\$			
Customer Charge	2	cons	\$100.62	2,415			
Primay Service Discount				(5,669)			
Demand Charge							
Non-Interruptible							
Summer (July to Oct.)	4,400	kW	\$10.62	46,728			
Winter (Nov-Jun)	8,800	kW	\$7.43	65,384			
Interruptible	30,962	kW	\$4.47	138,400			
Penalty		kW	\$31.24				
Delivery Charge							
Summer (July to Oct.)	2,451,423	kWh	\$0.02717	66,605			
Winter (Nov-Jun)	5,275,777	kWh	\$0.01643	86,681			
Energy Cost Adjustment ¹	7,727,200	kWh	\$0.03361	259,712			
	, ,		· · · · · ·	660,257			
Real -Time Pricing (4-RTP)				,			
Customer Charge	2	cons	\$251.55	6,037			
	2,020,983	kWh		123,424			
	, ,		_	129,461			
<u> Municipal Power Service (04-M-I)</u>							
Customer Charge	34	cons	\$10.06	4,104			
Delivery Charge							
Summer (July to Oct.)	57,003	kWh	\$0.04880	2,782			
Winter (Nov-Jun)	39,638	kWh	\$0.03035	1,203			
Energy Cost Adjustment ¹	96,641	kWh	\$0.03361	3,248			
				11,337			
Vater Pumping Service (04-WP)							
Customer Charge	27	cons	\$16.21	5,252			
Delivery Charge							
Summer (July to Oct.)	395,613	kWh	\$0.06099	24,128			
Winter (Nov-Jun)	654,640	kWh	\$0.03863	25,289			
Energy Cost Adjustment ¹	1,050,253	kWh	\$0.03361	35,299			
			_	89,968			
rrigation Service (04-IP-I))							
Demand Charge per hp	728	/HP/yr.	\$29.92	21,782			
Delivery Charge							
Summer (July to Oct.)	299,752	kWh	\$0.04097	12,281			
Winter (Nov-Jun)	15,788	kWh	\$0.02476	391			
Energy Cost Adjustment ¹	315,540	kWh	\$0.03361	10,605			
				45,059			

¹ See footnote 3 on page 9.

WH East RevReq 2010-11-29 Final Draft.xlsm

II. Estimate of Pro Forma Test Year Revenue Under Present Rates

	Billing			
Rate Class	Determinants	Units	Rate	Revenue
Temporary Service (04-CS)				\$
Delivery Charge	51,293	kWh	\$0.13265	6,804
Energy Cost Adjustment ¹	51,293	kWh	\$0.03361	1,724
				8,528
Private Area / Street Lighting (04-PAL-SL-I)				
Private Area Light (Coop owned)				
On Existing Pole				
100 W P.A.L. Cust 0%	778	lights	\$6.42	59,937
100 W P.A.L. Cust 100%	2	lights	\$1.43	
150 W P.A.L. Cust 0%	8	lights	\$10.35	994
200 W P.A.L. Cust 0%	8	lights	\$11.14	1,069
On New Pole (Wood)				
100 W P.A.L. Cust 0%	94	lights	\$11.78	13,288
100 W P.A.L. Cust 100%	1	lights	\$1.78	21
200 W P.A.L. Cust 0%	2	lights	\$12.75	306
Flood Lights		•		
On Existing Pole				
150 W Flood Cust 0%	72	lights	\$12.71	10,981
150 W Flood Cust 100%		lights	\$2.03	49
400 W Flood Cust 0%		lights	\$21.29	22,993
400 W Flood Cust 25%		lights	\$16.75	402
400 W Flood Cust 75%		lights	\$7.88	284
400 W Flood Cust 100%		lights	\$3.56	85
1000 W Flood M.H. 0%		lights	\$24.63	5,320
On New Pole (Wood)	10		4-	- ,
150 W Flood Cust 0%	12	lights	\$14.66	2,111
400 W Flood Cust 0%		lights	\$23.22	5,573
400 W Flood Cust 50%		lights	\$13.23	159
1000 W Flood M.H. Cust 0%		lights	\$39.32	2,359
Street Lights	5	inginto	¢39.32	2,505
On Existing Pole				
100 W P.A.L. Cust 0%	6	lights	\$7.30	526
150 W P.A.L. Cust 0%		lights	\$8.09	485
On New Pole (Wood)	5	ngins	\$0.07	-05
100 W P.A.L. Cust 0%	4	lights	\$11.78	565
200 W P.A.L. Cust 100%		lights	\$2.22	80
On Existing Pole	5	ingins	\$2.22	80
	15	Lakta	¢0.70	1 746
200 W Cobra Head Cust 0%		lights	\$9.70	1,746
400 W Cobra Head Cust 0%	1	lights	\$10.82	130
On New Pole (Wood)	2	11.1.	¢14.05	227
100 W Cobra Head Cust 0%		lights	\$14.05	337
400 W Cobra Head Cust 0%	1	lights	\$16.24	195
On New Pole (Steel)			#**	
200 W Cobra Head Cust 0%	1	lights	\$23.83	286
200 W Cobra Head Cust 50%				
200 W Coola ficad Cust 5070	21	lights	\$13.18	3,321
Energy Cost Adjustment ¹			\$13.18 \$0.03361	3,321 127,654

¹ See footnote 3 on page 9.

<u>II.</u>	Estimate o	<u>f Pro</u>	<u>Forma</u>	Test	Year	Revenue	Under	Present	<u>Rates</u>	
									Billin	σ

	Billing			
Rate Class	Determinants	Units	Rate	Revenue
Vapor Street Lighting Ornamental Service (04-OSL-V-I)				\$
Coop Owned				
<u>Acorn</u>				
100 W HPS Cust 100%		lights	\$2.90	174
250 W HPS Cust 100%	145	lights	\$3.62	6,299
Single Globe				
70 W HPS Cust 100%	47	lights	\$2.56	1,444
<u>Lantern</u>				
100 W HPS Cust 100%	13	lights	\$3.03	473
250 W HPS Cust 100%		/mo.	\$3.75	
<u>Shoebox</u>				
100 W HPS Cust 100%	5	lights	\$3.35	201
250 W HPS Cust 100%	16	lights	\$4.07	781
400 W HPS Cust 100%	44	lights	\$4.93	2,603
_	275	lights		
Street Lighting Service (04-SL-I) Frozen				
175 W MV 7000 Lumens	1,388	lights	\$6.88	114,593
Controlled Private Area Lighting (04-PAL-I) Frozen				
100 W HPS/175 W MV	606	lights	\$6.42	46,686
200 W HPS/400 W MV	56	lights	\$11.14	7,486
150 W HPS/400 W MV (Flood)	73	lights	\$12.71	11,134
400 W HPS/1000 W MV (Flood)	72	lights	\$21.29	18,395
_	807	lights		
Vapor Street Lighting Ornamental Service (04-OSL-V-I)				
100 W HPS/150 W MV	482	lights	\$7.30	42,223
150 W HPS/250 W MV	122	lights	\$8.09	11,844
200 W HPS/400 W MV	231	lights	\$9.70	26,888
-	835	lights		
Total Lighting	4,484	lights	_	552,482
Local Acces Charge				
Demand Charge	71,292	kW	\$1.48	5 105,512
Grand Total	243,664,968	kWh		21,943,468

Schedule B Pro Forma Purchased Power Expense and Adjustment

Mid-Kansas Electric Company, LLC								
Units Pro Forma Test Year								
Description	Purchased ¹	Rate ²		Amount				
Demand Charge	538,548 kW-mo.	\$6.29 /kW	\$	3,387,466				
Energy Charge	262,190,821 kWh	\$0.009896 /kWh	\$	2,594,640				
ECA Rate ³	262,190,821 kWh	\$0.030976 /kWh	\$	8,121,691				
OATT Rate			\$	1,523,580				
Energy 3-2-1 Member Credits			\$	-				
Total	262,190,821 kWh	0.0596 /kWh	\$	15,627,377				
Pro Forma Purchased Power Expe Pro Forma Adjustment Historical Test Year Purchased Po	\$ \$ \$	15,627,377 (1,063,490) 16,690,867						

¹ Pro-Forma kWh sales adjusted for line loss, Demand units calculated using historical year average load factor.

² Current MKEC wholesale rates ECA is 2009 historical amounts.

³ Reference WH-Workpaper-D. Equivalent Retail ECA equal to \$0.03361 per kWh.

Schedule C Adjustment to Payroll Expense

<u>I. Adju</u>	stments to Payroll Expense ¹		
<u>A.</u>	Actual wages recorded during the test year.		
	1. From January 1, 2009 to November 30, 2009 payroll		\$ 2,490,601
	2. From December 1, 2009 to December 31, 2009 payroll		\$ 256,045
			\$ 2,746,645
<u>B.</u>	Adjustments to annualize December 1, 2009 payroll increase.		
	1. Test Year payroll prior to increase \$	2,490,601	
	2. Percent increase	3.50%	
	3. Increase		\$ 87,171
	Subtotal		\$ 2,833,816
<u>C.</u>	Total Pro Forma Test Year Payroll Increase		
	1. Pro Forma Test Year Payroll		\$ 2,833,816
	2. Less: Test Year Payroll		\$ 2,746,645
	3. Total Payroll Increase		\$ 87,171
II. Sum	mary		
			Total
1. V	ages booked in Test Year		\$ 2,746,645
2. A	djustments (Schedule C, Part I)		
	Test Year Changes		
	a. Increase in Wages		\$ 87,171
	Total Adjustments		\$ 87,171
3. T	otal Pro Forma Test Year Payroll		\$ 2,833,816
		:	

III. Allocation of Payroll Adjustment to Expense Categories

		Payroll Recorded in	Allocation		
Category		Test Year	Factor	A	djustment
Transmission	\$	5,761	0.21%	\$	183
Distribution Operations	\$	946,645	34.47%	\$	30,044
Distribution Maintenance	\$	250,688	9.13%	\$	7,956
Consumer Accounts	\$	311,742	11.35%	\$	9,894
Consumer Service	\$	-	0.00%	\$	-
Sales Expense	\$	-	0.00%	\$	-
Admin. and General	\$	204,677	7.45%	\$	6,496
Regulatory Expense	\$	_	0.00%	\$	-
Sub-tota	1 \$	1,719,513	62.60%	\$	54,390
Other	\$	1,027,133	37.40%	\$	32,598
Total	\$	2,746,645	100.00%	\$	87,171

¹ Reference WH-Workpaper-E

WH East RevReq 2010-11-29 Final Draft.xlsm

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Schedule D Adjustment to Payroll Related Expenses

			Total
<u>Total C</u>	hange in Payroll per Schedule C ¹	\$	87,171
	rements & Pension		
1.	Adjustment due to increase in payroll		
	a. Rate		12.86%
	b. Adjustment	\$	11,212
2.	Adjustment due to increase in rate		
	a. Total pro forma payroll	\$	2,833,816
	b. Change in rate		4.50%
	c. Adjustment	\$	127,522
3.	Subtotal Retirements & Pension	\$	138,734
<u>B. 401</u>	<u><</u>		
1.	Adjustment due to increase in payroll		
	a. Rate		5.08%
	b. Adjustment	\$	4,432
2.	Adjustment due to increase in rate		
	a. Total pro forma payroll	\$	2,833,816
	b. Change in rate		0.00%
	c. Adjustment	\$	
3.	Subtotal 401K	\$	4,432
C. Shor	t Term Disability		
1.	Adjustment due to increase in payroll		
	a. Rate		0.23%
	b. Adjustment	\$	201
2.	Adjustment due to increase in rate		
	a. Total pro forma payroll	\$	2,833,816
	b. Change in rate		0.00%
	c. Adjustment	\$	
3.	Subtotal Short Term Disability	_\$	201

Schedule D Adjustment to Payroll Related Expenses

			Total
<u>Total C</u>	hange in Payroll per Schedule C ¹	\$	87,171
D. Wor	kmen's Compensation		
1.	Adjustment due to increase in payroll		
	a. Rate		1.05%
	b. Adjustment	\$	919
2.	Adjustment due to increase in rate		
	a. Total pro forma payroll	\$	2,833,816
	b. Change in rate		0.00%
	c. Adjustment	\$	-
3.	Subtotal Workmen's Compensation	\$	919
ги	and a second		
	<u>itilization Insurance</u>		
1.	Adjustment due to increase in payroll a. Rate		19.60%
		\$	
	b. Adjustment	<u> </u>	17,082
2.	Adjustment due to increase in rate		
	a. Total pro forma payroll	\$	2,833,816
	b. Change in rate		0.00%
	c. Adjustment	\$	-
3.	Subtotal Hospitilization Insurance	\$	17,082
F. State	and Federal Unemployment		
1.	Adjustment due to increase in payroll		
	a. Rate		0.12%
	b. Adjustment	\$	103
2.	Adjustment due to increase in rate		
	a. Total pro forma payroll	\$	2,833,816
	b. Change in rate	Ť	0.20%
	c. Adjustment	\$	5,611
3.	Subtotal State and Federal Unemployment	\$	5,714
<u>G. Grou</u>	<u>p Term Life</u>		
	1. Adjustment due to increase in payroll		0.7.10/
	a. Rate		0.74%
	b. Adjustment	\$	646
	2. Adjustment due to increase in rate		
	a. Total pro forma payroll	\$	2,833,816
	b. Change in rate	·	0.00%
	c. Adjustment	\$	
	3. Subtotal Group Term Life	\$	646

		Total
<u>Total Ch</u>	ange in Payroll per Schedule C ¹	\$ 87,171
<u>H. FICA</u>		
	1. Adjustment due to increase in payroll	
	a. Rate	 7.63%
	b. Adjustment	\$ 6,651
	2. Adjustment due to increase in rate	
	a. Total pro forma payroll	\$ 2,833,816
	b. Change in rate	 0.00%
	c. Adjustment	\$
	3. Subtotal FICA	\$ 6,651
<u>I. Summ</u>	ary	
1.	Retirements & Pension	\$ 138,734
2.	401K	\$ 4,432
3.	Short Term Disablility	\$ 201
4.	Workmen's Compensation	\$ 17,082
5.	Hospitalization Insurance Expense	\$ 17,082
6.	State and Federal Unemployment	\$ 5,714
7.	Life Insurance	\$ 646
8.	Sub-Total	\$ 183,891
9.	FICA	\$ 6,651
10.	Total	\$ 190,542

Schedule D Adjustment to Payroll Related Expenses

J. Allocation Payroll Related Expense Adjustments to Expense Categories

		Payroll			
		Recorded in			
Category		Test Year	Allocation Factor	A	djustment
Generation		-	0.00%	\$	-
Transmission		5,761	0.21%	\$	400
Distribution Operations		946,645	34.47%	\$	65,671
Distribution Maintenance		250,688	9.13%	\$	17,391
Consumer Accounts		311,742	11.35%	\$	21,626
Consumer Service		-	0.00%	\$	-
Sales Expense		-	0.00%	\$	-
Admin. and General		204,677	7.45%	\$	14,199
Regulatory Expense		-	0.00%	\$	-
1	Sub-total	\$ 1,719,513	62.60%	\$	119,287
Other		1,027,133	37.40%	\$	71,255
	Fotal	\$ 2,746,645	100.00%	\$	190,542

Schedule E Adjustment to Depreciation Expense

A. Depreciation on Existing Plant ¹		
1. Depreciation Expense Recorded for Plant as of December 31, 2009	\$	156,202
2. Less: Acquisisition Premium Amortization for December 31, 2009	\$	12,185
2. Multiply by 12 Months		12
3. Normalized Depreciation Expense on Existing Plant	\$	1,728,203
<u>B Summary</u>		
1. Total Depreciation Expense for the Pro Forma Test Year	\$	1,728,203
2. Less: Actual Depreciation Expense recorded during the Test Year	. \$	1,868,481
3. Adjustment to Depreciation Expense	\$	(140,278)
Schedule F		
Adjustment to Long Term Interest Expense		
 <u>A. Interest on Existing Loans</u> 1. Interest Expense for the month of December 31, 2009 2. Multiply by 12 Months 	\$	140,071
	<u>_</u>	12
3. Normalized Interest Expense on Existing Loans	_\$	1,680,854
B. Interest on New Loans		
1. New Loans Requisitioned June 28, 2009	\$	2,580,099
2. Interest Rate.		3.15%
3. Estimated Interest Expense on New Loan Funds	\$	81,273
C. Summary		
1. Interest Expense for the Pro Forma Test Year		
a. Interest on Existing Debt	\$	1,680,854
b. Interest on New Debt	\$	81,273
c. Total	\$	1,762,127
2. Less: Actual Interest Expense recorded during the Test Year	\$	1,691,914
3. Adjustment to Interest on Long Term Debt	\$	70,213

Schedule G Adjustment for Rate Case Expense

1. Estimated Rate Case Expense	\$ 40,000
2. Amortize Over 3 Years	 3
3. Adjustment to A&G for Estimated Rate Case Expense	\$ 13,333

Schedule H Adjustment to Property Tax Expense

A. Property Taxes¹

Category	Historical Year			2010	Adjustment		
Property taxes paid by category							
Transmission	\$	179,744	\$	189,000	\$	9,256	
Distribution Operations	\$	286,735	\$	301,500	\$	14,765	
Distribution Maintenance	\$	286,735	\$	301,500	\$	14,765	
Consumer Accounts	\$	51,356	\$	54,000	\$	2,645	
Administrative & General	\$	51,356	\$	54,000	\$	2,645	
	\$	855,925	\$	900,000	•		

Schedule I Adjustment to Non-Operating Income

A. Non-Operating Income

1. Non-Operating Income for the Period Ending December 31, 2009	\$ 1,418,309
2. Less: 34.5kV Reimbursement through December 31, 2009	\$ 1,445,743
3. Less: Amortization of Acquisition Premium.	\$ 146,221
4. Plus: Adjustment of K-1 income for 2009	\$ 515,514
5. Normalized Non-Operating Income for the Pro Forma Test Year	\$ 341,858
6. Adjustment to Non-Operating Income	\$ (1,076,451)

Exhibit 3 - Revenue Requirements

Determination of Revenue Requirements -- Summary Times Interest Earned Ratio (TIER) Method

(a)	(b)	(c)	(d)	(e)	(f)
		12/31/09		Forma Test Y	
Line		Test Year	Present	Propose	
No.		Actual	Rates	Phase 1	Phase 2
<u>Fina</u>	ncial Results From Rates	(\$)	(\$)	(\$)	(\$)
1	Total Revenue ¹	22,068,352	22,198,091	24,583,059	26,462,171
_ 2	Operating Expense (before interest expense) ¹	24,262,725	23,284,752	23,284,752	23,284,752
3	Net Operating Income (before interest expense) ²	(2,194,373)	(1,086,662)	1,298,306	3,177,419
4	Capital Credits ³	-	-	-	
5	Non-Operating Margins - Interest ³	1,407	1,407	1,407	1,407
6	Non-Operating Margins - Other ³	1,418,309	341,858	341,858	341,858
7	Total Margin (before interest expense) ⁴	(774,657)	(743,397)	1,641,572	3,520,684
8	Long Term Interest ³	1,691,914	1,762,127	1,762,127	1,762,127
9	TIER ⁵	(0.46)	(0.42)	0.93	2.00
Requ	<u>uired Increase (Decrease) -TIER Objective</u>				
10	Operating Expenses (excluding interest) ¹	24,262,725	23,284,752	23,284,752	23,284,752
11	Margin Requirements				
12	Interest Expense ³	1,691,914	1,762,127	1,762,127	1,762,127
13	Target TIER ⁶	2.00	2.00	2.00	2.00
14	Total Margin Required (before interest) ⁷	3,383,828	3,524,255	3,524,255	3,524,255
15	Less: Capital Credits ³	-	-	-	-
16	Less: Other Non-Operating Income ³	1,419,716	343,265	343,265	343,265
17	Net Operating Income Required ⁸	1,964,112	3,180,990	3,180,990	3,180,990
18	Total Revenue Requirements ⁹	26,226,837	26,465,742	26,465,742	26,465,742
19	Revenue From Present Rates				
20	Tariff Revenue ¹	21,813,729	21,943,468	24,328,436	26,207,549
21	Other Operating Revenue ¹	254,623	254,623	254,623	254,623
22	Total Revenue ¹⁰	22,068,352	22,198,091	24,583,059	26,462,171
23	Required Increase (Decrease) ¹¹	4,158,485	4,267,651	1,882,683	3,570
24	Percent Increase (Decrease) ¹²	19.06	19.45	7.74	0.01
	· · · · ·				

¹ See Exhibit (RJM-WH-2).

- ² Line 1 minus Line 2.
- ³ See Exhibit (RJM-WH-2), page 1.
- ⁴ Line 3 plus Line 4 plus Line 5 plus Line 6.
- ⁵ Line 7 divided by Line 8.
- ⁶ As determined by MKEC and Wheatland.
- ⁷ Line 12 times Line 13.
- ⁸ Line 14 minus line 15 minus Line 16.
- ⁹ Line 10 plus Line 17.
- ¹⁰ Line 20 plus Line 21.
- ¹¹ Line 18 minus Line 22.
- ¹² Line 23 divided by Line 20.

Exhibit 4 - Cost of Service Analysis

Exhibit___(RJM-WH-4) 1 of 29

Cost of Service Summary <u>Revenue Requirements Summary – BUNDLED</u>

Line No.	Description	Total	Residential (04-RS)	GS Small (04-GSS)	GS Small W/Space Heat (04-Rider 1)	GS Large (04-GSL)	GS Large W/Space Heat (04-Rider 1)	Industrial (04-IS)	Municipal Power (04-M-I)	Water Pumping (04-WP)	Irrigation (04-IP-I)	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)
1	Revenue Requirements			(01_000)	(01_10001_1)	(01 052)					(0111)	
2	Revenue Requirements	25,509,948	12,626,046	1,281,201	61,654	9,892,594	383,483	518,902	17,963	120,106	47,821	560,177
3												
4	Present Rates											
5	Revenue-Present Rates	21,039,710	10,339,670	927,943	27,412	8,328,197	282,448	435,195	11,337	89,968	45,059	552,482
6	Revenue Credits	254,623	125,131	11,230	332	100,788	3,418	5,267	137	1,089	545	6,686
7		21,294,333	10,464,800	939,173	27,743	8,428,985	285,866	440,461	11,475	91,057	45,604	559,168
8												
9	Required Incr./(Decr) ¹	4,215,615	2,161,245	342,028	33,911	1,463,609	97,617	78,441	6,488	29,049	2,217	1,009
10	Percent	20.04%	20.90%	36.86%	123.71%	17.57%	34.56%	18.02%	57.23%	32.29%	4.92%	0.18%
11												

¹ The total increase requirement is reduced by the amount of LAC revenue offsets as shown in Exhbit 4, page 12.

Exhibit___(RJM-WH-4) 2 of 29

Cost of Service Summary <u>Class Allocation Summary – BUNDLED</u>

Lin No.		Total	Residential (04-RS)	GS Small (04-GSS)	GS Small W/Space Heat (04-Rider 1)	GS Large	GS Large W/Space Heat	Industrial	Municipal Power	Water Pumping	Irrigation	Lighting (PAL-SL-I, DOL-I)
19	Power Supply	10121	(04-K3)	(04-035)	(04-Rider I)	(04-GSL)	(04-Rider 1)	(04-IS)	(04-M-I)	(04-WP)	(04-IP-I)	(PAL-I, SL-I)
20	Direct											
20	Wholesale Cost											
22	Allocated Cost											
23	Subtotal											
24	Capacity Related											
25	Wholesale Cost	4,751,895	2,383,799	234,738	14,305	1.845,161	86,737	96,240	3,006	25,334	9,240	53,334
26	Allocated Cost	.,		20 .,. 00	- 1,000	.,,	00,107	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5,000	20,001	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
27	Subtotal	4,751,895	2,383,799	234,738	14,305	1,845,161	86,737	96,240	3,006	25,334	9,240	53,334
28	Energy Related	, ,	,,		.,		,	,	- ,		- ,=	,
29	Wholesale Cost	10,284,318	4,792,033	437,533	22,736	4,400,400	150,168	250,115	4,250	46,185	13,876	167,022
30	Allocated Cost								.,			
31	Subtotal	10,284,318	4,792,033	437,533	22,736	4,400,400	150,168	250,115	4,250	46,185	13,876	167,022
32	Sub. Power Supply	15,036,213	7,175,833	672,271	37,041	6,245,561	236,905	346,354	7,255	71,519	23,116	220,356
33	Transmission											
34	Direct											
35	Capacity	398,847	195,326	18,889	1,112	158,127	6,864	8,454	228	2,028	710	7,107
36	Energy											
37	Allocated Cost											
38	Sub. Transmission	398,847	195,326	18,889	1,112	158,127	6,864	8,454	228	2,028	710	7,107
39	Distribution											
40	Direct	146,142										146,142
41	Consumer	1,971,947	1,241,247	216,371	3,055	466,096	12,522	2,928	5,488	8,509	5,673	10,059
42	Capacity	7,956,799	4,013,640	373,670	20,446	3,022,810	127,192	161,165	4,991	38,050	18,322	176,512
43	Energy											
44	Sub. Distribution	10,074,888	5,254,887	590,041	23,501	3,488,906	139,713	164,094	10,479	46,559	23,995	332,714
45												
46	Total	25,509,948	12,626,046	1,281,201	61,654	9,892,594	383,483	518,902	17,963	120,106	47,821	560,177

Cost of Service Summary <u>Rate Design Factors – BUNDLED</u>

Lin	p			Residential	GS Small	GS Small W/Space Heat	GS Large	GS Large W/Space Heat	Industrial	Municipal Power	Water Pumping	Irrigation	Lighting (PAL-SL-I, DOL-I)
No.		Units	Total	(04-RS)	(04-GSS)	(04-Rider 1)	(04-GSL)	(04-Rider 1)	(04-IS)	(04-M-I)	(04-WP)	(04-IP-I)	(PAL-I, SL-I)
47	Costs Broken Down by				(01_000)	((01.002)		(0110)		(01)		(112 1,02 1)
48	Power Supply												
49	Direct												
50	Wholesale Cost	\$/Mo. cons											
51	Allocated Cost	\$/Mo./cons											
52	Subtotal	-											
53	Capacity Related												
54	Wholesale Cost	¢/kWh	2.03	2.19	2.36	2.77	1.84	2.54	1.69	3.11	2.41	2.93	1.40
55	Allocated Cost	¢/kWh											
56	Subtotal	¢/kWh	2.03	2.19	2.36	2.77	1.84	2.54	1.69	3.11	2.41	2.93	1.40
57	Energy Related												
58	Wholesale Cost	¢/kWh	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40
59	Allocated Cost	¢/kWh											
60	Subtotal	¢/kWh	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40
61	Sub. Power Supply	¢/kWh	6.43	6.59	6.76	7.16	6.24	6.94	6.09	7.51	6.81	7.33	5.80
62	<u>Transmission</u>												
63	Direct	¢/kWh											
64	Capacity	¢/kWh	0.17	0.18	0.19	0.22	0.16	0.20	0.15	0.24	0.19	0.23	0.19
65	Energy	¢/kWh											
66	Allocated Cost	¢/kWh											
67	Sub. Transmission	¢/kWh	0.17	0.18	0.19	0.22	0.16	0.20	0.15	0.24	0.19	0.23	0.19
68	Distribution												
69	Direct	\$/Mo./cons	0.65										2.72
70	Consumer	\$/Mo./cons	8.80	9.35	9.54	14.14	35.25	34.78	40.67	13.45	26.26	26.26	0.19
71 72	Capacity	¢/kWh	3.40	3.68	3.76	3.95	3.02	3.72	2.83	5.16	3.62	5.81	4.65
73	Energy Sub. Distribution	¢/kWh ¢/kWh	4.31	4.82	<u> </u>		2.40	4.00	2.00	10.04		7.0	0.7(
74	Total	¢/kWh	10.91	4.82	5.93	4.55	3.49	4.09	2.89 9.12	10.84	4.43	7.60	8.76
75	Costs Broken Down b		10.91	11.39	12.00	11.92	9.89	11.23	9.12	18.39	11.44	15.16	14./3
76	Direct	\$/Mo./cons	0.65										2.72
77	Consumer	\$/Mo./cons	8.80	9.35	9.54	14,14	35,25	34.78	40.67	13.45	26.26	26.26	0.19
78	Capacity	¢/kWh	5.60	6.05	6.30	6.94	5.02	6.47	40.07	8.51	6.23	8.96	6.24
79	Energy	¢/kWh	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40
80	Total		10.91	11.59	12.88	11.92	9.89	11.23	9.12	18.59	11.44	15.16	14.75

Exhibit___(RJM-WH-4) Page 4 of 29

Classification of Plant in Service – BUNDLED

Line	Acct.		Class.		Power	r Supply	Trans	mission	Dist. Sul	station	Primary	Line	Line	Transf.	Second. & Serv.	Meter	Acct. & Serv.	
No.	No.	Description	Factor	Total	Energy	Capacity	Energy	Capacity	Capacity	Cons.	Capacity	Cons.	Capacity	Cons.	Cons.	Cons.	Cons.	Revenue
1		ngible Plant			Energy	Capacity	Lifersj	cupacity	Capacity	<u>cons</u>						Const		
	301	Organization	PLNT															
	302	Franchises and consents	PLNT															
4	303	Miscellaneous intangible plant	PLNT															
	301-303	Subtotal	1 2111															
6	501 505	Subtotal																
7	Proc	duction Plant																
		Production Plant	PROD1															
9	510 540	1 roduction 1 failt	TRODI															
10	Trai	nsmission Plant																
	350-359	Transmission Plant	TRAN1	12,558,474				12,558,474										
12	550-557		INAM	12,558,474				12,556,474										
13	Dist	ribution Plant																
	360	Land	LAND	65,835					65,835									
	361	Structures	SUB	03,033					05,655									
	362	Station	SUB	5 612 012					5 612 012									
	362	Battery	SUB	5,612,013					5,612,013									
	363			10 100 103							10 100 100							
		Poles, towers	PRI	10,188,102							10,188,102							
	365	OH Cond	PRI	11,761,822							11,761,822							
	366	UG Conduit	PRI															
	367	UG Cond	PRI	1,403,636							1,403,636							
	368	Transf	TRF	6,180,284									6,180,284					
	369	Services	SERV	2,638,271											2,638,271			
	370	Meters	MTR	1,306,289												1,306,289		
25		Cons Premise	ICON	605,748							605,748							
	372	Leased Prop	LICON															
27		St. Light	STL	735,348														
	360-373	Subtotal		40,497,347					5,677,848		23,959,309		6,180,284		2,638,271	1,306,289		
29																		
30		eral Plant																
	389	Land & Land Rights	PLNT	116,500				27,576	12,467		52,610		13,571		5,793	2,868		
	390	Structures and Improve.	PLNT	1,922,880				455,152	205,780		868,347		223,989		95,618	47,343		
	391	Office Furniture & Equip.	PLNT	1,796,841				425,318	192,292		811,430		209,308		89,350	44,240		
	392	Transportation & Equipment	PLNT	1,156,596				273,770	123,775		522,304		134,728		57,513	28,477		
	393	Stores Equipment	PLNT	30,854				7,303	3,302		13,933		3,594		1,534	760		
36	394	Tool, Shop & Garage Equip.	PLNT	261,649				61,933	28,001		118,157		30,479		13,011	6,442		
37	395	Laboratory Equipment	PLNT	691,197				163,608	73,969		312,136		80,515		34,371	17,018		
38	396	Power Operated Equipment	PLNT	996,223				235,809	106,612		449,881		116,046		49,539	24,528		
39	397	Communication Equipment	PLNT	244,160				57,793	26,129		110,259		28,441		12,141	6,011		
40	398	Miscellaneous Equipment	PLNT	5,782				1,369	619		2,611		673		288	142		
41	399	Other tangible property	PLNT	,				,										
	389-399	Subtotal		7,222,683				1,709,631	772,946		3,261,668		841,345		359,157	177,830		
43				.,,000				-,,			-,_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,		, /	.,		
44	_	al Plant		60,278,505				14,268,105			27,220,977		7,021,628		2,997,428	1,484,118		

Exhibit___(RJM-WH-4) Page 5 of 29

Classification of Plant in Service -- BUNDLED

Line No.	Acct. No.	Description	Class. Factor	Total	Residential (04-RS) Direct	GS Small (04-GSS) Direct	GS Small W/Space Heat (04-Rider 1) Direct	GS Large (04-GSL) Direct	GS Large W/Space Heat (04-Rider 1) Direct	Industrial (04-IS) Direct	Municipal Power (04-M-I) Direct	Water Pumping (04-WP) Direct	-	Lighting L-SL-I, DOI PAL-I, SL-I) Direct
1		ngible Plant	1 40101		Direct		Direct	Direct	Direct	Ditte	Direct	Direct	Direct	Direct
2	301	Organization	PLNT											
3	302	Franchises and consents	PLNT											
4	303	Miscellaneous intangible plant	PLNT											
5	301-303	Subtotal												
6														
7	Pro	duction Plant												
8	310-346	Production Plant	PROD1											
9														
10		nsmission Plant												
11	350-359	Transmission Plant	TRAN1	12,558,474										
12														
13		ribution Plant												
14	360	Land	LAND	65,835										
15		Structures	SUB											
16		Station	SUB	5,612,013										
17	363	Battery	SUB											
18	364	Poles, towers	PRI	10,188,102										
19	365	OH Cond	PRI	11,761,822										
20	366	UG Conduit	PRI	1 402 (2)										
21	367 368	UG Cond	PRI	1,403,636										
22 23	368	Transf	TRF	6,180,284										
	370	Services Meters	SERV	2,638,271										
24 25		Cons Premise	MTR ICON	1,306,289 605,748										
23 26	372	Leased Prop	LICON	605,748										
	372	St. Light	STL	735,348										775 749
28	360-373	St. Eight Subtotal	31L .	40,497,347				· · · · · · · · · · · · · · · · · · ·						735,348 735,348
20	500-575	Subiotal		40,497,547										/55,548
30	Gen	eral Plant												
	389	Land & Land Rights	PLNT	116,500										1,615
32	390	Structures and Improve.	PLNT	1,922,880										26,651
33	391	Office Furniture & Equip.	PLNT	1,796,841										24,904
34	392	Transportation & Equipment	PLNT	1,156,596										16,030
	393	Stores Equipment	PLNT	30,854										428
36		Tool, Shop & Garage Equip.	PLNT	261,649										3,626
37		Laboratory Equipment	PLNT	691,197										9,580
38		Power Operated Equipment	PLNT	996,223										13,808
39	397	Communication Equipment	PLNT	244,160										3,384
40	398	Miscellaneous Equipment	PLNT	5,782										80
41	399	Other tangible property	PLNT	,										
42	389-399	Subtotal		7,222,683										100,106
43														
44	Tota	al Plant		60,278,505										835,454

Exhibit___(RJM-WH-4) Page 6 of 29

Classification of Revenue Requirements – BUNDLED

Line	e Acct.		Class.		D	S	T		Dist Cal		D. 1	T	T 1	T6	Second.	Madar	Acct.	
No.		Description	Factor	Total	Power : Energy	Supply Capacity	Energy	smission Capacity	Dist. Sub Capacity	Cons.	Primary Capacity	Cons.	Capacity	Transf. Cons.	& Serv. Cons.	Meter Cons.	& Serv. Cons.	Revenue
1		er Supply	Factor	10141	Energy	Capacity	Energy	Capacity	Capacity	Cons.	Capacity	Cons.	Capacity	Cons.	Cons.	Cons.	Cons.	Revenue
2	100	Production																
3	500-557	Fuel	FUEL															
4	500-557	Non-Fuel O&M - Demand	PRODI															
5	500-557	Non-Fuel O&M - Energy	PROD1															
6	500 557	Subtotal - Production	-			<u>.</u>												
7		Purchases																
8	555	Direct Assign. Chgs (Cr.)																
9	555	Substation Charges	SUB															
	555	Demand Charges	PURKW-1	4,751,895		4,751,895												
	555	Summer	PURKW-2	4,751,075		4,751,075												
	555	Winter	PURKW-3															
	555	Other	PURKW-4															
	555	Energy Charges	PURKWH-1	10,284,318	10.284 318													
	555	On-Peak	PURKWH-2	.0,209,510	.0,207,510													
	555	Off-Peak	PURKWH-3															
17		Revenue Related Charges	REV															
18	000	Subtotal - Purchases		15,036,213	10 284 318	4,751,895												
19	500-557	Total Power Supply	-	15,036,213		4,751,895												
20			-	10,000,210	10,201,510	1,751,075												
21	Trat	nsmission																
22	560-573	Operation & Maintenance	TRAN1	92,413				92,413										
23	555	Transmission - G&T Charges		,115				72,415										
24		Total Transmission	-	92,413				92,413										
25			-															
26	Dist	ribution		35,832														
27		Oper. Super & Eng.	EX1	351,055							307,868					43,187		
28		Load Dispatch	EX1	551,000							507,000					45,107		
29		Oper. Station	SUB															
	583	Oper. OH Line	PRI	800,483							800,483							
	584	Oper. UG Line	PRI	41,093							41,093							
	585	Oper. St. Lighting	STL	,							,075							
	586	Oper. Meters	MTR	118,082												118,082		
	587	Oper. Cons. Install	ICON	197							197					,		
	588	Oper. Misc. Oper.	EX1	17,413							15,271					2,142		
	589	Rents	EX1	,							,					_,- 		
	590	Main. Super. & Eng.	EX2															
	591	Main. Structure	SUB	127					127									
	592	Main. Station	SUB	165,817					165,817									
	593	Main. OH Line	PRI	447,322					,,		447,322							
	594	Main. UG Line	PRI	(2,754)							(2,754)							
	595	Main. Line Transf.	TRF	6,662							(-,		6,662					
	596	Main. St. Lighting	STL	35,832									-,					
	597	Main. Meters	MTR	47,558												47,558		
	598	Main. Misc. Dist.	EX2	20,931					4,958		13,282		199			1,421		
	580-598	Subtotal	-	2,049,818					170,903		1,622,762	_	6,861			212,390		
-	-		-								.,		5,501					

Exhibit___(RJM-WH-4) Page 7 of 29

Classification of Revenue Requirements – BUNDLED

Line No.	Acct. No.	Description	Class. Factor	Total	Residential (04-RS) Direct	GS Small (04-GSS) Direct	GS Small W/Space Heat (04-Rider 1) Direct	GS Large (04-GSL) Direct	GS Large W/Space Heat (04-Rider 1) Direct	Industrial (04-IS) Direct	Municipal Power (04-M-I) Direct	Water Pumping (04-WP) Direct		Lighting L-SL-I, DOI PAL-I, SL-I) Direct
1		er Supply	1 4000	10001	Direct	Direct		Direct		Direct	Direct	Difect	Direct	Dirte
2		Production												
3	500-557	Fuel	FUEL											
4	500-557	Non-Fuel O&M - Demand	PROD1											
5	500-557	Non-Fuel O&M - Energy	PROD1											
6		Subtotal - Production					_							
7		Purchases												
8	555	Direct Assign. Chgs (Cr.)												
9	555	Substation Charges	SUB											
	555	Demand Charges	PURKW-1	4,751,895										
	555	Summer	PURKW-2											
	555	Winter	PURKW-3											
	555	Other	PURKW-4											
	555	Energy Charges	PURKWH-1	10,284,318										
	555 555	On-Peak	PURKWH-2											
	555 555	Off-Peak	PURKWH-3											
17	222	Revenue Related Charges Subtotal - Purchases	REV -	15.02(212										
18	500-557	Total Power Supply	-	15,036,213										
20	500-557	Total Fower Supply	=	13,030,213										
20	Tra	nsmission												
22	560-573	Operation & Maintenance	TRAN1	92,413										
23	555	Transmission - G&T Charges		92,415										
24	000	Total Transmission		92,413										
25			=	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
26	Dist	ribution		35,832										
	580	Oper. Super & Eng.	EX1	351,055										
28	581	Load Dispatch	EX1	,										
29	582	Oper. Station	SUB											
30	583	Oper. OH Line	PRI	800,483										
31	584	Oper. UG Line	PRI	41,093										
32	585	Oper. St. Lighting	STL											
33	586	Oper. Meters	MTR	118,082										
	587	Oper. Cons. Install	ICON	197										
	588	Oper. Misc. Oper.	EX1	17,413										
	589	Rents	EX1											
	590	Main. Super. & Eng.	EX2											
	591	Main. Structure	SUB	127										
	592	Main. Station	SUB	165,817										
	593	Main. OH Line	PRI	447,322										
	594	Main. UG Line	PRI	(2,754)	1									
	595	Main. Line Transf.	TRF	6,662										
	596	Main. St. Lighting	STL	35,832										35,832
	597	Main. Meters	MTR	47,558										1.057
	598	Main. Misc. Dist.	EX2	20,931										1,071 36,903
40	580-598	Subtotal	-	2,049,818										50,905

Classification of Revenue Requirements – BUNDLED (Continued)

															Second.		Acct.	
Line			Class.			Supply		smission	Dist. Sub		Primar			Transf.	& Serv.	Meter	& Serv.	_
<u>No.</u> 47	No.	Description	Factor	Total	Energy	Capacity	Energy	Capacity	Capacity	Cons.	Capacity	Cons.	Capacity	Cons.	Cons.	Cons.	Cons.	Revenue
47	Con	sumer Acct., Service & Sales Consumer Accounting																
	901	Supervision	CACC	26,050													26,050	
	901 902	Meter Reading Expense	CACC	· · ·													26,050	
	902 903	Records & Collections	CACC	369,835													,	
52	903 904	Uncollectible Accounts	CACC	77,619													77,619	
	904 905	Misc. Customer Accounts		147,084													147,084	
55 54	903	Subtotal	CACC -	620,587							_	_					(20.597	
55		Subiotal		620,587													620,587	
55 56		Consumer Service & Info.																
	907	Supervision	66															
	907 908	•	CS															
	908 909	Customer Assistance	CS	•														
		Info. & Instruction	CS	20													20	
	910	Misc. Cust Serv. & Info	CS															
61		Subtotal		20													20	
62																		
63	011	Sales	0.11 50															
	911	Supervision	SALES															
	912	Demonstrating & Selling	SALES															
	913	Advertising	SALES	22,655													22,655	
	916	Misc. Sales	SALES															
68		Subtotal		22,655													22,655	
69	-																	
70		rated Operating Expenses																
	920-	Administrative & General																
	932	Power Supply	EX6-PS															
73		Transmission	EX6-TR															
74		Distribution	EX6-D	1,836,655					116,554		1,106,708		4,679			144,848	438,698	
75		Subtotal - A&G		1,836,655					116,554		1,106,708		4,679			144,848	438,698	
76																		
	408	Other Taxes																
78		Power Supply	EX6-PS															
79		Transmission	EX6-TR															
80		Distribution	EX6-D	146,954					9,326		88,550		374			11,590	35,101	
81		Subtotal - Other Taxes		146,954					9,326		88,550		374			11,590	35,101	
82																		
	421-	Miscellaneous Expense																
	426,431	Power Supply	EX6-PS															
85		Transmission	EX6-TR															
86		Distribution	EX6-D	187,868					11,922		113,203		479			14,816	44,874	
87		Subtotal - Misc. Expense	-	187,868					11,922		113,203		479			14,816	44,874	

					<u>Classification</u>		uirements – BUNDLI ontinued)	ED					
Line No.	Acct. No.	Description	Class. Factor	Total	Residential (04-RS) Direct	GS Small (04-GSS) Direct	GS Small W/Space Heat (04-Rider 1) Direct	GS Large (04-GSL) Direct	GS Large W/Space Heat (04-Rider 1) Direct	Industrial (04-IS) Direct	Municipal Power (04-M-I) Direct	Water Pumping (04-WP) Direct	Lighting Irrigation \L-SL-I, DC (04-IP-I) (PAL-I, SL- Direct Direct
47	Con	sumer Acct., Service & Sales											
48		Consumer Accounting											
49	901	Supervision	CACC	26,050									
50	902	Meter Reading Expense	CACC	369,835									
51	903	Records & Collections	CACC	77,619									
52	904	Uncollectible Accounts	CACC	147,084									
53	905	Misc. Customer Account	CACC										
54 55		Subtotal		620,587									
56		Consumer Service & Info.											
	907	Supervision	CS										
	908	Customer Assistance	CS										
	909	Info. & Instruction	CS	20									
	910	Misc. Cust Serv. & Info	CS										
61		Subtotal	-	20									
62													
63		Sales											
64	911	Supervision	SALES										
65	912	Demonstrating & Selling	SALES										
66	913	Advertising	SALES	22,655									
67	916	Misc. Sales	SALES										
68		Subtotal	-	22,655									
69													
70	Pro	rated Operating Expenses											
71	920-	Administrative & General											
72	932	Power Supply	EX6-PS										
73		Transmission	EX6-TR										
74		Distribution	EX6-D	1,836,655									25,16
75		Subtotal - A&G		1,836,655									25,16
76													
77	408	Other Taxes											
78		Power Supply	EX6-PS										
79		Transmission	EX6-TR										
80		Distribution	EX6-D	146,954									2,014
81 82		Subtotal - Other Taxes		146,954									2,01
83	421-	Miscellaneous Expense											
84	426,431	Power Supply	EX6-PS										
85		Transmission	EX6-TR										
86		Distribution	EX6-D	187,868									2,57
87		Subtotal - Misc. Expense	-	187,868	_								2,57

Exhibit___(RJM-WH-4) Page 10 of 29

Classification of Revenue Requirements – BUNDLED

(Continued)

														Second.		Acct.	
	Acct.	Class.		Power	Supply	Trans	mission	Dist. Sub	station	Primar	y Line	Line T	ransf.	& Serv.	Meter	& Serv.	
No.	No. Description	Factor	_Total	Energy	Capacity	Energy	Capacity	Capacity	Cons.	Capacity	Cons.	Capacity	Cons.	Cons.	Cons.	Cons.	Revenue
88	Fixed Charges																
89 403	- Depreciation																
90 407	Power Supply	PROPLNT															
91	Transmission	TRNPLNT	306,434				306,434										
92	Distribution	DSTPLNT	1,355,581					190,056		801,998		206,875		88,312	43,726		
93	Subtotal - Depreciation	-	1,662,015				306,434	190,056		801,998		206,875		88,312	43,726		
94																	
95 408	Property Taxes																
96	Power Supply	REV															
97	Transmission	REV															
98	Distribution	REV	832,965														832,965
99	Subtotal - Property Taxes	-	832,965														832,965
100																	
101 427	Interest-LT																
102	Power Supply	PROPLNT															
103	Transmission	TRNPLNT															
104	Distribution	DSTPLNT	1,682,525					235,895		995,427		256,769		109,611	54,272		
105	Subtotal - Interest-LT	-	1,682,525					235,895		995,427		256,769		109,611	54,272		
106																	
107	Required Margin																
108	Power Supply	PROPLNT															
109	Transmission	TRNPLNT															
110	Distribution	DSTPLNT	1,339,260					187,768		792,342		204,384		87,248	43,199		
111	Subtotal - Required Marg	in -	1,339,260					187,768		792,342		204,384		87,248	43,199		
112														-			
113	Summary of Revenue Requiremen	ts															
114	Power Supply		15,036,213	10,284,318	4,751,895												
115	Transmission		398,847				398,847										
116	Distribution		10,074,888					922,424		5,520,989		680,421		285,171	524,841	1,161,935	832,965
117	Total Revenue Required	·	25,509,948	10,284,318	4,751,895		398,847	922,424		5,520,989		680,421		285,171	524,841	1,161,935	832,965

Classification of Revenue Requirements – BUNDLED

(Continued)

Line No.	Acct. No.	Description	Class. Factor	Total	Residential (04-RS) Direct	GS Small (04-GSS) Direct	GS Small W/Space Heat (04-Rider 1) Direct	GS Large (04-GSL) Direct	GS Large W/Space Heat (04-Rider 1) Direct	Industrial (04-IS) Direct	Municipal Power (04-M-I) Direct	Water Pumping (04-WP) Direct	0	Lighting h L-SL-I, DOI (PAL-I, SL-I) Direct
88		ed Charges	Tactor	Total	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
	03-	Depreciation												
	07	Power Supply	PROPLNT											
91		Transmission	TRNPLNT	306,434										
92		Distribution	DSTPLNT	1,355,581										24,615
93		Subtotal - Depreciation		1,662,015										24,615
94		· · · · ·		-,,										,
95 4	08	Property Taxes												
96		Power Supply	REV		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
97		Transmission	REV			N.A.	N.A.	N.A.	N.A.	N.A.		N.A.	N.A.	N.A.
98		Distribution	REV	832,965		N.A.	N.A.	N.A.	N.A.	N.A.		N.A.	N.A.	N.A.
99		Subtotal - Property Taxes	-	832,965										
100														
101 4	27	Interest-LT												
102		Power Supply	PROPLNT											
103		Transmission	TRNPLNT											
104		Distribution	DSTPLNT	1,682,525										30,551
105		Subtotal - Interest-LT	-	1,682,525										30,551
106														
107		Required Margin												
108		Power Supply	PROPLNT											
109		Transmission	TRNPLNT											
110		Distribution	DSTPLNT	1,339,260	_						_			24,318
111		Subtotal - Required Margin		1,339,260										24,318
112														
113	Sur	mmary of Revenue Requirements												
114		Power Supply		15,036,213										
115		Transmission		398,847										
116		Distribution	_	10,074,888										146,142
117		Total Revenue Required	=	25,509,948										146,142

Schedule B Adjusted Statement of Operations and Revenue Requirements

(a) Line	(b)	(c) Total	(d)	(e) LAC Revenue	(e) Adjusted
No.	Description	System ¹	Adjustment ²	Credits ³	System
	Operating Revenue	(\$)	(\$)		(\$)
1	Sales of Electricity	21,943,468	(798,246)	(105,512)	21,039,710
2	Other	254,623	,	, , , , , , , , , , , , , , , , , , ,	254,623
3	Total Operating Revenue	22,198,091	(798,246)		21,294,333
4	Operating Expenses				
5	Cost of Purchased Power				
6	Demand	4,911,046	(159,151)		4,751,895
7	Energy	10,716,331	(432,013)		10,284,318
8	Transmission - O & M	104,337	-	(11,924)	92,413
9	Distribution - Operation	1,362,836	(34,514)	-	1,328,322
10	Distribution - Maintenance	756,009	(34,514)	-	721,495
11	Consumer Accounts	620,587	-		620,587
12	Consumer Service & Information	20	-		20
13	Sales	22,655	-		22,655
14	Administrative & General	1,871,981	(34,514)	(813)	1,836,655
15	Depreciation & Amortization	1,728,203	(34,514)	(31,674)	1,662,015
16	Taxes - Property	855,925	-	(22,960)	832,965
17	Taxes - Other	146,954	-		146,954
18	Other Interest Expense	139,972	-		139,972
19	Other Deductions	47,896			47,896
20	Total Operating				
21	Term Interest)	23,284,752	(729,218)	(67,371)	22,488,163
22	Long Term Interest	1,762,127	(34,514)	(45,089)	1,682,525
23	Required Margin ⁴	1,418,862	(34,514)	(45,089)	1,339,260
24	Revenue Requirements	26,465,742	(798,246)	(157,548)	25,509,948

¹ See Exhibit_(RJM-WH-2), page 1.

² See page _ for calculation of adjustments for rates not included in the class cost of service analysis.

³ Credits related to revenue generated by the Local Access Rate developed in Exhibit WH(RJM-5).

⁴ Required Net Operating Income less Long Term Interest. See calculation below:
 3,180,990 - \$1,762,127 = \$1,418,862

⁴ Adjustment to included LAC revenue for test period.

2009 LAC Billing Units	71,292
Present LAC rate	\$ 1.48
Total Test Year LAC Income	\$ 105,512

Schedule B Adjustment to Eliminate Revenue and Expenses Associated with Non-Standard Rates

1. Re	venue ¹				Present (\$)			Proposed (\$)	
a.	Interruptible Industrial Service	ce (04-INT)		=	660,257			724,811	
b.	Real -Time Pricing (4-RTP)			=	129,461			130,107	
c.	Temporary Service (04-CS)			=	8,528	_	_	9,438	
d.	Total Revenue				798,246		_	864,355	
2. Ex	penses								
a.	Purchased Power Expenses ²								
	Energy Charges:								
	Interruptible Industrial Serv	vice (04-INT	[)						
	Energy ³	8,314,699	,	x	\$0.040872	/kWh	=	339,841	
	Real -Time Pricing (4-RTP))							
	Energy ³	2,174,638	kWh	x	\$0.040872	/kWh	=	88,882	
	Temporary Service (04-CS)	•							
	Energy ³	55,193	kWh	х	\$0.059603	/kWh	=	3,290	
					Subtotal I	Energy E	xpenses —	432,013	
	Demand Charges:								
	Interruptible Industrial Second	ervice (04-I	NT)						
	Demand ³	14,203.6	kW	X	\$9.12	/kW	=	129,523	
	Real -Time Pricing (4-R)	ГР)							
	Demand ³	3,249.0	kW	х	\$9.12	/kW	=	29,628	
					Subtotal De	emand Ex	xpenses	159,151	
	Total Purchased Power Exp	oenses						591,164	
b.	Distribution - Operation						=	34,514	4
c.	Distribution - Maintenance						=	34,514	4
d.	Administrative and General						=	34,514	4
e.	Depreciation						=	34,514	4
f.	Interest						=	34,514	4
g.	Margin Requirements						=	34,514	4
<u>h.</u>	Subtotal							207,082	
<u>i.</u>	Total Expenses						§	5 798,246	

¹ From Exhibit (RJM-WH-2), Schedule A.

² From Exhibit (RJM-WH-2), Schedule B.

³ Amounts from Exhibit (RJM-WH-2), pages 6-7 plus line loss.

⁴ Split remainder of revenue approximately equal between Distribution Operation and Maintenance, Administration and General, Depreciation, Interest and Margin Requirements.

Exhibit___(RJM-WH-4) Page 14 of 29

Line					Power S	unnly	Trans	mission	Dist. Sub	station	Primar	v I ine	Line T	ransf	Second. & Serv.	Meter	Acct. & Serv.	
No.	Name	Description	Source	Total	Energy	Cap.	Energy	Capacity	Cap.	Cons.	Cap.	Cons.	Cap.	Cons.	Cons.	Cons.	Cons.	Revenue
		Classification Factor Data				· · · · · · · · · · · · · · · · · · ·												
1	PROPLNT	Production Plant	Plant															
2	TRNPLNT	Transmission Plant	Plant	12,558,474				12,558,474										
3	DSTPLNT	Distribution Plant	Plant	40,497,347					5,677,848		23,959,309		6,180,284		2,638,271	1,306,289		
4	PLNT	Prod, Trans, Dist. Subtotal	Plant	53,055,822				12,558,474	5,677,848		23,959,309		6,180,284		2,638,271	1,306,289		
5	EX1	Assigned Dist. Oper. Exp.	Rev Req	959,855							841,773					118,082		
6	EX2	Assigned Dist. Main. Exp.	Rev Req	700,565					165,945		444,568		6,662			47,558		
7	EX3	Dist. Oper. & Main.	Rev Req	2,049,818					170,903		1,622,762		6,861			212,390		
8	EX4	Assigned O & M Exp.	Rev Req	17,821,706	10,284,318	4,751,895		92,413	170,903		1,622,762		6,861			212,390	643,262	
9	EX4-PS	Power Supply	Rev Req	15,036,213	10,284,318	4,751,895												
10	EX4-TR	Transmission	Rev Req	92,413				92,413										
11	EX4-D	Distribution	2,693,080	2,693,080					170,903		1,622,762		6,861			212,390	643,262	
12	EX5	Rev. Req. Less Margin	Rev Req	22,028,967	10,284,318	4,751,895		398,847	596,854		3,420,186		470,505		197,923	310,388	643,262	832,965
13	EX5-PS	Power Supply	Rev Req	15,869,178	10,284,318	4,751,895												832,965
14	EX5-TR	Transmission	Rev Req	398,847				398,847										
15	EX5-D	Distribution	Rev Req	5,760,941					596,854		3,420,186		470,505		197,923	310,388	643,262	

Exhibit___(RJM-WH-4) Page 15 of 29

Line					Residential (04-RS)	GS Small (04-GSS)	GS Small W/Space Heat (04-Rider 1)	GS Large (04-GSL)	GS Large W/Space Heat (04-Rider 1)	Industrial (04-IS)	Municipal Power (04-M-I)	Water Pumping (04-WP)	Irrigation (04-IP-I)	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)
No.	Name	Description	Source	Total	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
		Classification Factor Data												
1	PROPLNT	Production Plant	Plant											
2	TRNPLNT	Transmission Plant	Plant	12,558,474										
3	DSTPLNT	Distribution Plant	Plant	40,497,347										735,348
4	PLNT	Prod, Trans, Dist. Subtotal	Plant	53,055,822										735,348
5	EX1	Assigned Dist. Oper. Exp.	Rev Req	959,855										
6	EX2	Assigned Dist. Main. Exp.	Rev Req	700,565										35,832
7	EX3	Dist. Oper. & Main.	Rev Req	2,049,818										36,903
8	EX4	Assigned O & M Exp.	Rev Req	17,821,706										36,903
9	EX4-PS	Power Supply	Rev Req	15,036,213										
10	EX4-TR	Transmission	Rev Req	92,413										
11	EX4-D	Distribution	2,693,080	2,693,080										36,903
12	EX5	Rev. Req. Less Margin	Rev Req	22,028,967										121,824
13	EX5-PS	Power Supply	Rev Req	15,869,178										
14	EX5-TR	Transmission	Rev Req	398,847										
15	EX5-D	Distribution	Rev Req	5,760,941										121,824
														,

Exhibit___(RJM-WH-4) Page 16 of 29

Lin					Power S	upply	Transn	nission	Dist. Sul	ostation	<u>Primar</u>	<u>y Line</u>	<u>Line Ti</u>	ransf.	Second. & Serv.	Meter	Acct. & Serv.	
No		Description	Source	_Total	Energy	Cap.	Energy	Capacity	Cap.	Cons.	Cap.	Cons.	Cap	Cons.	Cons.	Cons.	Cons.	Revenue
16																		
17		Consumer Accounting	Input	1.000000													1.000000	
18		Customer Service	Input	1.000000													1.000000	
19		Cust. Service - Pwr. Supply	Input															
20	CS-TR	Cust. Service - Transmission	Input															
21	CS-D	Cust. Service - Distribution	Input	1.000000													1.000000	
22		Sales	Input	1.000000													1.000000	
23		Sales - Power Supply	Input															
24		Sales - Transmission	Input															
25	SALES-D	Sales - Distribution	Input	1.000000													1.000000	
26			Plant															
27			Plant	1.000000				1.000000										
28		Distribution Plant	Plant	1.000000					0.140203		0.591627		0.152610		0.065147	0.032256		
29		Prod, Trans, Dist. Subtotal	Plant	1.000000				0.236703	0.107016		0.451587		0.116486		0.049726	0.024621		
30		Assigned Dist. Oper. Exp.	Rev Req	1.000000							0.876980					0.123020		
31	EX2	Assigned Dist. Main. Exp.	Rev Req	1.000000					0.236873		0.634585		0.009509			0.067886		
32		Dist. Oper. & Main.	Rev Req	1.000000					0.083375		0.791661		0.003347			0.103614		
33		Assigned O & M Exp.	Rev Req	1.000000	0.577067	0.266635		0.005185	0.009590		0.091055		0.000385			0.011917	0.036094	
34		Power Supply	Rev Req	0.843702	0.577067	0.266635												
35		Transmission	Rev Req	0.005185				0.005185										
36		Distribution	Rev Req	0.151112					0.009590		0.091055		0.000385		0.000000	0.011917	0.036094	0.027012
37	EX5	Rev. Req. Less Margin	Rev Req	1.000000	0.466854	0.215711		0.018106	0.027094		0.155259		0.021358		0.008985	0.014090	0.029201	0.037812
38		Power Supply	Rev Req	0.720378	0.466854	0.215711												0.037812
39		Transmission	Rev Req	0.018106				0.018106							0.00000			
40		Distribution	Rev Req	0.261517					0.027094		0.155259		0.021358		0.008985	0.014090	0.029201	
41	EX6	A&G Classification	Input	1.000000					0.063460		0.602567		0.002548			0.078865	0.238857	
42		Power Supply	Input															
43		Transmission	Input	1 000000					0.040.440				0.000540			0.0700/6	0.000057	
44		Distribution	Input	1.000000					0.063460		0.602567		0.002548			0.078865	0.238857	
45		Fuel	Input	1 000000														
46		Install Cons. Prem.	Input	1.000000							1.000000							
47		Land & Land Rights	Input	1.000000					1.00000		1 000000							
48 49		Leased Property	Input	1.000000							1.000000							
		Meters	Input	1.000000												1.000000		
50		Primary Line	Input	1.000000							1.000000							
51		Production Plant	Input															
52		Production O & M	Input	1 000000														
53		Trans. Capacity	Input	1.000000				1.000000										
54		Trans. Energy	Input	1.000000	1.000000													
55		Purchased Power Capacity	Input	1.000000		1.000000												
56		Summer	Input	1.000000		1.000000												
57		Winter	Input	1.000000		1.000000												
58		Other	Input	1.000000		1.000000												
59		Purchased Power Energy	Input	1.000000	1.000000													
60			Input	1.000000	1.000000													
61			Input	1.000000	1.000000										1.000000			
60		Services	Input	1.000000											1.000000			
61		Street Lighting	Input	1 000000					1 000000									
62		Substation	Input	1.000000				1.000000	1.000000									
63		Transmission Plant	Input	1.000000				1.000000										
64		Transmission Purchases	Input	1 000000									1 000000					
65		Line Transf.	Input	1.000000									1.000000					1,000000
66		Revenue Related	Input	1.000000														1.000000
67		User Defined 01	Input															
68 69		User Defined 02	Input															
09	USER03	User Defined 03	Input															

Exhibit___(RJM-WH-4) Page 17 of 29

Lin	e				Residential (04-RS)	GS Small (04-GSS)	GS Small W/Space Heat (04-Rider 1)	GS Large (04-GSL)	GS Large W/Space Heat (04-Rider 1)	Industrial (04-IS)	Municipal Power (04-M-I)	Water Pumping (04-WP)	Irrigation (04-IP-I)	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)
No.	Name	Description	Source	Total	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
16	Classificatio	n Factors												
17	CACC	Consumer Accounting	Input	1.000000										
18	CS	Customer Service	Input	1.000000										
19	CS-PS	Cust. Service - Pwr. Supply	Input											
20	CS-TR	Cust. Service - Transmission	Input											
21	CS-D	Cust. Service - Distribution	Input	1.000000										
22	SALES	Sales	Input	1.000000										
23	SALES-PS	Sales - Power Supply	Input											
24	SALES-TR		Input	1 000000										
25 26	SALES-D	Sales - Distribution Production Plant	Input	1.000000										
20		Transmission Plant	Plant Plant	1.000000										
28	DSTPLNT	Distribution Plant	Plant	1.000000										0.018158
20	PLNT	Prod, Trans, Dist. Subtotal	Plant	1.000000										0.013860
30	EX1	Assigned Dist. Oper. Exp.	Rev Req	1.000000										0.015800
31	EX1 EX2	Assigned Dist. Main. Exp.	Rev Req	1.000000										0.051148
32	EX3	Dist. Oper. & Main.	Rev Req	1.000000										0.018003
33	EX4	Assigned O & M Exp.	Rev Req	1.000000										0.002071
34	EX4-PS	Power Supply	Rev Req	0.843702										01002071
35	EX4-TR	Transmission	Rev Req	0.005185										
36	EX4-D	Distribution	Rev Req	0.151112										0.002071
37	EX5	Rev. Req. Less Margin	Rev Req	1.000000										0.005530
38	EX5-PS	Power Supply	Rev Req	0.720378										
39	EX5-TR	Transmission	Rev Req	0.018106										
40	EX5-D	Distribution	Rev Req	0.261517										0.005530
41	EX6	A&G Classification	Input	1.000000										0.013703
42	EX6-PS	Power Supply	Input											
43	EX6-TR	Transmission	Input											
44	EX6-D	Distribution	Input	1.000000										0.013703
45	FUEL	Fuel	Input											
46	ICON	Install Cons. Prem.	Input	1.000000										
47	LAND	Land & Land Rights	Input	1.000000										
48	LICON	Leased Property	Input	1.000000										
49	MTR	Meters	Input	1.000000										
50	PRI	Primary Line	Input	1.000000										
51	PROD1	Production Plant	Input											
52	PROD2	Production O & M	Input											
53	PURTR-1	Trans. Capacity	Input	1.000000										
54	PURTR-2	Trans. Energy	Input	1.000000										
55	PURKW-1	Purchased Power Capacity	Input	1.000000										
56 57	PURKW-2 PURKW-3	Summer Winter	Input	1.000000										
58	PURKW-3 PURKW-4	Other	Input	1.000000 1.000000										
59	PURKWH-1		Input	1.000000										
60	PURKWH-1		Input	1.000000										
61	PURKWH-3		Input Input	1.000000										
60	SERV	Services	Input	1.000000										
61	STL	Street Lighting	Input	1.000000										
62	SUB	Substation	Input	1.000000										
63	TRANI	Transmission Plant	Input	1.000000										
64	TRAN2	Transmission Purchases	Input	1.000000										
65	TRF	Line Transf.	Input	1.000000										
66	REV	Revenue Related	Input	1.000000										
67	USER01	User Defined 01	Input											
68	USER02	User Defined 02	Input											
69		User Defined 03	Input											
			-											

Exhibit (RJM-WH-4) Page 18 of 29

Summary of Allocation of Revenue Requirements to Rate Classes - BUNDLED

Line		Allo		Residential	GS Small	GS Small W/Space Heat	GS Large	GS Large W/Space Heat	Industrial	Municipal Power	Water Pumping		Lighting (PAL-SL-I, DOL-I)
<u>No.</u> 1	Cost Classification Power Supply	Fact	or Total	(04-RS)	(04-GSS)	(04-Rider 1)	(04-GSL)	(04-Rider 1)	(04-IS)	(04-M-I)	<u>(04-WP)</u>	(04-IP-I)	(PAL-I, SL-I)
2	Wholesale Power												
3	Direct Assigned Charges (Cr	redits) Dire	ct										
4	Demand Related	Die		2,383,799	234,738	14,305	1,845,161	86,737	96,240	3,006	25,334	9,240	53,334
5	Demand Related - Summer	D4	, ,	2,000,799	20 1,700	1,,505	1,010,101	00,757	<i>y</i> 0,210	5,000	25,551	,,210	55,551
6	Demand Related - Winter	D5											
7	Demand Related - Other	D6											
8	Subtotal - Demand		4,751,895	2,383,799	234,738	14,305	1,845,161	86,737	96,240	3,006	25,334	9,240	53,334
9	Energy Related	E1	10,284,318	4,792,033	437,533	22,736	4,400,400	150,168	250,115	4,250	46,185	13,876	167,022
10	Energy Related - On-Peak	E2		.,.,_,	,	,	.,,	100,100	200,110	.,200	.0,100	10,070	101,022
11	Energy Related - Off-Peak	E3											
12	Subtotal - Energy		10,284,318	4,792,033	437,533	22,736	4,400,400	150,168	250,115	4,250	46,185	13,876	167,022
13	Revenue Related	R2		.,.,.,	,	,	.,,	100,100	200,110	.,	.0,100	10,000	,
14	Subtotal - Wholesale		15,036,213	7,175,833	672,271	37,041	6,245,561	236,905	346,354	7,255	71,519	23,116	220,356
15	Allocated Overhead & Ma	rgin	- , - ,	.,,.	, - · -	,	-,,		,	- ,		,	,
16	Direct Related	Dire	ct										
17	Revenue Related	R2											
18	Demand Related	D7											
19	Energy Related	E1											
20	Subtotal - Allocated								_				
21	Subtotal - Power Supply		15,036,213	7,175,833	672,271	37,041	6,245,561	236,905	346,354	7,255	71,519	23,116	220,356
22							, ,	,	,		,		
23	<u>Transmission</u>												
24	Direct Assigned	Dire	ct										
25	Demand Related	D9	398,847	195,326	18,889	1,112	158,127	6,864	8,454	228	2,028	710	7,107
26	Energy Related	El											
27	SubtotalTransmission		398,847	195,326	18,889	1,112	158,127	6,864	8,454	228	2,028	710	7,107
28	Allocated Overhead & Ma	rgin						,					
29	Direct Related	Dire	ct										
30	Revenue Related	R2											
31	Demand Related	D9											
32	Energy Related	E1											
33	Subtotal - Allocated												
34	Subtotal - Transmission		398,847	195,326	18,889	1,112	158,127	6,864	8,454	228	2,028	710	7,107
35													
36	Distribution												
37		nergy E1											
38		apacity D9	,	451,735	43,686	2,571	365,705	15,875	19,553	528	4,691	1,642	16,437
39		onsumer C2											
40		apacity D9	, ,	2,703,774	261,475	15,389	2,188,859	95,018	117,028	3,160	28,076	9,828	98,382
41	-	onsumer C2											
42		apacity D1	· · · ·	416,950	33,318	4,083	182,224	10,550	12,638	731	2,842	3,696	13,389
43		onsumer C3											
44		onsumer C4	· · · ·	209,807	40,115	401	30,637	825	188	645	512	341	1,700
45		onsumer C5	· · · ·	320,933	54,842	826	135,493	3,639	853	1,507	2,488	1,659	2,601
46		onsumer C6	, ,	710,507	121,414	1,828	299,965	8,057	1,888	3,336	5,509	3,673	5,758
47		evenue R1	· · · · ·	441,181	35,191	(1,596)	286,021	5,748	11,947	573	2,440	3,156	48,304
48	Direct Assigned	Dire											146,142
49	Subtotal - Distribution		10,074,888	5,254,887	590,041	23,501	3,488,906	139,713	164,094	10,479	46,559	23,995	332,714
50	Total		25,509,948	12,626,046	1,281,201	61,654	9,892,594	383,483	518,902	17,963	120,106	47,821	560,177

Allocation of Plant in Service To Rate Classes -- BUNDLED

Line			Class.		Residential	GS Small	GS Small W/Space Heat	GS Large	GS Large W/Space Heat	Industrial	Municipal Power	Water Pumping	Irrigation	Lighting (PAL-SL-I, DOL-I)
No.	No.	Description	Factor	Total	<u>(04-RS)</u>	(04-GSS)	(04-Rider 1)	(04-GSL)	(04-Rider 1)	(04-IS)	(04-M-I)	(04-WP)	(04-IP-I)	(PAL-I, SL-I)
1		Intangible Plant												
2	301	Organization	PLNT											
3	302	Franchises and consents	PLNT											
4	303	Miscellaneous intangible plant	PLNT											
5	301-303	Subtotal	PLNT											
6														
7		Production Plant												
8	310-346	Production Plant	PROD1											
9														
10		Transmission Plant												
11	350-359	Transmission Plant	TRAN1	12,558,474	6,299,989	620,375	37,806	4,876,456	229,232	254,346	7,943	66,954	24,421	140,953
12														
13		Distribution Plant												
14	360	Land	LAND	65,835	33,026	3,252	198	25,564	1,202	1,333	42	351	128	739
15	361	Structures	SUB											
16	362	Station	SUB	5,612,013	2,815,280	277,227	16,894	2,179,145	102,437	113,660	3,550	29,920	10,913	62,988
17	363	Battery	SUB		_,,			_,,	,		- ,			,
18	364	Poles, towers	PRI	10,188,102	4,989,383	482,510	28,397	4.039,189	175,341	215,957	5,831	51,809	18,136	181,548
19	365	OH Cond	PRI	11,761,822	5,760,076	557,042	32,784	4,663,108	202,426	249,315	6,732	59,812	20,937	209,591
20	366	UG Conduit	PRI		0,000,000	001,012	52,701	1,005,100	202,120	210,010	0,102	55,012	20,707	
21	367	UG Cond	PRI	1,403,636	687.398	66,476	3,912	556,487	24,157	29,753	803	7,138	2,499	25,012
22	368	Transf	TRF	6,180,284	3,787,166	302,628	37,087	1,655,150	95,823	114,787	6,636	25,818	33,575	121,613
23	369	Services	SERV	2,638,271	1,941,036	371,124	3,708	283,443	7,632	1,740	5,964	4,736	3,157	15,730
24	370	Meters	MTR	1,306,289	798,777	136,498	2,055	337,232	9,058	2,122	3,751	6,193	4,129	6,473
25	371	Cons Premise	ICON	605,748	296,651	28,688	1,688	240,156		12,840	347	3,080	1,078	10,794
26	372	Leased Prop	LICON	005,746	290,051	28,008	1,000	240,130	10,425	12,840	547	3,080	1,078	10,794
20	372	St. Light	STL	735,348										725 249
28	360-373	Subtotal	SIL	40,497,347	21,108,793	2 225 445	12(725	12.070.474	(20, 502	741 607	22 (55	100 000	04 552	735,348
28	300-373	Subtotal		40,497,547	21,108,795	2,225,445	126,725	13,979,474	628,502	741,507	33,655	188,858	94,552	1,369,837
30		Converd Bland												
31	389	General Plant	DINT	116 500	(0.104	(240	241							2.015
	389	Land & Land Rights	PLNT	116,500	60,184	6,249	361	41,404	1,883	2,187	91	562	261	3,317
32		Structures and Improve.	PLNT	1,922,880	993,365	103,140	5,963	683,388	31,086	36,092	1,508	9,271	4,312	54,755
33	391	Office Furniture & Equip.	PLNT	1,796,841	928,253	96,379	5,572	638,594	29,049	33,727	1,409	8,664	4,029	51,166
34	392	Transportation & Equipment	PLNT	1,156,596	597,501	62,038	3,587	411,052	18,698	21,709	907	5,577	2,594	32,935
35	393	Stores Equipment	PLNT	30,854	15,939	1,655	96	10,965	499	579	24	149	69	879
36	394	Tool, Shop & Garage Equip.	PLNT	261,649	135,169	14,034	811	92,990	4,230	4,911	205	1,262	587	7,451
37	395	Laboratory Equipment	PLNT	691,197	357,074	37,075	2,143	245,650	11,174	12,974	542	3,333	1,550	19,682
38	396	Power Operated Equipment	PLNT	996,223	514,652	53,436	3,089	354,056	16,106	18,699	781	4,803	2,234	28,368
39	397	Communication Equipment	PLNT	244,160	126,134	13,096	757	86,774	3,947	4,583	191	1,177	548	6,953
40	398	Miscellaneous Equipment	PLNT	5,782	2,987	310	18	2,055	93	109	5	28	13	165
41	399	Other tangible property	PLNT											
42	389-399	Subtotal		7,222,683	3,731,258	387,412	22,398	2,566,927	116,766	135,569	5,663	34,825	16,196	205,669
43														
44		Total Plant		60,278,505	31,140,040	3,233,232	186,929	21,422,857	974,500	1,131,421	47,262	290,637	135,169	1,716,459

Allocation of Revenue Requirements to Rate Classes -- BUNDLED

	Acct.	D	Class.		Residential	GS Small	GS Small W/Space Heat	GS Large	GS Large W/Space Heat	Industrial	Municipal Power	Water Pumping	Irrigation	Lighting (PAL-SL-I, DOL-I)
<u>No.</u>	No.	Description	Factor	Total	(04-RS)	(04-GSS)	(04-Rider 1)	(04-GSL)	(04-Rider 1)	(04-IS)	(04-M-I)	(04-WP)	(04-IP- <u>I)</u>	(PAL-I, SL-I)
2	Power St	uppiy Production												
3	500-557		FUEL											
4	500-557	Non-Fuel O&M - Demand	PROD1											
5	500-557	Non-Fuel O&M - Demand Non-Fuel O&M - Energy	PROD1											
6	500-557	Subtotal - Production	PRODI											
7		Purchases												
8	555	Direct Assign. Chgs (Cr.)												
9	555	Substation Charges	PURSUB											
10	555	Demand Charges	PURKW-1	4,751,895	2,383,799	234,738	14,305	1 946 161	86,737	06 240	2.000	75 224	9,240	53,334
11	555	Summer	PURKW-2	4,751,695	2,383,799	234,738	14,505	1,845,161	80,737	96,240	3,006	25,334	9,240	55,554
12	555	Winter	PURKW-2 PURKW-3											
12	555	Other	PURKW-4											
14	555	Total Demand	1 UKK W-4	4,751,895	2,383,799	234,738	14,305	1,845,161	86,737	96,240	3,006	25,334	9,240	53,334
15	555	Energy Charges	PURKWH-1	10,284,318	4,792,033	437,533	22,736	4,400,400	150,168		4,250	25,334 46,185	9,240 13,876	167,022
16	555	On-Peak	PURKWH-2	10,284,318	4,792,033	437,333	22,750	4,400,400	150,108	250,115	4,230	40,185	13,870	107,022
10	555	Off-Peak	PURKWH-2 PURKWH-3											
18	555	Total Energy	1 OKK W11-5	10,284,318	4,792,033	437,533	22,736	4,400,400	150,168	250,115	4,250	46,185	13,876	167,022
19	555	Revenue Related Charges	REVENUE	10,204,518	4,792,035	437,333	22,730	4,400,400	130,108	230,115	4,230	40,185		107,022
20	555	Subtotal - Purchases	KEVENUE -	15,036,213	7,175,833	672,271	37,041	6,245,561	236,905	346,354	7,255	71,519	23,116	220,356
20	500-557	Total Power Supply	-	15,036,213	7,175,833	672,271	37,041	6,245,561	236,905	346,354	7,255	71,519	23,110	220,356
22	Transmi			15,050,215	7,175,855	072,271	57,041	0,245,501	230,903		1,233	/1,519	25,110	220,330
22	560-573		TRANI	92,413	45,257	4,377	258	36,638	1,590	1,959	53	470	165	1,647
24	555	Transmission - G&T Charges	TRAN1	92,415	43,237	4,577	238	30,038	1,390	1,939	55	470	105	1,047
25	555	Total Transmission	1104112	92,413	45,257	4,377	258	36,638	1,590	1,959	53	470	165	1,647
26	Distribu		-	92,415	43,237	4,577	238		1,390	1,939		4/0	105	1,047
20	580	Oper. Super & Eng.	EX1	351,055	177,179	19,093	926	133,207	5,598	6,596	300	1 770	685	5,700
28	581	Load Dispatch	EXI	351,055	177,179	19,093	920	155,207	5,598	0,390	300	1,770	085	3,700
20	582	Oper. Station	SUB											
30	583	Oper. OH Line	PRI	800,483	392,018	37,911	2,231	317,360	13,777	16,968	458	4,071	1,425	14,264
31	584	Oper. UG Line	PRI	41,093	20,125	1,946	2,231	16,292	707	871	438	4,071	73	732
32	585	Oper. St. Lighting	STL	41,095	20,125	1,940	115	10,292	/0/	0/1	24	209	13	152
33	586	Oper. Meters	MTR	118,082	72,205	12,339	186	30,484	819	192	339	560	373	585
34	587	Oper. Cons. Install	ICON	118,082	96	12,559	180	78	3	4	0	1	0	4
35	588	Oper. Misc. Oper.	EX1	17,413	8,788	947	46	6,607	278	327	15	88	34	283
36	589	Rents	EX1	17,415	8,788	247	40	0,007	278	527	15	00	54	205
37	590	Main. Super. & Eng.	EX1 EX2											
38	591	Main. Structure	SUB	127	62	6	0	51	2	3	0	1	0	2
39	592	Main. Station	SUB	165,817	81,205	7,853	462	65,740	2,854	3,515	95	843	295	2,955
40	592	Main. OH Line	PRI	447,322	219,065	21,185	1,247	177,346	2,834 7,699	9,482	256	2,275	293 796	7,971
40	594	Main, UG Line	PRI	(2,754)	(1,349)	(130)	(8)	(1,092)	(47)	9,482 (58)	(2)	(14)	(5)	(49)
41	595	Main. Line Transf.	TRF	(2,754) 6,662	(1,349)	326	(8)	(1,092)	(47)	(38)	(2)	(14)	36	131
42	596	Main, St. Lighting	STL	35,832	4,082	520	40	1,784	103	124	/	20	30	35,832
43	590 597	Main. Meters	MTR	55,852 47,558	29,081	4,970	75	12,278	330	77	137	225	150	236
44	598	Main. Misc. Dist.	EX2	20,931	9,923	1,022	54	7,652	330	393	137	100	38	1,407
	580-598		EA2	2,049,818	1,012,482	1,022	5,375	767,787	32,449	38,493	1.644	10,157	3,901	70,053
0	500-590	Subiotal		2,049,018	1,012,482	107,477	5,575	101,181	52,449	30,493	1,044	10,137	5,901	10,055

Line	Acct. No.	N	Class.		Residential	GS Small	GS Small W/Space Heat	GS Large	GS Large W/Space Heat	Industrial	Municipal Power	Water Pumping	Irrigation	Lighting (PAL-SL-I, DOL-I)
<u>No.</u> 47		Description er Acct., Service & Sales	Factor	Total	(04-RS)	(04-GSS)	(04-Rider 1)	(04-GSL)	(04-Rider 1)	(04-IS)	(04-M-I)	(04-WP)	(04-IP-I)	(PAL-I, SL-I)
47	Consum	Consumer Accounting												
40	901	Supervision	CACC	26,050	15,929	2,722	41	6,725	181	42	75	124	82	129
50	901	Meter Reading Expense	CACC	369.835	226,149	38,645	582	95,477	2,565	42 601	1,062	124	1,169	1,833
51	902	Records & Collections	CACC	77.619	47,463	8,111	122	20,038	2,565	126	223	368	245	385
52	904	Uncollectible Accounts	CACC	147.084	89,940	15,369	231	37,971	1,020	239	422	508 697	465	729
53	905	Mise. Customer Account	CACC	147,004	03,340	15,509	231	57,971	1,020	239	422	097	405	12)
54	705	Subtotal	CACC -	620,587	379,480	64,847	976	160,211	4,303	1,008	1,782	2,942	1,962	3,075
55		Consumer Service & Info.		020,587	579,400	04,047	970	100,211	4,505	1,008	1,702	2,942	1,902	5,075
	907	Supervision	CS											
	908	Customer Assistance	CS											
	909	Info. & Instruction	CS	20	12	2	0	5	0	0	0	0	0	0
	910	Mise. Cust Serv. & Info	CS	20	12	2	0	5	v	0	v	0	Ū	Ů
60	,	Subtotal		20	12	2	0	5	0	0	0	0	0	0
61		Sales		20	12	2	0	5	v	0	Ū	Ū	0	Ū
	911	Supervision	SALES											
	912	Demonstrating & Selling	SALES											
	913	Advertising	SALES	22,655	13,853	2,367	36	5,849	157	37	65	107	72	112
	916	Misc. Sales	SALES	22,000	15,000	2,507	50	5,615	107	5.		107		
66		Subtotal		22,655	13,853	2,367	36	5,849	157	37	65	107	72	112
67	Prorated	d Operating Expenses				_,		-,,-						
68		Administrative & General												
69	920	Administrative & General		272,486										
70	921	Office Supplies & Expenses		133,204										
71	922	Admin. Expenses Transferred		247,952										
72	923	Outside Services Employed		88,594										
73	924	Property Insurance		40,083										
74	925	Injuries & Damages		278,817										
75	926	Employee Pensions & Benefits		705,334										
	927	Franchise Requirements												
77	928	Regulatory Commission Exp.		774										
78	929	Duplicate Charges		(104,561)										
79	930.1	General Advertising												
80	930.2	Misc.		122,813										
81	931	Rents												
82	935	Maint. of General Plant		51,160										
83		Accounts 920-935	-	1,836,655										
84		Power Supply	EX6-PS											
85		Transmission	EX6-TR											
86		Distribution	EX6-D	1,836,655	958,761	119,139	_4,356_	636,878	25,172	26,964	2,381	9,007	4,047	49,949
87		Subtotal - A&G	-	1,836,655	958,761	119,139	4,356	636,878	25,172	26,964	2,381	9,007	4,047	49,949

Allocation of Revenue Requirements to Rate Classes -- BUNDLED (Continued)

be Description Pactor Residential (al-ASS) CS Small (al-ASS) CS Large (WSpace Hate) (al-ASS) Municipal (al-ASS) Municipal (al-ASS)										(continued)				
					Total			W/Space Heat		W/Space Heat		Power	Pumping		(PAL-SL-I, DOL-I)
99 Transmission Distribution EX6-TR Ex75 Ex6-TR Ex75 Ex6-TR Ex75 Ex6-TR Ex75 Ex6-TR Ex75 Ex75 2.014 2.157 190 721 3.24 3.997 94 24.2-Milectanacous Exponse		408	Other Taxes												
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	89			EX6-PS											
92 Subcolal-Other Taxes 146,554 76,712 9,533 349 50,958 2,014 2,157 190 721 324 3,997 94 422, 431 Power Supply EX-FR															
99 21: Mixediancesi Expense Extension Extension Extension Extension 94 426,411 Power Supply EXe-T - <td< td=""><td></td><td></td><td></td><td>EX6-D</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>				EX6-D											
94 42,64.11 Power Supply EX6-TR 95 Transmission EX6-TR 187,868 96,070 12,187 466 65,145 2,575 2,758 244 921 414 5,109 97 Suborlal - Mice Reprise 187,868 96,070 12,187 466 65,145 2,575 2,758 244 921 414 5,109 98 Priced Charges 1 78,868 96,070 12,187 466 65,145 2,575 2,758 244 921 414 5,109 90 OD Depreciation PROPINT 1 306,634 150,609 14,513 854 12,189 5,274 6,495 1,15 6,525 3,134 47,107 103 Suborlal - Depreciation DSTPINT 1.355,31 704,315 74,106 4200 469,491 20,840 25,000 1,115 6,275 3,134 47,107 104 Power Supply REV 1,620,15 834,618					146,954	76,712	9,533	349	50,958	2,014	2,157	190	721	324	3,997
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $															
96 Distribution EX6-D 187,868 98,070 12,187 466 65,145 2,575 2,758 244 921 414 5,109 97 Subtact-Mac, Expense 187,868 98,070 12,187 446 65,145 2,575 2,758 244 921 414 5,109 94 Hore Market Depretation 1 1 7 6405 175 1.558 545 5,451 5,451 5,451 5,451 5,451 5,451 5,451 5,451 5,451 5,451 42,107 5,458 5,651 545 5,661 1,155 6,255 3,134 42,107 52,657 42,492 7,833 3,679 52,557 2,788 1,197 7,83 3,679 52,557 5,758 2,440 3,156 42,107 536 590,980 2,614 31,406 1,29 7,833 3,679 52,557 44,181 35,191 (1,596) 286,021 5,748 11,947 573 2,440		426,43													
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111 112 127 Interest-LT 113 Power Supply PROPLNT 114 Transmission TRNPLNT 115 Distribution DSTPLNT 1,682,525 874,184 91,979 5,212 582,724 25,866 31,030 1,384 7,788 3,889 58,468 116 Subtotal - Interest-LT 1,682,525 874,184 91,979 5,212 582,724 25,866 31,030 1,384 7,788 3,889 58,468 117 Required Margin 1 1 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 121 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 121 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 122 Summary of Revenue Requirements 1 1,389,26			Total Oper Expenses	·	22 488 163	11.056.026	1 116 009	52 293	8 846 032	337.028	463 174	15 477	106 119	40.836	455 170
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113 Power Supply PROPLNT 114 Transmission TRNPLNT 115 Distribution DSTPLN 1,682,525 874,184 91,979 5,212 582,724 25,866 31,030 1,384 7,788 3,889 58,468 116 Subtotal - Interest-LT 1,682,525 874,184 91,979 5,212 582,724 25,866 31,030 1,384 7,788 3,889 58,468 117 Required Margin 1,682,525 874,184 91,979 5,212 582,724 25,866 31,030 1,384 7,788 3,889 58,468 117 Required Margin 1,682,525 874,184 91,979 5,212 582,724 25,866 31,030 1,384 7,788 3,889 58,468 118 Power Supply PROPLNT 1 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 121 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699			Interest-I T												
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Nequired Margin Required Margin 118 Power Supply PROPLNT 119 Transmission TRNPLNT 120 Distribution DSTPLNT 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 121 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 122 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 123 Power Supply 15,036,213 7,175,833 672,271 37,041 6,245,561 236,905 346,354 7,255 71,519 23,116 220,356 124 Transmission 398,847 195,326 18,889 1,112 158,127 6,864 8,454 228 2,028 710 7,107 125 Distribution 10,074,888 5,254,887 590,041 23,501 3,488,906				Doment											
118 Power Supply PROPLNT 119 Transmission TRNPLNT 120 Distribution DSTPLNT 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 121 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 122 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 122 Summary of Revenue Requirements 1 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 123 Power Supply 15,036,213 7,175,833 672,271 37,041 6,245,561 236,905 346,354 7,255 71,519 23,116 220,356 124 Transmission 199,847 195,326 18,889 1,112 158,127 6,864 8,454					1,002,020	0, 1,101	,,,,,,	3,212	562,721	20,000	51,050	1,501	1,100	5,005	
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121 Subtotal - Required Margin 1,339,260 695,835 73,213 4,149 463,838 20,589 24,699 1,102 6,199 3,096 46,539 122 Summary of Revenue Requirements	120		Distribution		1.339.260	695.835	73.213	4,149	463.838	20.589	24,699	1,102	6,199	3,096	46,539
122Summary of Revenue Requirements123Power Supply15,036,2137,175,833672,27137,0416,245,561236,905346,3547,25571,51923,116220,356124Transmission398,847195,32618,8891,112158,1276,8648,4542282,0287107,107125Distribution10,074,8885,254,887590,04123,5013,488,906139,713164,09410,47946,55923,995332,714			Subtotal - Required Margin												46,539
124 Transmission 398,847 195,326 18,889 1,112 158,127 6,864 8,454 228 2,028 710 7,107 125 Distribution 10,074,888 5,254,887 590,041 23,501 3,488,906 139,713 164,094 10,479 46,559 23,995 332,714	122	Summ			,- ,-										
124 Transmission 398,847 195,326 18,889 1,112 158,127 6,864 8,454 228 2,028 710 7,107 125 Distribution 10,074,888 5,254,887 590,041 23,501 3,488,906 139,713 164,094 10,479 46,559 23,995 332,714	123				15,036,213	7,175,833	672,271	37,041	6,245,561	236,905	346,354	7,255	71,519	23,116	220,356
125 Distribution 10,074,888 5,254,887 590,041 23,501 3,488,906 139,713 164,094 10,479 46,559 23,995 332,714	124													710	7,107
	125		Distribution						3,488,906		164,094	10,479	46,559		
	123		Total Rev. Req.		25,509,948	12,626,046	1,281,201	61,654	9,892,594	383,483	518,902	17,963	120,106	47,821	560,177

Allocation of Revenue Requirements to Rate Classes -- BUNDLED (Continued)

Rate Class Weighting Factors

I. Three Phase Vs. Single Phase Class Weighting Factors

A.	Investment to Serve 3Ø vs. 1Ø Consumers (us	se replacement cost)		
		1Ø		3Ø
	1. kWh Meter	\$90		\$286
	2. kWh & kW Meter	\$233		\$441
	3. kWh & kW Meter (pulse activated)	\$286		\$546
	······································			
	4. Service ¹	\$247		\$409
		<i>4211</i>		<i>Q</i> 1 0 <i>7</i>
	5. Transformer ²	\$1,718		\$2,751
	3. Transformer	ψ1,/10		ψ_{2}, τ_{2}
	6. Primary Line ³	\$714		\$1,252
	0. Triniary Line	\$71 -		ψ1,2 <i>32</i>
D	Weighting Factors for Relative 3Ø Class Invest	stmont Costs		
В.	weighting Factors for Kelative 56 Class lives	sument Costs		
	1 Mater (20 Interval December 2)	¢1.200 ·	\$90 =	13.33
	1. Meter (3Ø Interval Recording)	\$1,200 ÷	\$90 -	15.55
	2 M + (2G / 1 - 1 TOD)	Ф <i>Е А С</i>	¢QQ	(07
	2. Meter (3Ø w/demand, TOD)	\$546 ÷	\$90 =	6.07
		A 4 4 1	\$ 00	4.00
	3. Meter (3Ø w/demand)	\$441 ÷	\$90 =	4.90
	4. Meter (3Ø w/o demand)	\$286 ÷	\$90 =	3.18
	5. Meter (1Ø w/demand)	\$233 ÷	\$90 =	2.59
	6. Service	\$409 ÷	\$247 =	1.65
	7. Transformer	\$2,751 ÷	\$1,718 =	1.60
	8. Primary Line	\$1,252 ÷	\$714 =	1.75

¹ Assume a typical installation of 80 feet of 1/0 triplex (or quadriplex), pole and miscellaneous materials to estimate the difference between a 1Ø and 3Ø installation.

² Use the cost difference between 1-75 kVA transformer and 3-25 kVA transformers as representative of the difference between a 1Ø versus a 3Ø transformer installation.

³ Assume a typical installation of 150 feet of 1/0 ACSR to estimate the difference in primary line between a 1Ø and 3Ø installation.

WH East COS 2010-11-29 Final Draft.xlsm

Exhibit___(RJM-WH-4) Page 24 of 29

Estimate of Class Demands Summary

Description	Total System	Residential (04-RS)	GS Small (04-GSS)	GS Small W/Space Heat (04-Rider 1)	GS Large (04-GSL)	GS Large W/Space Heat (04-Rider 1)	Industrial (04-IS)	Municipal Power (04-M-I)	Water Pumping (04-WP)	Irrigation (04-IP-I)	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)	
Class Billing Determinants		(0110)										
Number of Consumers	14,140	11,066	1.891	18	1,102	30	6	34	27	18	4,484	-
Energy (MWh)	233,865	108,971	9,949	517	100,065	3,415	5,688	97	1,050	316	3,798	-
Billing Demand (kW)	299,618	-	-	-	272,432	12,976	14,210	-	-	-	-	-
Estimated Demand Responsibility									-0.1		2.505	
Non-Coincident Consumer Demand	188,266	,	9,219	1,130	50,420	2,919	3,497	202	786	1,023	3,705	n/a
Non-Coincident Class Demand	53,060	26,425	2,602	159	20,454	962	1,067	33	281	102	975	-
Coincident Class Demand - Ave. Monthly	43,425	21,784	2,145	131	16,862	793	879	27	232	84	487	-
Coincident Class Demand - Summer												
Coincident Class Demand - Winter												
Coincident Class Demand - Weighted	43,425	21,784	2,145	131	16,862	793	879	27	232	84	487	-
Coincident Class Demand - Transm.												
										56.8		

Estimate of Class Demands

Line No.		Total System	Residential (04-RS)	GS Small (04-GSS)	GS Small W/Space Heat (04-Rider 1)	GS Large (04-GSL)	GS Large W/Space Heat (04-Rider 1)	Industrial (04-IS)	Municipal Power (04-M-I)	Water Pumping (04-WP)	Irrigation (04-IP-I)	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)
1	Non-Coincidental Class Demand - Averag	e Monthly										
2	Total System Sales (MWh)	233,865	108,971	9,949	517	100,065	3,415	5,688	97	1,050	316	3,798
3	Line Losses	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
4	kWh Purchased (MWh)	250,244	116,603	10,646	553	107,073	3,654	6,086	103	1,124	338	4,064
5	Divide by Hours	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760
6	Average Demand (kWh)	28,567	13,311	1,215	63	12,223	417	695	12	128	39	464
7												
8	Average Customers	18,676	11,066	1,891	18	1,102	30	6	34	27	18	4,484
9												
10	Calculated Maximum Demand ¹	52,234	26,425	2,602	159	18,918	789	1,701	33	281	102	1,223
11												
12	Substitutions											
13	Bary Curve Estimate (Max. Annual or Seas.)	2	n/a	n/a	n/a	20,454	962	1,067	n/a	n/a	n/a	n/a
14	Other Substitutions ³		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	975
15	Non-Coincident Class Demand	53,060	26,425	2,602	159	20,454	962	1,067	33	281	102	975
			., -	-,		-, -		,				

16 Sum of Non-Coincidental Demands of Individual Customers - Annual Peak

17 Peak Month Sales Data

18	Peak Month	Jul-09	Dec-09	Jan-09	Jul-09	Dec-09	Jul-09	Jun-09	Aug-09	Jul-09	May-09
19	kWh Sales	14,009,536	1,014,197	371,119	10,632,803	472,972	526,766	23,069	109,118	154,770	463,375
20	Consumers	11,069	1,891	47	1,071	30	6	34	27	18	242
21	Sum of Individual Consumer's Non-coincident Demands ⁴	115,368	9,221	948	71,113	2,915	2,665	204	786	1,023	67,435
22											
23	Substitute (from Historical Billing Records)	n/a	n/a	n/a	70,020	2,919	3,588	n/a	n/a	n/a	n/a
24	Non-Coincident Demand from Billing Records	n/a	n/a	n/a	378,336	12,976	14,580	n/a	n/a	n/a	n/a
25	Sum of Individual Customer Non-Coincident Peak										
25	Demands (Adjusted to Test Year) ⁵	115,366	9,219	1,130	50,420	2,919	3,497	202	786	1,023	3,705

The class diversified demand is calculated based on the formulas contained in RUS Demand Tables (Bulletin 45-2). The formula is a follows:

Class Diversified Demand = $L8 \times (1-0.4 \times L8 + 0.4 \times (L8^2 + 40)^{0.5}) \times (0.005925 \times (L4 \times 1,000 \div (L8 \times 12))^{0.885})$

² See "Annual Bary Curve Estimates"

Security Lighting demand is calculated based on wattage, (including ballasts) number of lights and assumed annual hours of operation. Includes estimates for unmetered lights only.

⁴ The sum of the Individual Consumers Non-coincident Demands is calculated using the RUS demand for a single customer multiplied by the Test Year number of customers. Sum of Individual Consumer Demands = (1-0.4 x 1 + 0.4 x (1² + 40)^{0.5}) x (0.005925 x (L19 + L20)^{0.85})

⁵ Adjusted to Test Year conditions.

						Estimate of Cl	ass Demands				EXI	Page 26 of 29
Line No.	Description	Total System	Residential (04-RS)	GS Small (04-GSS)	GS Small W/Space Heat (04-Rider 1)	GS Large (04-GSL)	GS Large W/Space Heat (04-Rider 1)	Industrial (04-IS)	Municipal Power (04-M-I)	Water Pumping (04-WP)	Irrigation (04-IP-I)	Lighting (PAL-SL-I, DOL-I) (PAL-I, SL-I)
26	Annual Bary Curve Estimates											
27	Sum of Monthly Non-Coincidental Demands Year	for Test	-	-	-	272,432	12,976	14,210	-	-	-	-
28												
29	MWh Sales		-	-	-	100,065	3,415	5,688	-	-	-	_
30						,	-,	-,				
31	Load Factor (730 hours per month)					50.3%	36.0%	54.8%				
32	Loud Factor (FDO Hours per monal)					50.570	50.070	54.070				
33	Coincidence Factor (From Bary Curve)		n/a	n/a	n/a	84.2%	83.1%	84.2%	n/a	n/a	n/a	n/a
34	concluence racio (rion bary curve)		11/ a	iv a	iv a	04.270	65.170	04.270	11/a	iv a	iv a	10 a
35	Billing Months per Year		12	12	12	10	10	10	10	12	12	12
35	Bining Months per Fear		12	12	12	12	12	12	12	12	12	12
	Estimated Non-Coincidental Average Monthl	v Demand										
37	((L2*L8)/L10)		n/a	n/a	n/a	19,116	899	997	n/a	n/a	n/a	n/a
38	Estimated Non-Coincidental Demand - Avera (Including Line Loss)	age Monthly	n/a	n/a	n/a	20,454	962	1,067	n/a	n/a	n/a	n/a
39												
40	Determination of Class Coincident Deman	d - Average N	<u>Ionthly</u>									
41	System Coincident Demand - Average Monthly (Per Exhibit II)	43,425										
42		,										
43	Coincidence Factors from Other Sources		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	50.00%
44	Average Monthly Non-Coincident Demand ²		-	-	-	-	-	-	-	-	-	975
45	Coincident Demand - Direct Assigned	487										487
46	Someraem Bernand Breet Honghed	107										107
47	Remaining Coincident Demand	42,937										
48	Remaining Non-Coincident Demand	52,086	26,425	2,602	159	20,454	962	1,067	33	281	102	-
	Coincidence Factor for Remaining Classes	02,000	20,120	2,002	109	20,151	702	1,007	55	201	102	
49	3	82.4%	82.4%	82.4%	82.4%	82.4%	82.4%	82.4%	82.4%	82.4%	82.4%	
50	-											
	Coincident Demand for Remaining Classes		21,784	2,145	131	16,862	793	879	27	232	84	
51	Coincident Demand - Ave. Monthly	43,425	21,784	2,145	131	16,862	793	879	27	232	84	487

Exhibit___(RJM-WH-4)

A. Separately Metered Energy

kWh	-	
Ave. LF	48%	
		0
		0

Private Area / Street Lighting

A. Unmetered Lights

	U	<u>Power Required Per Light</u>		Estimated			
	# of	<u>Lamp</u>	<u>Ballast</u> <u>Tota</u>		Annual	Estimated	Total
Size/Type	Lights	kW	kW	kW	cWh/montl	kWh	kW 1
		0.100	0.025	0.125	4.5		0.0
100 W MV		0.100	0.035	0.135	45	-	0.0
175 W MV	1,796	0.175	0.035	0.210	75	1,616,400	377.2
250 W MV	82	0.250	0.050	0.300	107	105,288	24.6
400 W MV	130	0.400	0.050	0.450	173	269,880	58.5
1000 W MV	18	1.000	0.100	1.100	394	85,104	19.8
70 W HPS	47	0.070	0.025	0.095	34	19,176	4.5
100 W HPS	1,590	0.100	0.035	0.135	45	858,600	214.7
150 W HPS	182	0.150	0.050	0.200	68	148,512	36.4
200 W HPS	237	0.200	0.055	0.255	87	247,428	60.4
250 W HPS	161	0.250	0.060	0.310	108	208,656	49.9
400 W HPS	218	0.400	0.075	0.475	173	452,568	103.6
1000 W HPS	23	1.000	0.100	1.100	394	108,744	25.3
Total	4,484					4,120,356	975
Average monthly u	usage				_	76.58	0.217

Development of Allocation Factors – BUNDLED

Line				Residential	GS Small	GS Small W/Space Heat	GS Large	GS Large W/Space Hea	Industrial	Municipal Power	Water Pumping	Irrigation	Lighting \L-SL-I, DOI
No.	Description	Units	Total	(04-RS)	(04-GSS)	(04-Rider 1)	(04-GSL)	(04-Rider 1)	(04-IS)	(04-M-I)	(04-WP)	(04-IP-I)	<u>(PAL-I, SL-I)</u>
1	Allocation Factor Input Data												
2	Energy												
3	Energy Sales All	MWh	233,865	108,971	9,949	517	100,065	3,415	5,688	97	1,050	316	3,798
4	Energy Sales On-Peak	MWh											
5	Energy Sales Off-Peak	MWh											
6	Dist. Losses	MWh	7.00%	7.00%	7.00%	7.00%	7.00%	6 7.00%	7.00%	7.00%	7.00%	7.00%	6 7.00%
7	Energy All @ Sub.	MWh	250,244	116,603	10,646	553	107,073	3,654	6,086	103	1,124	338	4,064
8	Energy On-Peak @ Sub.	MWh											
9	Energy Off-Peak @ Sub.	MWh											
10	Trans. Losses	MWh											
11	Energy All @ Source	MWh	250,244	116,603	10,646	553	107,073	3,654	6,086	103	1,124	338	4,064
12	Energy On-Peak @ Source	MWh											
13	Energy Off-Peak @ Source	MWh											
14	Demand												
15	Non-Coinc. Demand @ Cons.	kW	188,266	115,366	9,219	1,130	50,420	2,919	3,497	202	786	1,023	,
16	Class Non-Coinc. Demand @ Sub.	kW	53,060	26,425	2,602	159	20,454	962	1,067	33	281	102	975
17	Class Non-Coinc. Demand Transm.	kW											
18	Summer Coinc. Demand	kW											
19	Winter Coinc. Demand	kW											
20	Other Coinc. Demand	kW											
21	Coinc. Demand @ Sub.	kW	43,425	21,784	2,145	131	16,862	793	879	27	232	84	487
22	Coinc. Demand @ Source	kW	43,425	21,784	2,145	131	16,862	793	879	27	232	84	487
23	Average and Excess Demand												
24	Average Demand	kW	28,567	13,311	1,215	63	12,223	417	695	12	128	39	464
25	Class Excess Demand	kW	24,494	13,115	1,387	95	8,231	544	372	22	153	64	511
26	Allocated Excess Demand	kW	14,858	7,955	841	58	4,993	330	226	13	93	39	
27	Avg. & Excess Demand	kW	43,425	21,266	2,057	121	17,216	5 747	920	25	221	77	774
28	Margin												
29	Present Rate Margin	\$	5,604,650	2,968,511	236,783	(10,741)	1,924,509	38,678	80,386	3,854	16,421	21,232	325,018
30	Proposed Rate Revenue	\$	21,039,710	10,339,670	927,943	27,412	8,328,197	282,448	435,195	11,337	89,968	45,059	552,482
31	Consumer												
32	No. Consumers		18,676	11,066	1,891	18	1,102	30	6	34	27	18	.,
33	Pri. Line Weight. Factor			1.00	1.14	1.20	1.54		1.75	1.00	1.00	1.00	
34	Weight. No. of Cons.		15,159.4	11,066.0	2,150.9	21.6	1,696.1		10.5	34.0	27.0	18.0	
35	Transf. Weight. Factor			1.00	1.11	1.16	1.43		1.60	1.00	1.00	1.00	
36	Weight. No. of Cons.		14,980.9	11,066.0	2,098.0	20.9	1,575.2	42.4	9.6	34.0	27.0	18.0	
37	Service Weight. Factor			1.00	1.12	1.17	1.47	1.45	1.65	1.00	1.00	1.00	0.02
38	Weight. No. of Cons.		15,041.0	11,066.0	2,115.8	21.1	1,615.9	43.5	9.9	34.0	27.0	18.0	
39	Meter Weight. Factor			1.00	1.00	1.58	4.24		4.90	1.53	3.18	3.18	
40	Weight. No. of Cons.		18,096.9	11,066.0	1,891.0	28.5	4,671.9	125.5	29.4	52.0	85.8	57.2	
41	Cons. Acct. Weight Factor			1.00	1.00	1.58	4.24	4.18	4.90	1.53	3.18	3.18	
42	Weight. No. of Cons.		18,096.9	11,066.0	1,891.0	28.5	4,671.9	125.5	29.4	52.0	85.8	57.2	89.7

Development of Allocation Factors – BUNDLED (Continued)

T C C C		Data			B (1) (2) I		GS Small	COL	GS Large	× 1 1	Municipal	Water	T	Lighting
Line No.	Description	Line No.	Name	Total	Residential (04-RS)	GS Small (04-GSS)	W/Space Heat (04-Rider 1)	GS Large (04-GSL)	W/Space Hea (04-Rider 1)	Industrial (04-IS)	Power (04-M-I)	Pumping (04-WP)		AL-SL-I, DOI (PAL-I, SL-F
43	Allocation Factors	INO.	Name	TOTAL	(04-K5)	(04-635)	(04-Rider 1)	(04-GSL)	(04-Kider I)	(04-13)	(04-141-1)	(04-11 [(04-11-1)	(FAL-1, <u>5L-1</u>)
44	Energy Related													
45	Energy All @ Sub.	7	E 1	1.000000	0.465955	0.042544	0.002211	0.427875	0.014602	0.024320	0.000413	0.004491	0.001349	0.016240
46	Energy On-Peak @ Sub.	8	E2	1.000000	0.105555	0.012511	0.002211	0.127075	0.011002	0.021520	0.000115	0.001191	0.001015	0.0102.0
47	Energy Off-Peak @ Sub.	9	E3											
48	Energy All @ Source	11	E4	1.000000	0.465955	0.042544	0.002211	0.427875	0.014602	0.024320	0.000413	0.004491	0.001349	0.016240
49	Energy On-Peak @ Source	12	E5											
50	Energy Off-Peak @ Source	13	E6											
51	u () (
52	Demand Related													
53	Non-coinc. Demand @ Cons.	15	D 1	1.000000	0.612782	0.048967	0.006001	0.267811	0.015505	0.018573	0.001074	0.004178	0.005433	0.019678
54	Non-coinc. Demand @ Class	16	D2	1.000000	0.498026	0.049042	0.002989	0.385493	0.018121	0.020107	0.000628	0.005293	0.001931	0.018371
55	Non-coinc. Demand @ Transm	17	D3											
56	Summer Coinc. Demand	18	D4											
57	Winter Coinc. Demand	19	D5											
58	Other Coinc. Demand	20	D6											
59	Coinc. Demand @ Sub.	21	D7	1.000000	0.501652	0.049399	0.003010	0.388300	0.018253	0.020253	0.000633	0.005331	0.001945	
60	Coinc. Demand @ Source	22	D8	1.000000	0.501652	0.049399	0.003010	0.388300	0.018253	0.020253	0.000633	0.005331	0.001945	
61	Avg. & Excess	27	D9	1.000000	0.489726	0.047360	0.002787	0.396461	0.017210	0.021197	0.000572	0.005085	0.001780	
62	Avg. & Excess (w/o Enbridge)	28	D10	1.000000	0.489726	0.047360	0.002787	0.396461	0.017210	0.021197	0.000572	0.005085	0.001780	0.017820
62														
63	Revenue Related													
64	Present Rate Margin	29	R 1	1.000000	0.529651	0.042248	-0.001917	0.343377		0.014343	0.000688	0.002930	0.003788	
65	Proposed Rate Revenue	30	R2	1.000000	0.491436	0.044104	0.001303	0.395832	0.013425	0.020684	0.000539	0.004276	0.002142	0.026259
66														
67	Consumer Related													
68	No. of Cons.	32	C1	1.000000	0.592525	0.101253	0.000964	0.059006		0.000321	0.001821	0.001446	0.000964	
69	Pri. Line Weight. Cons.	34	C2	1.000000	0.729978	0.141883	0.001427	0.111882		0.000695	0.002243	0.001781	0.001187	
70	Transf. Weight. Cons.	36	C3	1.000000	0.738676	0.140046	0.001395	0.105150		0.000641	0.002270	0.001802	0.001202	
71	Services Weight. Cons.	38	C4	1.000000	0.735723	0.140669	0.001406	0.107435		0.000659	0.002260	0.001795	0.001197	
72	Meter Weight. Cons.	40	C5	1.000000	0.611486	0.104493	0.001573	0.258160		0.001625	0.002871	0.004741	0.003161	
73	Cons. Acct. Weight. Cons.	42	C6	1.000000	0.611486	0.104493	0.001573	0.258160	0.006934	0.001625	0.002871	0.004741	0.003161	0.004956