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EXHIBIT

Exhibit No.: Issue(s): Cost Witness: Type of Exhibit: Sponsoring Party: Case Number: Date Testimony Prepared:

Cost of Service & Rate Design Barb Meisenheimer Direct Public Counsel GR-2009-0434 d: November 3, 2009

DIRECT TESTIMONY

OF

BARBARA A. MEISENHEIMER

Submitted on Behalf of the Office of the Public Counsel

EMPIRE GAS

Case No. GR-2009-0434

November 3, 2009

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DIRECT TESTIMONY

OF

BARBARA A. MEISENHEIMER

Submitted on Behalf of the Office of the Public Counsel

EMPIRE GAS

Case No. GR-2009-0434

November 3, 2009

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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In the Matter of The Empire District Gas Company of Joplin, Missouri for Authority to File Tariffs Increasing Rates for Gas Service Provided to Customers in the Missouri Service Area of the Company.

Case No. GR-2009-0434

AFFIDAVIT OF BARBARA A. MEISENHEIMER

STATE OF MISSOURI)) ss COUNTY OF COLE)

and a first the

Barbara A. Meisenheimer, of lawful age and being first duly sworn, deposes and states:

- 1. My name is Barbara A. Meisenheimer. I am Chief Utility Economist for the Office of the Public Counsel.
- 2. Attached hereto and made a part hereof for all purposes is my direct testimony.
- 3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Barbara A. Meisenheimer

Subscribed and sworn to me this 3rd day of November 2009.



SHYLAH C. BROSSIER My Commission Expires June 8, 2013 Cole County Commission 109812742

and the second s

Shylad C. Brossier Notary Public

My Commission expires June 8th, 2013.

DIRECT TESTIMONY OF BARBARA A. MEISENHEIMER

EMPIRE DISTRICT GAS

(RATE DESIGN)

CASE NO. GR-2009-0434

Introduction and Summary

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Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

 A. Barbara A. Meisenheimer, Chief Utility Economist, Office of the Public Counsel (OPC or Public Counsel), P. O. Box 2230, Jefferson City, Missouri 65102. I am also employed as an adjunct Economics and Statistics Instructor for William Woods University.

Q. HAVE YOU TESTIFIED PREVIOUSLY IN THIS CASE?

A. No.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony addresses Public Counsel's class cost of service studies and rate
 design recommendations for the Empire District Gas (Empire or the Company)
 service areas.

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Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND.

A. I hold a Bachelor of Science degree in Mathematics from the University of Missouri-Columbia and have completed the comprehensive exams for a Ph.D. in Economics from the same institution. My two fields of study are Quantitative Economics and Industrial Organization. My outside field of study is Statistics.

I have been with the Office of the Public Counsel since January 1996. I have testified on economic issues and policy issues in the areas of telecommunications, gas, electric, water and sewer.

Over the past 14 years I have also taught courses for the University of Missouri-Columbia, William Woods University, and Lincoln University. I currently teach undergraduate and graduate level economics courses and undergraduate statistics for William Woods University.

Q. WHAT INFORMATION HAVE YOU REVIEWED?

A. I reviewed the Company's proposed tariff sheets, direct testimony and workpapers on cost of service and rate design, portions of the Company's current tariff, the Missouri Public Service Commission Staff's (Staff's) workpapers, Accounting Schedules and Cost of Service Report, customer complaints and comments filed with the Missouri Public Service Commission (Commission) and data request responses provided to the Staff and Public Counsel by Empire.

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	Case No	o. GR-2009-0434
1	Q.	PLEASE PROVIDE BACKGROUND ON EMPIRE'S SERVICE AREA.
2	А.	In May 2006, in Case No. GO-2006-0205, Empire District Gas acquired the
3		natural gas assets and service areas of Aquila, Inc., d/b/a Aquila Networks - MPS
4		and Aquila Networks – L&P. Aquila Networks – MPS included service areas in
5		North Central and West Central Missouri referred to in this case as the North &
6		South systems. Aquila Networks - L&P included a service area in the Northwest
7		corner of Missouri referred to in this case as the Northwest system. As part of the
8		settlement agreement in Case No. GO-2006-0205, the parties agreed to a three
9		year moratorium on rate case and complaint case filings. As a result, this is the
10		first review of rates since Empire acquired the systems in 2006.
11	Q.	PLEASE DISCUSS EMPIRE'S CURRENT AND PROPOSED RESIDENTIAL RATES.
12	А.	Empire currently recovers a portion of non-gas Residential class costs in each
13		district through a fixed customer charge of \$9.50 for the North South system and
14		\$7.00 for the Northwest system. The remaining Residential class costs for each
15		service area are recovered through a volumetric rate. Under this traditional rate
16		design, consumers have the ability to control the non-gas portion of their bill by
17		reducing use, low use customers paid less than high use customers, and the
18		Company and customers shared the risk associated with weather.
19		Empire now requests that the Commission approve an alternative rate
20		design that recovers all non-gas costs through a flat fixed monthly charge called a
21		Straight-Fixed Variable Charge (SFV). In contrast to the current traditional rate
22		design, the SFV rate design requires customers to pay the same rate regardless of

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the customer's usage, low use customers pay as much as high use customers, and EMPIRE's weather related risk is shifted to customers. The Commission has approved a SFV rate design for only two natural gas companies.¹ Both of these cases occurred in 2006. Since 2006, parties have settled the issue of rate design in three natural gas rate cases. Two of these settlements produced traditional rate designs with Residential customer charges of \$15 for Missouri Gas Utility and \$15 for AmerenUE. The third resulted in the alternative decoupling rate design in effect for Laclede Gas Company with a Residential customer charge of \$15.50.

In this case, Public Counsel encourages the Commission to retain a traditional residential rate design, which recovers a portion of costs through a fixed customer charge and a portion through a volumetric rate, similar to the rate design approved for Missouri Gas Energy in Case No. GR-2004-0209. In that case, the Commission limited the collection to 55% of non-gas revenue through a fixed customer charge. The remaining 45% of costs were recovered through a uniform volumetric rate applied to all Ccf of consumption

Based on the class revenue shifts proposed in this testimony and estimated increases of \$2,400,000 for the North & South system and \$650,000 for the Northwest system, 55% recovery would result in a \$16.21 Residential customer charge for the North & South systems and a \$16.94 Residential customer charge for the Northwest system. Based on the class cost of service studies described later in this testimony, I calculate the cost directly related to serving individual

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¹ The Commission Order approving the SFV for Atmos Energy Corporation in Case No. GR-2006-0387 has been remanded to the Commission.

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customers to be \$11.68 for the North & South systems and \$11.89 for the Northwest system. Establishing a customer charge for the Residential class that recovers 55% of class cost will exceed these costs directly related to serving individual customers. To the extent that customer charges exceed the cost directly related to serving an individual customer, the Company is provided some protection against revenue volatility due to weather.

The Company's primary proposal to collect all Residential non-gas costs through a flat fixed fee is extreme. Based on the class revenue shifts proposed in my testimony and estimated increases of \$2,400,000 for the North & South system and \$650,000 for the Northwest system, 100% recovery of non-gas costs through a uniform customer charge would result in a \$29.47 Residential customer charge for the North & South systems and a \$30.80 Residential customer charge for the Northwest system.² These are substantial increases from the current \$9.50 Residential customer charge for the North & South systems and \$7.00 Residential customer charge for the Northwest system.

PLEASE DISCUSS EMPIRE'S CURRENT AND PROPOSED SMALL COMMERCIAL FIRM SERVICE RATES.

² Empire proposes uniform Residential and Small Commercial Firm rates for all service areas. The proposed uniform SFV Residential rate is \$30.

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Empire currently recovers a portion of non-gas costs for Small Commercial Firm service customers in each district through a fixed customer charge; \$17.40 for the North South system and \$13.50 for the Northwest system. The remaining Small Commercial Firm costs for each service area are recovered through a volumetric rate. The Company's primary proposal in this case is to implement a \$64 SFV non-gas rate for Small Commercial Firm customers with annual use of less than 5,000 Ccf per year and a \$110 customer charge coupled with a volumetric rate for Small Commercial customers with usage between 5,000 and 20,000 Ccf per year. As was true for the Residential class, the Company proposals are extreme and should be rejected.

I allocated significantly lower costs to the Small Commercial Firm class than did Empire. Based on the class revenue shifts proposed in my testimony and estimated increases of \$2,400,000 for the North & South system and \$650,000 for the Northwest system, 55% recovery of non-gas costs through a customer charge would result in a \$26.32 customer charge for the North & South systems and a \$24.61 customer charge for the Northwest system. These customer charges exceed the cost directly related to serving an individual customer's premise which for the Small Commercial Firm class is approximately \$11.90 for each system. To the extent that customer charges exceed the cost directly related to serving an individual customer, the Company is allowed some protection against revenue volatility due to weather.

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Q. DO YOU BELIEVE THAT A TRADITIONAL RATE DESIGN THAT RECOVERS A PORTION OF COSTS IN A CUSTOMER CHARGE AND A PORTION IN A VOLUMETRIC RATE PER UNIT PROVIDES A BETTER INCENTIVE FOR CONSERVATION THAN RECOVERING ALL COST IN A FIXED FLAT RATE?

Traditional Rate Design Provides a Better Conservation Incentive than SFV

Yes. The traditional rate design provides a better incentive for customers to 7 A. conserve than does the SFV rate design because, under the traditional rate design, 8 increasing consumption increases the non-gas charges a customer must pay. 9 Under the SFV rate design, a customer using little or no natural gas in a month 10 pays just as much in non-gas cost recovery as a customer using limitless natural 11 gas. Setting non-gas rates in a manner that recovers a portion of costs based on 12 volumes creates a financial incentive for a customer to turn back the thermostat 13 and to reduce the gas used for cooking and water heating. 14

Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE SFV RATE DESIGN COMPARED TO A TRADITIONAL RATE DESIGN AS A METHOD FOR PROMOTING CONSERVATION?

A. It would be appropriate to continue the traditional rate design which contains price signals that encourage conservation and allow residential customers some control over the non-gas portion of the bill.

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Direct Testimony of Barbara A. Meisenheimer Case No. GR-2009-0434 <u>Traditional Rate Design Better Reflects Cost Causation</u>

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Q. HOW IS COST CAUSATION INCORPORATED INTO SETTING THE PORTION OF COSTS TO BE RECOVERED THROUGH THE CUSTOMER CHARGE AND THE PORTION TO **BE** RECOVERED THROUGH VOLUMETRIC RATES?

A. It is common in regulated industries for companies to recover costs that are incurred independent of usage in a fixed fee and to recover costs that vary with usage through a usage based fee. Recovering a usage based cost through a usage based fee insures that those who did not cause the cost are not required to pay for it. This objective can be met through establishing a fixed component and a variable component of rates. The cost of meters that tend to be similarly sized for the majority of residential customers can be described as being independent of use and therefore reasonably recovered through a uniform fixed fee. Other facilities and equipment, such as measuring equipment at the entry point to the local distribution system, are associated with the volumetric flow of gas to the system and are therefore reasonably recovered on a per unit basis through a volumetric rate.

Q. DOES THE SFV RATE DESIGN MEET THE OBJECTIVE OF DESIGNING RATES BASED ON COST CAUSATION?

A. No. The SFV rate design is inappropriate for recovering all non-gas costs, because a portion of investments and expenses are incurred based on demand and commodity related considerations. In the context of class cost of service studies,

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the portion of investments and expenses that are incurred based on demand and commodity related considerations flow through to classes based on demand and commodity related factors and should reasonably be collected through usage based charges. Even the Company assigns certain costs to customer classes based on demand. For example, although I believe the following allocations are significantly understated, the Company's cost of service study identifies 8.93% of the Residential class revenue requirement as commodity and demand related. For the Small Commercial Firm class, the Company allocates an even greater proportion of 18.05% as demand and commodity related.

Traditional Rate Design Ensures That Those Who Use More Pay More

11Q.PLEASE COMPARE THE RANGE OF RESIDENTIAL NON-GAS BILL IMPACTS THAT12COULD RESULT FROM THE TRADITIONAL AND SFV RATE DESIGNS.

A. A comparison of Residential non-gas recovery under the SFV rate design and
traditional rate structure is shown below:

		,	I apre 1				
			Residential	Bill Impacts			-
	Nort (Ave U	h & South Use 58 Ccf)	••••• •••• ••• ••• ••• ••• •••		No (Ave Us	rthwest e 57.57 Ccf)	
Customer Use	SFV Rate	Traditional Rate	Difference	Customer Use	SFV Rate	Traditional Rate	Difference
(Cef)	Design	Design	Per Bill	(Ccf)	Design	Design	Per Bill
-	\$ 29.47	\$ 16.21	\$ (13.26)	-	\$ 30.80	\$ 16.94	\$ (13.86)
10	\$ 29.47	\$ 18.50	\$ (10.98)	10	\$ 30.80	\$ 19.35	\$ (11.45)
20	\$ 29.47	\$ 20.78	\$ (8.69)	20	\$ 30.80	\$ 21.76	\$ (9.05)
30	\$ 29.47	\$ 23.07	\$ (6.40)	30	\$ 30.80	\$ 24,17	\$ (6.64)
40	\$ 29.47	\$ 25.36	\$ (4.12)	40	\$ 30.80	\$ 26.57	\$ (4.23)
50	\$ 29.47	\$ 27.64	\$ (1.83)	50	\$ 30.80	\$ 28.98	\$ (1.82)
60	\$ 29.47	\$ 29.93	\$ 0.46	60	\$ 30.80	\$ 31.39	\$ 0.59
70	\$ 29.47	\$ 32.22	\$ 2.74	70	\$ 30.80	\$ 33.80	\$ 2.99
80	\$ 29.47	\$ 34.50	\$ 5.03	80	\$ 30.80	\$ 36.20	\$ 5.40
90	\$ 29.47	\$ 36.79	\$ 7.32	90	\$ 30.80	\$ 38.61	\$ 7.81
100	\$ 29.47	\$ 39.08	\$ 9.60	100	\$ 30.80	\$ 41.02	\$ 10.22
200	\$ 29.47	\$ 61.94	\$ 32.47	200	\$ 30.80	\$ 65.10	\$ 34.29
300	\$ 29.47	\$ 84.81	\$ 55.34	300	\$ 30.80	\$ 89.18	\$ 58.37
400	\$ 29.47	\$ 107.67	\$ 78.20	400	\$ 30.80	\$ 113.25	\$ 82.45
500	\$ 29.47	\$ 130.54	\$ 101.07	500	\$ 30.80	\$ 137.33	\$ 106.53
600	\$ 29.47	\$ 153.41	\$ 123.94	600	\$ 30.80	\$ 161.41	\$ 130.61
700	\$ 29.47	\$ 176.27	\$ 146.80	700	\$ 30.80	\$ 185.49	\$ 154.68
800	\$ 29.47	\$ 199.14	\$ 169.67	800	\$ 30.80	\$ 209.57	\$ 178.76
900	\$ 29.47	\$ 222.01	\$ 192.54	900	\$ 30.80	\$ 233.64	\$ 202.84
1,000	\$ 29.47	\$ 244.87	\$ 215.40	1,000	\$ 30.80	\$ 257.72	\$ 226.92
2,000	\$ 29.47	\$ 473.54	\$ 444.06	2,000	\$ 30.80	\$ 498.50	\$ 467.70
3,000	\$ 29.47	\$ 702.20	\$ 672.73	3,000	\$ 30.80	\$ 739.28	\$ 708.48
4,000	\$ 29.47	\$ 930.86	\$ 901.39	4,000	\$ 30.80	\$ 980.06	\$ 949.26
5,000	\$ 29.47	\$1,159.53	\$ 1,130.06	5,000	\$ 30.80	\$ 1,220.84	\$1,190.04
	SFV Charge	Tradition	al Charges		SFV Charge	Traditional	i Charges
	1 D DO 45	Cust Charge	Vol Charge			Cust Charge	Vol Charge
	j D 29.47	3 10.21	3 0.22866		\$ 30.80	\$ 16.94	S 0.24078

Table 1

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HOW DOES A TRADITIONAL RATE DESIGN IMPACT RESIDENTIAL CLASS BILLS?

Customers with below average to average use would pay less under the traditional rate design. Customers with above average use would pay more under a traditional rate design. Through all levels of use, as a customer uses more, they would pay more under a traditional rate design. Based on my experience, I believe that rates that collect more as the customer uses more are both understandable to customers and considered fair.

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Q. PLEASE COMPARE THE RANGE OF SMALL COMMERCIAL NON-GAS BILL IMPACTS

THAT COULD RESULT FROM THE TRADITIONAL AND SFV RATE DESIGNS.

A. A comparison of Small Commercial non-gas recovery under the SFV rate design

and traditional rate structure is shown below:

		Small Com	mercial Firm	service Bil	il Impacts		
anna ann ann an Ann Ann Ann Ann Ann Ann	North	& South		1	No	rthwest	
	(Ave Use 111.18 Ccf)			(Ave Use 108.71 Ccf)			
Customer Use	SFV Rate	Traditional Rate	Difference	Customer Use	SFV Rate	Traditional Rate	Difference
(Cef)	Design	Design	Per Bill	(Ccf)	Design	Design	Per Bill
	\$ 47.85	\$ 26.32	\$ (21.53)		\$ 44.75	\$ 24.61	\$ (20.14)
10	\$ 47.85	\$ 28.25	\$ (19.59)	10	\$ 44.75	\$ 26.46	\$ (18.28)
20	\$ 47.85	\$ 30.19	\$ (17.66)	20	\$ 44.75	\$ 28.32	\$ (16.43)
30	\$ 47.85	\$ 32.13	\$ (15.72)	30	\$ 44.75	\$ 30.17	\$ (14.58)
40	\$ 47.85	\$ 34.06	\$ (13.78)	40	\$ 44.75	\$ 32.02	\$ (12.73)
50	\$ 47.85	\$ 36.00	\$ (11.85)	50	\$ 44.75	\$ 33.87	\$ (10.87)
60	\$ 47.85	\$ 37.94	\$ (9.91)	60	\$ 44.75	\$ 35.73	\$ (9.02)
70	\$ 47.85	\$ 39.87	\$ (7.97)	70	\$ 44.75	\$ 37.58	\$ (7.17)
80	\$ 47.85	\$ 41.81	\$ (6.04)	80	\$ 44.75	\$ 39.43	\$ (5.32)
90	\$ 47.85	\$ 43.75	\$ (4.10)	90	\$ 44.75	\$ 41.28	\$ (3.47)
100	\$ 47.85	\$ 45.68	\$ (2.16)	100	\$ 44.75	\$ 43.14	\$ (1.61)
200	\$ 47.85	\$ 65.05	\$ 17.20	200	\$ 44.75	\$ 61.66	\$ 16.91
300	\$ 47.85	\$ 84.41	\$ 36.57	300	\$ 44.75	\$ 80.18	\$ 35.44
400	\$ 47.85	\$ 103.78	\$ 55.93	400	\$ 44.75	\$ 98.71	\$ 53.96
500	\$ 47.85	\$ 123.15	\$ 75.30	500	\$ 44.75	\$ 117.23	\$ 72.48
600	\$ 47.85	\$ 142.51	\$ 94.67	600	\$ 44.75	\$ 135.76	\$ 91.01
700	\$ 47.85	\$ 161.88	\$ 114.03	700	\$ 44.75	\$ 154.28	\$ 109.53
800	\$ 47.85	\$ 181.25	\$ 133.40	800	\$ 44.75	\$ 172.80	\$ 128.06
900	\$ 47.85	\$ 200.61	\$ 152.77	900	\$ 44.75	\$ 191.33	\$ 146.58
1.000	\$ 47.85	\$ 219.98	\$ 172.13	1,000	\$ 44.75	\$ 209.85	\$ 165.10
2,000	\$ 47.85	\$ 413.64	\$ 365.79	2,000	\$ 44.75	\$ 395.09	\$ 350.35
3,000	\$ 47.85	\$ 607.30	\$ 559.46	3,000	\$ 44.75	\$ 580.34	\$ 535.59
4,000	\$ 47.85	\$ 800.97	\$ 753.12	4,000	\$ 44.75	\$ 765.58	\$ 720.83
5,000	\$ 47.85	\$ 994.63	\$ 946.78	5,000	\$ 44.75	\$ 950.82	\$ 906.07
	SFV Charge	Tradition	al Charges		SFV Charge	Traditiona	l Charges
	E 47.95	Cust Charge	Vol Charge		S 44 75	Cust Charge	S 018524
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HOW DOES A TRADITIONAL RATE DESIGN IMPACT SMALL COMMERCIAL SERVICE CLASS BILLS?

As with the Residential class, Small Commercial customers with below average to average use would pay less under the traditional rate design. Customers with

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	Case N	lo. GR-2009-0434
1		above average use would pay more under a traditional rate design. Through all
2	r.	levels of use, as a Small Commercial customer uses more, they would pay more.
3	<u>Tradi</u>	tional Rate Design Better Encourages Customers To Stay On The System
4	Q.	IS THERE EVIDENCE THAT THE COMPANY'S RATE DESIGN PROPOSAL WILL DRIVE
5		LOW USE CUSTOMERS OFF THE SYSTEM?
6	А.	Yes. Mr. Overcast, the Company's rate design witness, anticipates a loss of
7		Residential and Small Commercial Firm service customers due to the SFV rate
8		design. Mr. Overcast's workpapers indicate a reduction of 2964 low or no use
9		Residential bills and a reduction of 5568 low or no use Small Commercial bills as
10		a result of the Company's rate design proposal.
11	Q.	IS THERE A BENEFIT TO KEEPING LOW USE CUSTOMERS ON THE SYSTEM?
12	А.	Yes. Low use customers benefit by retaining access to utility service. High use
13		customers and other customer classes benefit by not having to make up the
14	1	revenue lost when low use customers disconnect service.
15	Q.	HAS THE STAFF PREVIOUSLY REJECTED PROPOSALS TO RECOVER ALL NON-GAS
16		COSTS THROUGH A FIXED CHARGE DUE TO CONCERNS REGARDING THE
17		POTENTIAL DETRIMENT TO LOW USE CUSTOMERS?
18	А.	Yes. The detrimental impact on low use customers of full non-gas recovery
19		through a fixed flat rate was foreseen by Staff witness Dr. Michael Proctor in his
20		surrebuttal testimony in Laclede Gas Case No. GR-2002-356. In testimony
21		responding to Laclede's proposed weather mitigation rate design proposal, Dr.
22		Proctor explained: "While the Staff favors using rate design as a weather
23		mitigation measure, because of the detrimental impact on small users, the Staff

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1		was not willing to recommend recovering all of the non-gas costs in either the
2		customer charge, first block rate or a combination of these rate components"
3		(emphasis added) The SFV has exactly the effect that Dr. Proctor rejected because
4		it is designed to collect all non-gas costs through a monthly customer charge.
5	<u>Tradit</u>	tional Rate Design Is Consistent With The Purpose Of Regulation
6	Q.	IS THE TRADITIONAL RATE DESIGN THAT CORRELATES HIGHER USE WITH
7		HIGHER CHARGES CONSISTENT WITH THE PURPOSE OF REGULATION?
8	А.	Yes. Utility regulation is intended to mimic the outcomes and market
9		environment that is faced by competitive firms. The use of utility regulation to
10		simulate a competitive environment and encourage the benefits that would accrue
11		if the industry were suitable for a competitive structure has been referred to as the
12		competitive market paradigm. This paradigm was described by Dr. James
13		Bonbright on page 93 of Principles of Public Utility Rates in the following
14		manner:
15 16 17 18 19 20 21		Regulation, it is said, is a substitute for competition. Hence its objective should be to compel a regulated enterprise, despite its possession of complete or partial monopoly, to charge rates approximating those which it would charge if free from regulation but subject to market forces of competition. In short, regulation should be not only a substitute for competition, but a closely imitative substitute.
22	Q.	IS THE TRADITIONAL RATE DESIGN THAT CORRELATES HIGHER USE WITH
23		HIGHER CHARGES CONSISTENT WITH PRICING IN COMPETITIVE SERVICE
24		MARKETS?
25	А.	Absolutely. In highly competitive markets, it is common for firms to recover all
26		cost through only usage based fees. Even in more concentrated markets, rate

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structures that recover some portion of costs through volumetric charges are the norm. For example, telephone rates typically include a fixed minimum fee charged for basic access to the telephone network and additional usage based incremental fees that recover a portion of the investment and associated expenses. If customers demand either more services "over the pipe" or "a larger pipe" the customer pays more.

It is also the norm in competitive markets for customers to have some control over the charges they pay to the service provider. This not the case with the SFV rate design. From a rate design perspective, recovery of all costs through a flat fixed rate is a recovery method of choice for firms with sufficient market power to impose flat fees or enough regulatory support to impose them. Rate designs that consist of a customer charge and volumetric charge are supportable based on recognizing that the value of service is both in having access to gas as well as in using gas so cost would not be uniformly allocated to customers. In my opinion, recovery through a customer charge and volumetric rate is reasonable and fair from both an economic and policy perspective. Historically, this Commission has determined that it is appropriate for those who use more to pay more. Public Counsel encourages the Commission to continue this policy.

Q. IS THE TRADITIONAL RATE DESIGN CONSISTENT WITH MIMICKING THE RATE OF RETURN OPPORTUNITIES AND RISK THAT EXISTS IN COMPETITIVE MARKETS?

A. Yes. The Commission's ordered non-gas revenue requirement is not a fixed or guaranteed level of revenue that a Company is entitled to recovery each year. Instead, the level of revenue requirement approved by the Commission is a target level of costs including expenses, taxes and return on investment that an efficiently run company, barring unforeseen events has the opportunity to recover

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under long term average weather conditions. The Commission approved revenue requirement accounts for and is intricately related to potential weather variations that may affect costs and revenues from year to year. The process of normalizing demand determinates to account for weather and establishing a rate of return sufficient to attract investment despite the risk of weather variations are probably the two most obvious elements linking weather variations to revenue requirement. After the revenue requirement is determined, rates are set at a level anticipated to recover the target level of costs. However, the ratemaking process only reflects the anticipated cost and revenues at a snap shot in time. It does not guarantee or limit levels of either future costs or revenues and is not designed or intended to provide uniform recovery each year. Once rates are set, by improved efficiency or circumstances, a Company has an opportunity to earn a return above that incorporated in the revenue requirement. Likewise, by inefficiency, a Company faces the potential to earn a return below that incorporated in the revenue requirement. This process mimics a competitive business environment by creating incentives for the Company to minimize costs.

Utility regulation does not create an "entitlement" for the utility to earn a Commission determined return that fully compensates the utility for its cost of service. If that were the case, there would be no reason to determine an appropriate level of a risk adjusted return that should be included in a utility's rates. Instead, utility regulation is intended to mimic the outcomes and market environment that is faced by competitive firms. While viewed by investors as undesirable, earnings uncertainty serves an important role in the efficient operation of competitive markets by providing inherent protections for consumers. Earnings uncertainty motivates competitive business entities to minimize costs and to strive for customer satisfaction. Eliminating earnings

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uncertainty in a regulated environment would have a similar detrimental effect on consumers as would eliminating earnings uncertainty in an unregulated market. However, in a competitive environment, consumers retain the ability to reduce or forgo purchases in response to excessive prices or poor service.

In recognition and in consideration of the service it provides as a natural monopoly, a local gas distribution company is granted an additional concession not ordinarily available in a competitive business environment. It is allowed to request a rate review to, when justified, realign revenues to costs. This concession together with other concessions made by the Commission and other governmental entities more than adequately addresses issues of potential under earnings. For example, direct pass-through of costs such as those flowed through the PGA, have substantially shifted weather related risks to consumers. It is undesirable and unnecessary to shift greater earnings risk to consumers.

Q. CAN YOU CITE ANY ANALYSIS BY A RECOGNIZED UTILITY INDUSTRY EXPERT THAT SUPPORTS YOUR BELIEF THAT UTILITY COMMISSIONS GENERALLY SET RATES AT A LEVEL WHICH ALLOWS UTILITIES THE OPPORTUNITY (AS OPPOSED TO A GUARANTEE) TO ATTAIN THEIR AUTHORIZED RETURN?

A. Yes, the following quote from page 202 of A. J. G. Priest's *Principles of Public Utility Regulation* supports this widely recognized regulatory principle:

...the utility's return allowance might be compared with fishing or hunting license with a limit on the catch. Such a license does not guarantee that the holder will catch anything at all; it simply makes the catch legal (up to a specified limit) provided the holder is successful in his own efforts.

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Class Cost of Service Study Method

Q. WHAT IS THE REGULATORY PURPOSE OF A CLASS COST OF SERVICE STUDY?

A. A class cost of service study is a tool used by regulators to aid in determining an appropriate rate structure. It can be used as a guide in identifying, on a cost causative basis, the cost of serving a particular group of customers. A class cost of service study can also be used to evaluate the relative cost of service among classes. This comparison of relative cost is the focus of Public Counsel's study and is reflected in the study assumption that the Company's revenue requirement is equal to the level of current revenue.

10 Q. WHAT IS THE RELATIVE IMPORTANCE OF CLASS COST OF SERVICE STUDY 11 RESULTS IN RATE DESIGN?

A. A class cost of service study provides the Commission with a general guide for a service based on costs to determine just and reasonable rates. The Commission must, on a case by case basis, balance the results of a cost of service study with other relevant factors that go into the rate making decision process. Other relevant factors include the value of a service, the affordability of service, rate impacts, and rate continuity, to highlight a few.

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Q. WHAT COSTS ARE REFLECTED IN YOUR CLASS COST OF SERVICE STUDY?

A. Public Counsel's class cost of service study includes non-gas or margin costs associated with storing, transporting and delivering gas to customers. Gas costs recovered through the purchased gas adjustment rate are determined in a separate proceeding and are not at issue in this case.

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WHAT ARE THE REPRESENTATIVE CLASSES INCLUDED IN PUBLIC COUNSEL'S 0. **CLASS COST OF SERVICE STUDY?**

For class cost of service study purposes, customers are grouped into "classes" Α. based on type of customer and utilization patterns. My class cost of service studies include the same customer classes as the Company's study: Residential, Small Commercial, Small Volume Firm, Large Volume Firm, Small Volume Transport, Large Volume Firm, Large Volume Transport and Large Volume Interruptible.

ON WHAT DATA ARE YOUR CLASS COST OF SERVICE STUDIES BASED? Q.

The Accounting Schedules filed with the Staff's direct revenue requirement Α. testimony were the source of most of the investment and expense data that I used in my studies. The Accounting Schedule data is associated with a test year ending 12 December, 31, 2008. I used Company data on customer counts, revenues and 13 usage patterns to develop allocation factors for assigning revenues and costs to 14 customer classes. Except where specified, my use of Staff and Company 15 information should not be viewed as an endorsement of either Staff's or the 16 Company's methods for calculating accounting costs, billing determinants, peak demands or allocation factors. 18

IS THERE A POSSIBILITY THAT SOME INFORMATION USED IN YOUR STUDY WILL 0. **BE UPDATED AND REVISED AS THIS CASE PROGRESSES?**

Yes. It is common for the Staff and Company to update or reconcile information A. as cases progress. I will update my studies accordingly.

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1	Q.	PLEASE DESCRIBE THE ASSIGNMENT OF COST TO THE CUSTOMER CLASSES.
2	Α.	The assignment of costs to customer classes involves a three-step process in
3		which costs are first functionalized, then classified, and finally allocated to
4		customer classes based on factors that reflect cost causation.
5	Q.	PLEASE DESCRIBE THE FUNCTIONALIZATION OF COSTS.
6	А.	Functionalization involves categorizing cost accounts by associated function.
7		Functional categories include; Production, Storage, Transmission, Distribution,
8		Customer Accounts and Administrative and General (A&G).
9	Q.	PLEASE DESCRIBE THE CLASSIFICATION OF COSTS.
10	А.	Classification is achieved by further categorizing costs into customer related,
11		commodity related, demand related or "other related" costs. Some costs are
12		categorized as having multiple cost components.
13	Q.	PLEASE DESCRIBE CUSTOMER RELATED COSTS.
14	А.	Customer related costs vary directly (in fixed proportion) with the number of
15		customers served. Examples of customer related costs include: expenses
16		associated with meter reading, billing, and the return on investments associated
17		with metering equipment and service connections.
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Q. PLEASE DESCRIBE COMMODITY RELATED COSTS.

 A. Commodity related costs vary with the quantity of gas purchased. While Missouri's local distribution companies recover purchased gas cost through the PGA, other plant accounts may still be categorized as commodity related.

Q. PLEASE DESCRIBE DEMAND RELATED COSTS.

A. Demand related costs vary with the capacity requirement of plant or equipment. They are related to the maximum system requirements that reflect the capacity necessary to serve demand during peak periods. Demand related costs include most production, transmission and storage costs and expenses associated with these types of plant. In addition, some distribution plant and related expenses are demand related costs.

Q. PLEASE DESCRIBE THE ALLOCATION PROCESS.

A. Following functionalization and classification, allocation factors are applied to distribute a reasonable share of jurisdictional costs to each customer class. Some costs are uniquely attributable to, and therefore directly assignable to, a particular customer class. For costs that are jointly attributable, in measurable proportions, to a group of customer classes, the costs are assigned to each customer class based on factors that reflect each class's share of joint use. Finally, cost accounts associated with common facilities or common overheads that cannot be directly or jointly assigned are allocated to classes based on general factors. Typical allocation factors include measures of usage, sales, or weighted measures of customer counts.

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1	Q.	WHAT TYPES OF PLANT INVESTMENTS ARE ALLOCATED IN A CLASS COST OF
2		SERVICE STUDY?
3	А.	Common types of plant allocated in a class cost of service study include
4		intangible plant, production plant, storage plant, transmission plant, distribution
5		plant and general plant.
6	Q.	HOW ARE INTANGIBLE PLANT ACCOUNTS ALLOCATED?
7	А.	Intangible plant accounts include expenses related to organizing the enterprise,
8		obtaining franchise and consent and other miscellaneous items. (Accounts 301,
9		302, and 303) These costs are not directly or jointly attributable to particular
10		customer classes, instead they are common costs allocated on the basis of the
11		portion of overall cost of service assigned to each customer class.
12	Q.	ARE ANY GAS STORAGE, PRODUCTION OR TRANSMISSION PLANT ACCOUNTS
13		ALLOCATED IN YOUR STUDIES?
14	А.	Yes. Empire has a limited amount of jurisdictional investment in gas storage and
15		transmission plant. I allocated storage related investments based on winter sales
16		volumes and transmission measuring equipment on annual throughput.
17	Q.	HOW ARE DISTRIBUTION PLANT ACCOUNTS ALLOCATED?
18	А.	Mains transport gas throughout the Company's service area and represent a
19		significant portion of distribution plant. The system of mains serves three
20		primary purposes. It is designed to reach customers throughout the service area,

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to provide gas year round and to satisfy periods of peak demand. Therefore, I developed an allocator for Mains (Account 376) that reflects these three purposes.

The first component of my mains allocator is related to reaching customers throughout the service area. Although I do not recognize any portion of mains costs as directly related to the number of customers, I do recognize that indirectly the number of customers and the dispersion of customers affect the cost of mains. To reflect the indirect affect of customers on mains costs, I have used a zero-intercept method to develop a "customer related" component used in allocating mains. The method uses regression analysis to determine the portion of mains cost on an integrated system that would be incurred if "0" gas were provided. This method identifies 38.25% of mains costs for the North & South systems and 35.35% for the Northwest system of mains costs as "customer related" so I allocated these proportions of Mains (Account 376) on the basis of weighted customers. The remaining 61.75% of mains costs for the North & South systems and 64.65% for the Northwest system of the Mains allocation is divided between a commodity related component based on average use and a demand related component based on non coincident peak day demand that occurs in excess of average daily demand.

The commodity related component of my mains allocator is related to the use of mains to deliver gas throughout the year. I allocated 31.98% of Mains (Account 376) for the North & South systems and 30.64% of Mains (Account 376) for the Northwest system based on each customer class's share of annual system sales volumes measured in Ccf.

The demand related component of my mains allocator (the remaining 29.77% of Mains (Account 376) for the North & South systems and 34.01% of

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Mains (Account 376) for the Northwest system) is related to the use of mains to deliver gas during periods of peak use. I allocated this portion of Mains (Account 376) for each system based on each customer class's share of non coincident peak day demand in excess of average daily demand measured in Ccf. Land and Land Rights, Structures and Improvements (Accounts 374 and 375) are closely related to the system of distribution mains. I allocated these costs on the same basis as Mains (Account 376). Measuring and Regulating Station Equipment (Accounts 378 and 379) are related to the year round flow of gas and are therefore classified as commodity related. I allocated these costs based on each customer class's share of annual sales volumes measured in Ccf. Accounts 380 through 385 include cost directly related to serving customer premises. For example, services connect the customer premise to distribution mains. Similarly, meters and regulators at the customer premise measure and regulate gas flow at the premise. While these types of cost may differ by customer class, for example the cost of a typical meter associated with residential use is less expensive than the typical meter used to serve a large industrial customer, within each class, the costs tend to vary directly with the number of customers served. Based on this direct relationship between the number of customers served and costs, I classified these costs as customer related and developed allocation factors based on customer numbers weighted to reflect cost differences between customer classes. The type of allocation for each account is shown below:

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Table 3

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	Account		Description	Allocation based on
		380	Services	Weighted services
		381	Meters	Weighted meters
ĺ		383	House Regulators	Wt. meters less Lg. Vol.
		385	Meas. and Reg. Station Equ Industrial	uip Large Volume customers
3	Q.	HOW ARE GENERAL PL	ANT ACCOUNTS ALLOC	ATED?
4	А.	General plant accounts	s are allocated to cust	omer classes based on each class's
5		allocation of net non-ge	eneral plant.	
6	Q.	HOW ARE OTHER RATE	BASE ITEMS ALLOCAT	ED?
7	А.	Other rate base items ir	nclude additions and de	ductions to net plant in service. For
8		each, I selected an alloc	cator that seemed most	clearly related to the cost causation.
9		The types of cost and a	llocation factor used in	my studies are listed below:
10			Table 4	
11		<u>Rate Base Addi</u>	tions <u>Alloc</u>	ation Factor
		Cash Working Capi	tal Cost of	Service
		Materials and Suppl	lies Total N	Jet Plant
		Prepayments	Cost of	^î Service
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Direct Testimony of Barbara A. Meisenheimer				
	Prepaid Pension Asset	Labor		
	Natural Gas Stored Underground	Winter Sales		
	Unamortized Balances	Rate Base		
	Rate Base Deductions	Allocation Factor		
	Interest Offset	Cost of Service		
	Federal Income Tax Offset	Rate Base		
	State Income Tax Offset	Rate Base		
	City Tax Offset	Rate Base		
	Regulatory Liabilities	Rate Base		
	Customer Advances	Bills		
	Customer Deposits	Bills		
	Deferred Income Taxes	Rate Base		

Q. PLEASE DESCRIBE HOW OPERATION AND MAINTENANCE EXPENSES ARE ALLOCATED IN YOUR CLASS COST OF SERVICE STUDIES?

A. For allocating most of the accounts in this category, I used the "expenses follow plant principle". For example, the operations and maintenance expenses related to mains and services are allocated to customer classes on the same basis as the mains and services plant accounts. Similarly, operations and maintenance expenses related to non-customer specific measuring and regulating station equipment are allocated on the basis of annual Ccf as was the plant account related to measuring and regulating station equipment. For cost accounts not directly associated with a corresponding plant account, I selected an allocator that

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seemed most clearly related to the cost causation. The types of operation or maintenance expense and allocation factor used in my study are listed below:

Table 5

Operations

Account	Description	Allocation based on
870	Supervision & Engineering	Net Distribution Plant
874	Mains and services	Net Mains/Services Plant
875	Measuring & Regulating Stations	Annual Ccf
876	Measuring & Reg. Commercial	Large Ind. Bills
877	Measuring & Regulating City Gate	Annual Ccf
878	Meter & House Regulating	Wt. meters less Lg. Vol.
879	Customer Installations	Lg. Industrial Bills
880	Other Expenses	Net Distribution Plant

Maintenance

Account	Description	Allocation based on
887	Mains	Mains
889	Measuring & Regulating Stations	Annual Ccf
890	Measuring & Reg. Commercial	Large Ind. Bills
891	Measuring & Regulating City Gate	Annual Cef
892	Services	Weighted Services
893	Meters & House Regulators	Wt. meters less Lg. Vol.
894	Other Equipment	Net Distribution Plant

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Q. HOW ARE CUSTOMER ACCOUNTS, CUSTOMER SERVICE, AND SALES PROMOTION EXPENSES ALLOCATED?

A. Customer service expenses and sales promotions are indirectly related to the number of customers and are allocated on the basis of number of customer bills. Meter Reading (Account 902) was allocated based on the Company's meter reading study. Customer Records and Collections (Account 903) was allocated on the basis of weighted meters. I allocated Supervision (Account 901) based on the number of bills. I do not view uncollectibles as having a direct relationship to the number of customers or to the paying customers within the same class, so I allocated Uncollectibles (Account 904) on the basis of overall cost of service. For each account the type of expense and allocation factor used in my study are listed below:

Table 6

Customer Accounts

<u>Account</u>	Description	Allocation based on
901	Supervision	Bills
902	Meter Reading	Meter Reading Study
903	Customer Records and Collection	Weighted Meters
904	Uncollectible Accounts	Cost of Service
905	Miscellaneous	Customer Acct. Expense

Customer Service and Information

<u>Account</u>	Description	Allocation based on
908	Customer Assistance	Bills

	909	Inform & Instruct Advertising	Bills
	910	Miscellaneous	Bills
	Sales		
	Account	Description	Allocation based on
	911	Supervision	Bills
	912	Demonstrating and Selling	Bills
0.	HOW ARE AD	MINISTRATIVE AND CENERAL (A &	C) EXPENSES ALLOCATED?
¥*			of the Liber Allocated.
A.	Property inst	urance (Account 924) is allocated	on the basis of net non-gen
	plant. Exper	nses related to salaries, administrat	ion, outside services, injuries
	plant. Expendent damages, and	nses related to salaries, administrat d employee pensions and benefits (ion, outside services, injuries Accounts 920, 921, 922, 923,
	plant. Expendamages, and and 926) are	nses related to salaries, administrat d employee pensions and benefits (allocated on the basis of payroll.	ion, outside services, injuries Accounts 920, 921, 922, 923, The remainder of A & G expe
	plant. Expendamages, and and 926) are are allocated	nses related to salaries, administrat d employee pensions and benefits (allocated on the basis of payroll. T on the basis of the overall class cos	ion, outside services, injuries Accounts 920, 921, 922, 923, The remainder of A & G expendent of service.
Q.	plant. Expendamages, and and 926) are are allocated HOW ARE TA	nses related to salaries, administrat d employee pensions and benefits (allocated on the basis of payroll. T on the basis of the overall class cos XES ALLOCATED?	ion, outside services, injuries Accounts 920, 921, 922, 923, The remainder of A & G expendent of service.
Q.	plant. Expendamages, and and 926) are are allocated HOW ARE TA	nses related to salaries, administrat d employee pensions and benefits (allocated on the basis of payroll. T on the basis of the overall class cos XES ALLOCATED? es are allocated on the basis of the	ion, outside services, injuries Accounts 920, 921, 922, 923, The remainder of A & G expend t of service.
Q.	plant. Expendamages, and and 926) are are allocated HOW ARE TA Property taxe each class.	nses related to salaries, administrat d employee pensions and benefits (allocated on the basis of payroll. T on the basis of the overall class cos XES ALLOCATED? es are allocated on the basis of the Franchise taxes are allocated on the	ion, outside services, injuries Accounts 920, 921, 922, 923, The remainder of A & G expendent of service.
Q.	plant. Expendamages, and and 926) are are allocated HOW ARE TA Property taxe each class. If are allocated are are allocated are are are allocated are	nses related to salaries, administrat d employee pensions and benefits (allocated on the basis of payroll. T on the basis of the overall class cos XES ALLOCATED? es are allocated on the basis of the Franchise taxes are allocated on the l as a function of payroll expension	ion, outside services, injuries Accounts 920, 921, 922, 923, The remainder of A & G expendent of service. The plant previously allocate basis of rate base. Payroll ta se. Income taxes are allocate
Q.	plant. Expendamages, and and 926) are are allocated HOW ARE TA Property taxe each class. Hare allocated according to	nses related to salaries, administrat d employee pensions and benefits (allocated on the basis of payroll. T on the basis of the overall class cos XES ALLOCATED? es are allocated on the basis of the Franchise taxes are allocated on the l as a function of payroll expen- the rate base attributable to each	ion, outside services, injuries Accounts 920, 921, 922, 923, The remainder of A & G expendent at of service. The plant previously allocate basis of rate base. Payroll ta se. Income taxes are allocate class. Other taxes are allocate

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CLASS COST OF SERVICE STUDY RESULTS

Q. WHAT ARE THE RESULTS OF PUBLIC COUNSEL'S CLASS COST OF SERVICE STUDY?

The results of my class cost of service studies are shown below:

Current Rate of Return									
North & Sout	h System	Northwest Sy	stem						
Residential	3.56%	Res	-7.15%						
Sm Commercial	22.39%	SmComm	13.49%						
Sm Vol Firm	36.35%	Sm Vol Firm	28.42%						
Lg Vol Firm	-17.88%	Lg Vol Firm	-21.67%						
Lg Vol Int	15.17%	Lg Vol Int							
Tran Sm Vol	28.52%	Tran Sm Vol	52.10%						
Tran Lg Vol	-5.13%	Tran Lg Vol	-1.97%						
System Average	5.84%	System Average	-1.24%						

Table 7

Based on my studies for both service areas, the Residential class, Large Volume Firm class and Large Volume Transport class have returns below the system average return. For both service areas, the Small Commercial class, Small Volume Firm class and Small Volume Transport class are providing a return above the system average. The Large Volume Interruptible class for the North & South service is also providing a return above the system average return. The rate of return for each class is shown on Line 16, of Schedule BAM DIR-1 NS and Schedule BAM DIR-1 NW. The revenue neutral shift required to equalize the class rates of return is shown on Line 24, of Schedule BAM DIR-1 NS and Schedule BAM DIR-1 NW.

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WHAT LEVEL OF RESIDENTIAL CUSTOMER CHARGE IS SUPPORTED BY YOUR 1 0. 2 **CLASS COST OF SERVICE STUDY?** My cost of service study results indicates that the direct customer costs related to 3 A. serving the customer premises are \$11.68 for the North & South systems and 4 5 \$11.89 for the Northwest system. These amounts include a return on the Company's investment in meters, regulators, services and other customer 6 premises, operating and maintenance expenses associated with those investments, 7 meter reading expenses and billing expenses. The customer cost calculations are 8 9 shown on Page 9, of the class cost of service studies included in this testimony as 10 Schedule BAM DIR-2 NS and Schedule BAM DIR-2 NW. **Class Cost of Service Study Results and Rate Design Recommendations** 11 12 0. WHAT CLASS REVENUE REQUIREMENTS DO YOU PROPOSE BASED ON YOUR CLASS 13 **COST OF SERVICE STUDY RESULTS?** 14 Generally, Public Counsel recommends that, where the existing revenue structure departs greatly from the class cost of service, the Commission should impose, at a 15 maximum, class revenue shifts equal to one half of the "revenue neutral shifts" 16 indicated by Public Counsel's class cost of service study. Revenue neutral shifts 17 are shifts that hold overall company revenue at the existing level but allow for the 18 19 share attributed to each class to be adjusted to reflect the cost responsibility of the In addition to moving half way to the revenue neutral shifts, if the 20 class. Commission determines that an overall increase in revenue requirement is 21 necessary, then no customer class should receive a net decrease as the combined 22 result of: (1) the revenue neutral shift that is applied to that class, and (2) the share 23 of the total revenue increase that is applied to that class. Likewise, if the 24

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Commission determines that an overall decrease in revenue requirement is necessary, then no customer class should receive a net increase as the combined result of: (1) the revenue neutral shift that is applied to that class, and (2) the share of the total revenue decrease that is applied to that class.

Based on Public Counsel's general recommendation, I developed class revenue requirements in a three step process. In the first step, I calculated one half of the revenue neutral shift for each class indicated by my class cost of service studies. In the second step, I calculated the proportional share of net increase in revenue requirement each class would receive based on estimated increases of \$2,400,000 for the North & South system and \$650,000 for the Northwest system. The third step adjusted the combined amounts from the first two steps to ensure that no class received a decrease given that there was a net system increase.

Q. HAVE YOU PREPARED SCHEDULES ILLUSTRATING THIS RATE DESIGN METHOD?

Yes. Line 8, of Schedule BAM DIR-3 NS and Schedule BAM DIR-3 NW 15 Α. illustrate one half of the revenue neutral shift indicated by my class cost of service 16 study. Line 11, of Schedule BAM DIR-3 NS and Schedule BAM DIR-3 NW 17 illustrates the spread of an increase in total revenue similar to the increase 18 associated with Staff's midpoint rate of return. Line 13, illustrates the combined 19 effect of one half of the revenue neutral shift indicated by my class cost of service 20 study and the increase in the total revenue requirement. Lines 15-18, of Schedule 21 BAM DIR-3 NS and Schedule BAM DIR-3 NW illustrate the adjustments made 22 23 to ensure that no customer class receives a net decrease as the combined result of:

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	Direct Barbar Case N	Testimony of ra A. Meisenheimer No. GR-2009-0434 (1) the revenue neutral shift that is applied to that class, and (2) the share of the
1		(1) the revenue neutral shift that is applied to that class, and (2) the share of the
2		total revenue increase that is applied to that class. Lines 27-28, of Schedule BAM
3		DIR-3 NS and Schedule BAM DIR-3 NW illustrate the customer charge and
4		volumetric rates produced.
5	Q.	IF THE COMMISSION DETERMINES IT REASONABLE IN THIS CASE, CAN YOUR
6		RATE DESIGN METHOD BE APPLIED TO DIFFERENT REVENUE REQUIREMENTS?
7	А.	Yes, it can. This method could be utilized to calculate class revenue requirements
8		and customer and volumetric rates for any practical level of overall revenue
9		requirement.
10	Q.	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
11	А.	Yes.

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Class Cost Of Service Study Results Northwest

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1 $0 & M$ Expenses $$$ $1,589,966$ $$$ $1,050,230$ $$$ $164,566$ $$$ $62,428$ $$$ $59,964$ $$$ $42,774$ $$$ 2 2Depreciation and Amortization Expenses $$$ $411,304$ $$$ $257,669$ $$$ $45,809$ $$$ $16,822$ $$$ $9,869$ $$$ $13,400$ $$$ 3Taxes $$$ $364,550$ $$$ $240,290$ $$$ $37,084$ $$$ $13,064$ $$$ $12,136$ $$$ $10,476$ $$$ 4TOTAL - Expenses and Taxes(a) $$$ $2,365,820$ $$$ $1,548,188$ $$247,458$ $$92,313$ $$$ $81,969$ $$$66,650$ $$$335$ 5Current Revenue $$2,275,916$ $$1,285,384$ $$330,993$ $$168,382$ $$45,555$ $$$129,074$ $$3$ 6Current Revenue $$2,554$ $$20,890$ $$3,184$ $$500$ $$87$ $$344$ 9TOTAL - Current Revenues $$$2,301,450$ $$$1,306,273$ $$334,177$ $$168,882$ $$45,642$ $$129,418$ $$3$.g Vol
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10,006
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	67,735
4 TOTAL - Expenses and Taxes (a) \$ 2,365,820 \$ 1,548,188 \$ 247,458 \$ 92,313 \$ 81,969 \$ 66,650 \$ 33 5 5 6 Current Revenue \$ 2,275,916 \$ 1,285,384 \$ 330,993 \$ 168,382 \$ 45,555 \$ 129,074 \$ 3 7 Rate Revenue \$ 2,554 \$ 20,890 \$ 3,184 \$ 500 \$ 87 \$ 344 \$ 344 8 Other Revenues \$ 2,301,450 \$ 1,306,273 \$ 334,177 \$ 168,882 \$ 45,642 \$ 129,418 \$ 3	51,501
6 Current Revenue 7 Rate Revenue 8 Other Revenues 9 TOTAL - Current Revenues (b) \$ 2,275,916 \$ 1,285,384 \$ 330,993 \$ 168,382 \$ 45,555 \$ 129,074 \$ 3 8 Other Revenues 9 TOTAL - Current Revenues	29,241
7 Rate Revenue \$ 2,275,916 \$ 1,285,384 \$ 330,993 \$ 168,382 \$ 45,555 \$ 129,074 \$ 3 8 Other Revenue \$ 25,534 \$ 20,890 \$ 3,184 \$ 500 \$ 87 \$ 344 \$ 34	
8 Other Revenue \$ 25,534 \$ 20,890 \$ 3,184 \$ 500 \$ 87 \$ 344 \$ 9 TOTAL - Current Revenues (b) \$ 2,301,450 \$ 1,306,273 \$ 334,177 \$ 168,882 \$ 45,642 \$ 129,418 \$ 3	16,528
9 TOTAL - Current Revenues (b) \$ 2.301.450 \$ 1.306.273 \$ 334.177 \$ 168,882 \$ 45,642 \$ 129,418 \$ 3	529
	17,057
10 Current Revenue Percentage 100.00% 56.76% 14.52% 7.34% 1.98% 5.62% 11	13,78%
12 OPERATING INCOME (c) = (b) - (a) \$ (64,370) \$ (241,915) \$ 86,719 \$ 76,569 \$ (36,326) \$ 62,768 \$ (13,110)	12,184)
14 TOTAL RATE BASE (d) \$ 5,202,859 \$ 3,385,793 \$ 642,659 \$ 269,422 \$ 167,597 \$ 120,468 \$ 6	16,920
15 16 Current Rate Of Return (e) = (c) + (d) -1.24% -7.15% 13.49% 28.42% -21.67% 52.10% 17	-1.97%
18 Operating Income Needed To Equalize Class Returns (f) = -1.24 × (d) \$ (64,370) \$ (41,889) \$ (7,951) \$ (3,333) \$ (2,074) \$ (1,490) \$ 19 9 19 18 18 18 18 19 19 18 19 10	(7,633)
20 Revenue Percentage Needed To Equalized Class Returns (g) = ($0 + (a)$ \$ 2.301.450 \$ 1.506.299 \$ 239.507 \$ 88.980 \$ 79.895 \$ 65.160 \$ 30	21,609
21 100.00% 65.45% 10.41% 3.87% 3.47% 2.83%	13.97%
22 23 Boy Neutral Shift to Equalize Class B (P (b) = (b) \$ 200.026 \$ (94.670) \$ (79.902) \$ 34.253 \$ (64.258) \$	4,551
24 Rev. Neutral Shift Dercentage to Equalize Class ROR 15.31% -28.33% -47.31% 75.05% -49.65%	1.44%
25 26 December 20 Indicated Shift (3) = (b) = 7 S 100 013 \$ (47 335) \$ (39 951) \$ 17 126 \$ (32 129) \$	2.276
$\frac{20}{1000} = \frac{1000}{1000} $	0.72%
27 Of Createring and a contract of the contrac	13.88%

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OPC Updated Class Cost of Service Study Empire District Gas GR-2009-0434 Northwest

1101 tuw est			FACTOR						Lg Vol	al de la constante de la consta	
I. RATE BA	SE	FACTOR DESCRIPTION	NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Int	Tran Sm Vol	Tran Lg Vol
	A. GAS PLANT - Gross										
	Intangible										
101.00	Property Under Lease	Cost of Service	20	1,804	1,18	188	70	63	-	51	252
301 & 302	Franchise & Consents	Cost of Service	20	31,081	20,350	3,231	1,199	1,080	-	877	4,343
303.00	Miscellaneous	Cost of Service	20	22,055	14,441	2,293	851	767	-	623	3,082
	Total Intangible			54,940	35,972	5,711	2,119	1,910	-	1,551	7,678
	Production Plant - Manufactured			54,940							
304.00	Land & Land Rights			-	-	-	-	-	-	-	-
305.00	Structures & Improvements			-	-	-	-	-	-	-	-
307.00	Other Power Equip			-	-	-	-	-	-	-	•
311.00	Liquified Petrol Gas Equip			•	-	-	-	-	-	-	•
311,10	LP Gas Storage Cavern		_				-	-			
	Total Prod Plant - Mfg			•	-	-	-	-	•	-	-
	Transmission Plant										
365 & 366	Land & Land Rights, Structures & Improvements		4	-	-	-	-	-	-	-	-
367.00	Mains		4	•	-	-	-	-	-	-	-
369,00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	6,775	2,410	642	451	303	-	301	2,608
	Total Transmission Plant			6,775	2,410	642	451	303	-	301	2,008
	Distribution Plant			6,775						1.2/2	7 403
374.00	Land & Land Rights	Mains	5	34,518	19,304	3,944	1,512	914	-	1,302	/,483 5 122
375.00	Structures & Improvements	Mains	5	24,136	13,498	2,757	1,057	039	-	952	2,232 072.002
376.00	Mains	Mains	5	4,031,736	2,254,742	460,611	176,581	106,709	-	139,100	873,993
378.00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	333,113	118,486	31,580	22,180	14,890	-	25 202	120,242
379.00	M&R Sta Equip - City Gate	Annual Throughput Ccf	2	475,048	168,971	45,036	31,631	21,235	-	23,292	102,004
380.00	Services	Weighted Services	10	1,235,583	1,061,955	149,895	13,259	801	-	20126	1,/19
381.00	Meters	Weighted Meters	n	830,745	612,382	80,438	51,090	5,755	-	29,120	43,937
382.00	Meter Installation		6	-		-	-	•	-	17.004	-
383.00	House Regulators	Weighted Regulators	12	454,873	357,565	50,470	29,831	-	•	17,000	-
385,00	Industrial Mea/Reg	Large Ind. Bills	13	141,849	-	-	-	47,283	•	164	54,500
387.00	Other Equip	Net Distribution Plant	16_	5,472	3,605	607	201	123		159 692	1740.058
	Total Distribution Plant			7,567,073	4,610,507	831,338	327,341	198,347	-	238,083	1,340,636
	General Plant			7,567,073			24.646	15 215		10017	05 047
	Other General Plant	Net Non-General Plant	17	669,495	440,705	74,170	24,646	15,215	•	10,012	93,947
	Communications	Net Non-General Plant	17_	38,567	25,387	4,273	1,420	876	-	10.84	3,327
	Total General Plant			708,062 708,062	466,092	78,443	26,066	16,092	-	19,890	101,474
Total Plant	In Service			8,336,850	5,114,981	916,134	355,976	216,651		280,491	1,452,617
				8,336,850							

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			FACTOR						Lg Vol		
	B. ACCUMULATED DEPRECIATION & AMORTIZATION	FACTOR DESCRIPTION	NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Int	Tran Sm Vol	Tran Lg Vol
	Intangibie										
101.00	Property Under Lease		20	-	-	-	-	-	-	-	-
302.00	Franchise & Consents		20	-	-	-	-	-	-	-	-
303,00	Miscellaneous		20	-		-	-	-	-	-	-
	Total Intangible			-			_	-	-	-	
	Production Plant - Manufactured			-							
304.00	Land & Land Rights			-	-	-	-	-	-	-	-
305.00	Structures & Improvements			-	-	-	-	-	-	-	
307.00	Other Power Equip			-	-	-	-	-	-	-	-
311.00	Liquified Petrol Gas Equip			-	-	-	-	-	-	-	-
311,10	LP Gas Storage Cavern		_	-	-	-	-	-	-	-	-
	Total Prod Plant - Mfg		_	-	-	-	-	•	-	•	-
	Transmission Plant			-							
365 & 366	Land & Land Rights, Structures & Improvements		4	-	-	-	_	-	-	_	_
367.00	Mains		4	-	-	-	_	_	-	_	-
369.00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	90	32	9	6	4	-	5	35
	Total Transmission Plant			90	32	9	6	4	-	5	35
	Distribution Plant			90			, i i i i i i i i i i i i i i i i i i i	•		-	
374,00	Land & Land Rights		5	-	-		-	-		_	-
375,00	Structures & Improvements	Mains	5	14.515	8.117	1.658	636	384	-	573	3 147
376.00	Mains	Mains	5	2.627.259	1.469.290	300.154	115.068	69.537	-	103.677	569 533
378.00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	154,656	55.010	14.662	10.298	6.913	-	8 2 3 4	59 540
379.00	M&R Sta Equip - City Gate	Annual Throughput Ccf	2	177,568	63,159	16.834	11.823	7.937		9.454	68.360
380,00	Services	Weighted Services	10	(192,108)	(165,112)	(23,306)	(2.061)	(125)		(1.237)	(267)
381.00	Meters	Weighted Meters	11	410,915	302,905	42,755	25,271	2.846	-	14.407	22,732
382.00	Meter Installation	-	6	_	· _		· -		-	-	
383.00	House Regulators	Weighted Regulators	12	269,394	211.765	29.891	17.667	-	-	10.072	-
385.00	Industrial Mea/Reg	Large Ind. Bills	13	59,154	-	-	-	19.718	-	-	39 436
387.00	Other Equip	Net Distribution Plant	16	5.472	3,605	607	201	123	-	154	782
	Total Distribution Plant		-	3,526,825	1.948.739	383.255	178,902	107 334		145 333	763 262
	General Plant			3,526,825	- ,, - , - , , - , - , , - ,	,					100,000
	Other General Plant	Net Non-General Plant	17	345,759	227,601	38,305	12,728	7,858	-	9,715	49.551
	Communications	Net Non-General Plant	17	18,059	11,888	2,001	665	410	-	507	2.588
	Total General Plant		_	363,818	239,488	40,306	13,393	8,268	-	10,223	52,139
				363,818				• • • •			
Total Depre	ciation & Amortization Reserve			3,890,733	2,188,260	423,569	192,301	115,606		155,560	815,436
				3,890,733				·		-	

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			FACTOR						Lg Vol		
	C. GAS PLANT - NET	FACTOR DESCRIPTION	NO.	TOTAL	Res	Sm Conrn	Sm Vol Firm	Lg Vol Firm	Int	Tran Sm Vol	Tran Lg Vol
	Intangible										
101.00	Property Under Lease	Cost of Service	20	1,804	1,181	188	70	63	-	51	252
302.00	Franchise & Consents	Cost of Service	20	31,081	20,350	3,231	1,199	1,080	-	877	4,343
303.00	Miscellaneous	Cost of Service	20	22,055	14,441	2,293	851	767	•	623	3,082
	Total Intangible			54,940	35,972	5,711	2,119	1,910	-	1,551	7,678
	Production Plant - Manufactured			54,940							
304.00	Land & Land Rights			-	-	-	-	-	-	-	-
305.00	Structures & Improvements			-	-	-	-	-	-	-	-
307.00	Other Power Equip			-	-	-	-	-	-	-	-
311.00	Liquified Petrol Gas Equip			-	-	-	-	-	-	-	-
311.10	LP Gas Storage Cavern		_		-		-	-	-		
	Total Prod Plant - Mfg			-	-	-	-	-	-	-	-
	Transmission Plant										
365 & 366	Land & Land Rights, Structures & Improvements		4	-	-	-	-	-	-	•	-
367.00	Mains		4	-	-	•	-	-	-	-	-
369.00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	6,685	2,378	634	445	299	-	356	2,574
	Total Transmission Plant			6,685	2,378	634	445	299	-	356	2,574
	Distribution Plant			6,685							- 402
374.00	Land & Land Rights	Mains	5	34,518	19,304	3,944	1,512	.914	-	1,362	7,483
375.00	Structures & Improvements	Mains	5	9,621	5,381	1,099	421	255	-	380	2,086
376,00	Mains	Mains	5	1,404,477	785,451	160,456	61,513	37,173	-	55,423	304,460
378.00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	178,457	63,476	16,918	11,882	7,977	-	9,501	68,702
379.00	M&R Sta Equip - City Gate	Annual Throughput Ccf	2	297,480	105,811	28,202	19,807	13,297	-	15,838	114,524
380.00	Services	Weighted Services	10	1,427,691	1,227,067	173,201	15,320	925	-	9,192	1,986
381.00	Meters	Weighted Meters	11	419,830	309,477	43,683	25,819	2,907	-	14,719	23,225
382.00	Meter Installation		6	-	-	-	-	-	-	-	-
383.00	House Regulators	Weighted Regulators	12	185,479	145,801	20,580	12,164	-	-	6,9,14	-
385.00	Industrial Mea/Reg	Large Ind. Bills	13	82,695	-	-	-	27,565	-	-	55,130
387.00	Other Equip		16	-		-	-	-		-	-
	Total Distribution Plant			4,040,248	2,661,767	448,082	148,439	91,013	-	115,550	377,390
	General Plant			4,040,248						0.007	16 204
	Other General Plant	Net Non-General Plant	17	323,736	213,104	35,865	11,918	7,357	-	9,097	40,395
	Communications	Net Non-General Plant	17_	20,508	13,500	2,272	755	400		0 (72	2,939
	Total General Plant			344,244	226,604	38,137	12,073	7,823	-	9,073	49,334
				344,244			142 686	101.045		124.020	(27.10)
GAS PLAN	TIN SERVICE - NET			4 ,446, 117 4,446,117	2,926,721	492,564	103,075	101,045	•	124,930	037,181
OTHER GA	S PLANT			• •							
	Nat. Gas Stored Underground (CUSHIA)		3		2 00 (72)	400.5/1	162 674	-	•	124.020	627 181
TOTAL GAS	S PLANT IN SERVICE - NET			4,446,117 4,446,117	2,926,721	492,364	103,075	101,045	-	124,930	037,181

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			FACTOR						Le Vol		
	D. OTHER RATE BASE	FACTOR DESCRIPTION	NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Int	Tran Sm Vol	Tran Lg Vol
Add:							***				****
	Cash Working Capital	Cost of Service	20	32,126	21,035	3,340	1,239	1.117		907	4,489
	Materials and Supplies	Total Net Plant	18	25,763	16,959	2,854	948	586	-	724	3.692
	Prepayments	Cost of Service	20	9,337	6,113	971	360	325	-	264	1.305
	Prepaid Pension Asset	Labor	21	285,649	193,853	29,242	10.817	11,049		7.270	33.418
	Alternative Minimum Tax Credit		19	-	-	-	-		-	-	•
	Net Cost of Removal Reg Asset		18	-	-	-	-	-	-	-	-
	Natural Gas Stored Underground	Winter Sales	3	1,137,087	741.456	203,397	121.596	70.638	-		-
	Unamortized Chillicothe		19	-		-		-	-	-	-
	Unamortized GO-90-115		19	-	-	-	-	-	-	-	
	Unamortized GO-91-359		19	-	-	-	-	-	-		-
	Total Additions To Net Plant In Service			1,489,962	979,416	239,803	134,960	83,713		9,164	42.905
Less:				1,489,962			,	·			,
	Interest Offset	Cost of Service	20	20,497	13,420	2,131	790	712	-	579	2,864
	Federal Income Tax Offset	Rate Base	19	5,040	3,280	623	261	162		117	598
	State Income Tax Offset	Rate Base	19	825	537	102	43	27	-	19	98
	Reg Liabilities	Rate Base	19	304,018	197,842	37,552	15,743	9,793		7.039	36.048
	Customer Advances For Construction	Bills	7	77,318	66,446	9,379	830	55	-	498	111
	Customer Deposits	Bills	7	129,338	111,151	15,689	1,388	93	-	833	185
	Deferred Income Taxes	Rate Base	19	196,184	127,668	24,233	10,159	6,320	-	4.542	23.262
	Total Deductions To Net Plant In Service			733,220	520,344	89,708	29,214	17,162	-	13.627	63,166
				733.220 -							
	Subtotal - Other Rate Base			756,742	459,072	150,095	105,747	66,551	-	(4,462)	(20.261)
				756,742						((=-,=)
	TOTAL RATE BASE		=	5,202,859	3,385,793	642.659	269.422	167.597		120 468	616 920
				5,202,859	,			,		.20,100	010,720

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II. OPERATION and	MAINTENANCE EXPENSES	FACTOR DESCRIPTION	FACTOR NO.	TOTAL	Res	Sin Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
Natura	al Gas Supply Expense										
804	Nat. Gas City Gate & LP Purchases			-	-	-	-	-	-	•	-
808	Gas Withdrawn from Storage			-	-	-	-	-	-	•	-
809	Gas Delivered to Storage			-	-	-	-	-	-	-	-
813	Other		2_	(4,167)	(1,482)	(395)	(277)	(186)	-	(222)	(1,604)
	Total Natural Gas Expense			(4,167) (4,167)	(1,482)	(395)	(277)	(186)	-	(222)	(1,604)
Storag	е Ехрепзе										
766	NG PG Maint Field Meas & Regul		3	•		-	-	-	-	-	•
844	Energy Trading /Acct Gas	Winter Sales	3	8,936	5,827	1,598	956	222	-		-
			-		-	-	-		-	-	
	Total Storage			8,936	5,827	1,598	956	222	-	-	-
Transı	mission			8,930							
Operati	ions										_
850	Supervision & Engineering			-	-	-	-	-	-	-	-
851	Load Dispatch			•	-	-	-	-	-		-
856	Mains		4	-	-	-	•	-	-		-
857	Measuring & Regulating Exp			-	-	•	-	-	-	-	
859	Other Expenses			-	-	-	-	-	-		_
860	Rents			-	-	-	-	-	-		-
820	Measuring & Regulating			-	-	-	-	•	-		_
821	Purification			-	-	-	-	•	-		-
822	Exploration & Development			-	-	-	-	-	-	-	
823	Losses			-	-	-	-	-	-	•	
824	Other Expenses			-	-	-	-	-	-		-
825	Storage Well Royalty			-	-	-	-	-	-	-	-
Mainte	mance								_		
861	Supervision & Engineering			-	-	-	-	-	-		
862	Structures & Improvements			-	-	-	-	-	-		
863	Mains			-	-	-	-	-	-	•	-
865	Measuring & Regulating Exp			-	-	-	-	-	-	•	-
867	Other Equipment			-	-	-	-	-	•	-	-
835	Meter & Regulating Station Equipment			-	-	-	-	-	-	-	-
836	Purification Equipment			-	-	-	-	-	-	-	-
837	Other Equipment		-	-					-	<u> </u>	<u> </u>
	Total Transmission			-	-	-	-	-	-	•	-

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			FACTOR						Lg Vol		
II. OPERATIO	N and MAINTENANCE EXPENSES (continue)	FACTOR DESCRIPTION	NØ.	TOTAL	Res	Sm Comm	Sm Vol Firm	Le Vol Firm	Int	Tran Stu Vol	Tran Le Vol
Ľ	Distribution	······································									
C	Deerations										
870	Supervision & Engineering	Net Distribution Plant	16	2458	1 6 1 0	272	00			(0	161
871	Load Dispatch		2	2,400	1,019	215	20	23	-	09	301
874	Mains and services	Not Mains/Comisse Blant	16	171 000	100.007	-		•	•	-	
074	Manus and Services	Net Wains/Services Plan	15	171,823	122,096	20,242	4,061	2,311	-	3,920	18,592
873	Measuring & Regulating Stations	Annual Throughput Cet	2	57,326	20,390	5,435	3,817	2,562	•	3,052	22,069
876	Measuring & Regulating Commercial	Large Ind. Bills	8	-	-	-	-	-	-	•	-
877	Measuring & Regulating City Gate	Annual Throughput Ccf	2	4,782	1,701	453	318	214	-	255	1,841
878	Meter & House Regulating	Weighted Regulators	12	123,018	96,702	13,649	8,068	-	-	4,599	•
879	Customer Installations	Large Ind. Bills	8	56,119	-	-		18,706	-	-	37 413
880	Other Expenses	Net Distribution Plant	16	51 215	33 741	5 680	1 887	1 154	_	1 437	7 377
N	Aaintenance			• 1,210	,,,,,,	2,000	1,002	1,154	-	1,7,17	1,024
887	Mains	Maine	4	47 772	22.610	4 875	1.960	1 1 10		1.47	0.166
889	Measuring & Regulating Stations	Annual Throughout Caf	2	42,233	2.5,019	4,623	1,850	1,118	-	1,007	9,100
800	Mansuring & Regulating Stations	Annual Throughput Cer	2	4,099	1,0/1	445	313	210	•	250	1,809
801	Measuring & Regulating Continential	Large Ind. Buils	8	6,618	•	-	•	2,206	-	•	4,412
891	Measuring & Regulating City Gate	Annual Throughput Cel	2	374	133	35	25	17	-	20	144
892	Services	Weighted Services	10	5,207	4,475	632	56	3	•	34	7
893	Meters & House Regulators	Weighted Regulators	12	7,582	5,960	841	497	-	-	283	-
894	Other Equipment		16	•	-	-	-		-		-
Т	otal Distribution		_	533,454	312.108	52,511	21.577	28 557		15 586	103 115
0	lustomer Accounts			533 454				20,00	-	15,500	105,115
901	Supervision	Bills	7	8 962	7 702	1.097	06	£		20	12
902	Meter reading	Mat Dooding	20	0,002	((210	0,007	.90	6	-	58	13
003	Customer Records and Collection	Weinhand Meaning	29	61,045	00,318	9,730	1,351	153	-	1,517	1,976
004	Uncellectible Accounts	weighted Meters	11	119,858	88,353	12,471	7,371	830	-	4,202	6,631
904		Cost of Service	20	119,560	78,282	12,428	4,611	4,156	•	3,375	16,708
905	Miscellaneous	Customer Acct, Expense	14_	3,266	2,374	353	136	52	-	93	258
	Total Customer Accounts			332,691	243,030	36,070	13,565	5,198	-	9,245	25,585
С	Sustomer Service & Information			332,691							
907	Supervision	Bills	7	2,565	2,204	311	28	2	-	17	4
908	Customer Assistance	Bills	7	24,993	21,479	3.032	268	18	-	161	36
909	Informational & Instruct Advertising	Bills	7	2.026	1.741	246	27	1	_	13	3
910	Miscellaneous Expense	Bills	7	53	46	6	1	0	-	12	5
	Total Customer Svc & Info		· -	20 637		2 505	210		<u> </u>	101	. 12
S	ales			29,657	23,470	3,395	210	21	-	191	42
911	Supervision	Dill.	7	1.070				-			
912	Demonstrating and Selline	Dus	,	1,979	1,701	240	21	1	-	13	3
012	A duominimum	Duis	/	1,847	1,587	224	20	1	-	12	3
213	Auvenusing		7	-	-	-	-	-	-	•	-
916	Miscellaneous		7_		-	-	-	-	-	-	•
14	otal Sales			3,826	3,288	464	41	3	•	25	5
A	dministrative & General			3,826							
0	perations										
920	Salaries	Labor	21	240 984	163 542	24.669	9 1 2 6	9321	_	6 133	28 103
921	Office Supplies & Expense	Labor	21	82 821	\$6 206	9 179	2 126	2 202	-	2,100	46,135
922	Administrative Expense Transferred	Labor	21	02,011	50,200	0,470	5,150	5,205	-	2,108	9,089
923	Outside Services	Labor	21	20 922	14 100		-	-	•	-	
924	Bronetty Insurance		21	22,733	15,428	2,327	861	879	-	579	2,660
025	historia and Damante	Net Non-General Plant	17	29	19	3	1	1	-	1	4
923	injuries and Damages	Labor	21	35,998	24,430	3,685	1,363	1,392	-	916	4,211
926	Employee Pensions & Benefits	Labor	21	188,238	127,746	19,270	7,128	7,281	-	4,791	22,022
928	Regulatory Commission	Cost of Service	20	21,251	13,914	2,209	820	739	-	600	2 970
930,0	General Advertising	Cost of Service	20	(67)	(44)	(7)	(3)	(2)		(2)	(9)
930.2	Miscellaneous General	Cost of Service	20	21 370	13 002	2 221	824	743		602	2.094
929.0	Duplicate Charges Credit	Cost of Service	20	(6.031)	(3.040)	(677)	(023)	(210)	•	(170)	2,700
931	Rents	Cost of Service	20	(0,051) 50.054	(3,949)	(027)	(233)	(210)	-	(170)	(843)
м	aintenance	COSI OL DELVICE	20	26,830	38,330	6,118	2,270	2,046	-	1,662	8,225
074	Constal Plant										
202	Total Administration & Comment	Net Non-General Plant	17_	12,940	8,518	1,434	476	<u>29</u> 4	-	364	1,854
	i oral Administrative & General			679,122	458,337	69,781	25,770	25,687	•	17,583	81,963
				679,122							
IUFAL U & M	EXPENSES			1,583,499	1,046,577	163,625	61,949	59.834	-	42,407	209 106

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			FACTOR						Lg Vol		
III. DEPRE	CIATION and AMORTIZATION	FACTOR DESCRIPTION	NO,	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Int	Tran Sm Vol	Tran Lg Vol
	Intangible							·····			
101.00	Property Under Lease		20	-	-	-	-	-	-	-	-
302,00	Franchise & Consents		20	-	-	-	-	-	-	-	-
303.00	Miscellaneous		20	-	-	-	-	-	-	-	-
	Total Intangible			-					· · · · · ·		<u> </u>
	Production Plant - Manufactured			-							
304.00	Land & Land Rights			-	-	_	-		-	-	-
305.00	Structures & Improvements			-	-	-	-			-	
307.00	Other Power Equip			_	-	-	-	_		_	_
311.00	Liquified Petrol Gas Equip			-	-	-	-		_	_	
311.10	LP Gas Storage Cavern			-	_	-	-	-	_	-	-
	Total Prod Plant - Mfg		_	_	-	-	····		<u> </u>		
	5			-							
	Transmission Plant										
365 & 366	Land & Land Rights, Structures & Improvements		4	-	-	-	-	-	-	-	-
367.00	Mains		4	-	-	-	-	-	-	-	-
369.00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	150	\$3	. 14	10	7	-	8	58
	Total Transmission Plant			150	53	14	10	7	-	8	58
	Distribution Plant			150							
374.00	Land & Land Rights		5	-	•	-	-	-	-	-	-
375,00	Structures & Improvements	Mains	5	536	300	61	23	14	-	21	116
376.00	Mains	Mains	5	183,041	102,365	20,912	8,017	4,845	-	7,223	39,679
378.00	Meas & Reg Sta Equip	Annual Throughput Ccf	2	6,662	2,370	632	444	298	-	355	2,565
379,00	M&R Sta Equip - City Gate	Annual Throughput Ccf	2	9,501	3,379	901	633	425	-	506	3,658
380,00	Services	Weighted Services	10	40,898	35,151	4,962	439	27	-	263	57
381.00	Meters	Weighted Meters	11	21,350	15,738	2,221	1,313	148	-	749	1,181
382.00	Meter Installation		6	-	-	-	•	-	-	-	-
383.00	House Regulators	Weighted Regulators	12	20,606	16,198	2,286	1,351	-	-	770	-
385,00	Industrial Mea/Reg	Large Ind. Bills	13	3,816	-	-	-	1,272	-	-	2,544
387.00	Other Equip		16	-	-	-		-	-	<u> </u>	<u> </u>
	Total Distribution Plant			286,410	175,501	31,975	12,220	7,028	-	9,887	49,800
	General Plant			286.410							
	Other General Plant	Net Non-General Plant	17	34,712	22,850	3,846	1,278	789	-	975	4,975
	Communication	Net Non-General Plant	17	1,543	1,016	171	57	35	-	43	221
	Total General Plant			36,255	23,865	4,017	1,335	824	-	1,019	5,196
				36,255							
	ANNUALIZED CAPITALIZED DEP			<i>(</i> 							
		Net Non-General Plant	17	(3,009)	(1,981)	(333)	(111)	(68)	-	(85)	(431)
	Total Depreciation			319,806	197,439	35,672	13,454	7,790	-	10,829	54,622
	Amortization Expense										
	•	Total Net Plant	18	91498	60,230	10,137	3,368	2.079	-	2.571	13 113
	Total Depreciation and Amortization			411.304	257.669	45,809	16.822	9,869		13,400	67 735
	·			411,304		-,					
OTHER OPH	RATING EXPENSES										
	Other										
	Interst on Deposits	Interest on Dep	26	6,467	3,652	941	478	129		367	899
TOTALODE	DATING PURCHANO/TANES			0,407	1 202 000	210.201	70.040	(0.022			
IOTAL OPE	RATING LATENSE WU/ IAALS			2,001,270	1,307,899	210,374	79,249	09,833	-	50,174	277,741
				2,001,270							

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				FACTOR						Lg Vol		
			FACTOR DESCRIPTION	NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	int	Tran Sm Vol	Tran Lg Vol
IV. TAXES						······································			*******			
	1. Taxes Other Than Income Taxes (Te	отіт		10		12.000	0.057	0.00	1.652		2.042	10.421
	RE&PP		Total Net Plant	18	72,718	47,868	8,056	2,677	1,653	-	2,043	10,421
	Franchise		Kate Base	19	(76,369)	(49,098)	(9,433)	(3,953)	(2,460)	•	(1,768)	(9,055)
	Iransp			19	-	-	-	-	-	-	-	-
	Gross Receipts (del. froi	11 Stall nun)	Labor	21	-	21 012	-	1 731	1 769	-	1 163	\$ 346
	Payroll		Laror Cent of Service	21	40,098	202 519	4,078	1,731	1,700	-	1,103	43 333
	Ouler		Cost of Service	- 20	307,303	202,518						45,225
	Subtotal - TOTIT				351,352 351,352	231,701	35,454	12,381	11,711	-	10,170	49,936
	2. Income Taxes											
	Current Income Tax Exp	ense		19	-	-	-	-		-	-	-
	Deferred Income Tax Ex	pense	Rate Base	19	13,198	8,589	1,630	683	425	-	306	1,565
	Total Income Taxes			-	13,198 13,198	8,589	1,630	683	425	-	306	1,565
	TOTAL TAXES			=	364,550 364,550	240,290	37,084	13,064	12,136	•	10,476	51,501
										Le Vol		
	TOTAL COST OF SE	RVICE SUMMARY			TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Int	Tran Sm Vol	Tran Lg Vol
	O & M Expenses			-	1.589.966	1.050.230	164.566	62,428	59,964		42.774	210.006
	Depreciation and Amorti	zation Expenses			411,304	257,669	45,809	16,822	9,869	-	13,400	67,735
	Taxes	·			364,550	240,290	37,084	13,064	12,136	-	10,476	51,501
		TOTAL - Expenses and Taxes		-	2,365,820 2,365,820	1,548,188	247,458	92,313	81,969	-	66,650	329,241
	Current Revenue											
		Rate Revenue			2,275,916	1,285,384	330,993	168,382	45,555	-	129,074	316,528
		Other Revenue			25,534	20,890	3,184	500	87	-	- 344	529
		TOTAL - Current Revenues		-	2,301,450	1,306,273	334,177	168,882	45,642	-	129,418	317,057
	Current Revenue	Percentage			100.00%	56.76%	14.52%	7.34%	1,98%		5.62%	13,78%
	OPERATING INCOME				(64,370) (64,370)	(241,915)	86,719	76,569	(36,326)		62,768	(12,184)
	TOTAL RATE BASE				5,202,859 5,202,859	3,385,793	642,659	269,422	167,597		120,468	616,920
	Implicit Rate of Return (ROR)			-1.24%	-7.15%	13,49%	28.42%	-21.67%		52.10%	-1.97%

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Customer Cost Calculation				TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vot	Tran Lg Vol
	CCHG DOLLARS:	RATE BASE RETURN O & M DEPR. + OTHER	9.8000% (Return grossed up for Fed and State income tax))	1,682,344 272,035 346,328 67,087	237,464 38,398 49,272 9,469	53,303 8,619 18,504 3,103	31,398 5,077 19,808 1,446		30,846 4,988 11,343 1,782	80,341 12,991 46,417 3,782
		CUSTOMER CHARGE COSTS CUSTOMER BILLS MONTHLY CUSTOMER CHARGE			685,450 57,669 11,89	97,139 8,140 11.93	30,226 720 41.98	26,331 48 548.57	-	18,113 432 41,93	63,190 96 658,23

Lg Vol Sm Vol Firm Lg Vol Firm Int Tran Sm Vol Tran Lg Vol TOTAL Res Sm Comm STUDY ALLOCATORS THREE FOUR FIVE SIX SEVEN TOTAL ONE TWO 0.13908 0.05671 0.56478 0.14543 0.07398 0.02002 1.00000 -1 Rate Revenue 0.04470 0.05324 0.38498 0.06658 2 Annual Throughput Ccf 1.00000 0.35569 0.09480 -1.00000 0.65207 0.17888 0.10694 0.06212 -3 Winter Sales 0.30203 1.00000 0.42255 0.11429 0.05854 0.03846 -0.06412 4 Coincident Peak Demand 0.55925 0 11425 0.04380 0.02647 -0.03946 0.21678 1.00000 5 Mains 0.03506 0.05532 0.73715 0 10405 0.06150 0.00693 1,00000 -6 Weighted Meter Installation 0.00644 0.85938 0.12130 0.01073 0.00072 0.00143 1.00000 -7 Bills 1.00000 0.33333 -• 0.66667 8 Large Ind. Bills --. 0.86123 0.12156 0.01075 0.00645 1.00000 9 Bills - Large Ind. Bills . -0.85948 0,12132 0.01073 0.00065 0.00644 0.00139 . 10 Weighted Services 1.00000 0.00693 0.03506 0.05532 0,73715 0.10405 0.06150 -11 Weighted Meters 1,00000 0.03739 0.06558 1.00000 0,78608 0.11096 --12 Weighted Regulators . . 0.33333 0.66667 1.00000 . -13 Large Ind. Bills ---0.10806 0.04160 0.02838 0.07899 0,72693 0.01604 1.00000 -14 Customer Acct. Expense 0.02281 0.10820 0.01345 1.00000 0.71059 0.11781 0.02713 -15 Net Mains/Services Plant 0.02806 0.14296 0.65881 0,11090 0.03674 0.02253 -16 Net Distribution Plant 1.00000 0.02810 1.00000 0,65826 0.11079 0.03681 0.02273 • 0.14331 17 Net Non-General Plant 0.65826 0,11079 0.03681 0.02273 -0.02810 0.14331 1,00000 18 Total Net Plant 0.12352 0.05178 0.03221 -0.02315 0.11857 1.00000 0.65076 19 Rate Base 0.65475 0.10395 0.03856 0.03476 . 0.02823 0.13974 1.00000 20 Cost of Service 0.10237 0.03787 0.03868 . 0.02545 0.11699 1.00000 0.67864 21 Labor 22 23 24 25 0.05671 1.00000 0.56478 0.14543 0.07398 0.02002 -0.13908 26 Interest on Dep 0,92686 0.03091 0.04223 1.00000 . . 27 Uncollectibles -. 0.01073 0.00072 0.00644 0.00143 0.85938 0.12130 -1.00000 28 Bills 0.00189 0.01871 0.02438 0.12006 0.01667 1.00000 0.81829 -29 Met Reading 0.01348 0.81809 0,12468 0.01960 0.00342 -0.02072 1.00000 30 Other Revenue

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Cost os Service Allocator Calculation

COS ALLOCATOR CALCULATIONS totals exclude accounts allocated based on COS

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	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
O & M EXPENSES	1,368,560	905,845	141,282	53,660	52,364		36,339	179,070
DEPREC & AMORT EXPENSE	411,304	257,669	45,809	16,822	9,869	-	13,400	67,735
TAXES	55,245	37,771	4,931	1,136	1,385	-	1,744	8,277
Subtotal - Expenses and Taxes	1,835,109	1,201,286	192,022	71,619	63,618	-	51,483	255,082
	1,835,109							
TOTAL RATE BASE	5,126,953	3,336,094	634,769	266,495	164,958	-	118,325	606,313
	5,126,953							
RATE OF RETURN	-1.237%	-1.237%	-1.237%	-1.237%	-1.237%	-1.237%	-1.237%	-1.237%
REQUIRED OPERATING INCOME	(63,431)	(41,274)	(7,853)	(3,297)	(2,041)	-	(1,464)	(7,501)
TOTAL COST OF SERVICE	1,771,678 1,771,678	1,160,011	184,168	68,321	61,578	-	50,019	247,581

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Labor Allocator Calcutation		FACTOR DESCRIPTIO	FACTOR N NO.	LABOR	Res	Sin Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
Natural Gas	Supply Expense										
804	Nat, Gas City Gate & LP Purchases										
808	Gas Withdrawn from Storage										
809	Gas Delivered to Storage										
813	Other		2								
	Total Natural Gas Expense										
Storage Exp	tns¢										
766	NG PG Maint Field Meas & Regul		3								
844	Energy Trading /Acet Gas	Winter Sales	3								
	Total Storage										
Transmission	n										
Operations											
850	Supervision & Engineering										
851	Load Dispatch										
856	Mains		4	-	-	-	-	-	-	-	-
857	Measuring & Regulating Exp										
859	Other Expenses										
860	Rents										
820	Measuring & Regulating										
821	Purification										
822	Exploration & Developement										
823	Losses										
824	Other Expenses										
825	Storage Well Royalty										
Maintenance											
861	Supervision & Engineering										
862	Structures & Improvements										
863	Mains										
865	Measuring & Regulating Exp										
867	Other Equipment										
835	Meter & Regularing Station Equipment										
836	Purification Equipment										
837	Other Equipment										
	Total Transmission										

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Direct Testimony											
GR.2000-0434	1161		FACTOR								
l shor Allocator (continue)		FACTOR DESCRIPTION	NO.	LABOR	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vo	llı Tran Sm Vol Tra	an Lg Vol
Distribution											
Operations					0.45	160	12	20		40	206
870	Supervision & Engineering	Net Distribution Plant	16	1,438	947	159	23	32	•	40	200
871	Load Dispatch		2	-	-	-	1 4 4 4 2	1 213	-	2 921	18 596
874	Mains and services	Net Mams/Services Plant	15	171,800	122,127	20,247	4,002	2,312	-	3,521	17
875	Measuring & Regulating Stations	Annual Throughput Cef	2	32	11	3	2	1	•	2	12
876	Measuring & Regulating Commercial	Large Ind. Bills	8	-	-	- ,		- 0	•	- 0	- 7
877	Measuring & Regulating City Gate	Armual Throughput Ccf	2		D(702	12 (40	0 049	v	-	4 500	-
878	Meter & House Regulating	Weighted Regulators	12	2 123,018	96,702	13,049	8,008	19 706	-	4,399	37 413
879	Customer Installations	Large Ind. Bills	2	55,119	-		- -	10,700	-	2	10
880	Other Expenses	Net Distribution Plant	10	08	45	a	- 2			-	-
881	Rents		10	•	-	-	-	-	-		
Maintenance			14	:	_	_	_	_	-	_	-
885	Supervision & Engineering		10	, <u> </u>	_		_	-	-	-	-
886	Structures and Improvements	Maina	10	, - . 121		15	6	3	-	5	28
887	Mains	Mains	-) (JI	,5	1	ů I	0	-	0	3
889	Measuring & Regulating Stations	Annual Inroughput Col	-	2 13				4	-	_	9
890	Measuring & Regulating Commercial	Annual Throughput Cof		· ·	-		-	-			-
891	Measuring & Regulating City Gate	Weighted Services	10) 36	31	4	0	0		0	0
892	Services	Weighted Regulators	12	2 1	1	0	0	-	-	0	-
893	Meters & House Regulators	H CIBILOU TOBULOTS	i e	 5 -	-	-	-	-	-	-	<u>-</u>
894 Tradition	Other Equipment		-	352,735	219,942	34,088	12,795	21,062	-	8,570	56,279
Jotal Distribut				•							
Customer Act	Supervision	Bills		7 8,962	7,702	1,087	96	6	-	58	13
901	Motor reading	Met Reading	2	9 81,045	66,318	9,730	1,351	153	-	1,517	1,976
902	Customer Records and Collection	Weighted Meters	1	1 111,990	82,553	11,652	6,887	776	-	3,926	6,195
903	Uncollectible Accounts	Cost of Service	2	0 57,094	37,382	5,935	2,202	1,984	-	1,612	7,979
905	Miscellaneous	Customer Acct, Expense	14	4 3,266	2,374	353	136	52	-	93	258
203	Total Customer Accounts			262,357	196,330	28,758	10,672	2,972	-	7,205	16,420
Customer Ser	vice & Information										
907	Supervision	Bills		7 2,565	2,204	311	28	2	-	17	4
908	Customer Assistance	Bills		7 -	-	-	-	-	-	-	-
909	Informational & Instruct Advertising	Bills	·	7 -	-	-	-	-	-	-	-
910	Miscellaneous Expense	Bills		7	-	-	-	<u> </u>	-		
	Total Customer Svc & Info			2,565	2,204	311	28	2	-	. 17	4
Sales						240		,		12	3
911	Supervision	Bills		7 1,979	1,701	240	1 20	1	-	. 13	2
912	Demonstrating and Selling	Bills		7 1,847	1,58/	224	4 20	1	-	- 12	
913	Advertising			-	-	-	•	-			
916	Miscellaneous				2 100	- 161	- 41			25	5
Total Sales				3,820	3,266	404	• *1	-			-
Administrativ	ve & General										
Operations	Salamas	Labor	2	1 240 984	163 542	24 669	9.126	9,321		6,133	28,193
920	Salaries	Labor	2	1 240,204	102,512	. 21,005	-	-	-		-
921	Administrative Expense	Labor	2	1 -	-	-	-				
922	Outside Services	Labor	2	1 23.560	15,989	2.412	2 892	911	-	. 600	2,756
923	Property Insurance	Net Non-General Plant	-	7 .	-	-	-	-	-		-
924	Injuries and Damages	Labor	2	1 -	-	-	-	-	-		-
925	Fundavee Pensions & Benefits	Labor	2	1 294.166	199,633	30,114	4 11,140	11,378	3 -	- 7,487	34,415
920	Regulatory Commission	Cost of Service	2	0 -	•	-	-	-			-
930.0	General Advertising	Cost of Service	2	0 -	-	-	-	-	-		-
930.2	Miscellaneous General	Cost of Service	2	- 0	-	-	-	-			-
979.0	Dunlicate Charges Credit	Cost of Service	2	.0 -	-	-	-	-			•
931	Rents	Cost of Service	2	- 0	-	-	-	-	-		-
Maintenance		•		-							
935	General Plant	Net Non-General Plant	1	7 -							
	Total Administrative & General			558,710	379,164	1 57,195	5 21,158	3 21,61		- 14,219	65,364
				1,180,193	800,927	7 120,810	6 44,693	45,64) .	- 30,036	138,072
TOTAL LABOR				1,180,193	3						

TOTAL LABOR

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OPC Updated Class Cost of Service Study Empire District Gas GR-2009-0434 North South

I. RATE BAS	SE		FACTOR DESCRIPTION	FACTOR NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
	A. GAS PLANT - Gross											
	Intangible											
101.00		Property Under Lease	Cost of Service	20	23,611	15,668	2,229	901	563	331	611	3,307
302.00		Franchise & Consents		20	-	-	-	-	-	-	-	-
303.00		Miscellaneous	Cost of Service	20	214,329	142,228	20,236	8,175	5,112	3,008	5,547	30,023
		Total Intangible		•	237,940	157,896	22,466	9,075	5,676	3,339	6,158	33,330
	Production Plant - Manufactured	-			237,940							
304.00		Land & Land Rights			-	-	-	-	-	-	-	-
305.00		Structures & Improvements			-	-	-	-	-	-	-	-
307.00		Other Power Equip			-	-	-	-	-	-	-	-
311.00		Liquified Petrol Gas Equip			-	-	-	-	-	-	-	-
311.10		LP Gas Storage Cavern			-		<u> </u>		-		· · ·	<u> </u>
		Total Prod Plant - Mfg			-	-	-	-	-	-	•	-
					-							
	Transmission Plant							1.5.1.62	6.000	0.76	10.064	82 201
365 & 366		Land & Land Rights, Structures & Ir	Coincident Peak Demand	4	245,455	104,312	25,790	10,103	5,809	27.020	10,064	2 209 444
367.00		Mains	Coincident Peak Demand	4	6,803,691	2,891,390	/14,8//	420,303	102,075	27,035	12 994	186 741
369.00		Meas & Reg Sta Equip	Annual Throughput Cet	2.	405,335	2 124,338	29,399	450 230	170 285		301 908	2 578 466
		Total Transmission Plant			7,454,501	3,124,000	//0,007	437,330	177,205	41,365	501,908	2,070,400
	Distribution Plant		Maina	۰	7,434,301	1 566	261	115	44	74	67	685
374.00		Land & Land Rights	Mains	5	2,011	41 518	6 930	3 043	1 157	1 957	1 769	18 157
375.00		Structures & Improvements	Mains	5	37 357 413	20 809 820	3 473 719	1 525 383	579 896	981.035	886.875	9.100.685
376.00		Mains Mass & Bas Sta Equip	Annual Throughout Cof	2	303 104	95 979	21 983	17 843	8.032	9,998	9.634	139.635
378.00		M&P. Sta Equip	Annual Throughput Cef	2	457 891	144 994	33,209	26.954	12.134	15,103	14,553	210,943
379.00		Max Sta Equip - City Gate	Weighted Services	10	22 661 007	19.893.177	2.376.852	229.066	15.832	2,265	118,221	25,594
380.00		Meters	Weighted Meters	ii ii	4.555.365	3.429.489	415,998	245,205	24,096	16,842	217,694	206,042
292.00		Meter Installation	in engineer interests	6	-		-		-	-	-	-
382.00		House Regulators	Weighted Regulators	12	2,656,620	2,114,678	256,511	151,197	-	-	134,234	-
385.00		Industrial Mea/Reg	Large Ind. Bills	13	441,651	-		-	167,274	22,303	-	252,073
387.00		Other Equin		16	-	-	-	-	-	-	-	
567,00		Total Distribution Plant		-	68,510,394	46,531,221	6,585,464	2,198,806	808,464	1,049,577	1,383,047	9,953,814
	General Plant				68,510,394							
		Other General Plant	Net Non-General Plant	17	4,453,779	2,864,653	425,044	160,604	62,677	73,942	101,998	764,863
		Communications	Net Non-General Plant	17	371,767	239,119	35,479	13,406	5,232	6,172	8,514	63,845
		Total General Plant		-	4,825,546 4,825,546	3,103,772	460,523	174,010	67,909	80,114	110,512	828,708
Total Plant I	n Service				81,028,381 81,028,381	52,916,949	7,838,519	2,841,221	1,061,333	1,174,415	1,801,625	13,394,318

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	B. ACCUMULATED DEPRECIATION & AMORTIZATION		FACTOR DESCRIPTION	FACTOR NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
	Intangible											
101.00		Property Under Lease		20	-	-	-	-	-	-	-	-
302.00		Franchise & Consents		20	-	-	-	-	-	-	-	-
303.00		Miscellaneous		20	-	-	-	-	-	-	-	-
		Total Intangible		-	-	-	-	-	-	-	-	-
	Production Plant - Manufactured				-							
304.00		Land & Land Rights			-		-	-	-	-	-	-
305.00		Structures & Improvements			-		-	-	-	-	-	-
307.00		Other Power Equip			-	-	-	-	-	-	-	-
311.00		Liquified Petrol Gas Equip			-	-	-	-	-	-	-	-
311.10		LP Gas Storage Cavern		-	-		-				-	-
		Total Prod Plant - Mfg			-	-	-	-	•	-	-	-
					-							
	Transmission Plant											
365 & 366		Land & Land Rights, Structures & It	Coincident Peak Demand	4	9,716	4,129	1,021	600	232	39	398	3,297
367.00		Mains	Coincident Peak Demand	4	5,071,438	2,155,228	532,866	313,293	121,257	20,155	207,936	1,720,703
369,00		Meas & Reg Sta Equip	Annual Throughput Ccf	2.	159,608	50,541	11,576	9,396	4,230	5,265	5,073	73,529
		Total Transmission Plant			5,240,762	2,209,898	545,463	323,289	125,719	25,458	213,407	1,797,529
274.80	Distribution Plant			_	5,240,762							
374.00		Land & Land Rights		5	•	-	-	-	•	-	•	-
375,00		Structures & Improvements	Mains	5	51,307	28,580	4,771	2,095	796	1,347	1,218	12,499
376,00		Mains	Mains	5	12,885,573	7,177,865	1,198,179	526,146	200,022	338,385	305,907	3,139,070
378.00		Meas & Reg Sta Equip	Annual Throughput Cef	2	185,146	58,627	13,428	10,899	4,906	6,107	5,885	85,294
379,00		M&R Sta Equip - City Gate	Annual Throughput Cef	2	269,183	85,238	19,523	15,846	7,133	8,879	8,556	124,009
380.00		Services	Weighted Services	10	12,733,347	11,178,088	1,335,566	128,714	8,896	1,272	66,429	14,381
381.00		Meters	Weighted Meters	11	1,946,579	1,465,475	177,762	104,780	10,296	7,197	93,024	88,045
382,00		Neter Installation	Mr. 11, 125, 13,	6	-	-			•	-		-
385.00		House Regulators	Weighted Regulators	12	614,749	489,342	59,357	34,987	-	-	31,062	-
387.00		Other Fouin	Large Ind. Bills	13	111,048	-	-	-	42,286	5,638	-	63,723
547,00		Unici Equip Total Distribution Diset		10_	-				<u> </u>		<u> </u>	<u> </u>
	Canaral Plant	Total Distribution Flam			28, 197, 532	20,483,215	2,808,587	823,466	274,336	368,826	512,081	3,527,021
	General & lant	Other General Plant	Not Non-Concerd Blant	17	28, 797, 5, 2	1.662.606	22.0 202	07.070		10.070		
		Communications	Net Non-General Plant	17	2,414,031	1,552,695	230,382	87,050	33,972	40,078	55,285	414,570
		Total General Plant	net Non-General Plant	1/-	1/4,0/9	1664.662	10,613	6,277	2,450	2,890	3,987	29,895
		Total Octicial Flatt			2,388,110	1,004,002	246,995	95,327	36,422	42,968	59,271	444,465
Total Depres	istion & Americation Reserve				2,268,110	34 353 994	2 (01 011		10/ 10-	420.0.00	504 550	
. Star Depter	INGO SE AUDU MZAUDU RESELVE				30,040,404	24,337,775	3,601,044	1,240,082	436,477	457,252	784,759	5,769,015
					50,020,404							

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				FACTOR								
	C. GAS PLANT - NET		FACTOR DESCRIPTION	NO.	TOTAL	Res	Sin Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
	Intangible											
101.00		Property Under Lease	Cost of Service	20	23.611	15.668	2.229	901	563	331	611	3.307
302.00		Franchise & Consents		20	-	-	-,	-	•		-	-
303.00		Miscellaneous	Cost of Service	20	214,329	142,228	20,236	8,175	5,112	3,008	5,547	30,023
		Total Intangible			237,940	157,896	22,466	9,075	5,676	3,339	6,158	33,330
	Production Plant - Manufactured				237,940					.,	-,	
304.00		Land & Land Rights			•	-	-	-	-	-	-	-
305.00		Structures & Improvements			-	-	-	-	-	-	-	-
307.00		Other Power Equip			-	-		-	-	-	-	-
311.00		Liquified Petrol Gas Equip			-	-	-	-	-	-	-	-
311.10		LP Gas Storage Cavern			-	-	-	-		-	-	-
		Total Prod Plant - Mfg			-	-	-	-	-	-	-	-
	Transmission Plant											
365 & 366		Land & Land Rights, Structures & It	Coincident Peak Demand	4	235,739	100,183	24,770	14,563	5,636	937	9,666	79,985
367.00		Mains	Coincident Peak Demand	4	1,732,253	736,162	182,011	107,012	41,418	6,884	71,025	587,741
369,00		Meas & Reg Sta Equip	Annual Throughput Ccf	2	245,747	77,817	17,823	14,466	6,512	8,106	7,811	113,212
		Total Transmission Plant			2,213,739	914, 162	224,604	136,041	53,566	15,927	88,501	780,938
	Distribution Plant				2,213,739							
374.00		Land & Land Rights	Mains	5	2,811	1,566	261	115	44	74	67	685
375.00		Structures & Improvements	Mains	5	23,225	12,937	2,160	948	361	610	551	5,658
376.00		Mains	Mains	5	24,471,840	13,631,955	2,275,540	999,238	379,874	642,650	580,968	5,961,615
378.00		Meas & Reg Sta Equip	Annual Throughput Ccf	2	117,958	37,352	8,555	6,944	3,126	3,891	3,749	54,341
379.00		M&R Sta Equip - City Gate	Annual Throughput Ccf	2	188,708	59,755	13,686	11,109	5,001	6,224	5,998	86,935
380.00		Services	Weighted Services	10	9,927,660	8,715,089	1,041,286	100,353	6,936	992	51,792	11,213
381.00		Meters	Weighted Meters	11	2,608,786	1,964,015	238,235	140,425	13,799	9,645	124,670	117,997
382.00		Meter Installation		6	-	-	-	-	-	-	-	•
383.00		House Regulators	Weighted Regulators	12	2,041,871	1,625,336	197,154	116,210	-	-	103,172	•
385.00		Industrial Mea/Reg	Large Ind. Bills	13	330,003	-	-	-	124,988	16,665	-	188,350
387.00		Other Equip		16	-	-	-	-	-	-	-	-
		Total Distribution Plant			39,712,862	26,048,006	3,776,877	1,375,340	534,128	680,751	870,967	6,426,793
	General Plant				39,712,862							
		Other General Plant	Net Non-General Plant	17	2,039,748	1,311,958	194,662	73,553	28,705	33,864	46,713	350,293
		Communications	Net Non-General Plant	17_	197,688	127,152	18,866	7,129	2,782	3,282	4,527	33,950
		Total General Plant			2,237,436	1,439,110	213,528	80,682	31,487	37,146	51,240	384,243
					2,237,436							
GAS PLANT	IN SERVICE - NET				44,401,977	28,559,174	4,237,475	1,601,139	624,857	737,163	1,016,866	7,625,304
					44,401,977							
OTHER GAS	PLANT											
	Nat. Gas Stored Underground (CUSHIA)			3_	-	<u> </u>	-	-	-	•		
TOTAL GAS	PLANT IN SERVICE - NET				44,401,977	28,559,174	4,237,475	1,601,139	624,857	737,163	1,016,866	7,625,304
					44,401,977							

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				FACTOR								
	D. OTHER RATE BASE		FACTOR DESCRIPTION	NÔ.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
Add:												
	Cash Working Capital		Cost of Service	20	384,711	255,293	36,323	14,674	9,176	5,399	9,956	53,889
	Materials and Supplies		Total Net Plant	18	260,491	167,547	24,860	9,393	3,666	4,325	5,966	44,735
	Prepayments		Cost of Service	20	94,407	62,648	8,914	3,601	2,252	1,325	2,443	13,224
	Prepaid Pension Asset		Labor	21	2,209,756	1,535,042	201,387	83,463	72,469	21,002	68,223	228,171
	Alternative Minimum Tax Credit			19	-	-	-	-	•	-	-	-
	Net Cost of Removal Reg Asset			18	-	-	-	-	-	-	-	-
	Natural Gas Stored Underground		Winter Sales	3	4,158,824	2,725,808	644,752	436,937	172,099	179,227	-	-
	Unamortized Chillicothe		Rate Base	19	67,140	42,935	6,709	2,867	1,185	1,275	1,470	10,699
	Unamortized GO-90-115		Rate Base	19	70,772	45,258	7,072	3,022	1,249	1,344	1,550	11,278
	Unamortized GO-91-359		Rate Base	19	344,291	220,169	34,404	14,701	6,075	6,537	7,540	54,866
		Total Additions To Net Plant In St		_	7,590,392	5,054,700	964,421	568,657	268,172	220,432	97,148	416,863
Less:					7,590,392							
	Interest Offset		Cost of Service	20	181,493	120,438	17,136	6,922	4,329	2,547	4,697	25,423
	Federal Income Tax Offset		Rate Base	19	45,385	29,023	4,535	1,938	801	862	994	7,232
	State Income Tax Offset		Rate Base	19	7,386	4,723	738	315	130	140	162	1,177
	Reg Liabilities		Rate Base	19	2,351,855	1,503,978	235,012	100,422	41,502	44,652	51,503	374,787
	Customer Advances For Construction		Bills	7	567,002	497,694	59,465	5,731	437	58	2,958	659
	Customer Deposits		Bills	7	948,479	832,542	99,473	9,587	731	97	4,948	1,102
	Deferred income Taxes		Rate Base	19	1,820,621	1,164,262	181,928	77,738	32,127	34,566	39,870	290,131
		Total Deductions To Net Plant In :		-	5,922,221	4,152,660	598,286	202,653	80,058	82,922	105,130	700,511
					5,922,221			. <u> </u>				
		Subtotal - Other Rate Base			1,668,171	902,040	366,135	366,004	188,114	137,510	(7,983)	(283,649)
					1,668,171							
	TOTAL RATE BASE				46,070,148	29,461,214	4,603,610	1,967,143	812,970	874,674	1,008,883	7,341,655

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Natural Gas Stupply Expense -	II. OPERATION and MAINTENANCE EXPEN	NSES	FACTOR DESCRIPTION	FACTOR NO.	TOTAL	Res	Sın Conun	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
804 Nut. Cas City Gate & LP Purchases -	Natural Gas Supply Expense											
508 Gis Winderwin from Storage Other to Storage - <td< td=""><td>804</td><td>Nat. Gas City Gate & LP Purchases</td><td></td><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></td<>	804	Nat. Gas City Gate & LP Purchases			-	-	-	-	-	-	-	-
809 Gas Dubered to Storage Annual Throughput Cef 2 1	808	Gas Withdrawn from Storage			-	-	-	-	-	-	-	-
813 Other Total Natural Case Expense Annual Throughpur Cef 2 22,511 7,128 1,633 1,325 597 743 7,15 10,370 Storage Expense MC PCI Main Field Meas & Regul Beergy Trading / Acet Gas Winter Sales 3 (457) (300) (71) (48) (19) (20) - - 766 MC PCI Main Field Meas & Regul Beergy Trading / Acet Gas Winter Sales 3 (457) (300) (71) (48) (19) (20) - <td>809</td> <td>Gas Delivered to Storage</td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>	809	Gas Delivered to Storage				-	-	-	-	-	-	-
Total Natural Gas Expense 22,511 7,128 1,633 1,325 597 743 715 10,370 Storage Expense NG PC Main Field Mess & Regul Winter Sales 3 64,750 45,061 10,658 7,223 2,845 2,963 -	813	Other	Annual Throughput Ccf	2	22,511	7,128	1,633	1,325	597	743	715	10,370
Storage Expense Storage Expense NG PG Maint Field Mass & Regul Winter Sales 3 64,710 (300) (71) (448) (19) (20) - - 844 Energy Trading /Acct Gas Winter Sales 3 64,750 45,061 10,658 7,223 2,845 2,943 - - Transmission 68,293 68,293 -		Total Natural Gas Expense	01	-	22,511	7,128	1,633	1,325	597	743	715	10,370
NG PC Maint Field Mess & Regul Winner Sales 3 (437) (300) (71) (48) (19) (20) - - 844 Energy Trading /Acct Gas Winner Sales 3 68,750 45,061 10,658 7,123 2,845 2,963 -	Storage Expense											
844 Energy Trading /Act States 1 66/7 45/00 10,658 7,223 2,845 2,963 - Table Strage Table Strage Traumission Operations 68,293 68,293 68,293 68,293 68,293 68,293 Coincident Peak Demand 4 107,327 45,611 11,277 6,630 2,566 427 4,401 36,415 Sign coincident Peak Demand 4 107,327 45,611 11,277 6,630 2,566 427 4,401 36,415 Sign coincident Peak Demand 4 107,327 45,611 11,277 6,630 2,566 427 4,401 36,415 Sign coincident Peak Demand 4 107,327 45,611 11,277 6,630 2,566 427 4,401 36,415 Sign coincident Peak Demand 4 107,327 45,611 11,277 6,630 2,566 427 4,401 36,415 Sign coincident Peak Demand 4 107,327 45,611 11,277 6,630 <td>766</td> <td>NG PG Maint Field Meas & Regul</td> <td>Winter Sales</td> <td>3</td> <td>(457)</td> <td>(300)</td> <td>(71)</td> <td>(48)</td> <td>(19)</td> <td><i>1</i>200</td> <td>-</td> <td>-</td>	766	NG PG Maint Field Meas & Regul	Winter Sales	3	(457)	(300)	(71)	(48)	(19)	<i>1</i> 200	-	-
ord India free ons India factor Operations India factor India factor <thindia factor<="" th=""> India factor</thindia>	844	Energy Trading /Acct Gas	Winter Sales	3	68 750	45 061	10 658	7 273	7 845	7 963	-	_
Total Storage 68,293 44,761 10,588 7,175 2,826 2,943 - - 850 Supervision & Engineering -	011	ming, mang men ous	The states	4	-	-				-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_	-
Trianastrial 00.2.2.3 Operations Supervision & Engineering - </td <td>Teconolision</td> <td>Total Storage</td> <td></td> <td>-</td> <td>68,293</td> <td>44,761</td> <td>10,588</td> <td>7,175</td> <td>2,826</td> <td>2,943</td> <td>-</td> <td></td>	Teconolision	Total Storage		-	68,293	44,761	10,588	7,175	2,826	2,943	-	
Operations Supervision & Engineering -) FAUSILISSION				00,235							
300 Supervision & Engineering -	operations	Supervision & Engineering						_		_		_
6.1 Data Displane 1 <th1< th=""> 1 <th1< th=""> <</th1<></th1<>	951	Load Dimetab			•	-	-		-	-		_
330 Massing & Regulating Exp -	854 954	Maing	Coincident Beak Demand	4	107 377	45 611	11 277	6 630	2 566	427	4 401	36 415
857 Measuring & Regulating, Exp - <t< td=""><td>857</td><td>Measuring & Deculating Exp.</td><td>Contracting I car Demand</td><td>•</td><td>107,547</td><td>45,011</td><td></td><td>0,050</td><td>2,500</td><td>-</td><td>-,</td><td>50,415</td></t<>	857	Measuring & Deculating Exp.	Contracting I car Demand	•	107,547	45,011		0,050	2,500	-	-,	50,415
859 Other Expenses -	850	Other Expenses				-				-		_
600 Measuring & Regulating - </td <td>850</td> <td>Pants</td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>_</td>	850	Pants			_					-		_
820 Purification -	800	Measuring & Regulating			-		-	-		-	-	-
821 Fundamini - <td< td=""><td>820</td><td>Purification</td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td>-</td><td>-</td></td<>	820	Purification				-					-	-
622 Dependent of a Development - <td< td=""><td>821</td><td>Exploration & Developement</td><td></td><td></td><td>_</td><td>-</td><td>_</td><td>_</td><td>-</td><td>-</td><td>_</td><td>_</td></td<>	821	Exploration & Developement			_	-	_	_	-	-	_	_
a23 Losses -<	822	Loger			-	-	_		-	_		_
a24 Other Expenses 825 Storage Well Royalty Maintenance 861 Supervision & Engineering 861 Structures & Improvements 863 Mains 865 Measuring & Regulating Exp 867 Other Equipment 836 Purification Equipment 836 Purification Equipment 837 Other Equipment 836 Purification Equipment 837 Other Equipment	823	Other Expenses			-	-				-	_	-
Maintenance Maintenance 861 Supervision & Engineering 862 Structures & Improvements 863 Mains 865 Measuring & Regulating Exp 867 Other Equipment 835 Meter & Regulating Station Equipm 836 Purification Equipment 837 Other Equipment	824	Storage Wall Revelty			_	-		_	-	-		-
Number861Supervision & Engineering	Maintenance	Storage wen Koyany			-	-	_		-	-		-
Bit Structures & Improvements 862 Structures & Improvements 863 Mains 865 Measuring & Regulating Exp 867 Other Equipment 835 Meter & Regulating Station Equipmo 836 Purification Equipment 837 Other Equipment	861	Supervision & Engineering			-	-	-	-	_	-	-	-
Bit Statutes E minutes Second Statutes E minutes 863 Mains 865 Measuring & Regulating Exp 867 Other Equipment 835 Meter & Regulating Station Equipment 836 Purification Equipment 837 Other Equipment	867	Structures & Improvements				-	-	-		-	-	
B65 Measuring & Regulating Exp -	863	Mains				-	-	-		_	-	
867 Other Equipment - - - - - 836 Meter & Regulating Station Equipm - - - - - 836 Purification Equipment - - - - - 837 Other Equipment - - - - - 837 Other Equipment - - - - -	865	Measuring & Regulating Exp.			_	-		-	-	-	-	
abs Other Equipment 835 Meter & Regulating Station Equipment 836 Purification Equipment 837 Other Equipment Total Transmission 107 327 45 611 11 277 6 630 2 566 401 36 415	867	Other Fauinment			_	_			_	_	-	_
836 Purification Equipment - <td>935</td> <td>Meter & Regulating Station Equipme</td> <td></td> <td></td> <td>-</td> <td></td> <td>_</td> <td>-</td> <td>_</td> <td>-</td> <td>-</td> <td>-</td>	935	Meter & Regulating Station Equipme			-		_	-	_	-	-	-
837 Other Equipment Total Transmission 107 327 45 611 11 277 6 630 2 566 427 4 401 36 415	926	Purification Equipment			-		-	_	-	-	_	-
0.7 One Equiption	927	Other Baujament			-	-	-	-	-	-	-	-
	0.7	Total Transmission		-	107 327	45.611	11 277	6 630	2 566	427	4 401	36 415

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				FACTOR								
II ADEDATIO	N and MAINTENANCE EXPENSI	S (continue)	FACTOR DESCRIPTION	NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Voi Int	Tran Sm Vol	Tran Lg Vol
II. OF ERATIO	Distribution											
	Operations											
070	Operations	Supervision & Engineering	Net Distribution Plant	16	50,324	33,008	4,786	1,743	677	863	1,104	8,144
870		Load Dispatab		2			-	-	-	-	-	-
8/1		Load Dispatch	Net Maine/Services Plant	15	334 042	217 005	32,209	10.678	3,756	6,250	6,145	58,000
874		Mains and services	A survel Throughout Cof	2	51 549	16 323	3 739	3 034	1 366	1 700	1.638	23,747
875		Measuring & Regulating Stations	Annual Infoughput Col	2	51,546	10,525		2,007	-	•,,,		-
876		Measuring & Regulating Commercia	Large Ind. Bills	•	-	7 204	1 471	1 3 5 6	610	760	732	10.611
877		Measuring & Regulating City Gate	Annual Throughput Cet	2	23,034	1,294	1,071	24 920	010	700	30 930	10,011
878		Meter & House Regulating	Weighted Regulators	12	612,145	487,209	39,100	34,639	-	11 731	50,250	132 468
879		Customer Installations	Large Ind. Bills	8	232,093	-	•	-	87,905	11,721	- 1 867	132,400
880		Other Expenses	Net Distribution Plant	16	175,666	115,221	16,707	0,084	2,303	5,011	3,833	20,428
	Maintenance									0.540	0.076	99 603
887		Mains	Mains	5	363,291	202,370	33,781	14,834	5,639	9,540	8,625	88,502
889		Measuring & Regulating Stations	Annual Throughput Ccf	2	45,765	14,492	3,319	2,694	1,213	1,510	1,455	21,083
890		Measuring & Regulating Commercia	Large Ind. Bills	8	54,860	-	-	-	20,778	2,770	-	31,311
801		Measuring & Regulating City Gate	Annual Throughput Ccf	2	(932)	(295)	(68) (55)	(25)	(31	.) (30) (429)
807		Services	Weighted Services	10	110,418	96,931	11,581	1,116	77	11	576	125
802		Meters & House Regulators	Weighted Regulators	12	78,828	62,747	7,611	4,486	-	-	3,983	-
873		Other Equipment	ti e gate a tregatatore	16		-		-	-	-	-	-
674	T + 1 Di + 0 - rien	Other Equipment			2 131 082	1 252.365	174.442	80,809	124,359	38,105	59,010	401,991
	Lotal LASTROLITON				2 131 082				,			
	Customer Accounts	a	Dille	7	64 392	56 521	6 753	651	50	7	336	75
901		Supervision	Duis Mat Das dins	20	584 501	491 339	64 457	11 181	926	224	11.442	14.937
902		Meter reading	Met Reading	29	942 739	401,335	77.050	45.416	4 463	3 1 10	40,320	38 162
903		Customer Records and Collection	Weighted Meters	11	843,728	035,197	117 432	43,410	20 665	17.454	37 186	174 209
904		Uncollectible Accounts	Cost of Service	20	1,243,038	823,287	117,423	1 900	29,005	279	2,100	4 120
905		Miscellaneous	Customer Acct. Expense	14	48,540	35,277	4,704	1,890	037	376	95 910	121 512
		Total Customer Accounts			2,784,819	2,033,622	270,381	106,573	35,740	21,182	2 85,810	231,515
	Customer Service & Information				2,784,819					-		
907		Supervision	Bills	7	17,926	15,735	1,880	181	14	4	2 94	21
908		Customer Assistance	Bills	7	174,699	153,345	18,322	1,766	135	18	3 911	203
909	1	Informational & Instruct Advertising	Bills	7	22,583	19,823	2,368	228	17	2	2 118	26
910	,	Miscellaneous Expense	Bills	7	358	314	38	4	0	()2	. 0
		Total Customer Svc & Info			215,566	189,216	22,608	2,179	166	22	2 1,124	250
	Sales				215,566							
911	Sands	Supervision	Bills	7	11,891	10,438	1,247	120	9	1	l 62	14
017		Demonstratine and Selling	Bills	7	14,612	12,826	1,532	148	11		2 76	17
212		Adverticing		7	-		-	-	-	-	•	-
913		Misselleneout		7	-	-		-	-	-	-	-
916	n . 10 h	wiscenarieous		· ·	26 503	23 263	2 780	268	20		3 138	31
	lotal Sales				26,503	10,100	4,700					
	Administrative & General				-0,000							
	Operations		1 -1	21	1 470 675	1 037 953	124 947	55 896	48 575	14.06	3 45.681	152 781
920)	Salaries	Labor	21	1,479,055	1,027,032	134,047	24,000	21,602	6 76	n 20.33'	68.016
921		Office Supplies & Expense	Labor	21	038,/10	437,383	00,032	24,000	21,002	0,20	5 20,55	00,010
922	2	Administrative Expense Transferred	Labor	21	-		-	-	-			- 19160
923	ξ	Outside Services	Labor	21	175,859	122,163	16,027	6,642	5,767	1,67	1 5,423	10,139
924	•	Property Insurance	Net Non-General Plant	17	225	145	21	8	3		4 :	39
923	5	Injuries and Damages	Labor	21	287,810	199,932	26,230	0 10,871	9,439	2,73	5 8,880	o 29,718
926		Employee Pensions & Benefits	Labor	21	493,776	343,009	45,000) 18,650	16,193	4,69	3 15,24	5 50,985
928	3	Regulatory Commission	Cost of Service	20	171,943	114,101	16,234	4 6,558	4,101	2,41	3 4,451) 24,085
930.0	-	General Advertising	Cost of Service	20	1,149	762	108	3 44	27	14	6 30) 161
930.2		Miscellaneous General	Cost of Service	20	163,299	108,365	15,418	6,229	3,895	2,29	2 4,220	5 22,875
930.2		Dumlicate Charges Credit	Cost of Service	20	(12.843)	(8,523)	(1.213	3) (490	n (306) (18	0) (33)	2) (1,799
929,0		Populate Charges Croun	Cost of Service	20	255 611	169 623	24 134	9740	6.097	3.58	7 6.61:	5 35,805
931		remis	C Dat OI 3CI VICE	20	200,011	.07,040	27,13	,	0,007	-,20	-,01	,
	Maintenance		Mar Mar Commun Di		00 170	2 L 0 1 F	0 101	1 2 1 07	7 1.744	1.46	7 2.02	1 15179
93:	>	General Plant	Net Non-General Plant	17	2 7(2 552	2 501 057	0,43	T 2,107	116 500	20 02	1 112.50	5 416.002
		Total Administrative & General			3,/03,003	2,391,837	343,274	+ 142,214	110,288	37,02	. 116,37	
					3,763,553					100	() () () ()	1 1 007 572
TOTAL O &	M EXPENSES				9,119,654	6,187,824	838,982	2 347,173	282,863	102,44	o 263,79	a 1,096,573

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				FACTOR								
III. DEPREC	CIATION and AMORTIZATION		FACTOR DESCRIPTION	NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Finn	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
	Intangible											<u></u>
101.00		Property Under Lease		20	-	-	-	-		_		_
302.00		Franchise & Consents		20	-	-	_	-		-	-	
303.00		Miscellaneous		20		_		-		-	-	-
		Total Intangible		20.					_			-
	Production Plant - Manufactured				-	-	-	-	-	-	-	-
304.00		Land & Land Rights			-	-	-	-	-	-	-	-
305.00		Structures & Improvements			-	-	-	-	-	-	-	-
307.00		Other Power Equip			-	-	-	-	-	-	-	
311,00		Liquified Petrol Gas Equip			-	-	-	-	-	-	-	-
311.10		LP Gas Storage Cavern			-	-	-	-	-	-	-	-
		Total Prod Plant - Mfg		-	-	-	-	-	-	-	-	-
	011 f - 104 /				-							
365 & 366	I Fansmission Flant	I and & Land Rights Structures & Ic	Coincident Deals Demond		242	102	26		,			
367.00		Maine	Coincident Peak Demand	4	24Z	103	25	15	0	1	10	82
369.00		Meas & Reg Sta Fouin	Annual Throughout Caf	4	9.000	2960	11,009	6,473	2,505	410	4,296	35,550
		Total Transmission Plant	Autor Thoughput Cer		114 019	47.490	11 697	7.017	2,18	297	280	4,146
	Distribution Plant				111.018	47,460	11,067	7,017	2, 149	/14	4,392	39,778
374.00		Land & Land Rights		۲.	114,016							
375.00		Structures & Improvements	Mains	5	1.655	977	154		-	-	- 20	-
376,00		Mains	Mains	5	1,000	944 766	157 707	60.252	20	44 520	40.064	403
378.00		Meas & Reg Sta Equip	Annual Throughput Ccf	2	6.062	1 920	440	357	20,327	44,339	40,204	413,171
379.00		M&R Sta Equip - City Gate	Annual Throughput Cof	2	9158	2 900	664	539	243	200	201	4 210
380.00		Services	Weighted Services	10	750 079	658 464	78 674	7 582	\$74		3 013	4,219
381.00		Meters	Weighted Meters	11	206 358	155 356	18 845	11 108	1 097	763	0.867	0.224
382.00		Meter Installation	···· g	6	-		10,015	-	1,072	-	2,002	5,334
383.00		House Regulators	Weighted Regulators	12	53,929	42,928	5 207	3.069	_	_	2 725	-
385.00		Industrial Mea/Reg	Large Ind. Bills	13	11,880	-	-	-	4.500	600	1,725	6 781
387.00		Other Equip	-	16		-	-	-	-	-	-	-
		Total Distribution Plant		-	2,735,148	1.807,255	261,690	91.975	32.871	46.522	57 287	437 547
	General Plant				2,735,148					· · · · ·	,	
		Other General Plant	Net Non-General Plant	17	253,980	163,359	24,238	9,159	3,574	4,217	5.816	43.617
		Communication	Net Non-General Plant	17	14,871	9,565	1,419	536	209	247	341	2.554
		Total General Plant		_	268,851	172,924	25,658	9,695	3,783	4,463	6,157	46,171
					268,851							
	ANNUALIZED CAPITALIZED DEP											
			Net Non-General Plant	17	(29,007)	(18,657)	(2,768)	(1,046)	(408)	(482)	(664)	(4,981)
	Total Depreciation				3,089,010	2,009,001	296,267	107,641	38,996	51,218	67,371	518,515
	Amortization Expense											
			Total Net Plant	18	837755	538,841	79,951	30,210	11,789	13,908	19,186	143 871
	Total Depreciation and Amortization			-	3,926,765	2,547,842	376.217	137.851	50,786	65,127	86 557	667 385
					3,926,765		,			,	,	002,005
OTHER OPE	RATING EXPENSES											
	Other											
	Interst on Deposits		Interest on Dep	26	47,424	29,466	6,633	3,522	594	903	1,884	4,421
POT 1 0-2					47,424							
TOTAL OPE	RATING EXPENSE WO/ TAXES				13,093,843	8,765,132	1,221,832	488,546	334,242	168,476	352,236	1,763,380
					13,093,843							

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			FACTOR DESCRIPTION	FACTOR NO.	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
IV, TAXES	1 Taxes Other Than Income Taxes (T	OTIT)										
	1. Taxes Ouri Than Income Taxes (1	RE&PP	Total Net Plant	18	562,539	361,823	53,686	20,285	7,916	9,339	12,883	96,607
		Franchise	Rate Base	19	35,673	22,812	3,565	1,523	629	677	781	5,685
		Transp		19	-	-	-	-	-	-	-	-
		Gross Receipts (del. from staff run)			-	-	-	-	-	•		
		Payroll	Labor	21	211,916	147,211	19,313	8,004	6,950	2,014	6,543	21,882
		Other	Cost of Service	20	(54)	(36)	(5)	(2)	(1)	(1)	(1)	(8)
		Subtotal - TOTIT			810,074 810,074	531, 81 0	76,558	29,810	15,494	12,030	20,205	124,166
	2. Income Taxes										c 100	22.122
		Current Income Tax Expense Deferred Income Tax Expense	Rate Base Rate Base	19 19	233,290 103,692	149,1 86 66,310	23,312 10,362	9,961 4,428	4,117 1,830	4,429 1,969	2,271	37,177
		Total Income Taxes			336,982 336,982	215,495	33,673	14,389	5,947	6,398	7,380	53,701
		TOTAL TAXES			1,147,056 1,147,056	747,305	110,231	44,199	21,441	18,428	27,585	177,866
		TOTAL COST OF SERVICE SU	MMARY		TOTAL	Res	Sm Contra	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tr an Lg Vol
		O. & M. Expenses			9 167 078	6 217 290	845 615	350 695	283 457	103.349	265.679	1,100,995
		Depreciation and Amortization Expe	ancec		3 926 765	2 547 842	376 217	137.851	50.786	65,127	86,557	662,385
		Taxes			1,147,056	747,305	110,231	44,199	21,441	18,428	27,585	177,866
		TOTAL - Expe	nses and Taxes		14,240,899 14,240,899	9,512,437	1,332,063	532,745	355,683	186,903	379,821	1,941,246
		Current Revenue Rate Revenue			16,753,936	10,409,754	2,343,324	1,244,259	209,848	319,093	665,715	1,561,943
		Other Revenue			1 7 9,137	150,484	19,709	3,501	448	517	1,844	2,634
		TOTAL - Current Revenue Percentage	ent Revenues e		16,933,073 100.00%	10,560,238 62.36%	2,363,033 13,96%	1,247,759 6 7.37%	210,296 1.24%	319,610 1.89%	667,559 3.94%	1,564,577 9.24%
	OPERATING INCOME				2,692,174	1,047 ,801	1,030,970	715,015	(145,387)	132,707	287,739	(376,669
		TOTAL RATE BASE			2,692,174 46,070,148 46,070,148	29,461,214	4,603,610	1,967,143	812,970	874,674	1,008,883	7,341,655
		Implicit Rate of Return (ROR)			5.84%	3.56%	22.39%	6 36.35%	-17.88%	15.17%	28.52%	-5.13%

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CLRC (JALLASE 1/13/24 1/13/25	Customer Cost Calculation				TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
CUSTOMER CHARGE COSTS MONTHLY CUSTOMER CHARGE 4786,287 582,872 <t< th=""><th></th><th colspan="2">RATE BASE RETURN 9.8000% O & M (Return grossed up for Fed and State income tax) DEPR. + OTHER</th><th>ax)</th><th>12,304,440 1,989,628 1,939,912 856,747</th><th>1,476,675 238,778 241,369 102,726</th><th>356,987 57,725 100,554 21,759</th><th>145,723 23,563 94,124 6,115</th><th>27,302 4,415 15,470 1,438</th><th>279,634 45,217 89,616 16,500</th><th>317,559 51,349 190,005 16,961</th></t<>		RATE BASE RETURN 9.8000% O & M (Return grossed up for Fed and State income tax) DEPR. + OTHER		ax)	12,304,440 1,989,628 1,939,912 856,747	1,476,675 238,778 241,369 102,726	356,987 57,725 100,554 21,759	145,723 23,563 94,124 6,115	27,302 4,415 15,470 1,438	279,634 45,217 89,616 16,500	317,559 51,349 190,005 16,961	
STUDY ALLOCATORS TOTAL Res Sn Corm Sn Vol Fin Lg Vol Fin Lg Vol Fin Lg Vol Fin Tmn Lg Vol 1 Rate Revenue 1.00000 0.02133 0.13987 0.07427 0.01233 0.03973 0.046688 3 Winer Sales 1.00000 0.65543 0.15507 0.06173 0.03974 0.046688 4 Coincidem Peak Dermand 1.00000 0.55783 0.01507 0.00175 0.03974 0.04608 5 Mains 1.00000 0.55785 0.00212 0.03383 0.00372 0.00372 0.00372 0.00372 0.00372 0.00372 0.00410 0.33292 5 Mains 1.00000 0.57785 0.01212 0.05383 0.00372 0.00372 0.004179 0.04423 6 Weighted Meter Installian 1.00000 0.87786 0.16489 0.01011 0.0007 0.00010 0.00522 0.00113 1 Weighted Meter 1.00000 0.77865 0.01533 0.00739 0.04779			CUSTOMER CUSTOMER MONTHLY C	CHARGE COSTS BILLS USTOMER CHARGE		4,786,287 409,907 11.68	582,872 48,976 11.90	180,038 4,720 38.14	123,803 360 343.90	21,322 48 444.21	151,332 2,436 62.12	258,316 543 476.16
TOTAL ONE TWO THREE FUUR FUVE SX SEVEN 1 Rate Revenue 1.00000 0.62133 0.13937 0.07427 0.02330 0.03178 0.46668 3 Winter Sales 1.00000 0.5163 0.15937 0.07427 0.01238 0.01378 0.46668 4 Concidem Patk Demand 1.00000 0.55705 0.06178 0.02379 0.04198 0.03170 0.44198 0.33329 5 Mains 1.00000 0.55705 0.06178 0.03229 0.02274 0.24361 6 Weighted Meter Installation 1.00000 0.75225 0.03132 0.00010 0.00522 0.00110 0.00022 0.00110 0.00022 0.00110 0.00222 0.00111 0.00222 0.00110 0.00222 0.00110 0.00222 0.00110 0.00222 0.00110 0.00222 0.00111 0.00223 0.01116 0.00223 0.01116 0.00223 0.01116 0.00223 0.001116 0.00223 0.001116	STUDY ALLOCATORS				TOTAL	Res	Sni Conm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Ly Vol
1 Rate Revenue 1,0000 0,1333 0,19427 0,01233 0,01903 0,05973 0,04593 2 Annual Theoughput Cef 1,0000 0,65543 0,1583 0,0366 0,02398 0,03178 0,46698 3 Winer Sales 1,0000 0,65543 0,1593 0,03071 0,04503 0,33919 4 Coincident Peak Demmad 1,0000 0,55705 0,92929 0,4083 0,01552 0,02374 0,24541 5 Mains 1,0000 0,57505 0,92929 0,4083 0,01552 0,02374 0,44521 6 Weighted Meter Installation 1,0000 0,75285 0,91922 0,01338 0,00529 0,01070 0,04523 9 Bills 1,0000 0,87786 0,1488 0,01011 0,00070 0,0012 0,0113 10 Weighted Services 1,00000 0,87786 0,1488 0,01011 0,00770 0,04523 0,0112 11 Weighted Meters 1,00000 0,72676 0,09641 0,03844 0,01374 0,03742 0,0593 - 0,707				·	TOTAL	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN
2 Annual Throughput Cef 100000 0.5166 0.07253 0.0387 0.0387 0.0378 0.4068 3 Winter Sales 100000 0.5454 0.1567 0.04138 0.0379 0.04108 0.0379 0.04108 0.0379 0.04100 0.33929 4 Councidem Pack Demand 1.00000 0.5753 0.0929 0.0103 0.0157 0.00370 0.04109 0.04523 6 Weighted Meter Installation 1.00000 0.7774 0.1048 0.0101 0.00370 0.00370 0.00170 0.0010 0.0552 0.02176 7 Bilts Large Ind. Bilts 1.00000 0.87756 0.10498 0.01011 0.00077 0.0010 0.0522 0.0013 8 Large Ind. Bilts 1.00000 0.87756 0.16490 0.01013 - 0.00523 0.04128 10 Weighted Meters 1.00000 0.75285 0.01913 0.00077 0.00101 0.0479 0.04523 11 Weighted Meters 1.00000 0.75285 0.01910 0.03784 0.05050 - 0.57073		1	Rate Revenue		1.00000	0.62133	0,13987	0.07427	0.01253	0.01905	0.03973	0.09323
3 Winner Sales 100000 0.65543 0.15503 0.04138 0.04130 - - 4 Crincitediner Pack Demand 100000 0.55703 0.04138 0.04374 0.23744 0.23744 5 Mains 100000 0.55705 0.00132 0.0533 0.00270 0.00140 0.04793 0.04450 6 Weighted Meter Installation 1.00000 0.57776 0.10488 0.01011 0.00077 0.0010 0.0522 0.00114 7 Bills 1.00000 0.87776 0.10488 0.01011 0.00077 0.0010 0.00522 0.0111 10 Weighted Services 1.00000 0.87786 0.10499 0.01011 0.0077 0.0010 0.04252 0.0011 11 Weighted Keers 1.00000 0.87786 0.1649 0.01011 0.0077 0.0010 0.04272 0.0112 0.03830 0.04799 0.04152 0.0111 0.0077 0.04179 0.01423 0.0117 11 Weighted Keers 1.00000 0.72676 0.05691 0.03870 0.041793 0.14523		2	Annual Throug	hput Cef	1,00000	0.31666	0.07253	0,05887	0,02650	0.03298	0.03178	0.46068
4 Coincidem Peak Demmand 1.00000 0.42497 0.10570 0.06178 0.00137 0.001400 0.32391 5 Mains 1.00000 0.5705 0.00239 0.00383 0.00529 0.00370 0.0479 0.04130 6 Weighted Meter Installation 1.00000 0.7528 0.0112 0.00377 0.00100 0.0529 0.00170 0.00100 0.0529 0.00170 0.0010 0.0529 0.0175 8 Large Ind. Bills 1.00000 0.87776 0.10489 0.0111 0.00070 0.0010 0.0523 0.00131 - - 0.0503 - 0.57075 10 Weighted Meters 1.00000 0.75285 0.09132 0.05391 - - 0.05030 - 0.57075 11 Weighted Meters 1.00000 0.75285 0.09122 0.05381 0.01718 0.0377 0.00479 0.04793 0.0479 0.05030 - 0.57075 12 Metine Resultators 1.00000 0.75285 0.09654 0.0147 0.01879 0.01879 0.17373 0.05050		3	Winter Sales		1,00000	0.65543	0.15503	0.10506	0.04138	0.04310	-	-
5 Mains 1,0000 0.57905 0.09123 0.01525 0.02236 0.02374 0.24361 6 Weighted Meter Installation 1,00000 0.75285 0.09132 0.00529 0.00170 0.04077 0.00101 0.00529 0.00170 0.04072 0.00116 7 Bills 1,00000 0.87776 0.10488 0.01011 0.00077 0.00010 0.0522 0.00116 9 Bills Large Ind. Bills 1,00000 0.87756 0.01489 0.01011 0.00070 0.00010 0.00522 0.01132 10 Weighted Meters 1,00000 0.75285 0.09132 0.00070 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00052 0.00077 0.04523 0.04523 0.03174		4	Coincident Pea	ak Demand	1.00000	0.42497	0.10507	0.06178	0.02391	0.00397	0.04100	0.33929
6 Weighted Meter Installation 1.0000 0.75285 0.09132 0.03333 0.00529 0.00170 0.04522 0.00116 7 Bills Large Ind. Bills 1.0000 0.87776 0.10148 0.01011 0.00077 0.00512 0.00522 0.00116 9 Bills - Large Ind. Bills 1.0000 0.87756 0.1049 0.01013 - - 0.00522 0.00112 10 Weighted Meters 1.0000 0.87756 0.1049 0.01013 - - 0.00523 0.00523 - 0.00523 0.00521 0.00521 0.00521 0.00521 0.00521 0.00521 0.00523 - 0.0553 - 0.0553 - 0.0553 - 0.0553 - 0.0553 - 0.0553 - 0.0593 - - 0.0593 - 0.0593 - 0.0593 - 0.57075 0.0551 0.0550 - 0.57075 0.0551 0.0551 0.0124 0.0124 0.0134 0.0147 0.0184 0.01871 0.01879 0.01879 0.01849 0.01871 0.01879		5	Mains		1.00000	0.55705	0.09299	0.04083	0.01552	0.02626	0.02374	0.24361
7 Bills 1.00000 0.87776 0.10488 0.01011 0.00077 0.00010 0.00737 9 Bills - Large Ind. Bills 1.00000 0.87756 0.10509 0.01013 - - 0.00072 0.00010 0.00522 0.00113 10 Weighted Services 1.00000 0.87756 0.10489 0.01011 0.00070 0.00010 0.00522 0.00133 11 Weighted Meters 1.00000 0.75860 0.0489 0.01011 0.00070 0.0010 0.04523 12 Weighted Regulators 1.00000 0.75860 0.05691 - - 0.05775 0.05105 0.03132 0.05175 0.05137 0.0114 0.01879 0.17363 13 Large Ind. Bills 1.00000 0.67561 0.09641 0.03844 0.01312 0.00178 0.01879 0.17363 15 Net MainsServices Plant 1.00000 0.645591 0.0510 0.03463 0.01470 0.0160 0.02220 0.1773 16 Net MainsServices Plant 1.00000 0.64520 0.09543 0.03666 0.01		6	Weighted Met	er Installaion	1.00000	0.75285	0.09132	0.05383	0,00529	0.00370	0.04779	0.04523
8 Large Ind. Bills 1.00000 - - - 0.37875 0.05050 - 0.00737 9 Bills - Large Ind. Bills 1.00000 0.87786 0.10489 0.01013 - - 0.00523 - 10 Weighted Services 1.00000 0.87786 0.10489 0.01011 0.00020 0.0010 0.00522 0.0013 12 Weighted Keters 1.00000 0.75285 0.09152 0.03581 0.00529 0.00370 0.04779 0.04523 12 Weighted Keters 1.00000 - - - 0.05050 - - 0.05050 - - 0.05050 - - 0.05050 - - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 - 0.05050 <th></th> <th>7</th> <th>Bills</th> <th></th> <th>1.00000</th> <th>0.87776</th> <th>0.10488</th> <th>0.01011</th> <th>0,00077</th> <th>01000.0</th> <th>0.00522</th> <th>0.00116</th>		7	Bills		1.00000	0.87776	0.10488	0.01011	0,00077	01000.0	0.00522	0.00116
9 Bills - Large Ind. Bills 1.0000 0.87956 0.10439 0.01011 0.00001 0.00232 0.00113 10 Weighted Services 1.00000 0.87786 0.0489 0.00111 0.00070 0.00010 0.00223 0.00113 11 Weighted Kegulators 1.00000 0.75285 0.09132 0.0533 0.00529 0.00370 0.04779 0.04523 12 Weighted Kegulators 1.00000 0.75265 0.09631 0.03894 0.01312 0.00718 0.03142 0.05807 14 Customer Acct. Expense 1.00000 0.72676 0.09661 0.03463 0.01714 0.01293 0.16183 15 Net Mains/Services Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02190 0.17173 16 Net Non-General Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 17 Net Non-General Plant 1.00000 0.63320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 18		8	Large Ind. Bill	s	1.00000	-	-	•	0.37875	0.05050	•	0,57075
10 Weighted Services 1.00000 0.87786 0.10489 0.01011 0.00070 0.0010 0.00222 0.00113 11 Weighted Meters 1.00000 0.75265 0.0912 0.0533 0.00270 0.0010 0.04779 0.04523 0.00133 12 Weighted Regulators 1.00000 0.75600 0.09656 0.05691 - - 0.05053 - 0.05050 - 0.05050 - 0.05075 13 Large Ind. Bills 1.00000 0.72676 0.09641 0.03142 0.0171 0.01319 0.01339 0.17333 15 Net Mains/Services Plant 1.00000 0.64953 0.09543 0.03666 0.01471 0.01293 0.16183 16 Net Distribution Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 18 Total Net Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 19 Rate Base 1.00000 0.63630 0.09442 0.03844 0.02385		9	Bills - Large Ir	ıd. Bills	1.00000	0.87956	0.10509	0.01013	-		0.00523	•
11 Weighted Meters 1.00000 0.75285 0.00512 0.00529 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00570 0.00575 0.05050 - 0.57075 13 Large Ind. Bills 1.00000 0.75676 0.00664 0.03142 0.00778 0.03142 0.085804 0.03147 0.0124 0.01871 0.03142 0.05850 0.17133 15 Net MainsServices Plant 1.00000 0.65591 0.09510 0.03463 0.01124 0.01871 0.01293 0.16183 17 Net Non-General Plant 1.00000 0.64320 0.09543 0.03606 0.01407 0.01660 0.02290 0.17173 18 Total Net Plant 1.00000 0.6320 0.09543 0.03606 0.01407 0.01660 0.02290 0.17173 19 Rate Base 1.00000 0.63360 0.09442 0.03814 0.02385 0.14038 0.01403 0.02388 0.14008 0.17173		10	Weighted Serv	rices	1.00000	0.87786	0.10489	0.01011	0.00070	0.00010	0.00522	0.00113
12 Weighted Regulators 1.00000 0.73660 0.05951 0.05950 - - 0.03053 - 0.03053 - 0.03053 - 0.03054 0.03142 0.03050 - 0.03142 0.08507 14 Customer Acct. Expense 1.00000 0.64963 0.09641 0.03463 0.01342 0.01871 0.01839 0.17363 15 Net Mains/Services Plant 1.00000 0.64953 0.09642 0.03463 0.01445 0.01871 0.01839 0.17363 16 Net Distribution Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 18 Total Net Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 19 Rate Base 1.00000 0.63549 0.09942 0.03814 0.01660 0.02290 0.17173 10 Cost of Service 1.00000 0.63647 0.09114 0.0377 0.01660 0.02190 0.1936 21 Labor 1.00000 0.69467 <td< th=""><th></th><th>11</th><th>Weighted Met</th><th>ers</th><th>1.00000</th><th>0.75285</th><th>0.09132</th><th>0.05383</th><th>0.00529</th><th>0.00370</th><th>0.04779</th><th>0,04523</th></td<>		11	Weighted Met	ers	1.00000	0.75285	0.09132	0.05383	0.00529	0.00370	0.04779	0,04523
13 Large Ind. Bills 1,00000 - - 0.7875 0.09500 - 0.57075 14 Customer Acci. Expense 1,00000 0.72676 0.09642 0.03197 0.01124 0.01871 0.01839 0.17363 15 Net Mains/Services Plant 1.00000 0.65493 0.09510 0.03463 0.01445 0.01714 0.02193 0.1783 16 Net Distribution Plant 1.00000 0.65351 0.09510 0.03463 0.01407 0.01660 0.02290 0.17173 17 Net Non-General Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 18 Total Net Plant 1.00000 0.63349 0.09993 0.04270 0.01765 0.01899 0.02190 0.15936 19 Rate Base 1.00000 0.66360 0.09447 0.03877 0.03280 0.01905 0.03877 0.10328 0.01905 0.03973 0.10326 22 23 24 25 26 1 1.00000 0.62133 0.13987 0.07427 0.		12	Weighted Reg	ulators	1.00000	0.79600	0.09656	0.05691	-	-	0.05053	-
14 Customer Acc1, Expense 1,00000 0,72676 0.03964 0.03317 0.01312 0.03078 0.03874 0.03874 0.03874 0.03874 0.03874 0.03874 0.03874 0.03874 0.03874 0.03874 0.03874 0.03874 0.01871 0.01871 0.01871 0.01870 0.01871 0.01870 0.01871 0.01871 0.01871 0.0160 0.64963 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 17 Net Non-General Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 18 Total Net Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02190 0.15936 10 Cost of Service 1.00000 0.63610 0.09442 0.03814 0.02385 0.01403 0.02588 0.14008 11 Labor 1.00000 0.69467 0.09114 0.03777 0.03280 0.00950 0.03973 0.09323 22 24 25 26 1.00000 0.69167 0.06254		13	Large Ind. Bill	s	1,00000		-	-	0.37875	0.05050	-	0.57075
15 Net Mains/Services Plant 1.00000 0.64953 0.09642 0.03463 0.01874 0.02184 0.02240 0.017173 19 Rate Base 1.00000 0.63167 0.09144 0.001874 0.00284 0.01403 0.00284 0.01938 0.01403		14	Customer Acci	i, Expense	1,00000	0.72676	0,09691	0.03894	0.01312	0,00778	0.03142	0.08507
16 Net Distribution Plant 1.00000 0.63591 0.03910 0.01493 0.01441 0.02193 0.01713 17 Net Non-General Plant 1.00000 0.64320 0.09543 0.03606 0.01407 0.01660 0.02290 0.17173 18 Total Net Plant 1.00000 0.64320 0.09543 0.03606 0.01407 0.01660 0.02290 0.17173 19 Rate Base 1.00000 0.63949 0.09993 0.04270 0.01755 0.01899 0.02180 0.19366 20 Cost of Service 1.00000 0.66360 0.09442 0.03814 0.02385 0.01403 0.02588 0.14008 21 Labor 1.00000 0.69467 0.09114 0.03777 0.03280 0.00950 0.03087 0.10326 23 24 23 24 25 25 26 27 0.01253 0.01905 0.03973 0.09323 20323 20324 200443 200454 20246 24 25 26 27 20.02147 0.01025 0.00043 27 20.00433 20		15	Net Mains/Ser	vices Plant -	1,00000	0.64963	0.09642	0.03197	0.01124	0,01871	0.01039	0.17303
17 Net Non-General Plant 1,00000 0.64320 0.09543 0.03066 0.01407 0.01606 0.02290 0.17173 18 Total Net Plant 1.00000 0.64320 0.09543 0.03666 0.01407 0.01660 0.02290 0.17173 19 Rate Base 1.00000 0.63349 0.09943 0.03666 0.01407 0.01660 0.02290 0.17936 20 Cost of Service 1.00000 0.63460 0.09442 0.03814 0.02385 0.01403 0.02588 0.14008 21 Labor 1.00000 0.69467 0.09114 0.03777 0.03280 0.00950 0.03087 0.10326 22 23		16	Net Distributio	on Plant	1.00000	0.65591	0.09510	0.03463	0.01345	0.01/14	0.02193	0.10183
18 Total Net Plant 1.00000 0.63420 0.03543 0.03506 0.01467 0.01600 0.02190 0.17173 19 Rate Base 1.00000 0.66360 0.09933 0.04270 0.01765 0.01803 0.02190 0.17936 20 Cost of Service 1.00000 0.66360 0.09442 0.03814 0.02385 0.01403 0.02388 0.14088 21 Labor 1.00000 0.69467 0.09114 0.03777 0.03280 0.00950 0.03087 0.10326 22 23		17	Net Non-Gene	ral Plant	1.00000	0.64320	0.09543	0,03606	0,01407	0.01660	0.02290	0,17173
19 Rate Base 1.00000 0.63349 0.09593 0.04270 0.01763 0.01963 0.00377 0.00377 0.00387 0.10326 23 24 25 26 1.00000 0.62133 0.13987 0.07427 0.01253 0.01995 0.03973 0.09323 0.09323 0.01932 0.00043 - 24 25 1.00000 0.81057 0.02646 - <t< th=""><th></th><th>18</th><th>Total Net Plan</th><th>t</th><th>1.00000</th><th>0.64320</th><th>0.09543</th><th>0.03000</th><th>0.01407</th><th>0.01000</th><th>0.02290</th><th>0.17175</th></t<>		18	Total Net Plan	t	1.00000	0.64320	0.09543	0.03000	0.01407	0.01000	0.02290	0.17175
20 Cost of Service 1,00000 0,03500 0,09442 0,03514 0,02555 0,0443 0,02565 0,0443 0,02565 0,0443 0,02565 0,0443 0,02565 0,00950 0,03087 0,10326 21 Labor 1,00000 0,69467 0,09114 0,03777 0,03280 0,00950 0,03087 0,10326 23 24 25 - - 0,00143 0,1995 0,03973 0,09323 24 25 - - 0,00043 - - 0,00043 - 25 - 1,00000 0,91057 0,06254 0.02646 - - 0,00043 - 26 Interest on Dep 1,00000 0,81776 0,04264 - - 0,00043 - 27 Uncollectibles 1,00000 0,81776 0,10488 0,01011 0,00077 0,0010 0,00522 0,00116 28 Bills 1,00000 0,82350 0,11027 0,01913 0,00158 0,00252 0,00116 29 Met Reading 1,00000		19	Rate Base		1.00000	0.63949	0.09993	0.04270	0.01703	0.01899	0.02190	0.13930
21 Lator 1,00000 0.89437 0.0914 0.09171 0.09200 0.09301 0.1020 22 23 24 25 1.00000 0.62133 0.13987 0.07427 0.01253 0.01905 0.03973 0.09323 27 Uncollectibles 1.00000 0.91057 0.06254 0.02646 - - 0.00043 - 28 Bills 1.00000 0.87776 0.10488 0.01011 0.00077 0.00010 0.00522 0.0016 29 Met Reading 1.00000 0.82350 0.11027 0.01913 0.00158 0.00289 0.0129 0.01470		20	Cost of Service	e	1,00000	0,00300	0.09442	0.03614	0.02385	0.01403	0.02588	0.14006
22 23 24 25 26 27 Uncollectibles 1,00000 0.62133 0,01905 0.03973 0,00043 27 Uncollectibles 1,00000 0.91057 0.06254 0,01011 0.00010 0.00012 0,0102 0.01011 0.00010 0,0016 0.82350 0.11027 0.01913 0.00158 0.00158 0,01047 0.00250 0.01029 0.01470		21	Labor		1,00000	0,09407	0.07114	0.03777	0,03280	0.00950	0,03007	0.10520
23 24 25 26 Interest on Dep 1.00000 0.62133 0.13987 0.07427 0.01253 0.01905 0.03973 0.09323 27 Uncollectibles 1.00000 0.91057 0.06254 0.02646 - - 0.00043 - 28 Bills 1.00000 0.8776 0.10488 0.01011 0.00017 0.00010 0.00522 0.00116 29 Met Reading 1.00000 0.82050 0.11027 0.01913 0.00158 0.00289 0.0129 0.01470		22										
24 25 26 Interest on Dep 1.00000 0.62133 0.13987 0.07427 0.01253 0.01905 0.03973 0.09323 27 Uncollectibles 1.00000 0.91057 0.06254 0.02646 - - 0.00043 - 28 Bills 1.00000 0.87776 0.10488 0.01011 0.00077 0.00010 0.00522 0.0116 29 Met Reading 1.00000 0.82350 0.11027 0.01913 0.00158 0.00038 0.01958 0.0256 30 Other Revenue 1.00000 0.84005 0.11002 0.01954 0.00250 0.00229 0.01470		23										
25 100000 0.62133 0.13987 0.07427 0.01253 0.01905 0.03973 0.09323 26 Interest on Dep 1.00000 0.91057 0.06254 0.02646 - - 0.00043 - 27 Uncollectibles 1.00000 0.8776 0.10488 0.01011 0.00077 0.00010 0.0522 0.0116 28 Bills 1.00000 0.82350 0.11027 0.01913 0.00158 0.00038 0.01256 30 Other Revenue 1.00000 0.84005 0.11002 0.01954 0.00250 0.00289 0.0129 0.01470		24 25 26 June - Dan										
20 Interest on Lep 1,00000 0.91057 0.06254 0.02666 - - 0.00043 - 27 Uncollectibles 1,00000 0.91057 0.06254 0.02666 - - 0.00043 - 28 Bills 1.00000 0.82350 0.11027 0.01913 0.00158 0.00038 0.01958 0.02556 30 Other Revenue 1.00000 0.84005 0.11002 0.01954 0.00250 0.00289 0.0129 0.01470				1.00000	0.62133	0.13987	0.07427	0.01253	0.01905	0.03973	0 09323	
28 Bills 1.00000 0.87776 0.10488 0.01011 0.00077 0.00010 0.00522 0.00116 29 Met Reading 1.00000 0.82776 0.10488 0.01011 0.00077 0.00010 0.00522 0.00116 30 Other Revenue 1.00000 0.82350 0.11002 0.0158 0.00038 0.01958 0.02556		26 Interest on Dep	1.00000	0.91057	0.06254	0.02646	•		0.00043	-		
26 Jins 1.00000 0.82350 0.11027 0.0158 0.00058 0.01558 0.02556 29 Met Reading 1.00000 0.82350 0.11027 0.01913 0.00158 0.00256 0.02556 30 Other Revenue 1.00000 0.84005 0.11002 0.01954 0.00289 0.01029 0.01470		21	Bille		1,00000	0 87776	0 10488	0.01011	0 00077	0.00010	0.00522	0 00116
30 Other Revenue 1.00000 0.84005 0.11002 0.01954 0.00250 0.00289 0.01029 0.01470		28 10	Met Reading		1.00000	0.82350	0.11027	0.01913	0.00158	0.00038	0.01958	0.02556
		30	Other Revenue		1.00000	0.84005	0,11002	0.01954	0.00250	0.00289	0.01029	0.01470

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Cost os Service Allocator Calculation

COS ALLOCATOR CALCULATIONS totals exclude accounts allocated based on COS

	TOTAL	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
O & M EXPENSES	7,296,837	4,978,209	666,876	277,648	239,383	76,864	216,619	841,237
DEPREC. & AMORT, EXPENSE	3,926,765	2,547,842	376,217	137,851	50,786	65,127	86,557	662,385
TAXES	1,147,110	747,341	110,237	44,201	21,442	18,428	27,586	177,874
Subtotal - Expenses and Taxes	12,370,712	8,273,392	1,153,330	459,700	311,611	160,420	330,763	1,681,497
	12,370,712							
TOTAL RATE BASE	45,052,380	28,797,452	4,504,858	1,926,126	791,687	858,002	984,463	7,189,791
	45,052,380							
RATE OF RETURN	5.844%	5.844%	5.844%	5.844%	5.844%	5.844%	5.844%	5.844%
REQUIRED OPERATING INCOME	2,632,699	1,682,820	263,248	112,556	46,263	50,139	57,528	420,146
TOTAL COST OF SERVICE	15,003,411 15,003,411	9,956,212	1,416,578	572,255	357,874	210,558	388,291	2,101,642

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Labor Allocator Calculation		FACTOR DESCRIPTION	FACTOR NO.	LABOR	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
Natural Gas Supply Expense											
804 808	Nat. Gas City Gate & LP Purchases Gas Withdrawn from Storage										
809 813	Gas Delivered to Storage Other Total Natural Gas Expense	Annual Throughput Cef	2								
Storage Expense											
766	NG PG Maint Field Meas & Regul	Winter Sales	2								
844	Energy Trading /Acct Gas Total Storage	Winter Sales	3								
Transmission Operations	· · · · · · · · · · · · · · · · · · ·										
850	Supervision & Engineering							•			
851	Load Dispatch										
856	Mains	Coincident Peak Demand	4	38	16	4	2	1	0	2	13
857	Measuring & Regulating Exp							-	-	-	15
859	Other Expenses										
860	Rents										
820	Measuring & Regulating										
821	Purification										
822	Exploration & Developement										
823	Losses										
824	Other Expenses										
825	Storage Well Royalty										
Maintenance											
861	Supervision & Engineering										
862	Structures & Improvements										
863	Mains										
865	Measuring & Regulating Exp										
867	Other Equipment										
835	Meter & Regulating Station Equipme										
836	Purification Equipment										
837	Other Equipment										
	Total Transmission										

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Direct 7 Barbara GR-200	Festimony 1 Meisenheimer 19-0434			FACTOR								
Labor Allocator	r (continue) Distribution	-	FACTOR DESCRIPTION	NO.	LABOR	Res	Sm Comm	Sm Vol Firm	Lg Vol Firm	Lg Vol Int	Tran Sm Vol	Tran Lg Vol
	Operations	Sumaryinian & Engineering	Net Distribution Plant	16	55,113	36.149	5.242	1,909	741	945	1,209	8,919
870		Load Dispatch		2		·	-	-	-	-	-	•
874		Mains and services	Net Mains/Services Plant	15	334,431	217,257	32,246	10,690	3,761	6,257	6,152	58,068
875		Measuring & Regulating Stations	Annual Throughput Ccf	2	288	91	21	17	8	9	9	133
876		Measuring & Regulating Commercia	Large Ind. Bills	8	-	-	-		-	-		-
877		Measuring & Regulating City Gate	Annual Throughput Cef	2	47	15	3	3	1	2	20.020	22
878		Meter & House Regulating	Weighted Regulators	12	612,145	487,269	59,106	34,839		-	30,930	132 468
879		Customer Installations	Large Ind. Bills	2	232,093	-		- 21	87,905	11,721	- 13	99
880		Other Expenses	Net Distribution Plant	14	014	40.5	50	- 21	•	-	-	-
881		Rents		10	-	-						
092	Maintenance	Supervision & Engineering		10		-	-	-	-	-	-	-
665 886		Structures and Improvements		16	-	-	-	-	-	-	-	-
887		Mains	Mains	:	1,176	655	109	48	18	31	28	286
889		Measuring & Regulating Stations	Annual Throughput Ccf	2	68	22	5	4	2	2	2	31
890		Measuring & Regulating Commercie	Large Ind. Bills	ŧ	120	-	-	-	45	6		68
891		Measuring & Regulating City Gate	Annual Throughput Ccf	2	2 4	1	0	0	0	0	0	2
892		Services	Weighted Services	10	327	287	34	3	0	0	2	V
893		Meters & House Regulators	Weighted Regulators	10	. 13	10	1	1	•	-	1	-
894		Other Equipment		14	-	-		47 529	07.400	18 984	38 349	200.109
	Total Distribution				1,230,477	/42,170	90,030	47,000	92,490	10,704	50,517	200,109
001	Customer Accounts	Surray ision	Bille		64 392	56 521	6.753	651	50	7	336	75
901		Supervision Meter reading	Met Readine	29	584,501	481.339	64,452	11.181	926	224	11,442	14,937
502		Customer Records and Collection	Weighted Meters	1	791,075	595,558	72,241	42,582	4,184	2,925	37,804	35,781
904		Uncollectible Accounts	Cost of Service	20	838,523	556,441	79,171	31,983	20,001	11,768	21,701	117,458
905		Miscellaneous	Customer Acct. Expense	14	48,539	35,276	4,704	1,890	637	378	1,525	4,129
		Total Customer Accounts			2,327,030	1,725,135	227,321	88,286	25,798	15,301	72,808	172,381
	Customer Service & Information							- • •		-		21
907		Supervision	Bills		7 17,926	15,735	1,880	181	14	2	. 94	- 21
908		Customer Assistance	Bills		-	-	-	-	-	-	-	-
909		Informational & Instruct Advertising	Bills		-	-	-			-		
910		Miscellaneous Expense	Bills		17 926	15 735	1 880	181	14	2	94	21
	Solor	Total Customer Sve & hito			1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		.,					
911	Sales	Supervision	Bills		7 11,891	10,438	1,247	120	9	· •	62	: 14
912		Demonstrating and Selling	Bills		7 14,612	12,826	1,532	148	11	2	. 76	i 17
913		Advertising			7 -	-	-	-	-	-	•	-
916		Miscellaneous			7			-	-			· · ·
	Total Sales				26,503	23,263	2,780	268	20	1 3	138	s 31
	Administrative & General											
	Operations	6 N S	1.1	2	1 1 1 4 7 0 7 1	810 724	106 261	44.081	38 274	11.093	36.03	120 507
920		Salaries	Labor	2	1 1,107,071	010,724	268	44,001 111	96		91	303
921		A dministrative Expense Transferred	Labor	2	1	- 2,042	-	-	-	•	-	-
922		Outside Services	Labor	- 2	1 -	-	-	-	-	-	-	-
923		Property Insurance	Net Non-General Plant		7 -	-	-	-	-	-	-	-
925		Injuries and Damages	Labor	2	1 -	-	-	-	-	-	-	-
926		Employee Pensions & Benefits	Labor	2	ł -	-	-	-	-	-	-	-
928		Regulatory Commission	Cost of Service	2	0 -	-	-	-	-	-	-	•
930.0		General Advertising	Cost of Service	2	0 -	-	-	-	-	-	-	•
930.2		Miscellaneous General	Cost of Service	2	0 -	-	-	-	-	•	-	-
929.0		Duplicate Charges Credit	Cost of Service	2	0 -	-	-	-	-	-	-	•
931		Rents	Cost of Service	2	0 -	-	-	-	-	•	-	•
	Maintenance				-							
935		General Plant	Net Non-General Plant	ł	1 170 014	010 74	104 600	44 102	20 27	11.12/	3612	2 120 811
		Total Administrative & General			1,170,010	3 2 2 10 07	100,025 A25 AAP	<u>44,192</u> 186.444	156.60	45 41	147 51	493 353
TOTAL LABO)R				4,777,940	, 5,517,07.	, 100,440	. 100,404	150,095			

TOTAL LABOR

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Example of Class Revenue Adjustments North South

<u>Line</u>			TOTAL		Res	:	Sm Comm	Sn	1 Vol Firm	Lg Vol Firm		Lg Vol Int		Tran Sm Vo		I Tran Lg Vol	
1 2 3	Current Revenue Current Class Revenue Percentages	\$	16,933,073	S	10,560,238 62.36%	\$	2,363,033 13.96%	\$	1,247,759 7,3 7%	\$	210,296 1.24%	\$	319,610 1.89%	\$	667,559 3.94%	\$ 1	1,564,577 9.24%
4 5 6 7	COS Indicated Class Revenue Percentages Revenue Neutral Shifts to Equalize Class Rates of Return (ROR) Percentage Revenue Change to Equalize Class ROR	\$		\$	66.34% 673,807 6.38%	s	9.46% (761,951) -32,24%	\$	3.83% (600,062) -48.09%	\$	2.38% 192,894 91.72%	\$	1.41% (81,594) -25,53%	\$	2.59% (228,783) -34.27%	\$	14.00% 805,689 51.50%
8 9	OPC's Recommended Revenue Neutral Shifts = $1/2$ the Shift Required to Equalize Returns			\$	336,903	\$	(380,976)	\$	(300,031)	\$	96,447	\$	(40,797)	\$	(114,392)	\$	402,845
10 11 12 13 14	Rate Design Example- \$2.4M Revenue Requirement Increase Spread of Revenue Requirement Increases Based on OPC Recommended Revenue Percentages Combined Impact of Revenue Increase and OPC's Revenue Neutral Shift	\$	2,400,000	s s	1,544,500 1,881,404	\$ \$	280,926 (100,050)	\$ \$	134,326 (165,705)	\$ \$	43,476 139,923	\$ \$	39,517 (1,279)	5 5	78,403 (35,989)	\$ \$	278,851 681,696
15 16 17 18 19	Adjustments to the Combined Impact Combined Impact of Revenue Increase and OPC's Revenue Neutral Shift Adjusted to Ensure No Class Receives A Reduction If Another Class Receives an Increase Adjusted Combined Increase			\$ \$	1,881,404 (210,915) 1,670,489	\$ \$	(100,050) 100,050 -	\$ \$ \$	(165,705) 165,705	\$ \$ \$	139,923 (15,686) 124,237	\$ \$ \$	(1,279) 1,279	\$ \$ \$	(35,989) 35,989 -	\$ \$ \$	681,696 (76,422) 605,274
20 21 22 23	Resulting Revenue Resulting Revenue Percentage	\$	19,333,073	\$	12,230,727 63.26%	\$	2,363,033 12.22%	\$	1,247,759 6.45%	\$	334,533 1.73%	\$	319,610 1.65%	\$	667,559 3.45%	\$ 2	.,169,851 11.22%
24 25 26 27 28	Resulting Residential and Small Commercial Revenue less Misc. and Other Revenue Customer Charge Revenue at 55% Bills Customer Charge at \$2,400,000 Increase Volumetric Rate at \$2,400,000 Increase			s s	12,080,243 6,644,134 409907 16.21 0.2287	\$ \$	2,343,324 1,288,828 48976 26.32 0.1937										

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Example of Class Revenue Adjustments Northwest

<u>Line</u>			TOTAL		Res	Res Sm Comm		Sm \	/ol Firm	Lg	Vol Firm	Lg Vol Int	Tra	ın Sm Vol	Tra	n Lg Vol	
1 2 3	Current Revenue Current Class Revenue Percentages	\$	2,301,450	\$	1,306,273 56.76%	\$	334,177 14.52%	\$	168,882 7.34%	\$	45,642 1.98%		\$	129,418 5.62%	\$	317,057 13.78%	
4 5 6 7	COS Indicated Class Revenue Percentages Revenue Neutral Shifts to Equalize Class Rates of Return (ROR) Percentage Revenue Change to Equalize Class ROR	\$	-	\$	65.45% 200,026 15.31%	\$	10.41% (94,670) -28.33%	\$	3.87% (79,902) -47.31%	\$	3.47% 34,253 75.05%		\$	2.83% (64,258) -49,65%	\$	13.97% 4,551 1,44%	
8 9	OPC's Recommended Revenue Neutral Shifts = $1/2$ the Shift Required to Equalize Returns			\$	100,013	\$	(47,335)	\$	(39,951)	\$	17,126		\$	(32,129)	\$	2,276	
10 11 12 13	Rate Design Example- \$650,000 Revenue Requirement Increase Spread of Revenue Requirement Increases Based on OPC Recommended Revenue Percentages Combined Impact of Revenue Increase and OPC's Revenue Neutral Shift	\$	650,000	\$ \$	397,178 497,191	\$ \$	81,013 33,678	\$ \$	36,414 (3,537)	s s	17,728 34,854		s s	27,477 (4,652)	s s	9 0,189 92,465	
14 15 16 17	<u>Adjustments to the Combined Impact</u> Combined Impact of Revenue Increase and OPC's Revenue Neutral Shift Adjusted to Ensure No Class Receives A Reduction If Another Class Receives an Increase			5 5	497,191 (6,186)	\$ \$	33,678 (419)	\$ \$	(3,537) 3,537	\$ \$	34,854 (434)		\$ \$	(4,652) 4,652	S S	92,465 (1,150)	
18 19 20 21	Adjusted Combined Increase Resulting Revenue Resulting Revenue Percentage	\$	2,951,450	\$ \$	491,006 1,797,279 60.89%	s s	33,259 367,436 12.45%	s s	- 168,882 5,72%	\$ \$	34,421 80,063 2.71%		s s	- 129,418 4.38%	s s	91,315 408,372 13,84%	
22 23 24 25 26 27 28	Resulting Residential and Small Commercial Revenue less Misc. and Other Revenue Customer Charge Revenue at 55% Bills Customer Charge at \$650,000 Increase Volumetric Rate at \$650,000 Increase			\$ \$	1,776,389 977,014 57669 16.94 0.2408	\$ \$	364,252 200,339 8140 24.61 0,1852										

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