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December 17, 1998

Charles A. Guyton
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By Hand Delivery

Blanca S. Bayó, Director
Records and Reporting
Florida Public Service Commission
4075 Esplanade Way, Room 110
Tallahassee, Florida 32399-0850

**Re: FPL/Gas R&D Plan Annual
Final Report in Docket 950492-EG**

980000

Dear Ms. Bayó

Enclosed for filing on behalf of Florida Power & Light Company (FPL) are the original and fifteen (15) copies of Gas Desiccant Cooling Research & Demonstration Project - Final Report in Docket No. 950492-EG. This report is being filed pursuant to Order No. PSC-95-1146-FOF-EG in Docket No. 950492-EG.

If you or your Staff have any questions regarding this filing, please contact me at 222-2300.

- ACK _____
- AFA _____
- APP _____
- CIT _____
- CMR _____
- CPD _____
- CSL _____
- ES Shine
- LEI _____
- LI _____
- ENC _____
- cc: Robert V. Elias, Esq
- SP _____
- ST _____
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- W _____
- WTM _____

Very truly yours,

Charles A. Guyton

Charles A. Guyton

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[Signature]

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Natural Gas End-Use Technology R&D Plan

**Gas Desiccant Cooling
Research & Demonstration
Project – *Final Report***
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December 1, 1998

DOCUMENT NUMBER - DATE

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FLORIDA POWER & LIGHT REPORTING

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Gas Desiccant Cooling R&D Project

Background

In Order No. PSC-94-1313-FOF-EG, issued October 25, 1994, the Florida Public Service Commission set numeric demand-side management goals for FPL. They also determined that the IOUs' analyses lacked sufficiently accurate information to set specific goals relating to natural gas substitution for electricity. Consequently, they ordered FPL to conduct natural gas research and demonstration projects to develop Florida-specific data on performance and cost-effectiveness of gas technologies. In Order No. PSC-95-1146-FOF-EG, issued September 15, 1995, the FPSC approved FPL's Natural Gas End-Use Technology Research and Development Plan which included five natural gas-fired end-use technologies, including C/I Gas Desiccant air conditioning.

The Commission's order requires FPL to conduct research and development projects in the functional areas of heating, cooling, dehumidification and water heating and to develop Florida-specific information on performance and cost-effectiveness of those technologies.

Project Objective

As part of its Commercial/Industrial Dehumidification Research Project, FPL determined the actual operating characteristics and cost-effectiveness of numerous air conditioning technologies including gas desiccant cooling. The gas desiccant equipment could potentially remove a portion of a customer's space conditioning load from FPL's summer and winter peak demand periods, resulting in peak demand and energy savings. A focus of the project was to determine efficiency and energy usage of the gas desiccant cooling equipment.

• Project Technology

Desiccant cooling utilizes a desiccant material to absorb moisture (remove humidity) from the air stream – usually outside make-up air. After absorbing the moisture, the desiccant material is regenerated (usually by heating) to remove the collected moisture. The desiccant material typically takes the shape of a wheel that is rotated through the air stream. Gas desiccant cooling uses natural gas as the fuel to provide the necessary heat to remove the collected moisture from the wheel.

- **Project Description**

Gas desiccant cooling was one of several dehumidification technologies that were studied by FPL as part of the C/I Dehumidification Project. This study, approved by the Florida Public Service Commission, evaluated the demand and energy impacts of ASHRAE Standard 62-1989, which increases the outside air requirement by approximately four times above the previous ventilation requirements. The project includes both electric and natural gas dehumidification technologies. This project was co-funded by the Department of Community Affairs.

FPL used the data provided by this research project, adjusted for the new baseline and expanded to include the addition of a cost-effectiveness and market potential analysis (if cost-effective) to complete our research in the area of natural gas dehumidification.

FIRST PHASE

The first phase of the project was the C/I Dehumidification Project. This project included both computer simulations and field demonstration projects (to verify the computer simulation models) on seven (7) building types, including full life-cycle cost estimates for all three (3) climate zones in FPL's service territory.

SECOND PHASE

The second phase of the project was to evaluate the economic feasibility of gas desiccant cooling equipment based on the first phase simulations. Using the demand, energy, and cost impacts from the first phase, the results were updated with a new baseline based on ASHRAE Standard 62-1989. The C/I Dehumidification Project used the old ventilation standard. After determining the demand, energy, and cost impacts compared to the baseline, the cost effectiveness of the natural gas desiccant cooling was determined using the Commission approved cost-effectiveness methodology.

THIRD PHASE

The third phase of the project – if proven cost-effective using both RIM and Participant Test – was to assess the Technical Potential of this technology in FPL's service territory based on the building stock in the year 2000.

FOURTH PHASE

The fourth phase of the project, after calculating the Technical Potential, was to compare gas desiccant cooling with competing technologies in order to calculate the Achievable Potential. This would then allow FPL to set numeric conservation goals for the measure of gas desiccant cooling.

Project Schedule

Originally, FPL anticipated the Commercial/Industrial Dehumidification Research Project would be completed by the fourth quarter of 1996, and the Gas Desiccant Project to be completed 8 months later. However, the C/I Dehumidification Project was not completed until March of 1998, which delayed completion of this project until the fourth quarter of 1998.

Project Budget and Costs

The project costs were originally estimated at \$45,000, not including costs associated with the C/I Dehumidification Project. Project activities, original cost estimates, and final costs are more fully shown on Attachment 1.

Gas Desiccant Cooling R&D Project Findings

PHASE 1 - Building Type Simulation

The C/I Dehumidification Project developed building prototypes for seven (7) building types in Florida. Gas desiccant cooling and a number of alternative technologies were analyzed for each of the building types. Gas desiccant was not analyzed for small office.¹

<i>Building Type</i>	<i>Lg Office</i>	<i>Sm Office</i>	<i>Restaurant</i>	<i>Retail</i>	<i>Grocery</i>	<i>School</i>	<i>Hotel</i>
# of alternate technologies	9	6	10	9	5	10	7
Incremental First Cost for gas desiccant. ²	\$76,641	N/A	\$29,708	\$150,587	\$33,520	\$147,868	\$81,808
	\$75,596			\$164,564	\$29,120	\$147,462	\$84,441
	\$74,551		\$27,633	\$178,540	\$24,720	\$147,055	\$87,074
Summer KW savings.	54.0		3.9	39.4	17.9	29.6	23.4
	60.1		4.4	30.1	23.9	25.6	18.7
	60.2		5.9	28.5	16.9	51.4	27.2
Winter KW Savings	34.3		5.7	0	20.7	0.1	12.0
	6.8		4.6	0	11.0	4.0	1.4
	0.3		11.1	0	9.3	0.2	7.7
Energy Savings (KWHs per year)	113,672		10,382	107,560	147,871	33,665	70,163
	92,470		7,977	64,937	131,231	19,515	39,241
	72,623		15,567	55,000	123,025	18,696	41,231
Incremental Annual O&M	\$1,663		\$3,860	\$4,362	\$377	\$11,837	\$1,620
	\$1,620		\$3,640	\$3,891	\$377	\$11,494	\$1,566
	\$1,576		\$3,420	\$3,420	\$377	\$11,151	\$1,512

¹ A small office is defined as one under 4,000 ft²

² First figure is south, second is for central, and third is for north climate zone

In order to fully assess the operating costs for gas desiccant cooling it is necessary to include the gas usage and gas costs for regenerating the desiccant wheel. The following table shows the gas usage by building type and climate zone.³

Gas Usage for Gas Desiccant Cooling (therms/yr)⁴

<i>Building Type</i>	<i>Lg Office</i>	<i>Sm Office</i>	<i>Restaurant</i>	<i>Retail</i>	<i>Grocery</i>	<i>School</i>	<i>Hotel</i>
South	17,104		3,881	17,782	6,290	6,667	44,021
Central	12,439		2,926	14,114	2,466	2,926	32,324
North	10,045		2,409	11,821	2,109	2,409	26,339

PHASE 2 - Cost-Effectiveness Determination

These results from the building simulations were then used to determine the cost-effectiveness of gas desiccant cooling in FPL's service territory. The impact results by building type and climate zone were then adjusted for the actual building stock in Florida and input into the cost-effectiveness models.

STEP ONE

The initial cost-effectiveness run was with the participant incentive level set to zero to determine the RIM and Participant Test results without incentives. The following table summarizes those results for the GSD and GSLD rate classes⁵.

Rate Class	GSD	GSLD
RIM Test	1.16	1.32
Participant Test	0.10	0.09
Incentive Level	\$0	\$0

STEP TWO

Since the initial cost-effectiveness runs returned a RIM Test greater than 1.0, but the Participant Test was less than 1.0, the next step was to set the incentive levels to the point

³ Gas costs are based on commercial rate of \$0.56/therm.

⁴ Top figure for Miami, middle for Orlando, and third for Jacksonville climate zones.

⁵ The GS rate class was not analyzed because the gas desiccant technology wouldn't be applicable to small buildings.

where the Participant Test is equal to 1.0 and determine if the measure still has a RIM Test greater than 1.0. The following table shows those results.

Rate Class	GSD	GSLD
RIM Test	0.10	0.10
Participant Test	1.00	1.00
Incentive Level	\$ 14,385	\$ 14,429

The result of the cost-effectiveness models shows that gas desiccant cooling cannot pass both the RIM and the Participant Test for any of the two rate classes. Appendix 2 contains the cost-effectiveness runs.

PHASE 3 - Technical Potential

Because gas desiccant cooling did not pass both the RIM and Participant Tests, the third phase of this project – Technical Potential – was not necessary.

PHASE 4 - Achievable Potential

Similarly, because gas desiccant cooling did not pass both the RIM and Participant Tests, the fourth phase of this project – Achievable Potential – was not necessary.

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Gas Desiccant Cooling R&D Project

Appendices

Appendix 1: Original Cost Estimates and Final Expenditures	9
Appendix 2: GSD Cost-Effectiveness Runs without Incentives	10
Appendix 3: GSLD Cost-Effectiveness Runs without Incentives	23
Appendix 4: GSD Cost-Effectiveness Runs with Incentives	36
Appendix 2: GSLD Cost-Effectiveness Runs with Incentives	49

Appendix 1 - Original Cost Estimates and Final Expenditures

	Original Cost Estimates	Final Expenditures
Activity I C/I Dehumidification Project	\$0	\$0
Activity II: Cost-Effectiveness and Market Potential Analysis	\$40,000	\$2,592
Activity III: Submit Final Report	\$5,000	\$2,592

The final expenditures were only \$5,184 which was \$39,816 below our original cost estimates in our petition. The reason for the decrease is that because gas desiccant cooling was not cost-effective, we did not have all the expenses that we expected for doing the market research to determine the market potential of the project.

Appendix 2- GSD Cost-Effectiveness Run without Incentives

The following pages are the complete cost-effectiveness run for the GSD rate class without any customer incentives that was summarized on page 6.

<p>I PROGRAM DEMAND SAVINGS & LINE LOSSES</p> <p>(1) CUSTOMER KW REDUCTION AT METER (2) GENERATOR KW REDUCTION PER CUSTOMER (3) KW LINE LOSS PERCENTAGE (4) GENERATOR KW REDUCTION PER CUSTOMER (5) KW LINE LOSS PERCENTAGE (6) GROUP LINE LOSS MULTIPLIER (7) CUSTOMER KW INCREASE AT METER</p> <p>II ECONOMIC LIFE & K FACTORS</p> <p>(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM (2) GENERATOR ECONOMIC LIFE (3) T&D ECONOMIC LIFE (4) K FACTOR FOR GENERATION (5) K FACTOR FOR T & D</p> <p>III UTILITY & CUSTOMER COSTS</p> <p>(1) UTILITY NON RECURRING COST PER CUSTOMER (2) UTILITY RECURRING COST PER CUSTOMER (3) UTILITY COST ESCALATION RATE (4) CUSTOMER EQUIPMENT COST (5) CUSTOMER EQUIPMENT ESCALATION RATE (6) CUSTOMER O & M COST (7) CUSTOMER O & M COST ESCALATION RATE (8) INCREASED SUPPLY COSTS (9) SUPPLY COSTS ESCALATION RATES (10) UTILITY DISCOUNT RATE (11) UTILITY APOC RATE (12) UTILITY NON RECURRING REBATE/INCENTIVE (13) UTILITY RECURRING REBATE/INCENTIVE (14) UTILITY REBATE/INCENTIVE ESCALATION RATE</p>	<p>IV AVOIDED GENERATOR AND T&D COSTS</p> <p>(1) BASE YEAR (2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT (3) IN-SERVICE YEAR FOR AVOIDED T&D (4) BASE YEAR AVOIDED GENERATING COST (5) BASE YEAR AVOIDED TRANSMISSION COST (6) GEN. TRAN & DIST COST ESCALATION RATE (7) GENERATOR FIXED O & M COST (8) GENERATOR FIXED O&M ESCALATION RATE (9) TRANSMISSION FIXED O & M COST (10) DISTRIBUTION FIXED O & M COST (11) T&D FIXED O&M ESCALATION RATE (12) AVOIDED GEN UNIT VARIABLE O & M COSTS (13) GENERATOR VARIABLE O&M COST ESCALATION RATE (14) GENERATOR CAPACITY FACTOR (15) AVOIDED GENERATING UNIT FUEL COST (16) AVOIDED GEN UNIT FUEL COST ESCALATION RATE</p> <p>V NON-FUEL ENERGY AND DEMAND CHARGES</p> <p>(1) NON-FUEL COST IN CUSTOMER BILL (2) NON-FUEL COST ESCALATION RATE (3) DEMAND CHARGE IN CUSTOMER BILL (4) DEMAND CHARGE ESCALATION RATE</p>	<table border="0"> <tr> <td>1988</td> <td>2005</td> </tr> <tr> <td>518 \$/KW</td> <td>70 \$/KW</td> </tr> <tr> <td>50 \$/KW</td> <td>50 \$/KW</td> </tr> <tr> <td>1.78 %</td> <td>%</td> </tr> <tr> <td>35 \$/KW/YR</td> <td>%</td> </tr> <tr> <td>4.10 %</td> <td>%</td> </tr> <tr> <td>2.73 \$/KW</td> <td>%</td> </tr> <tr> <td>13.01 \$/KW</td> <td>%</td> </tr> <tr> <td>4.10 %</td> <td>%</td> </tr> <tr> <td>0.087 CENTS/\$/KW</td> <td>%</td> </tr> <tr> <td>2.70 %</td> <td>%</td> </tr> <tr> <td>81% (in service year)</td> <td>%</td> </tr> <tr> <td>2.17 CENTS PER KW-HR (in service year)</td> <td>%</td> </tr> <tr> <td>1.15 %</td> <td>%</td> </tr> </table>	1988	2005	518 \$/KW	70 \$/KW	50 \$/KW	50 \$/KW	1.78 %	%	35 \$/KW/YR	%	4.10 %	%	2.73 \$/KW	%	13.01 \$/KW	%	4.10 %	%	0.087 CENTS/\$/KW	%	2.70 %	%	81% (in service year)	%	2.17 CENTS PER KW-HR (in service year)	%	1.15 %	%
1988	2005																													
518 \$/KW	70 \$/KW																													
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35 \$/KW/YR	%																													
4.10 %	%																													
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81% (in service year)	%																													
2.17 CENTS PER KW-HR (in service year)	%																													
1.15 %	%																													

SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
- VALUE SHOWN IS FOR FIRST YEAR ONLY (VALUE VARIES OVER TIME)
- PROGRAM COST CALCULATION VALUES ARE SHOWN ON PAGE 2

* INPUT DATA - PART 1 CONTINUED
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME Z303_06

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$1000	(2) UTILITY INCENTIVES \$1000	(3) OTHER UTILITY COSTS \$1000	(4) TOTAL UTILITY PROGRAM COSTS \$1000	(5) ENERGY CHARGE REVENUE LOSSES \$1000	(6) DEMAND CHARGE REVENUE LOSSES \$1000	(7) PARTICIPANT EQUIPMENT COSTS \$1000	(8) PARTICIPANT DEBU COSTS \$1000	(9) OTHER PARTICIPANT COSTS \$1000	(10) TOTAL PARTICIPANT COSTS \$1000
1998	0	0	0	0	0	0	0	0	0	
1999	0	0	0	0	0	0	0	0	0	
2000	0	0	0	0	0	0	0	0	0	
2001	90	0	0	90	36	0	0	0	0	
2002	92	0	0	92	117	42	4829	508	5437	
2003	95	0	0	95	200	205	5184	1563	6820	
2004	97	0	0	97	262	265	5184	2618	7899	
2005	0	0	0	0	329	324	0	3843	9172	
2006	0	0	0	0	331	318	0	4511	4511	
2007	0	0	0	0	334	318	0	4833	4833	
2008	0	0	0	0	336	318	0	4756	4756	
2009	0	0	0	0	336	318	0	4891	4891	
2010	0	0	0	0	336	318	0	5028	5028	
2011	0	0	0	0	355	307	0	5169	5169	
2012	0	0	0	0	356	298	0	5313	5313	
2013	0	0	0	0	364	288	0	5487	5487	
2014	0	0	0	0	369	297	0	5626	5626	
2015	0	0	0	0	378	298	0	5789	5789	
2016	136	0	0	136	300	295	0	5957	5957	
2017	136	0	0	136	309	282	7437	6130	13567	
2018	143	0	0	143	367	292	7853	6307	12990	
2019	148	0	0	148	392	291	7875	6490	14365	
2020	0	0	0	0	397	290	8103	6619	14782	
2021	0	0	0	0	402	288	0	8812	8812	
2022	0	0	0	0	406	287	0	7072	7072	
2023	0	0	0	0	411	285	0	7277	7277	
2024	0	0	0	0	417	284	0	7468	7468	
2025	0	0	0	0	422	282	0	7705	7705	
2026	0	0	0	0	422	282	0	7705	7705	
NOM	840	0	0	840	8126	8635	515.7	127750	179337	
MPV	300	0	0	300	2390	2080	19778	35409	45387	

NOM	840	0	0	840	8126	8635	515.7	127750	179337
MPV	300	0	0	300	2390	2080	19778	35409	45387

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
 ** NEGATIVE COSTS WILL BE CALCULATED AS POSITIVE BENEFITS FOR TRC AND BNM TESTS

CALCULATION OF GEN X FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME ZMS_08

YEAR	(1) MID YEAR RATE BASE \$ (000)	(2) DEBT \$ (000)	(3) PREFERRED STOCK \$ (000)	(4) COMMON EQUITY \$ (000)	(5) INCOME TAXES \$ (000)	(6) OTHER TAXES & INSURANCE \$ (000)	(7) DEPRECIATION \$ (000)	(8) DEFERRED TAXES \$ (000)	(9) TOTAL FIXED CHARGES \$ (000)	(10) PRESENT WORTH FIXED CHARGES \$ (000)	(11) CUMULATIVE PW FIXED CHARGES \$ (000)
2005	3,063	106	0	213	132	43	103	7	603	603	603
2006	2,963	101	0	204	86	43	103	47	564	536	1,140
2007	2,818	96	0	184	66	43	103	40	563	474	1,613
2008	2,676	92	0	164	66	43	103	35	542	419	2,033
2009	2,540	87	0	175	65	43	103	29	523	371	2,403
2010	2,410	82	0	166	65	43	103	24	504	328	2,731
2011	2,285	76	0	157	84	43	103	20	485	290	3,020
2012	2,164	74	0	149	83	43	103	15	468	256	3,277
2013	2,046	70	0	141	78	43	103	15	450	228	3,503
2014	1,928	66	0	133	73	43	103	15	433	200	3,703
2015	1,810	62	0	124	68	43	103	15	416	178	3,879
2016	1,692	58	0	116	63	43	103	15	399	155	4,034
2017	1,574	54	0	108	58	43	103	15	381	136	4,170
2018	1,456	50	0	100	53	43	103	15	364	119	4,289
2019	1,338	46	0	92	48	43	103	15	347	104	4,393
2020	1,220	42	0	84	43	43	103	15	330	91	4,484
2021	1,102	38	0	76	38	43	103	15	312	79	4,563
2022	984	34	0	68	32	43	103	15	295	68	4,631
2023	866	30	0	60	27	43	103	15	278	58	4,680
2024	748	26	0	51	22	43	103	15	261	51	4,741
2025	643	22	0	44	17	43	103	15	245	44	4,785
2026	564	19	0	36	12	43	103	15	229	38	4,824
2027	497	17	0	34	8	43	103	15	224	34	4,857
2028	431	15	0	30	6	43	103	15	214	30	4,887
2029	365	12	0	25	5	43	103	15	205	26	4,913
2030	298	10	0	21	5	43	103	15	195	23	4,936
2031	232	8	0	16	4	43	103	15	185	20	4,958
2032	166	8	0	11	4	43	103	15	178	17	4,973
2033	99	3	0	7	4	43	103	15	169	15	4,988
2034	33	1	0	2	4	43	103	15	156	13	5,001

IN SERVICE COST (\$000)	IN SERVICE YEAR	BOOK LIFE (YRS)	EFFECTIVE TAX RATE	DISCOUNT RATE	OTAS & PWS RATE
3,086	2005	30	38.57%	8.88%	1.40%
30	2006	30	38.57%	8.88%	1.40%
38,573	2007	30	38.57%	8.88%	1.40%
8,888	2008	30	38.57%	8.88%	1.40%
1,400	2009	30	38.57%	8.88%	1.40%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	45%	7.80%
EQUITY	55%	0.00%
COST	56%	12.30%

W FACTOR = CPWY C / IN-SVC COST = 1.81524

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV. REQ
PROGRAM NA 2383 BR

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION	ACCUMULATED TAX DEPRECIATION	BOOK DEPRECIATION	ACCUMULATED DEPRECIATION	BOOK DEPRECIATION	ACCUMULATED DEPRECIATION	TAX DUE TO DEFERRAL	TOTAL EQUITY AFLOC	BOOK DEPR RATE	(10%/11) TAX RATE	SALVAGE TAX RATE	ANNUAL DEFERRED TAX	ACCUMULATED DEFERRED TAX
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	MPY'S LIFE	(\$000)	(\$000)	(\$000)	(\$000)
2005	3.75%	113	113	103	103	96	96	7	229	0	0	0	7	1
2006	7.2%	217	329	103	206	96	191	47	229	0	0	0	47	1
2007	8.6%	300	630	103	310	96	287	40	229	0	0	0	40	42
2008	8.1%	165	715	103	413	96	382	35	229	0	0	0	35	78
2009	5.71%	171	887	103	516	96	478	29	229	0	0	0	29	106
2010	5.2%	159	1,045	103	619	96	573	24	229	0	0	0	24	130
2011	4.8%	147	1,192	103	722	96	669	20	229	0	0	0	20	150
2012	4.52%	136	1,328	103	826	96	765	15	229	0	0	0	15	165
2013	4.4%	134	1,462	103	929	96	860	15	229	0	0	0	15	180
2014	4.4%	134	1,596	103	1,032	96	956	15	229	0	0	0	15	195
2015	4.4%	134	1,729	103	1,135	96	1,051	15	229	0	0	0	15	210
2016	4.4%	134	1,863	103	1,238	96	1,147	15	229	0	0	0	15	224
2017	4.4%	134	1,997	103	1,342	96	1,242	15	229	0	0	0	15	239
2018	4.4%	134	2,131	103	1,445	96	1,338	15	229	0	0	0	15	254
2019	4.4%	134	2,265	103	1,548	96	1,433	15	229	0	0	0	15	269
2020	4.4%	134	2,399	103	1,651	96	1,529	15	229	0	0	0	15	284
2021	4.4%	134	2,533	103	1,754	96	1,625	15	229	0	0	0	15	298
2022	4.4%	134	2,667	103	1,856	96	1,720	15	229	0	0	0	15	313
2023	4.4%	134	2,801	103	1,958	96	1,816	15	229	0	0	0	15	328
2024	4.4%	134	2,935	103	2,060	96	1,911	15	229	0	0	0	15	343
2025	2.23%	67	3,002	103	2,162	96	2,007	(11)	229	0	0	0	(11)	332
2026	0.00%	0	3,002	103	2,270	96	2,102	(37)	229	0	0	0	(37)	295
2027	0.00%	0	3,002	103	2,374	96	2,198	(37)	229	0	0	0	(37)	258
2028	0.00%	0	3,002	103	2,477	96	2,294	(37)	229	0	0	0	(37)	221
2029	0.00%	0	3,002	103	2,580	96	2,389	(37)	229	0	0	0	(37)	184
2030	0.00%	0	3,002	103	2,683	96	2,485	(37)	229	0	0	0	(37)	147
2031	0.00%	0	3,002	103	2,786	96	2,580	(37)	229	0	0	0	(37)	111
2032	0.00%	0	3,002	103	2,890	96	2,676	(37)	229	0	0	0	(37)	74
2033	0.00%	0	3,002	103	2,993	96	2,771	(37)	229	0	0	0	(37)	37
2034	0.00%	0	3,002	103	3,096	96	2,867	(37)	229	0	0	0	(37)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2026
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(52)
TOTAL EQUITY AFLOC CAPITALIZED (SEE PAGE 5)	229
BOOK DEPR RATE - USEFUL LIFE	3.33%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NA 2363_28

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATOR	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE
	(\$'000)	(\$'000)	(\$'000)	(\$'000)	(\$'000)	(\$'000)	(\$'000)
2005	3.75%	113	7	2,883	103	146	3,148
2006	7.27%	217	47	2,890	208	1	3,038
2007	8.69%	300	40	2,788	310	42	2,868
2008	8.18%	185	35	2,853	413	78	2,745
2009	5.71%	171	28	2,580	518	108	2,607
2010	5.29%	158	24	2,477	618	130	2,474
2011	4.89%	147	20	2,374	722	150	2,347
2012	4.52%	138	15	2,270	828	165	2,224
2013	4.48%	134	15	2,197	929	180	2,105
2014	4.46%	134	15	2,064	1,032	195	1,987
2015	4.46%	134	15	1,981	1,135	210	1,869
2016	4.46%	134	15	1,858	1,238	224	1,751
2017	4.46%	134	15	1,754	1,342	238	1,633
2018	4.46%	134	15	1,651	1,445	254	1,515
2019	4.46%	134	15	1,548	1,548	269	1,387
2020	4.46%	134	15	1,445	1,651	284	1,270
2021	4.46%	134	15	1,342	1,754	298	1,151
2022	4.46%	134	15	1,238	1,858	313	1,043
2023	4.46%	134	15	1,135	1,961	328	925
2024	4.46%	134	15	1,032	2,064	343	807
2025	2.73%	87	(11)	829	2,167	332	689
2026	0.00%	0	(37)	829	2,270	295	567
2027	0.00%	0	(37)	722	2,374	258	444
2028	0.00%	0	(37)	618	2,477	221	308
2029	0.00%	0	(37)	518	2,580	184	164
2030	0.00%	0	(37)	413	2,683	147	11
2031	0.00%	0	(37)	310	2,788	111	285
2032	0.00%	0	(37)	208	2,890	74	198
2033	0.00%	0	(37)	103	2,993	37	133
2034	0.00%	0	(37)	(6)	3,096	0	66

* Column not identified in worksheets

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$AW)	(7) CUMULATIVE AVERAGE SPENDING (\$AW)
1999	7	0.00%	1.000	0.00%	0.00	0.00
1999	4	1.78%	1.018	0.00%	0.00	0.00
2000	5	1.53%	1.033	0.32%	1.72	0.86
2001	4	2.64%	1.081	0.60%	3.58	3.51
2002	3	2.82%	1.088	13.60%	79.24	44.42
2003	2	3.20%	1.113	32.34%	204.20	165.63
2004	1	2.27%	1.138	49.84%	264.50	434.98

100.00% 542.24

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) CUMULATIVE SPENDING WITH AFLOC (\$AW)	(4) DEBT AFLOC (\$AW)	(5) CUMULATIVE DEBT AFLOC (\$AW)	(6) YEARLY TOTAL AFLOC (\$AW)	(7) CUMULATIVE TOTAL AFLOC (\$AW)	(8) CONSTRUCTION PERIOD INTEREST (\$AW)	(9) CUMULATIVE CPN (\$AW)	(10) DEFERRED TAXES (\$AW)	(11) CUMULATIVE DEFERRED TAXES (\$AW)	(12) YEAR-END BOOK VALUE (\$AW)	(13) INCREMENTAL YEAR-END BOOK VALUE (\$AW)	(14) CUMULATIVE YEAR-END BOOK VALUE (\$AW)
1999	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	5	0.86	0.03	0.08	0.08	0.08	0.07	0.07	0.01	0.01	1.80	1.80	1.80
2001	4	3.58	0.12	0.15	0.37	0.48	0.27	0.34	0.08	0.07	3.85	5.75	5.75
2002	3	44.88	1.54	1.69	4.83	5.08	3.40	3.74	6.72	10.79	82.87	86.62	86.62
2003	2	190.72	8.55	8.24	19.72	24.80	14.30	18.13	3.03	13.82	223.91	313.54	313.54
2004	1	459.79	15.86	24.09	47.73	72.53	34.44	52.57	7.17	110.88	342.23	654.77	654.77

24.09

72.53

52.57

(10.88)

654.77

	BOOK BASIS	FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	2,793	2,793	2,793
EQUITY AFLOC	229	114	114
DEBT AFLOC	114	114	114
CPN	3,068	2,887	3,025
TOTAL	3,068	2,887	3,025

IN SERVICE YEAR 2005
PLANT COSTS \$19
AFLOC RATE 10.30%

* Column not identified in worksheet

INPUT DATA - PART 2
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z383_06

(1) YEAR	(2) CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	(3) ADJUSTED CUMULATIVE CUSTOMERS	(4) UTILITY AVERAGE SYSTEM FUEL COST (CANS)	(5) AVOIDED MARGINAL FUEL COST (CANS)	(6)* INCREASED MARGINAL FUEL COST (CANS)	(7) REPLACEMENT PROGRAM W/ PROGRAM W/ FUEL COST EFFECTIVENESS FACTOR	(8) REPLACEMENT PROGRAM W/ PROGRAM W/ FUEL COST EFFECTIVENESS FACTOR	(9) PROGRAM W/ FUEL COST EFFECTIVENESS FACTOR
1999	0	0	2.00	2.38	2.05	0.00	1.00	1.00
2000	0	0	2.23	2.87	2.33	0.00	1.00	1.00
2001	1,000	1,000	2.45	2.87	2.57	0.00	1.00	1.00
2002	2,000	2,000	2.73	3.49	2.89	0.00	1.00	1.00
2003	3,000	3,000	2.81	3.18	2.77	0.00	1.00	1.00
2004	4,000	4,000	2.80	3.28	2.74	0.00	1.00	1.00
2005	4,000	4,000	2.78	3.55	2.94	0.00	1.00	1.00
2006	4,000	4,000	2.83	3.84	3.11	3.25	1.00	1.00
2007	4,000	4,000	3.13	3.95	3.20	3.34	1.00	1.00
2008	4,000	4,000	3.07	4.27	3.35	3.48	1.00	1.00
2009	4,000	4,000	3.15	4.12	3.27	3.45	1.00	1.00
2010	4,000	4,000	3.14	4.28	3.38	3.80	1.00	1.00
2011	4,000	4,000	3.32	4.40	3.35	3.57	1.00	1.00
2012	4,000	4,000	3.38	4.55	3.55	3.71	1.00	1.00
2013	4,000	4,000	3.47	4.80	3.82	3.77	1.00	1.00
2014	4,000	4,000	3.55	4.84	3.72	3.84	1.00	1.00
2015	4,000	4,000	3.58	4.88	3.79	3.82	1.00	1.00
2016	4,000	4,000	3.62	5.07	3.83	3.95	1.00	1.00
2017	4,000	4,000	3.75	5.38	3.88	4.00	1.00	1.00
2018	4,000	4,000	3.83	5.87	4.21	4.13	1.00	1.00
2019	4,000	4,000	4.00	5.89	4.29	4.35	1.00	1.00
2020	4,000	4,000	4.23	6.21	4.50	4.78	1.00	1.00
2021	4,000	4,000	4.32	6.38	4.64	4.88	1.00	1.00
2022	4,000	4,000	4.41	6.57	4.75	4.87	1.00	1.00
2023	4,000	4,000	4.53	6.77	4.88	5.10	1.00	1.00
2024	4,000	4,000	4.64	6.99	5.00	5.23	1.00	1.00

* THIS COLUMN IS USED ONLY FOR LOAD SHIFTING PROGRAMS WHICH SHIFT CONSUMPTION TO OFF PEAK PERIODS
THE VALUES REPRESENT THE OFF PEAK SYSTEM FUEL COSTS

AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME 2303_08

YEAR	(2) AVOIDED GEN UNIT CAPACITY COS \$1000	(3) AVOIDED GEN UNIT FIXED O&M \$1000	(4) AVOIDED GEN UNIT VARIABLE O&M \$1000	(5) AVOIDED GEN UNIT \$1000	(6) AVOIDED GEN UNIT REPLACEMENT FUEL COST \$1000	(7) AVOIDED GEN UNIT BENEFITS \$1000
1999	0	0	0	0	0	0
2000	0	0	0	0	0	0
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	823	218	30	818	1,224	443
2006	564	225	32	855	1,295	402
2007	583	234	34	881	1,372	340
2008	542	243	34	881	1,364	358
2009	523	253	35	882	1,380	307
2010	504	263	35	889	1,333	337
2011	485	274	36	881	1,387	269
2012	466	285	37	807	1,409	287
2013	450	296	37	835	1,421	298
2014	433	308	38	862	1,438	305
2015	416	320	39	879	1,445	310
2016	399	333	40	869	1,449	318
2017	381	347	41	1,038	1,503	282
2018	364	360	42	1,057	1,598	238
2019	347	375	44	1,064	1,678	182
2020	330	390	45	1,127	1,787	125
2021	312	405	47	1,152	1,800	117
2022	295	422	48	1,179	1,834	110
2023	278	438	49	1,331	1,879	218
2024	261	458	51	1,331	1,927	171

NCM	8,338	6,448	764	20,182	30,694	5,445
MPV	2,508	1,577	202	5,195	7,648	1,804

18

AVOIDED T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED REV_REG
PROGRAM NAME Z303_00

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$1000	(3) AVOIDED TRANSMISSION O&M COST \$1000	(4) TOTAL AVOIDED TRANSMISSION CAP COST \$1000	(5) AVOIDED DISTRIBUTION CAP COST \$1000	(6) AVOIDED DISTRIBUTION O&M COST \$1000	(7) TOTAL AVOIDED DISTRIBUTION CAP COST \$1000	(8) TOTAL AVOIDED DISTRIBUTION O&M COST \$1000	(9) PROGRAM OFF PEAK FUEL SAVINGS \$1000	(10) PROGRAM OFF PEAK PAYBACK \$1000
1998	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0
2002	16	4	20	10	18	27	27	100	37
2003	31	8	39	20	34	59	55	174	0
2004	47	12	59	30	53	89	84	283	0
2005	62	17	79	40	74	119	114	328	0
2006	80	18	98	27	38	125	116	308	0
2007	57	18	75	37	60	112	117	368	0
2008	56	18	74	37	60	111	117	368	0
2009	53	20	73	34	66	107	119	354	0
2010	51	21	72	33	66	105	123	368	0
2011	49	22	71	32	63	103	125	382	0
2012	47	22	70	31	67	101	128	405	0
2013	45	23	68	29	101	97	130	419	0
2014	43	24	67	28	105	95	133	432	0
2015	41	25	67	27	108	94	136	441	0
2016	39	26	65	26	114	92	139	450	0
2017	38	27	65	24	118	90	143	469	0
2018	36	28	64	23	123	89	148	485	0
2019	34	30	64	22	128	87	150	534	0
2020	32	31	63	21	133	85	154	544	0
2021	30	32	62	19	138	83	158	580	0
2022	28	33	61	18	144	82	162	577	0
2023	26	35	61	17	150	81	167	595	0
2024	25	36	61	16	156	81	172	615	0

NOM	648	531	1,437	615	2,304	2,818	8,624	0	0
NPV	321	139	481	208	654	813	2,423	0	0

* THE SE VALUES REPRESENT THE COST OF THE INCREASED FUEL CONSUMPTION DUE TO CATALYTIC OFF PEAK FUEL NOT USUALLY USED FOR LOAD SHEDDING PROGRAMS ONLY

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z383_98

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$ (000)	UTILITY PROGRAM COSTS \$ (000)	PARTICIPANT PROGRAM COSTS \$ (000)	OTHER COSTS \$ (000)	TOTAL COSTS \$ (000)	AVOIDED GEN UNIT BENEFITS \$ (000)	AVOIDED T&D BENEFITS \$ (000)	PROGRAM FUEL SAVINGS \$ (000)	OTHER BENEFITS \$ (000)	TOTAL BENEFITS \$ (000)	NET BENEFITS \$ (000)	CUMULATIVE DISCOUNTED NET BENEFITS \$ (000)
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	90	5,437	0	5,527	0	0	37	0	37	(5,490)	(4,242)
2002	0	92	8,620	0	8,713	0	48	100	0	148	(8,565)	(8,858)
2003	0	95	7,859	0	7,954	0	84	174	0	258	(7,696)	(13,808)
2004	0	87	8,172	0	8,259	0	143	263	0	406	(8,853)	(19,198)
2005	0	0	4,511	0	4,511	443	163	328	0	964	(3,547)	(21,141)
2006	0	0	4,833	0	4,833	402	183	338	0	132	(3,701)	(23,002)
2007	0	0	4,758	0	4,758	340	183	368	0	901	(3,857)	(24,781)
2008	0	0	4,891	0	4,891	258	183	354	0	905	(3,986)	(28,499)
2009	0	0	5,028	0	5,028	307	184	354	0	967	(4,062)	(28,285)
2010	0	0	5,168	0	5,168	337	186	362	0	914	(4,255)	(29,802)
2011	0	0	5,312	0	5,312	289	187	362	0	878	(4,438)	(31,053)
2012	0	0	5,487	0	5,487	287	187	405	0	890	(4,577)	(32,427)
2013	0	0	5,626	0	5,626	298	189	419	0	916	(4,710)	(33,724)
2014	0	0	5,789	0	5,789	305	201	432	0	938	(4,851)	(34,950)
2015	0	0	5,957	0	5,957	310	203	441	0	953	(5,004)	(36,111)
2016	0	136	13,680	0	13,702	318	205	450	0	973	(12,729)	(38,820)
2017	0	136	13,900	0	14,100	362	207	469	0	968	(13,132)	(41,345)
2018	0	143	14,305	0	14,508	238	210	495	0	941	(13,587)	(43,817)
2019	0	148	14,782	0	14,829	182	213	524	0	919	(14,010)	(46,121)
2020	0	0	6,872	0	6,872	125	218	544	0	885	(5,987)	(47,025)
2021	0	0	7,072	0	7,072	117	218	560	0	898	(6,178)	(47,862)
2022	0	0	7,277	0	7,277	110	223	577	0	910	(6,267)	(48,689)
2023	0	0	7,488	0	7,488	218	228	595	0	1,040	(6,447)	(49,441)
2024	0	0	7,705	0	7,705	171	232	615	0	1,018	(6,587)	(50,156)

1999	0	840	178,327	0	180,267	5,445	4,385	9,824	0	19,464	(180,802)	
2000	0	360	50,387	0	55,747	1,684	1,274	2,623	0	5,581	(50,156)	

Discount Rate
Benefit/Cost Ratio (Cum11) / (Cum0)

8.98
0.15

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z83_00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$1000	TAX CREDITS \$1000	UTILITY REBATES \$1000	OTHER BENEFITS \$1000	TOTAL BENEFITS \$1000	CUSTOMER EQUIPMENT COSTS \$1000	CUSTOMER O&M COSTS \$1000	OTHER COSTS \$1000	TOTAL COSTS \$1000	NET BENEFITS \$1000	CUMULATIVE DISCOUNTED NET BENEFITS \$1000
1998	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0
2001	85	0	0	0	85	4,829	508	0	5,437	(5,342)	(4,126)
2002	262	0	0	0	262	5,057	1,583	0	6,620	(6,326)	(8,622)
2003	476	0	0	0	476	5,184	2,676	0	7,860	(7,384)	(13,433)
2004	667	0	0	0	667	5,329	3,843	0	9,172	(8,509)	(18,511)
2005	788	0	0	0	788	0	4,511	0	4,511	(3,742)	(20,561)
2006	786	0	0	0	786	0	4,833	0	4,833	(3,867)	(22,505)
2007	789	0	0	0	789	0	4,756	0	4,756	(3,866)	(24,345)
2008	772	0	0	0	772	0	4,861	0	4,861	(4,116)	(28,066)
2009	772	0	0	0	772	0	5,028	0	5,028	(4,256)	(27,742)
2010	787	0	0	0	787	0	5,188	0	5,188	(4,362)	(28,304)
2011	785	0	0	0	785	0	5,313	0	5,313	(4,526)	(28,785)
2012	791	0	0	0	791	0	5,467	0	5,467	(4,676)	(32,186)
2013	795	0	0	0	795	0	5,628	0	5,628	(4,831)	(33,520)
2014	805	0	0	0	805	0	5,789	0	5,789	(4,983)	(34,760)
2015	809	0	0	0	809	0	5,957	0	5,957	(5,146)	(35,874)
2016	814	0	0	0	814	7,437	8,130	0	13,567	(12,753)	(38,668)
2017	815	0	0	0	815	7,653	8,307	0	13,960	(13,145)	(41,256)
2018	820	0	0	0	820	7,875	8,480	0	14,365	(13,540)	(43,663)
2019	825	0	0	0	825	8,103	8,678	0	14,782	(13,927)	(45,879)
2020	830	0	0	0	830	8,325	8,872	0	15,207	(14,312)	(47,893)
2021	836	0	0	0	836	8,548	9,072	0	15,620	(14,696)	(49,702)
2022	841	0	0	0	841	8,771	9,277	0	16,048	(15,079)	(51,411)
2023	847	0	0	0	847	8,994	9,488	0	16,482	(15,461)	(52,948)
2024	852	0	0	0	852	9,217	9,705	0	16,922	(15,843)	(54,060)
2024	17,818	0	0	0	17,818	51,577	127,750	0	179,327	(161,707)	(50,060)
NPV	5,307	0	0	0	5,307	16,779	35,608	0	55,387	(50,060)	(50,060)

In Service of Gen Line
Discount Rate
Numerator/Net Ratio (F with / C in 10)

2025
8.00 %
8.10 %

RATE IMPACT TEST
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME ZM3_96

(1) YEAR	(2) INCREASED SUPPLY COSTS \$1000	(3) UTILITY PROGRAM COSTS \$1000	(4) P-CENTIVES \$1000	(5) REVENUE LOSSES \$1000	(6) OTHER COSTS \$1000	(7) TOTAL COSTS \$1000	(8) AVOIDED GEN UNIT & FUEL BENEFITS \$1000	(9) AVOIDED TLD BENEFITS \$1000	(10) REVENUE GAINS \$1000	(11) OTHER BENEFITS \$1000	(12) TOTAL BENEFITS \$1000	(13) NET BENEFITS \$1000	(14) CUMULATIVE DISCOUNTED NET BENEFITS \$1000
1999	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	90	0	81	0	171	37	0	0	0	37	(134)	(104)
2003	0	82	0	241	0	323	100	48	0	0	148	(187)	(238)
2004	0	95	0	405	0	500	174	84	0	0	258	(232)	(308)
2005	0	97	0	588	0	685	283	143	0	0	426	(259)	(542)
2006	0	0	0	853	0	853	711	183	0	0	894	311	(372)
2007	0	0	0	848	0	848	739	183	0	0	932	242	(230)
2008	0	0	0	852	0	852	708	183	0	0	901	248	(115)
2009	0	0	0	855	0	855	712	183	0	0	905	250	(8)
2010	0	0	0	854	0	854	873	184	0	0	887	214	74
2011	0	0	0	862	0	862	718	185	0	0	814	251	163
2012	0	0	0	858	0	858	682	186	0	0	878	219	235
2013	0	0	0	883	0	883	693	187	0	0	880	227	303
2014	0	0	0	898	0	898	717	189	0	0	818	250	372
2015	0	0	0	872	0	872	737	201	0	0	838	288	438
2016	0	138	0	875	0	875	790	203	0	0	853	278	504
2017	0	138	0	878	0	878	768	205	0	0	873	278	538
2018	0	143	0	879	0	879	790	207	0	0	888	148	587
2019	0	148	0	888	0	888	731	210	0	0	841	115	567
2020	0	0	0	888	0	888	708	213	0	0	819	88	602
2021	0	0	0	888	0	888	688	218	0	0	885	188	631
2022	0	0	0	888	0	888	677	218	0	0	885	203	658
2023	0	0	0	700	0	700	688	223	0	0	810	213	688
2024	0	0	0	704	0	704	813	238	0	0	1,040	340	728
2024	0	0	0	704	0	704	788	232	0	0	1,018	314	780

NCM	0	842	0	14,783	0	15,625	15,068	4,385	0	0	18,454	3,781	
suply	0	360	0	4,671	0	4,831	4,317	1,274	0	0	5,591	780	

Discount Rate
Benefit-Cost Ratio (Col(12) / Col(7))

0.08 %
1.18

Appendix 3- GSLD Cost-Effectiveness Run without Incentives

The following pages are the complete cost-effectiveness run for the GSLD rate class without any customer incentives that was summarized on page 6.

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME ZM2_98

PROGRAM DEMAND SAVINGS & LINE LOSSES		AVOIDED GENERATOR AND T&D COSTS	
(1) CUSTOMER KW REDUCTION AT METER	0.92 KW	(1) BASE YEAR	1998
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.18 KW	(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2005
(3) KW LINE LOSS PERCENTAGE	9.01 %	(3) IN-SERVICE YEAR FOR AVOIDED T&D	2001, 2002
(4) GENERATOR KW REDUCTION PER CUSTOMER	1,968.2 KWH	(4) BASE YEAR AVOIDED GENERATING COST	519 \$/KW
(5) KW LINE LOSS PERCENTAGE	7.02 %	(5) BASE YEAR AVOIDED TRANSMISSION COST	70 \$/KW
(6) GROUP LINE LOSS MULTIPLIER	1.0000	(6) BASE YEAR DISTRIBUTION COST	50 \$/KW
(7) CUSTOMER KW INCREASE AT METER	0.0 KWH	(7) GEN. TRAN & DIST COST ESCALATION RATE	1.78 %
		(8) GENERATOR FIXED O & M COST	35 \$/KW/YR
ECONOMIC LIFE & K FACTORS		(9) GENERATOR FIXED O&M ESCALATION RATE	4.10 %
(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	27 YEARS	(10) TRANSMISSION FIXED O & M COST	2.73 \$/KW
(2) GENERATOR ECONOMIC LIFE	30 YEARS	(11) DISTRIBUTION FIXED O & M COST	13.01 \$/KW
(3) T&D ECONOMIC LIFE	30 YEARS	(12) T&D FIXED O&M ESCALATION RATE	4.10 %
(4) K FACTOR FOR GENERATION	1.9124	(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	0.067 CENTS/\$/KW
(5) K FACTOR FOR T & D	1.48855	(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	2.70 %
UTILITY & CUSTOMER COSTS		(15) GENERATOR CAPACITY FACTOR	91% -- (in service year)
(1) UTILITY NON RECURRING COST PER CUSTOMER	--- \$/CUST	(16) AVOIDED GENERATING UNIT FUEL COST	1.75 %
(2) UTILITY RECURRING COST PER CUSTOMER	--- \$/CUST	(17) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	--- %
(3) UTILITY COST ESCALATION RATE	--- %	NON-FUEL ENERGY AND DEMAND CHARGES	
(4) CUSTOMER EQUIPMENT COST	--- \$/CUST	(1) NON FUEL COST IN CUSTOMER BILL	--- CENTS/\$/KW
(5) CUSTOMER EQUIPMENT ESCALATION RATE	--- %	(2) NON-FUEL COST ESCALATION RATE	--- %
(6) CUSTOMER O & M COST	--- \$/CUST/YR	(3) DEMAND CHARGE IN CUSTOMER BILL	--- \$/KW/MD
(7) CUSTOMER O & M COST ESCALATION RATE	--- %	(4) DEMAND CHARGE ESCALATION RATE	--- %
(8) INCREASED SUPPLY COSTS	--- \$/CUST/YR		
(9) SUPPLY COSTS ESCALATION RATES	---		
(10) UTILITY DISCOUNT RATE	---		
(11) UTILITY APJUDC RATE	8.98 %		
(12) UTILITY NON RECURRING REBATE/INCENTIVE	10.30		
(13) UTILITY RECURRING REBATE/INCENTIVE	---		
(14) UTILITY REBATE/INCENTIVE ESCALATION RATE	---		

SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
-- VALUE SHOWN IS FOR FIRST YEAR ONLY (VALUE VARIES OVER TIME)
--- PROGRAM COST CALCULATION VALUES ARE SHOWN ON PAGE 2

* INPUT DATA - PART 1 CONTINUED
 PROGRAM METHOD=SELECTED REV_REQ
 PROGRAM NAME ZND_08

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$1000	(2) UTILITY INCENTIVES \$1000	(3) OTHER UTILITY COSTS \$1000	(4) TOTAL UTILITY PROGRAM COSTS \$1000	(5) ENERGY CHARGE REVENUE LOSSES \$1000	(6) DEMAND CHARGE REVENUE LOSSES \$1000	(7) PARTICIPANT EQUIPMENT COSTS \$1000	(8) PARTICIPANT O&M COSTS \$1000	(9) OTHER PARTICIPANT COSTS \$1000	(10) TOTAL PARTICIPANT COSTS \$1000
1999	0	0	0	0	0	0	0	0	0	
2000	0	0	0	0	0	0	0	0	0	
2001	90	0	0	90	0	0	0	0	0	
2002	92	0	0	92	0	0	4,929	508	5,437	
2003	95	0	0	95	203	0	5,057	1,563	6,620	
2004	97	0	0	97	343	0	5,184	2,818	7,899	
2005	0	0	0	0	481	0	5,328	3,843	9,172	
2006	0	0	0	0	569	0	0	4,511	4,511	
2007	0	0	0	0	555	0	0	4,833	4,833	
2008	0	0	0	0	558	0	0	4,758	4,758	
2009	0	0	0	0	560	0	0	4,891	4,891	
2010	0	0	0	0	560	0	0	5,028	5,028	
2011	0	0	0	0	574	0	0	5,169	5,169	
2012	0	0	0	0	579	0	0	5,313	5,313	
2013	0	0	0	0	582	0	0	5,467	5,467	
2014	0	0	0	0	589	0	0	5,626	5,626	
2015	0	0	0	0	593	0	0	5,789	5,789	
2016	136	0	0	136	597	0	7,437	5,957	13,967	
2017	139	0	0	139	598	0	7,863	6,130	13,990	
2018	143	0	0	143	602	0	7,875	6,490	14,365	
2019	148	0	0	148	608	0	8,103	6,679	14,782	
2020	0	0	0	0	610	0	0	6,872	6,872	
2021	0	0	0	0	614	0	0	7,072	7,072	
2022	0	0	0	0	618	0	0	7,277	7,277	
2023	0	0	0	0	621	0	0	7,488	7,488	
2024	0	0	0	0	628	0	0	7,705	7,705	
NOM	840	0	0	840	12,887	0	51,537	127,750	179,327	
NPV	380	0	0	380	3,881	0	19,778	35,808	48,367	

NOM	840	0	0	840	12,887	0	51,537	127,750	179,327
NPV	380	0	0	380	3,881	0	19,778	35,808	48,367

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK

** NEGATIVE COSTS WILL BE CALCULATED AS POSITIVE BENEFITS FOR TRC AND RIM TESTS

CALCULATION OF GEN K FACTOR
PROGRAM METHOD SELECTED REV_REG
PROGRAM NAME Z302_06

YEAR	(2) MO-YEAR RATE BASE \$1000	(3) DEBT \$1000	(4) PREFERRED STOCK \$1000	(5) COMMON EQUITY \$1000	(6) INCOME TAXES \$1000	(7) OTHER TAXES & INSURANCE \$1000	(8) DEPREC \$1000	(9) DEFERRED TAXES \$1000	(10) TOTAL FIXED CHARGES \$1000	(11) PRESENT WORTH \$1000	(12) CUMULATIVE PW FIXED CHARGES \$1000
2005	3,063	108	0	213	132	43	103	7	603	603	603
2006	2,983	101	0	204	86	43	103	47	564	536	1,140
2007	2,816	96	0	184	86	43	103	40	563	474	1,613
2008	2,678	82	0	164	86	43	103	35	542	419	2,033
2009	2,540	87	0	175	86	43	103	26	523	371	2,403
2010	2,410	82	0	169	86	43	103	24	504	328	2,731
2011	2,285	78	0	157	84	43	103	20	485	290	3,020
2012	2,164	74	0	149	83	43	103	15	468	254	3,277
2013	2,048	70	0	141	78	43	103	15	450	226	3,503
2014	1,928	66	0	133	73	43	103	15	433	200	3,703
2015	1,810	62	0	124	68	43	103	15	418	178	3,879
2016	1,692	58	0	116	63	43	103	15	389	155	4,024
2017	1,574	54	0	108	58	43	103	15	361	136	4,170
2018	1,458	50	0	100	53	43	103	15	364	119	4,289
2019	1,338	46	0	92	48	43	103	15	347	104	4,383
2020	1,220	42	0	84	43	43	103	15	330	91	4,464
2021	1,102	38	0	76	38	43	103	15	312	79	4,503
2022	984	34	0	68	32	43	103	15	295	68	4,531
2023	868	30	0	60	27	43	103	15	278	59	4,550
2024	748	26	0	51	22	43	103	15	261	51	4,561
2025	643	22	0	44	17	43	103	15	245	44	4,565
2026	564	19	0	39	12	43	103	15	224	38	4,562
2027	487	17	0	34	8	43	103	15	204	34	4,552
2028	431	15	0	30	6	43	103	15	184	30	4,537
2029	385	12	0	25	5	43	103	15	164	26	4,513
2030	298	10	0	21	5	43	103	15	144	23	4,480
2031	232	8	0	18	5	43	103	15	124	20	4,439
2032	188	8	0	11	4	43	103	15	104	17	4,393
2033	88	5	0	7	4	43	103	15	84	15	4,343
2034	33	1	0	2	4	43	103	15	64	13	4,289

IN SERVICE COS (\$000) 3,006
IN SERVICE YEAR 2005
BOOK LIFE (YRS) 30
EFFEC. TAX RATE 38.51%
DISCOUNT RATE 8.88%
OTAX & INS RATE 1.40%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	43%	7.60%
INS	0%	0.00%
CS	50%	12.50%

K FACTOR = CPMWC / PW BVC COS * = 1.8124

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NA 2382_06

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX SCHEDULE	TAX DEPRECIATION	ACCUMULATED TAX	BOOK DEPR	ACCUMULATED DEPR	BOOK DEPR	ACCUMULATED DEPR	DEFERRED TAX DUE TO	TOTAL EQUITY AF-LOC	BOOK DEPR RATE MINUS 14.6%	(10)(11) TAX RATE	SALVAGE TAX RATE	ANNUAL DEFERRED TAX	ACCUMULATED DEFERRED TAX
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	MINUS 14.6%	(\$000)	(\$000)	(\$000)	(\$000)
2006	3.7%	113	113	103	103	98	98	7	228	0	0	0	47	145
2008	7.2%	217	329	103	208	98	191	47	228	0	0	0	7	152
2007	6.6%	200	530	103	310	98	287	40	228	0	0	0	40	192
2008	6.1%	185	715	103	413	98	382	35	228	0	0	0	35	227
2008	5.7%	171	887	103	516	98	478	29	228	0	0	0	29	256
2010	5.2%	158	1,045	103	619	98	573	24	228	0	0	0	24	280
2011	4.8%	147	1,192	103	722	98	669	20	228	0	0	0	20	300
2012	4.5%	138	1,328	103	826	98	765	15	228	0	0	0	15	315
2013	4.4%	134	1,462	103	929	98	860	15	228	0	0	0	15	330
2014	4.4%	134	1,598	103	1,032	98	956	15	228	0	0	0	15	345
2015	4.4%	134	1,729	103	1,135	98	1,051	15	228	0	0	0	15	360
2016	4.4%	134	1,863	103	1,238	98	1,147	15	228	0	0	0	15	375
2017	4.4%	134	1,997	103	1,342	98	1,242	15	228	0	0	0	15	390
2018	4.4%	134	2,131	103	1,445	98	1,338	15	228	0	0	0	15	405
2019	4.4%	134	2,265	103	1,548	98	1,433	15	228	0	0	0	15	420
2020	4.4%	134	2,399	103	1,651	98	1,529	15	228	0	0	0	15	435
2021	4.4%	134	2,533	103	1,754	98	1,625	15	228	0	0	0	15	450
2022	4.4%	134	2,667	103	1,858	98	1,720	15	228	0	0	0	15	465
2023	4.4%	134	2,801	103	1,961	98	1,816	15	228	0	0	0	15	480
2024	4.4%	134	2,935	103	2,064	98	1,911	15	228	0	0	0	15	495
2025	2.2%	67	3,002	103	2,167	98	2,007	(11)	228	0	0	0	(11)	510
2026	0.0%	0	3,002	103	2,270	98	2,102	(37)	228	0	0	0	(37)	525
2027	0.0%	0	3,002	103	2,374	98	2,198	(37)	228	0	0	0	(37)	540
2028	0.0%	0	3,002	103	2,477	98	2,294	(37)	228	0	0	0	(37)	555
2029	0.0%	0	3,002	103	2,580	98	2,389	(37)	228	0	0	0	(37)	570
2030	0.0%	0	3,002	103	2,683	98	2,485	(37)	228	0	0	0	(37)	585
2031	0.0%	0	3,002	103	2,786	98	2,580	(37)	228	0	0	0	(37)	600
2032	0.0%	0	3,002	103	2,889	98	2,676	(37)	228	0	0	0	(37)	615
2033	0.0%	0	3,002	103	2,992	98	2,771	(37)	228	0	0	0	(37)	630
2034	0.0%	0	3,002	103	3,095	98	2,867	(37)	228	0	0	0	(37)	645

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2028
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(52)
TOTAL EQUITY AF-LOC CAPITALIZED (SEE PAGE 5)	279
BOOK DEPR RATE - MAUREAU LIFE	3.37%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAV ZIND_M

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATOR	DEFERRED TAX	NET PLANT IN SERVICE	ACCUMULATED DEPRECIATION	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
2005	3.75%	113	7	2,803	103	145	3,148	3,038	3,083
2006	7.27%	217	47	2,880	208	1	3,038	2,888	2,863
2007	6.66%	200	40	2,786	310	42	2,868	2,745	2,818
2008	6.18%	185	35	2,853	413	78	2,745	2,637	2,878
2009	5.71%	171	29	2,860	518	108	2,637	2,474	2,540
2010	5.29%	158	24	2,477	619	130	2,474	2,347	2,410
2011	4.89%	147	20	2,374	722	150	2,347	2,224	2,285
2012	4.52%	138	15	2,270	828	165	2,224	2,105	2,164
2013	4.48%	134	15	2,187	929	180	2,105	1,987	2,048
2014	4.48%	134	15	2,064	1,032	195	1,987	1,868	1,928
2015	4.48%	134	15	1,951	1,135	210	1,868	1,751	1,810
2016	4.48%	134	15	1,856	1,238	224	1,751	1,633	1,692
2017	4.48%	134	15	1,754	1,342	239	1,633	1,515	1,574
2018	4.48%	134	15	1,651	1,445	254	1,515	1,397	1,456
2019	4.48%	134	15	1,548	1,548	269	1,397	1,279	1,338
2020	4.48%	134	15	1,445	1,651	284	1,279	1,161	1,220
2021	4.48%	134	15	1,342	1,754	298	1,161	1,043	1,102
2022	4.48%	134	15	1,238	1,858	313	1,043	925	984
2023	4.48%	134	15	1,135	1,961	328	925	807	866
2024	4.48%	134	15	1,032	2,064	343	807	689	748
2025	2.27%	87	17	828	2,167	357	689	571	630
2026	0.00%	0	0	828	2,270	372	571	454	513
2027	0.00%	0	0	722	2,374	386	454	336	395
2028	0.00%	0	0	619	2,477	399	336	218	277
2029	0.00%	0	0	518	2,580	412	218	100	159
2030	0.00%	0	0	413	2,683	424	100	0	58
2031	0.00%	0	0	310	2,786	435	0	0	0
2032	0.00%	0	0	208	2,890	445	0	0	0
2033	0.00%	0	0	103	2,993	454	0	0	0
2034	0.00%	0	0	0	3,098	462	0	0	0

* Columns not specified = worksheet

(1) YEAR	(2) NO YEARS BEFORE IN SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$AW)	(7) CUMULATIVE AVERAGE SPENDING (\$AW)
1999	7	0.00%	1.000	0.00%	0.00	0.00
1999	6	1.79%	1.018	0.00%	0.00	0.00
2000	5	1.53%	1.033	0.32%	1.72	0.86
2001	4	2.64%	1.081	0.60%	3.58	3.51
2002	3	2.62%	1.068	13.60%	78.24	44.42
2003	2	2.39%	1.113	35.34%	204.2	185.83
2004	1	2.27%	1.139	49.84%	294.50	434.98

100.00% 582.24

(1) YEAR	(2) NO YEARS BEFORE IN SERVICE	(3) CUMULATIVE SPENDING WITH AFLOC (\$AW)	(4) DEBT AFLOC (\$AW)	(5) CUMULATIVE DEBT AFLOC (\$AW)	(6) YEARLY TOTAL AFLOC (\$AW)	(7) CUMULATIVE TOTAL AFLOC (\$AW)	(8) CONSTRUCTION PERIOD INTEREST (\$AW)	(9) CUMULATIVE CONSTRUCTION INTEREST (\$AW)	(10) DEFERRED TAXES (\$AW)	(11) CUMULATIVE DEFERRED TAXES (\$AW)	(12) INCREMENTAL YEAR-END BOOK VALUE (\$AW)	(13) CUMULATIVE YEAR-END BOOK VALUE (\$AW)
1999	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	5	0.86	0.03	0.08	0.08	0.08	0.07	0.07	(0.07)	(0.07)	1.80	1.80
2001	4	3.59	0.12	0.15	0.37	0.48	0.27	0.34	(0.08)	(0.07)	3.85	5.75
2002	3	44.88	1.54	1.66	4.63	5.08	3.40	3.74	(0.72)	(0.79)	62.87	68.62
2003	2	190.72	6.55	8.24	19.72	24.80	14.29	18.13	(3.03)	(3.82)	223.91	312.54
2004	1	458.79	15.86	24.08	47.73	72.53	34.44	52.57	(7.17)	(10.86)	342.23	654.77

24.08

72.53

52.57

(10.86)

654.77

BOOK BASIS			
	BOOK BASIS	FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	2,793	2,793	2,793
EQUITY AFLOC	229		
DEBT AFLOC	114	114	
CR			248
TOTAL	3,068	2,887	3,021

IN SERVICE YEAR 2003
PLANT COSTS 519
AFLOC RATE 10.30%

* Column not specified in workbook

INPUT DATA - PART 2
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z302_08

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/MWH)	AVOIDED MARGINAL FUEL COST (\$/MWH)	INCREASED MARGINAL FUEL COST (\$/MWH)	REPLACEMENT PROGRAM FUEL COST (\$/MWH)	PROGRAM W/ PROGRAM W/ FUEL COST EFFECTIVENESS FACTOR	PROGRAM W/ PROGRAM W/ FUEL COST EFFECTIVENESS FACTOR
1999	0	0	2.00	2.38	2.05	0.00	1.00	1.00
2000	0	0	2.23	2.67	2.33	0.00	1.00	1.00
2001	0	0	2.45	2.87	2.57	0.00	1.00	1.00
2002	1,000	1,000	2.73	3.49	2.89	0.00	1.00	1.00
2003	2,000	2,000	2.81	3.18	2.77	0.00	1.00	1.00
2004	3,000	3,000	2.80	3.29	2.74	0.00	1.00	1.00
2005	4,000	4,000	2.78	3.55	2.84	0.00	1.00	1.00
2006	4,000	4,000	2.83	3.84	3.11	3.25	1.00	1.00
2007	4,000	4,000	3.01	3.85	3.20	3.34	1.00	1.00
2008	4,000	4,000	3.13	4.27	3.35	3.49	1.00	1.00
2009	4,000	4,000	3.07	4.12	3.27	3.45	1.00	1.00
2010	4,000	4,000	3.15	4.26	3.38	3.80	1.00	1.00
2011	4,000	4,000	3.14	4.40	3.35	3.57	1.00	1.00
2012	4,000	4,000	3.32	4.55	3.55	3.71	1.00	1.00
2013	4,000	4,000	3.38	4.89	3.82	3.77	1.00	1.00
2014	4,000	4,000	3.47	4.84	3.72	3.84	1.00	1.00
2015	4,000	4,000	3.55	4.86	3.79	3.92	1.00	1.00
2016	4,000	4,000	3.58	5.07	3.83	3.95	1.00	1.00
2017	4,000	4,000	3.62	5.18	3.86	4.00	1.00	1.00
2018	4,000	4,000	3.75	5.38	4.00	4.13	1.00	1.00
2019	4,000	4,000	3.93	5.67	4.21	4.35	1.00	1.00
2020	4,000	4,000	4.08	5.86	4.38	4.55	1.00	1.00
2021	4,000	4,000	4.25	6.21	4.55	4.78	1.00	1.00
2022	4,000	4,000	4.32	6.38	4.64	4.88	1.00	1.00
2023	4,000	4,000	4.41	6.57	4.75	4.87	1.00	1.00
2024	4,000	4,000	4.53	6.77	4.88	5.10	1.00	1.00
	4,000	4,000	4.64	6.86	5.00	5.23	1.00	1.00

* THIS COLUMN IS USED ONLY FOR LOAD SHIFTING PROGRAMS WHICH SHIFT CONSUMPTION TO OFF PEAK PERIODS
THE VALUES REPRESENT THE OFF PEAK SYSTEM FUEL COSTS

AVOIDED GENERATING BENEFITS
PROGRAM METHOD: SELECTED REV. REQ
PROGRAM NAME: Z342_08

YEAR	(3) AVOIDED CAPACITY COST \$1000	(4) AVOIDED FIXED O&M \$1000	(5) AVOIDED GEN UNIT VARIABLE O&M \$1000	(6) AVOIDED GEN UNIT FUEL COST \$1000	(7) AVOIDED REPLACEMENT FUEL COST \$1000	(8) AVOIDED GEN UNIT FUEL COST \$1000	(9) AVOIDED GEN UNIT REPLACEMENT FUEL COST \$1000	(10) AVOIDED GEN UNIT BENEFITS \$1000
1998	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0
2005	803	216	30	818	1,224	1,224	443	443
2006	564	225	32	855	1,295	1,295	402	402
2007	563	234	34	881	1,372	1,372	340	340
08	542	243	34	891	1,364	1,364	358	358
2009	523	253	35	892	1,368	1,368	307	307
2010	504	263	35	899	1,333	1,333	337	337
2011	485	274	36	881	1,387	1,387	299	299
2012	468	285	37	857	1,409	1,409	287	287
2013	450	296	37	835	1,421	1,421	298	298
2014	433	308	38	862	1,438	1,438	305	305
2015	418	320	39	879	1,445	1,445	310	310
2016	399	333	40	868	1,448	1,448	318	318
2017	381	347	41	1,028	1,503	1,503	292	292
2018	364	360	42	1,057	1,566	1,566	236	236
2019	347	375	44	1,064	1,678	1,678	182	182
2020	330	380	45	1,127	1,787	1,787	125	125
2021	312	405	47	1,152	1,800	1,800	117	117
2022	295	422	48	1,178	1,834	1,834	110	110
2023	278	439	49	1,331	1,879	1,879	218	218
2024	261	458	51	1,331	1,827	1,827	171	171
TOTAL	8,538	8,448	764	20,162	30,484	30,484	5,443	5,443
NPV	2,568	1,577	292	5,185	7,848	7,848	1,004	1,004

Page 8
AVOIDED T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME ZNO_06

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$1000	(3) AVOIDED O&M COST \$1000	(4) TOTAL AVOIDED TRANSMISSION CAP COST \$1000	(5) AVOIDED DISTRIBUTION CAP COST \$1000	(6) AVOIDED DISTRIBUTION O&M COST \$1000	(7) TOTAL AVOIDED DISTRIBUTION CAP COST \$1000	(8) PROGRAM FUEL SAVINGS \$1000	(9a) PROGRAM OFF PEAK PAYBACK \$1000
1999	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0
2002	16	4	20	10	18	27	100	0
2003	31	8	39	20	34	55	174	0
2004	47	12	59	30	53	84	263	0
2005	62	17	79	40	74	114	328	0
2006	80	18	98	50	88	146	405	0
2007	57	18	75	37	60	117	368	0
2008	55	19	74	36	63	119	354	0
2009	53	20	73	34	66	121	368	0
2010	51	21	72	33	69	123	382	0
2011	48	22	70	32	73	125	392	0
2012	47	22	69	31	77	128	405	0
2013	45	23	68	29	81	130	418	0
2014	43	24	67	28	85	133	432	0
2015	41	25	66	27	89	136	441	0
2016	39	26	65	26	93	139	450	0
2017	38	27	65	24	97	143	460	0
2018	36	28	64	23	101	146	465	0
2019	34	30	64	22	105	150	474	0
2020	32	31	63	21	109	154	483	0
2021	30	32	62	19	113	158	492	0
2022	28	33	61	18	117	162	501	0
2023	28	35	63	17	121	167	510	0
2024	25	36	61	16	125	172	519	0
TOTAL	848	531	1,477	815	2,304	2,918	9,824	0
NPV	321	139	461	278	804	813	2,823	0

* THESE VALUES REPRESENT THE COST OF THE INCREASED FUEL CONSUMPTION DUE TO GREATER OFF PEAK ENERGY USAGE USED FOR LOAD SHIFTING PROGRAMS ONLY

TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME 2382_#6

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
YEAR	INCREASED SUPPLY COSTS \$1000	UTILITY PROGRAM COSTS \$1000	PARTICIPANT PROGRAM COSTS \$1000	OTHER COSTS \$1000	TOTAL COSTS \$1000	AVOIDED GEN UNIT BENEFITS \$1000	AVOIDED TMD BENEFITS \$1000	PROGRAM FUEL SAVINGS \$1000	OTHER BENEFITS \$1000	TOTAL BENEFITS \$1000	NET BENEFITS \$1000	CUMULATIVE DISCOUNTED NET BENEFITS \$1000
1996	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	80	5,437	0	5,527	0	0	37	0	37	(5,490)	(4,242)
2002	0	92	6,820	0	6,913	0	46	100	0	146	(6,767)	(8,868)
2003	0	95	7,898	0	8,094	0	84	174	0	258	(7,836)	(13,908)
2004	0	87	9,172	0	9,259	0	143	263	0	406	(8,853)	(19,186)
2005	0	0	4,511	0	4,511	443	193	328	0	564	(3,947)	(21,141)
2006	0	0	4,833	0	4,833	402	183	336	0	532	(3,301)	(23,002)
2007	0	0	4,758	0	4,758	340	163	368	0	501	(3,257)	(24,781)
2008	0	0	4,891	0	4,891	358	193	354	0	505	(3,386)	(26,489)
2009	0	0	5,028	0	5,028	307	194	366	0	467	(4,561)	(28,085)
2010	0	0	5,186	0	5,186	337	185	382	0	514	(4,672)	(29,602)
2011	0	0	5,313	0	5,313	298	166	382	0	478	(4,836)	(31,053)
2012	0	0	5,487	0	5,487	287	187	405	0	490	(4,997)	(32,427)
2013	0	0	5,626	0	5,626	268	199	418	0	416	(4,210)	(33,724)
2014	0	0	5,789	0	5,789	305	201	432	0	438	(4,351)	(34,950)
2015	0	0	5,867	0	5,867	310	203	441	0	453	(4,411)	(36,111)
2016	0	136	13,702	0	13,702	318	205	450	0	473	(12,229)	(36,820)
2017	0	138	13,890	0	14,100	292	207	460	0	468	(13,132)	(41,385)
2018	0	143	14,365	0	14,508	276	210	465	0	441	(13,587)	(43,817)
2019	0	148	14,782	0	14,929	182	213	514	0	419	(14,010)	(48,121)
2020	0	0	8,872	0	8,872	125	218	544	0	465	(8,407)	(47,025)
2021	0	0	7,072	0	7,072	117	219	560	0	496	(6,576)	(47,883)
2022	0	0	7,277	0	7,277	110	223	577	0	410	(6,867)	(48,889)
2023	0	0	7,468	0	7,468	218	228	595	0	1,040	(6,427)	(48,441)
2024	0	0	7,705	0	7,705	171	232	615	0	1,018	(6,407)	(50,156)

NOM	0	840	178,327	0	180,287	5,445	4,385	8,624	0	19,484	(182,802)	
NPV	0	380	58,387	0	59,747	1,684	1,274	2,823	0	5,581	(50,156)	

Discount Rate
Benefit/Cost Ratio (Cost1) / Cost2
8.8%
0.15

23

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z342_08

(1) YEAR	(2) SAVINGS IN PARTICIPANTS BILLS \$1000	(3) TAX CREDITS \$1000	(4) UTILITY REBATES \$1000	(5) OTHER BENEFITS \$1000	(6) TOTAL BENEFITS \$1000	(7) CUSTOMER EQUIPMENT COSTS \$1000	(8) CUSTOMER O&M COSTS \$1000	(9) OTHER COSTS \$1000	(10) TOTAL COSTS \$1000	(11) NET BENEFITS \$1000	(12) CUMULATIVE DISCOUNTED NET BENEFITS \$1000
1998	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0
2001	81	0	0	0	81	4,829	508	0	5,437	(5,348)	(4,131)
2002	274	0	0	0	274	5,057	1,583	0	6,620	(6,347)	(8,831)
2003	483	0	0	0	483	5,184	2,878	0	7,989	(7,409)	(13,450)
2004	650	0	0	0	650	5,329	3,843	0	9,172	(8,522)	(18,538)
2005	751	0	0	0	751	0	4,511	0	4,511	(3,765)	(20,568)
2006	790	0	0	0	790	0	4,833	0	4,833	(3,883)	(22,550)
2007	794	0	0	0	794	0	4,758	0	4,758	(4,004)	(24,387)
2008	797	0	0	0	797	0	4,891	0	4,891	(4,134)	(26,147)
2009	757	0	0	0	757	0	5,028	0	5,028	(4,271)	(27,807)
2010	775	0	0	0	775	0	5,189	0	5,189	(4,382)	(29,379)
2011	778	0	0	0	778	0	5,313	0	5,313	(4,536)	(30,857)
2012	782	0	0	0	782	0	5,487	0	5,487	(4,695)	(32,264)
2013	787	0	0	0	787	0	5,628	0	5,628	(4,839)	(33,588)
2014	797	0	0	0	797	0	5,789	0	5,789	(4,987)	(34,858)
2015	807	0	0	0	807	0	5,957	0	5,957	(5,158)	(36,054)
2016	807	0	0	0	807	7,437	6,130	0	13,567	(12,760)	(38,770)
2017	808	0	0	0	808	7,653	6,307	0	13,960	(13,152)	(41,338)
2018	814	0	0	0	814	7,875	6,480	0	14,365	(13,552)	(43,788)
2019	819	0	0	0	819	8,103	6,678	0	14,782	(13,962)	(46,104)
2020	824	0	0	0	824	0	6,872	0	6,872	(14,348)	(48,377)
2021	830	0	0	0	830	0	7,072	0	7,072	(14,742)	(50,541)
2022	835	0	0	0	835	0	7,277	0	7,277	(15,142)	(52,650)
2023	841	0	0	0	841	0	7,488	0	7,488	(15,547)	(54,655)
2024	848	0	0	0	848	0	7,705	0	7,705	(15,958)	(56,589)

TOTAL	17,388	0	0	0	17,388	51,577	127,750	0	179,327	(161,838)	(50,189)
NET	5,218	0	0	0	5,218	19,778	30,808	0	55,387	(50,189)	(50,189)

In Service of Gain Unit
Discount Rate
Benefit/Cost Ratio (Cost/B) / Cost(100)
2005
8.98 %
8.98 %

h2

RATE IMPACT TEST
PROGRAM METHOD SELECTED REV. REQ
PROGRAM NAME ZMSQ_M

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$1000	UTILITY PROGRAM COSTS \$1000	INCENTIVES \$1000	REVENUE LOSSES \$1000	OTHER COSTS \$1000	TOTAL COSTS \$1000	AVOIDED GEN LIMIT & FUEL BENEFITS \$1000	AVOIDED T&D BENEFITS \$1000	REVENUE GAINS \$1000	OTHER BENEFITS \$1000	TOTAL BENEFITS \$1000	NET BENEFITS \$1000	CUMULATIVE DISCOUNTED NET BENEFITS \$1000
1999	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	80	0	0	0	137	37	0	0	0	37	0	(93)
2002	0	82	0	203	0	285	100	48	0	0	148	(120)	(199)
2003	0	85	0	343	0	427	174	94	0	0	268	(170)	(309)
2004	0	87	0	481	0	578	263	143	0	0	406	(172)	(412)
2005	0	0	0	558	0	558	771	193	0	0	954	408	(168)
2006	0	0	0	655	0	655	739	183	0	0	922	377	1
2007	0	0	0	558	0	558	706	183	0	0	891	343	159
2008	0	0	0	580	0	580	712	183	0	0	895	345	305
2009	0	0	0	580	0	580	673	184	0	0	857	308	425
2010	0	0	0	574	0	574	718	195	0	0	814	340	548
2011	0	0	0	574	0	574	682	196	0	0	878	304	845
2012	0	0	0	579	0	579	693	197	0	0	890	311	739
2013	0	0	0	582	0	582	717	198	0	0	918	333	831
2014	0	0	0	589	0	589	737	201	0	0	938	349	919
2015	0	0	0	593	0	593	750	203	0	0	953	360	1002
2016	138	0	0	587	0	725	768	205	0	0	973	240	1053
2017	138	0	0	588	0	726	780	207	0	0	988	230	1068
2018	143	0	0	602	0	745	731	210	0	0	941	168	1068
2019	148	0	0	608	0	754	708	213	0	0	919	168	1068
2020	0	0	0	610	0	610	689	218	0	0	885	275	1202
2021	0	0	0	614	0	614	677	219	0	0	868	282	1241
2022	0	0	0	618	0	618	688	223	0	0	910	292	1278
2023	0	0	0	622	0	622	613	228	0	0	1040	419	1327
2024	0	0	0	628	0	628	768	232	0	0	1018	392	1369

NOM	0	840	0	12,887	0	13,627	13,089	4,305	0	0	18,484	5,858	
NPV	0	380	0	3,881	0	4,271	4,317	1,274	0	0	5,591	1,388	

Discount Rate
Benefit-Cost Ratio (Col 12 / Col 7)

8.80 %
1.32

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Appendix 4- GSD Cost-Effectiveness Run with Incentives

The following pages are the complete cost-effectiveness run for the GSD rate class with incentives just high enough to pass the participant test, that was summarized on page 7.

INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED: REV_REV
PROGRAM NAME: Z303_28

	1988	2005		1988	2005
I PROGRAM DEMAND SAVINGS & LINE LOSSES					
(1) CUSTOMER KW REDUCTION AT METER	0.62 KW		(1) BASE YEAR	1988	
(2) GENERATOR KW REDUCTION PER CUSTOMER	1.18 KW		(2) IN-SERVICE YEAR FOR AVOIDED GENERATING UNIT	2001	2005
(3) KW LINE LOSS PERCENTAGE	9.01 %		(3) IN-SERVICE YEAR FOR AVOIDED TLD	519	SAW
(4) GENERATOR KW REDUCTION PER CUSTOMER	1,989.2 KWH		(4) BASE YEAR AVOIDED GENERATING COST	70	SAW
(5) KW LINE LOSS PERCENTAGE	7.62 %		(5) BASE YEAR AVOIDED TRANSMISSION COST	50	SAW
(6) GROUP LINE LOSS MULTIPLIER	1.0000		(6) BASE YEAR DISTRIBUTION COST	1.78	%
(7) CUSTOMER KW INCREASE AT METER	0.0 KWH		(7) GEN. TRAN & DIST COST ESCALATION RATE	35	SAW/YR
ECONOMIC LIFE & K FACTORS			(8) GENERATOR FIXED O & M COST	4.10	%
(1) STUDY PERIOD FOR THE CONSERVATION PROGRAM	27 YEARS		(9) GENERATOR FIXED O&M ESCALATION RATE	2.73	SAW
(2) GENERATOR ECONOMIC LIFE	30 YEARS		(10) TRANSMISSION FIXED O & M COST	13.01	SAW
(3) TLD ECONOMIC LIFE	35 YEARS		(11) DISTRIBUTION FIXED O & M COST	4.10	%
(4) K FACTOR FOR GENERATION	1.81534		(12) TLD FIXED O&M ESCALATION RATE	0.067	CENTS/SAW
(5) K FACTOR FOR T & D	1.48865		(13) AVOIDED GEN UNIT VARIABLE O & M COSTS	2.70	%
II UTILITY & CUSTOMER COSTS			(14) GENERATOR VARIABLE O&M COST ESCALATION RATE	8%	(in-service year)
(1) UTILITY NON RECURRING COST PER CUSTOMER	--- \$/CUST		(15) AVOIDED GENERATING UNIT FUEL COST	2.17	CENTS PER KWH (in-service year)
(2) UTILITY RECURRING COST PER CUSTOMER	--- \$/CUST		(16) AVOIDED GEN UNIT FUEL COST ESCALATION RATE	1.75	%
(3) UTILITY COST ESCALATION RATE	--- %				
(4) CUSTOMER EQUIPMENT COST	--- \$/CUST		NON-FUEL ENERGY AND DEMAND CHARGES		
(5) CUSTOMER EQUIPMENT ESCALATION RATE	--- %		(1) NON-FUEL COST IN CUSTOMER BILL	---	CENTS/SAW
(6) CUSTOMER O & M COST	--- \$/CUST/YR		(2) NON-FUEL COST ESCALATION RATE	---	%
(7) CUSTOMER O & M COST ESCALATION RATE	--- %		(3) DEMAND CHARGE IN CUSTOMER BILL	---	SAW/MO
(8) INCREASED SUPPLY COSTS	---		(4) DEMAND CHARGE ESCALATION RATE	---	%
(9) SUPPLY COSTS ESCALATION RATES	---				
(10) UTILITY DISCOUNT RATE	8.88 %				
(11) UTILITY APLCUC RATE	10.30 %				
(12) UTILITY NON RECURRING REBATE INCENTIVE	---				
(13) UTILITY RECURRING REBATE INCENTIVE	---				
(14) UTILITY REBATE INCENTIVE ESCALATION RATE	---				

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
 ** VALUE SHOWN IS FOR FIRST YEAR ONLY (VALUE VARIES OVER TIME)
 --- PROGRAM COST CALCULATION VALUES ARE SHOWN ON PAGE 2

* INPUT DATA - PART 1 CONTINUED
 PROGRAM METHOD SELECTED REV_REQ
 PROGRAM NAME 2383_38

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$1000	(2) UTILITY INCENTIVES \$1000	(3) OTHER UTILITY COSTS \$1000	(4) TOTAL UTILITY PROGRAM COSTS \$1000	(5) ENERGY CHARGE REVENUE LOSSES \$1000	(6) DEMAND CHARGE REVENUE LOSSES \$1000	(7) PARTICIPANT EQUIPMENT COSTS \$1000	(8) PARTICIPANT O&M COSTS \$1000	(9) OTHER PARTICIPANT COSTS \$1000	(10) TOTAL PARTICIPANT COSTS \$1000
1998	0	0	0	0	0	0	0	0	0	
1999	0	0	0	0	0	0	0	0	0	
2000	0	0	0	0	0	0	0	0	0	
2001	80	14,385	0	14,475	36	42	4,829	508	5,437	
2002	82	14,385	0	14,477	117	123	5,057	1,563	6,620	
2003	85	14,385	0	14,480	300	205	5,194	2,676	7,869	
2004	87	14,385	0	14,482	282	285	5,329	3,843	9,172	
2005	0	0	0	0	329	324	4,511	324	4,511	
2006	0	0	0	0	331	318	4,633	4,633	4,633	
2007	0	0	0	0	334	318	0	4,758	4,758	
2008	0	0	0	0	336	318	0	4,891	4,891	
2009	0	0	0	0	338	318	0	5,028	5,028	
2010	0	0	0	0	365	307	0	5,169	5,169	
2011	0	0	0	0	368	299	0	5,313	5,313	
2012	0	0	0	0	364	299	0	5,467	5,467	
2013	0	0	0	0	389	297	0	5,626	5,626	
2014	0	0	0	0	378	298	0	5,789	5,789	
2015	0	0	0	0	380	295	0	5,957	5,957	
2016	138	14,385	0	14,521	388	282	7,437	8,130	13,567	
2017	138	14,385	0	14,524	387	282	7,653	8,307	13,980	
2018	143	14,385	0	14,528	382	291	7,875	8,490	14,365	
2019	148	14,385	0	14,533	397	290	8,103	8,679	14,782	
2020	0	0	0	0	402	288	0	8,872	8,872	
2021	0	0	0	0	408	287	0	7,072	7,072	
2022	0	0	0	0	411	285	0	7,277	7,277	
2023	0	0	0	0	417	284	0	7,485	7,485	
2024	0	0	0	0	422	282	0	7,705	7,705	

MCN	840	115,080	0	116,020	8,129	6,035	51,577	127,750	0	179,327
MPV	380	50,079	0	50,439	2,380	2,080	19,778	35,808	0	55,387

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
 ** NEGATIVE COSTS WILL BE CALCULATED AS POSITIVE BENEFITS FOR TIC AND RIM TESTS

CALCULATION OF GEN K FACTOR
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME ZMS3_98

YEAR	(2) MO-YEAR RATE BASE \$1000	(3) DEBT \$1000	(4) PREFERRED STOCK \$1000	(5) COMMON EQUITY \$1000	(6) INCOME TAXES \$1000	(7) OTHER TAXES & INSURANCE \$1000	(8) DEPREC \$1000	(9) DEFERRED TAXES \$1000	(10) TOTAL FIXED CHARGES \$1000	(11) PRESENT WORTH FIXED CHARGES \$1000	(12) CUMULATIVE PW FIXED CHARGES \$1000
2005	3,083	108	0	213	132	43	103	7	803	803	803
2006	2,963	101	0	204	86	43	103	47	544	536	1,140
2007	2,818	96	0	194	86	43	103	40	543	474	1,813
2008	2,679	92	0	184	86	43	103	35	542	419	2,033
2009	2,540	87	0	175	85	43	103	29	523	371	2,403
2010	2,410	82	0	166	85	43	103	24	504	328	2,731
2011	2,285	78	0	157	84	43	103	20	485	280	3,020
2012	2,164	74	0	149	83	43	103	15	466	256	3,277
2013	2,048	70	0	141	82	43	103	15	450	228	3,503
2014	1,928	66	0	133	79	43	103	15	433	200	3,700
2015	1,810	62	0	124	68	43	103	15	416	178	3,879
2016	1,692	58	0	116	63	43	103	15	398	155	4,034
2017	1,574	54	0	108	56	43	103	15	381	136	4,170
2018	1,456	50	0	100	53	43	103	15	364	119	4,288
2019	1,338	46	0	92	48	43	103	15	347	104	4,383
2020	1,220	42	0	84	43	43	103	15	330	81	4,464
2021	1,102	38	0	76	38	43	103	15	312	79	4,533
2022	984	34	0	68	32	43	103	15	295	66	4,601
2023	866	30	0	60	27	43	103	15	278	59	4,660
2024	748	26	0	51	22	43	103	15	261	51	4,711
2025	643	22	0	44	14	43	103	(11)	245	44	4,766
2026	564	19	0	36	6	43	103	(17)	234	38	4,824
2027	487	17	0	34	0	43	103	(17)	224	34	4,887
2028	421	15	0	30	60	43	103	(17)	214	30	4,913
2029	365	12	0	25	51	43	103	(17)	206	26	4,938
2030	298	10	0	21	55	43	103	(17)	196	23	4,956
2031	232	8	0	16	52	43	103	(17)	185	20	4,975
2032	166	6	0	11	49	43	103	(17)	176	17	4,988
2033	99	3	0	7	46	43	103	(17)	166	15	4,998
2034	33	1	0	2	43	43	103	(17)	156	13	5,001

IN SERVICE COST (\$1000) 3,088
 IN SERVICE YEAR 2005
 BOOK LIFE (YRS) 30
 EFFEC TAX RATE 38.57%
 DISCOUNT RATE 8.80%
 OTAX & INS RATE 1.62%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	45%	7.80%
PPS	5%	0.00%
C/S	50%	12.50%

K FACTOR = CPWFC / IN-SVC COST = 1.81524

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DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NA_ZM3_96

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
YEAR	TAX SCHEDULE	TAX DEPRECIATION	ACCUMULATED TAX DEPRECIATION	BOOK DEPRECIATION	ACCUMULATED DEPRECIATION	BOOK DEPRECIATION	ACCUMULATED DEPRECIATION	TAX DUE TO DEPRECIATION	TOTAL EQUITY AFUDC	BOOK DEPR RATE MINUS LIFE	(10)/(11) TAX RATE	SALVAGE TAX RATE	ANNUAL DEFERRED TAX	ACCUMULATED DEFERRED TAX
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)		(\$000)	(\$000)	(\$000)	(\$000)
2005	3.75%	113	113	103	103	96	96	7	229	0	0	0	7	45
2006	7.2%	217	329	103	206	96	181	47	229	0	0	0	47	1
2007	6.6%	200	530	103	310	96	287	40	229	0	0	0	40	42
2008	6.1%	185	715	103	413	96	382	35	229	0	0	0	35	86
2009	5.7%	171	887	103	516	96	478	29	229	0	0	0	29	108
2010	5.3%	159	1045	103	619	96	573	24	229	0	0	0	24	130
2011	4.8%	147	1192	103	722	96	669	20	229	0	0	0	20	150
2012	4.5%	136	1328	103	826	96	765	15	229	0	0	0	15	165
2013	4.4%	134	1462	103	929	96	860	15	229	0	0	0	15	180
2014	4.4%	134	1596	103	1032	96	956	15	229	0	0	0	15	195
2015	4.4%	134	1729	103	1135	96	1051	15	229	0	0	0	15	210
2016	4.4%	134	1863	103	1238	96	1147	15	229	0	0	0	15	224
2017	4.4%	134	1997	103	1342	96	1242	15	229	0	0	0	15	239
2018	4.4%	134	2131	103	1445	96	1338	15	229	0	0	0	15	254
2019	4.4%	134	2265	103	1548	96	1433	15	229	0	0	0	15	269
2020	4.4%	134	2399	103	1651	96	1529	15	229	0	0	0	15	284
2021	4.4%	134	2533	103	1754	96	1625	15	229	0	0	0	15	298
2022	4.4%	134	2667	103	1858	96	1720	15	229	0	0	0	15	313
2023	4.4%	134	2801	103	1961	96	1816	15	229	0	0	0	15	328
2024	4.4%	134	2935	103	2064	96	1911	15	229	0	0	0	15	343
2025	2.2%	67	3002	103	2167	96	2007	(11)	229	0	0	0	(11)	332
2026	0.0%	0	3002	103	2270	96	2102	(37)	229	0	0	0	(37)	295
2027	0.0%	0	3002	103	2374	96	2198	(37)	229	0	0	0	(37)	258
2028	0.0%	0	3002	103	2477	96	2294	(37)	229	0	0	0	(37)	221
2029	0.0%	0	3002	103	2580	96	2389	(37)	229	0	0	0	(37)	184
2030	0.0%	0	3002	103	2683	96	2485	(37)	229	0	0	0	(37)	147
2031	0.0%	0	3002	103	2786	96	2580	(37)	229	0	0	0	(37)	111
2032	0.0%	0	3002	103	2890	96	2676	(37)	229	0	0	0	(37)	74
2033	0.0%	0	3002	103	2993	96	2771	(37)	229	0	0	0	(37)	37
2034	0.0%	0	3062	103	3096	96	2867	(37)	229	0	0	0	(37)	0

SALVAGE/REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2029
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	152
TOTAL EQUITY AFUDC CAPITALIZED (SEE PAGE 5)	229
BOOK DEPR RATE - MAUREFLA LIFE	3.33%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NA.Z393_96

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATOR	DEFERRED TAX	PLANT IN SERVICE	ACCUMULATED DEPRECIATOR	ACCUMULATED DEF TAXES	BEGINNING YEAR RATE BASE	ENDING OF YEAR RATE BASE	MID-YEAR RATE BASE
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
2006	3.75%	113	7	2,803	103	(45)	3,148	3,036	3,000
2006	7.22%	217	47	2,890	208	1	3,038	2,888	2,963
2007	8.66%	200	40	2,786	310	42	2,888	2,745	2,818
2008	6.18%	185	30	2,863	413	78	2,745	2,679	2,679
2009	5.71%	171	29	2,980	516	106	2,679	2,607	2,540
2010	5.20%	159	24	2,477	619	130	2,474	2,347	2,410
2011	4.89%	147	20	2,374	722	150	2,347	2,224	2,285
2012	4.52%	136	15	2,270	828	165	2,224	2,105	2,164
2013	4.46%	134	15	2,167	929	180	2,105	1,987	2,046
2014	4.46%	134	15	2,064	1,032	195	1,987	1,869	1,928
2015	4.46%	134	15	1,961	1,135	210	1,869	1,751	1,810
2016	4.46%	134	15	1,858	1,238	224	1,751	1,633	1,692
2017	4.46%	134	15	1,754	1,342	239	1,633	1,515	1,574
2018	4.46%	134	15	1,651	1,445	254	1,515	1,397	1,456
2019	4.46%	134	15	1,548	1,548	269	1,397	1,279	1,338
2020	4.46%	134	15	1,445	1,651	284	1,279	1,161	1,220
2021	4.46%	134	15	1,342	1,754	298	1,161	1,043	1,102
2022	4.46%	134	15	1,238	1,858	313	1,043	925	984
2023	4.46%	134	15	1,135	1,961	328	925	807	866
2024	4.46%	134	15	1,032	2,064	343	807	689	748
2025	2.25%	67	67	829	2,167	357	689	571	630
2026	0.00%	0	(37)	829	2,270	295	571	454	513
2027	0.00%	0	(37)	722	2,374	258	454	337	396
2028	0.00%	0	(37)	618	2,477	221	337	220	279
2029	0.00%	0	(37)	518	2,580	184	220	103	162
2030	0.00%	0	(37)	413	2,683	147	103	(14)	(45)
2031	0.00%	0	(37)	310	2,786	111	(14)	(265)	(214)
2032	0.00%	0	(37)	208	2,890	74	(265)	(382)	(331)
2033	0.00%	0	(37)	103	2,993	37	(382)	(499)	(448)
2034	0.00%	0	(37)	(2)	3,096	0	(499)	(616)	(565)

* Column not specified in worksheet

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(1) YEAR	(2) IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL AVERAGE SPENDING (\$AW)	(7) CUMULATIVE AVERAGE SPENDING (\$AW)
1998	-7	0.00%	1.000	0.00%	0.00	0.00
1999	-6	1.78%	1.018	0.00%	0.00	0.00
2000	-5	1.57%	1.033	0.37%	1.72	0.86
2001	-4	2.64%	1.061	0.85%	3.58	3.51
2002	-3	2.62%	1.068	13.85%	78.24	44.42
2003	-2	2.26%	1.113	35.54%	204.20	165.63
2004	-1	2.27%	1.138	49.84%	294.50	434.86

100.00% 582.24

(8) NO YEARS BEFORE IN-SERVICE	(9) CUMULATIVE SPENDING WITH AFJOC (\$AW)	(10) DEBT AFJOC (\$AW)	(11) CUMULATIVE DEBT AFJOC (\$AW)	(12) YEARLY TOTAL AFJOC (\$AW)	(13) CUMULATIVE TOTAL AFJOC (\$AW)	(14) CONSTRUCTION PERIOD INTEREST (\$AW)	(15) CUMULATIVE CPN (\$AW)	(16) DEFERRED TAXES (\$AW)	(17) CUMULATIVE DEFERRED TAXES (\$AW)	(18) INCREMENTAL YEAR-END BOOK VALUE (\$AW)	(19) CUMULATIVE YEAR-END BOOK VALUE (\$AW)
1998	-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	-6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	-5	0.86	0.03	0.08	0.08	0.27	0.07	(0.01)	(0.01)	1.80	1.80
2001	-4	3.58	0.12	0.37	0.48	0.27	0.34	(0.06)	(0.07)	3.86	5.75
2002	-3	44.88	1.69	4.83	5.08	3.40	3.74	(0.72)	(0.79)	82.87	88.62
2003	-2	190.72	6.55	19.72	24.80	14.39	18.13	(3.03)	(3.82)	223.91	312.54
2004	-1	459.79	15.86	47.72	72.52	34.44	52.57	(7.17)	(10.86)	342.23	654.77

24.08 72.52 52.57 (10.86) 654.77

	BOOK BASIS	FOR DEF TAX	TAX BASIS
CONSTRUCTION CASH	2,753	2,753	2,753
EQUITY AFJOC	229		
DEBT AFJOC	114	114	
CPN			246
TOTAL	3,096	2,867	3,000

IN SERVICE YEAR 2005
PLANT COSTS 519
AFJOC RATE 10.30%

* Column not specified in workbook

INPUT DATA - PART 2
PROGRAM METHOD SELECTED REV_REG
PROGRAM NAME ZMS_06

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED CUMULATIVE PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/MWH)	AVOIDED MARGINAL FUEL COST (\$/MWH)	INCREASED MARGINAL FUEL COST (\$/MWH)	REPLACEMENT FUEL COST (\$/MWH)	PROGRAM MW FACTOR	PROGRAM MW EFFECTIVENESS FACTOR
1999	0	0	2.00	2.36	2.05	0.00	1.00	1.00
2000	0	0	2.23	2.67	2.33	0.00	1.00	1.00
2001	1,000	1,000	2.45	2.97	2.57	0.00	1.00	1.00
2002	2,000	2,000	2.73	3.49	2.89	0.00	1.00	1.00
2003	3,000	3,000	2.81	3.18	2.77	0.00	1.00	1.00
2004	4,000	4,000	2.80	3.29	2.74	0.00	1.00	1.00
2005	4,000	4,000	2.78	3.55	2.94	0.00	1.00	1.00
2006	4,000	4,000	2.83	3.84	3.11	3.25	1.00	1.00
2007	4,000	4,000	3.01	3.95	3.20	3.34	1.00	1.00
2008	4,000	4,000	3.13	4.27	3.35	3.49	1.00	1.00
2009	4,000	4,000	3.07	4.12	3.27	3.45	1.00	1.00
2010	4,000	4,000	3.15	4.26	3.36	3.60	1.00	1.00
2011	4,000	4,000	3.14	4.40	3.35	3.57	1.00	1.00
2012	4,000	4,000	3.32	4.55	3.55	3.71	1.00	1.00
2013	4,000	4,000	3.36	4.69	3.62	3.77	1.00	1.00
2014	4,000	4,000	3.47	4.84	3.72	3.84	1.00	1.00
2015	4,000	4,000	3.55	4.98	3.79	3.92	1.00	1.00
2016	4,000	4,000	3.56	5.07	3.83	3.95	1.00	1.00
2017	4,000	4,000	3.62	5.16	3.88	4.00	1.00	1.00
2018	4,000	4,000	3.75	5.38	4.00	4.13	1.00	1.00
2019	4,000	4,000	3.83	5.67	4.21	4.35	1.00	1.00
2020	4,000	4,000	4.08	5.99	4.39	4.55	1.00	1.00
2021	4,000	4,000	4.29	6.21	4.55	4.79	1.00	1.00
2022	4,000	4,000	4.32	6.38	4.64	4.86	1.00	1.00
2023	4,000	4,000	4.41	6.57	4.75	4.97	1.00	1.00
2024	4,000	4,000	4.53	6.77	4.88	5.10	1.00	1.00
2025	4,000	4,000	4.64	6.98	5.00	5.23	1.00	1.00

* THIS COLUMN IS USED ONLY FOR LOAD SHIFTING PROGRAMS WHICH SHIFT CONSUMPTION TO OFF PEAK PERIODS
THE VALUES REPRESENT THE OFF PEAK SYSTEM FUEL COSTS

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AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z33_08

YEAR	(2) AVOIDED CAPACITY COS \$1000	(3) AVOIDED GEN UNIT FIXED O&M \$1000	(4) AVOIDED GEN UNIT VARIABLE O&M \$1000	(5) AVOIDED GEN UNIT FUEL COST \$1000	(6) AVOIDED REPLACEMENT FUEL COST \$1000	(7) AVOIDED GEN UNIT BENEFITS \$1000
1999	0	0	0	0	0	0
2000	0	0	0	0	0	0
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	603	218	30	818	1,224	443
2006	584	225	32	805	1,295	462
2007	583	234	34	881	1,372	340
2008	542	243	34	881	1,354	358
2009	523	253	35	882	1,366	307
2010	504	263	35	869	1,333	337
2011	485	274	36	861	1,387	299
2012	468	285	37	807	1,409	287
2013	450	295	37	835	1,421	288
2014	433	308	38	862	1,436	305
2015	416	320	39	879	1,445	310
2016	399	333	40	868	1,448	318
2017	381	347	41	1,026	1,503	282
2018	364	360	42	1,057	1,588	238
2019	347	375	44	1,084	1,678	182
2020	330	390	45	1,127	1,787	125
2021	312	405	47	1,152	1,800	117
2022	295	422	48	1,179	1,834	110
2023	278	439	48	1,231	1,879	218
2024	261	458	51	1,331	1,927	171

NOM	8,538	8,448	794	20,162	30,484	5,442
NPV	2,588	1,577	202	5,185	7,848	1,884

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Page 8 AVOIDED T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME 2303_98

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$(000)	(3) AVOIDED TRANSMISSION OM&M COST \$(000)	(4) TOTAL AVOIDED TRANSMISSION CAP COST \$(000)	(5) AVOIDED DISTRIBUTION CAP COST \$(000)	(6) AVOIDED DISTRIBUTION OM&M COST \$(000)	(7) TOTAL AVOIDED DISTRIBUTION CAP COST \$(000)	(8) PROGRAM FUEL SAVINGS \$(000)	(9a) PROGRAM OFF-PEAK PAYBACK \$(000)
1998	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	37	0
2002	16	4	20	10	16	27	100	0
2003	31	8	39	20	34	55	174	0
2004	47	12	59	30	53	84	203	0
2005	62	17	79	40	74	114	328	0
2006	80	18	98	50	90	148	508	0
2007	57	18	75	37	60	117	308	0
2008	55	18	73	36	58	119	304	0
2009	53	20	73	34	66	121	308	0
2010	51	21	72	33	69	123	362	0
2011	49	22	71	32	63	125	362	0
2012	47	22	70	31	67	128	405	0
2013	45	23	68	29	101	130	419	0
2014	43	24	67	28	105	133	432	0
2015	41	25	66	27	109	136	441	0
2016	39	26	65	26	114	139	450	0
2017	38	27	65	24	118	143	469	0
2018	36	28	64	23	123	146	485	0
2019	34	30	64	22	128	150	524	0
2020	32	31	63	21	133	154	544	0
2021	30	32	62	19	138	158	580	0
2022	28	33	61	18	144	162	577	0
2023	26	35	61	17	150	167	565	0
2024	25	36	61	16	158	172	615	0

TOTAL	848	531	1,477	815	2,304	2,818	9,624	0
NPV	321	139	461	208	604	813	2,823	0

* THESE VALUES REPRESENT THE COST OF THE INCREASED FUEL CONSUMPTION DUE TO GREATER OFF-PEAK ENERGY USAGE. USED FOR LOAD SHIFTING PROGRAMS ONLY.

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TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED REV. REG
PROGRAM NAME ZMS3_W

(1) YEAR	(2) INCREASED SUPPLY COSTS \$1000	(3) UTILITY PROGRAM COSTS \$1000	(4) PARTICIPANT PROGRAM COSTS \$1000	(5) OTHER COSTS \$1000	(6) TOTAL COSTS \$1000	(7) AVOIDED GEN UNIT BENEFITS \$1000	(8) AVOIDED T&D BENEFITS \$1000	(9) PROGRAM FUEL SAVINGS \$1000	(10) OTHER BENEFITS \$1000	(11) TOTAL BENEFITS \$1000	(12) NET BENEFITS \$1000	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$1000
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	90	5,437	0	5,527	0	0	37	0	37	(5,490)	(4,242)
2002	0	82	6,820	0	6,902	0	48	100	0	148	(5,567)	(8,808)
2003	0	85	7,869	0	7,954	0	84	174	0	268	(7,809)	(13,808)
2004	0	97	9,172	0	9,269	0	143	203	0	406	(8,883)	(19,198)
2005	0	0	4,511	0	4,511	443	193	328	0	964	(2,347)	(21,141)
2006	0	0	4,833	0	4,833	482	193	358	0	932	(3,701)	(23,002)
2007	0	0	4,758	0	4,758	340	193	358	0	901	(3,857)	(24,781)
2008	0	0	4,891	0	4,891	358	193	354	0	905	(3,988)	(26,499)
2009	0	0	5,028	0	5,028	307	194	368	0	867	(4,180)	(28,065)
2010	0	0	5,169	0	5,169	337	195	382	0	914	(4,255)	(29,802)
2011	0	0	5,313	0	5,313	289	196	382	0	878	(4,438)	(31,053)
2012	0	0	5,487	0	5,487	297	197	405	0	890	(4,577)	(32,427)
2013	0	0	5,626	0	5,626	298	199	419	0	918	(4,710)	(33,724)
2014	0	0	5,789	0	5,789	305	201	432	0	938	(4,851)	(34,950)
2015	0	0	5,957	0	5,957	310	201	441	0	953	(5,004)	(36,111)
2016	0	136	13,587	0	13,723	318	205	450	0	973	(5,279)	(37,200)
2017	0	136	13,880	0	14,100	292	207	469	0	968	(5,322)	(38,200)
2018	0	143	14,385	0	14,528	296	210	485	0	941	(5,367)	(39,122)
2019	0	148	14,782	0	14,930	182	213	524	0	919	(5,412)	(40,010)
2020	0	0	6,872	0	6,872	125	218	544	0	885	(5,467)	(40,825)
2021	0	0	7,072	0	7,072	117	219	560	0	866	(5,478)	(41,583)
2022	0	0	7,277	0	7,277	110	223	577	0	812	(5,387)	(42,296)
2023	0	0	7,488	0	7,488	218	228	595	0	1,040	(5,447)	(42,841)
2024	0	0	7,705	0	7,705	171	232	615	0	1,018	(5,567)	(43,156)

NCM	0	840	176,227	0	180,267	5,445	4,387	9,624	0	19,454	(180,802)	
NPV	0	380	55,387	0	95,747	1,894	1,274	2,823	0	5,391	(50,156)	

Discount Rate
Benefit/Cost Ratio (Col(11) / Col(6))

8.88 %
0.10

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z383_98

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YEAR	SAVINGS IN PARTICIPANTS BILLS \$ (000)	TAX CREDITS \$ (000)	UTILITY REBATES \$ (000)	OTHER BENEFITS \$ (000)	TOTAL BENEFITS \$ (000)	CUSTOMER EQUIPMENT COSTS \$ (000)	CUSTOMER O&M COSTS \$ (000)	OTHER COSTS \$ (000)	TOTAL COSTS \$ (000)	NET BENEFITS \$ (000)	CUMULATIVE DISCOUNTED NET BENEFITS \$ (000)
1999	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0
2001	85	0	14,385	0	14,480	4,829	508	0	5,437	9,043	8,968
2002	282	0	14,385	0	14,667	5,057	1,563	0	6,620	8,047	12,993
2003	476	0	14,385	0	14,861	5,184	2,678	0	7,860	6,991	17,242
2004	667	0	14,385	0	15,052	5,329	3,843	0	9,172	5,880	20,753
2005	768	0	0	0	768	0	4,511	0	4,511	(3,742)	16,703
2006	798	0	0	0	798	0	4,833	0	4,833	(3,967)	16,758
2007	799	0	0	0	799	0	4,758	0	4,758	(3,966)	14,818
2008	773	0	0	0	773	0	4,691	0	4,691	(4,118)	13,175
2009	772	0	0	0	772	0	5,028	0	5,028	(4,256)	11,522
2010	787	0	0	0	787	0	5,199	0	5,199	(4,362)	9,990
2011	785	0	0	0	785	0	5,313	0	5,313	(4,529)	8,478
2012	791	0	0	0	791	0	5,467	0	5,467	(4,679)	7,075
2013	795	0	0	0	795	0	5,828	0	5,828	(4,831)	5,744
2014	805	0	0	0	805	0	5,789	0	5,789	(4,965)	4,464
2015	809	0	0	0	809	0	5,957	0	5,957	(5,148)	3,290
2016	814	0	14,385	0	15,199	7,437	6,130	0	13,567	1,632	3,879
2017	815	0	14,385	0	15,200	7,853	6,307	0	13,990	1,240	3,879
2018	820	0	14,385	0	15,205	7,875	6,490	0	14,365	840	4,000
2019	825	0	14,385	0	15,210	8,103	6,679	0	14,782	428	4,100
2020	830	0	0	0	830	0	6,872	0	6,872	(8,042)	3,188
2021	836	0	0	0	836	0	7,072	0	7,072	(8,236)	2,325
2022	841	0	0	0	841	0	7,277	0	7,277	(8,426)	1,507
2023	847	0	0	0	847	0	7,488	0	7,488	(8,641)	733
2024	852	0	0	0	852	0	7,705	0	7,705	(8,853)	(1)
TOTAL	17,919	0	118,280	0	132,898	51,377	127,750	0	179,327	148,827	(1)
NPV	5,207	0	90,079	0	95,286	19,778	35,809	0	95,387	(1)	(1)

2005	8.98	1.00
Discount Rate		
Benefit-Cost Ratio (Cost/10)		

In Service of Gas Unit
 Discount Rate
 Benefit-Cost Ratio (Cost/10)

RATE IMPACT TEST
PROGRAM METHOD SELECTED REV. REQ
PROGRAM NAME ZM3_04

(1) YEAR	(2) INCREASED SUPPLY COSTS \$/000	(3) UTILITY PROGRAM COSTS \$/000	(4) INCENTIVES \$/000	(5) REVENUE LOSSES \$/000	(6) OTHER COSTS \$/000	(7) TOTAL COSTS \$/000	(8) AVOIDED GEN LMT & FUEL BENEFITS \$/000	(9) AVOIDED T&D BENEFITS \$/000	(10) REVENUE GAINS \$/000	(11) OTHER BENEFITS \$/000	(12) TOTAL BENEFITS \$/000	(13) NET BENEFITS \$/000	(14) CUMULATIVE DISCOUNTED NET BENEFITS \$/000
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	14,385	81	0	14,506	37	0	0	0	37	(14,519)	(11,219)
2002	0	92	14,385	241	0	14,718	100	48	0	0	148	(14,572)	(21,551)
2003	0	95	14,385	405	0	14,885	174	84	0	0	258	(14,617)	(31,062)
2004	0	97	14,385	568	0	15,050	263	143	0	0	406	(14,644)	(39,806)
2005	0	0	0	653	0	653	771	193	0	0	964	311	(39,835)
2006	0	0	0	849	0	849	708	193	0	0	932	282	(39,494)
2007	0	0	0	862	0	862	708	193	0	0	901	248	(39,379)
2008	0	0	0	855	0	855	712	183	0	0	905	250	(39,273)
2009	0	0	0	854	0	854	673	164	0	0	887	214	(39,190)
2010	0	0	0	862	0	862	719	195	0	0	914	251	(39,100)
2011	0	0	0	858	0	858	682	186	0	0	878	219	(39,029)
2012	0	0	0	863	0	863	683	187	0	0	890	227	(38,963)
2013	0	0	0	868	0	868	717	191	0	0	918	250	(38,892)
2014	0	0	0	872	0	872	737	191	0	0	938	266	(38,824)
2015	0	0	0	875	0	875	750	203	0	0	953	278	(38,790)
2016	136	0	14,385	878	0	15,198	768	205	0	0	973	(14,226)	(11,786)
2017	136	0	14,385	879	0	15,203	780	207	0	0	988	(14,208)	(14,568)
2018	0	0	143	882	0	15,211	731	210	0	0	941	(14,270)	(17,126)
2019	0	0	148	888	0	15,218	708	213	0	0	919	(14,269)	(19,477)
2020	0	0	0	889	0	889	689	216	0	0	895	196	(19,448)
2021	0	0	0	893	0	893	677	219	0	0	895	203	(19,420)
2022	0	0	0	896	0	896	688	223	0	0	910	213	(19,393)
2023	0	0	0	700	0	700	700	228	0	0	1,040	340	(19,353)
2024	0	0	0	704	0	704	768	232	0	0	1,018	314	(19,319)
ACM	0	840	115,060	14,763	0	132,763	15,069	4,305	0	0	19,484	(111,319)	
NPV	0	390	50,078	4,471	0	54,915	4,311	1,274	0	0	5,581	(49,319)	

Discount Rate: 0.12 %

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Appendix 5- GSLD Cost-Effectiveness Run with Incentives

The following pages are the complete cost-effectiveness run for the GSLD rate class with incentives just high enough to pass the participant test, that was summarized on page 7.

* INPUT DATA - PART 1 CONTINUED
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z384_95

YEAR	(1) UTILITY PROGRAM COSTS WITHOUT INCENTIVES \$1000	(2) UTILITY INCENTIVES \$1000	(3) OTHER UTILITY COSTS \$1000	(4) TOTAL UTILITY PROGRAM COSTS \$1000	(5) ENERGY CHARGE REVENUE LOSSES \$1000	(6) DEMAND CHARGE REVENUE LOSSES \$1000	(7) PARTICIPANT EQUIPMENT COSTS \$1000	(8) PARTICIPANT O&M COSTS \$1000	(9) OTHER PARTICIPANT COSTS \$1000	(10) TOTAL PARTICIPANT COSTS \$1000
1996	0	0	0	0	0	0	0	0	0	
1998	0	0	0	0	0	0	0	0	0	
2000	0	0	0	0	0	0	0	0	0	
2001	90	14,429	0	14,519	36	43	4,829	508	5,437	
2002	62	14,429	0	14,521	108	127	5,057	1,563	6,620	
2003	85	14,429	0	14,524	186	211	5,164	2,878	7,869	
2004	97	14,429	0	14,526	283	293	5,329	3,843	9,172	
2005	0	0	0	0	308	333	0	4,511	4,811	
2006	0	0	0	0	308	327	0	4,833	4,833	
2007	0	0	0	0	311	327	0	4,758	4,758	
2008	0	0	0	0	314	327	0	4,891	4,891	
2009	0	0	0	0	314	328	0	5,028	5,028	
2010	0	0	0	0	332	315	0	5,199	5,199	
2011	0	0	0	0	337	308	0	5,313	5,313	
2012	0	0	0	0	341	308	0	5,487	5,487	
2013	0	0	0	0	348	304	0	5,628	5,628	
2014	0	0	0	0	353	303	0	5,789	5,789	
2015	0	0	0	0	358	302	0	5,957	5,957	
2016	136	14,429	0	14,565	364	368	-7,437	8,130	13,567	
2017	136	14,429	0	14,568	364	369	7,653	8,307	13,960	
2018	143	14,429	0	14,572	369	397	7,875	6,490	14,365	
2019	148	14,429	0	14,577	374	398	8,103	6,879	14,782	
2020	0	0	0	0	379	394	0	8,872	8,872	
2021	0	0	0	0	384	393	0	7,072	7,072	
2022	0	0	0	0	389	391	0	7,277	7,277	
2023	0	0	0	0	394	390	0	7,488	7,488	
2024	0	0	0	0	398	398	0	7,705	7,705	
NM	840	115,432	0	116,372	1,629	6,797	51,577	127,750	179,327	
NPV	380	50,232	0	50,582	2,227	2,144	19,178	35,808	55,387	

* SUPPLEMENTAL INFORMATION NOT SPECIFIED IN WORKBOOK
- NEGATIVE COSTS WILL BE CALCULATED AS POSITIVE BENEFITS FOR TRC AND RIM TESTS

Calculation of Den K Factor
Program Method Selected REV_REQ
Program Name 2304_00

Year	(2) Mid-Year Rate Base \$000	(3) Debt \$000	(4) Preferred Stock \$000	(5) Common Equity \$000	(6) Income Taxes \$000	(7) Other Taxes & Insurance \$000	(8) Deprec \$000	(9) Deferred Taxes \$000	(10) Total Fixed Charges \$000	(11) Present Worth Fixed Charges \$000	(12) Cumulative PW Fixed Charges \$000
2005	3,083	108	0	213	132	43	103	7	603	603	603
2006	2,983	101	0	204	88	43	103	87	564	536	1,140
2007	2,816	86	0	184	68	43	103	40	563	474	1,613
2008	2,676	62	0	164	66	43	103	35	542	419	2,033
2009	2,540	87	0	175	85	43	103	29	523	371	2,403
2010	2,410	62	0	166	85	43	103	24	504	328	2,731
2011	2,285	78	0	157	84	43	103	20	485	290	3,020
2012	2,164	74	0	148	83	43	103	15	468	256	3,277
2013	2,048	70	0	141	78	43	103	15	450	228	3,503
2014	1,928	68	0	133	73	43	103	15	433	200	3,703
2015	1,810	62	0	124	68	43	103	15	418	176	3,879
2016	1,692	58	0	116	63	43	103	15	399	155	4,034
2017	1,574	54	0	108	58	43	103	15	381	136	4,170
2018	1,458	50	0	100	53	43	103	15	364	119	4,289
2019	1,338	48	0	92	48	43	103	15	347	104	4,393
2020	1,220	42	0	84	43	43	103	15	330	91	4,484
2021	1,102	38	0	76	38	43	103	15	312	79	4,563
2022	984	34	0	68	32	43	103	15	295	68	4,631
2023	868	30	0	60	27	43	103	15	278	58	4,690
2024	748	28	0	51	22	43	103	15	261	51	4,741
2025	643	22	0	44	14	43	103	(11)	245	44	4,785
2026	564	19	0	36	8	43	103	(17)	224	38	4,824
2027	487	17	0	34	63	43	103	(17)	214	34	4,857
2028	431	15	0	30	60	43	103	(17)	214	30	4,887
2029	385	12	0	25	57	43	103	(17)	205	28	4,913
2030	346	10	0	21	55	43	103	(17)	195	23	4,938
2031	312	8	0	18	52	43	103	(17)	185	20	4,958
2032	282	8	0	11	49	43	103	(17)	178	17	4,973
2033	256	3	0	7	48	43	103	(17)	168	15	4,988
2034	233	1	0	2	43	43	103	(17)	158	13	5,001

IN SERVICE CODE (000)
IN SERVICE YEAR 2005
BOOK LIFE (YRS) 30
EFFECT TAX RATE 38.57%
DISCOUNT RATE 8.99%
OTAR & PG RATE 1.42%

CAPITAL STRUCTURE		
SOURCE	WEIGHT	COST
DEBT	45%	7.80%
PGS	0%	0.00%
CS	55%	12.50%

K FACTOR = CPWFC / IN-SVC COST =

1.81524

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NA 2304_00

(1) YEAR	(2) TAX SCHEDULE	(3) DEPRECIATION	(4) TAX	(5) ACCUMULATED DEPRECIATION	(6) BOOK VALUE	(7) ACCUMULATED DEPRECIATION	(8) BOOK VALUE FOR DEFERRED TAX	(9) ACCUMULATED DEFERRED TAX DUE TO DEPRECIATION	(10) TOTAL EQUITY AFUC	(11) BOOK DEPR RATE MINUS 1% LIFE	(12) TAX RATE (10/11)	(13) SALVAGE TAX RATE	(14) ANNUAL DEFERRED TAX (9)-(12)+(13)	(15) ACCUMULATED DEFERRED TAX
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	MINUS 1% LIFE	(\$000)	(\$000)	(\$000)	(\$000)
2005	3.7%	113	113	103	103	103	96	7	229	0	0	0	7	(45)
2006	7.2%	217	329	103	206	191	96	47	229	0	0	0	47	1
2007	6.6%	200	530	103	310	267	96	36	229	0	0	0	40	42
2008	6.1%	185	715	103	413	362	96	35	229	0	0	0	35	76
2009	5.7%	171	887	103	516	478	96	29	229	0	0	0	29	106
2010	5.2%	159	1045	103	619	573	96	24	229	0	0	0	24	130
2011	4.8%	147	1192	103	722	668	96	20	229	0	0	0	20	150
2012	4.5%	136	1328	103	826	765	96	15	229	0	0	0	15	165
2013	4.4%	134	1462	103	929	860	96	15	229	0	0	0	15	180
2014	4.4%	134	1596	103	1032	956	96	15	229	0	0	0	15	195
2015	4.4%	134	1729	103	1135	1051	96	15	229	0	0	0	15	210
2016	4.4%	134	1863	103	1238	1147	96	15	229	0	0	0	15	224
2017	4.4%	134	1997	103	1342	1242	96	15	229	0	0	0	15	239
2018	4.4%	134	2131	103	1445	1338	96	15	229	0	0	0	15	254
2019	4.4%	134	2265	103	1548	1433	96	15	229	0	0	0	15	269
2020	4.4%	134	2399	103	1651	1529	96	15	229	0	0	0	15	284
2021	4.4%	134	2533	103	1754	1625	96	15	229	0	0	0	15	299
2022	4.4%	134	2667	103	1858	1720	96	15	229	0	0	0	15	313
2023	4.4%	134	2801	103	1961	1816	96	15	229	0	0	0	15	328
2024	4.4%	134	2935	103	2064	1911	96	15	229	0	0	0	15	343
2025	2.2%	67	3062	103	2167	2007	96	(11)	229	0	0	0	(11)	332
2026	0.0%	0	3062	103	2270	2102	96	(37)	229	0	0	0	(37)	305
2027	0.0%	0	3062	103	2374	2186	96	(71)	229	0	0	0	(71)	236
2028	0.0%	0	3062	103	2477	2264	96	(104)	229	0	0	0	(104)	147
2029	0.0%	0	3062	103	2580	2338	96	(137)	229	0	0	0	(137)	111
2030	0.0%	0	3062	103	2683	2405	96	(170)	229	0	0	0	(170)	74
2031	0.0%	0	3062	103	2786	2466	96	(202)	229	0	0	0	(202)	37
2032	0.0%	0	3062	103	2889	2520	96	(234)	229	0	0	0	(234)	0
2033	0.0%	0	3062	103	2992	2568	96	(266)	229	0	0	0	(266)	0
2034	0.0%	0	3062	103	3095	2610	96	(297)	229	0	0	0	(297)	0

SALVAGE / REMOVAL COST	0.00
YEAR SALVAGE / COST OF REMOVAL	2020
DEFERRED TAXES DURING CONSTRUCTION (SEE PAGE 5)	(52)
TOTAL EQUITY AFUC CAPITALIZED (SEE PAGE 5)	229
BOOK DEPR RATE - 1% BETA LIFE	3.33%

DEFERRED TAX AND MID-YEAR RATE BASE CALCULATION
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NA 2384_08

(1)	(2)	(3)	(4)	(5)	(5a)	(5b)	(6)	(7)	(8)
YEAR	TAX DEPRECIATION SCHEDULE	TAX DEPRECIATION \$1000	DEFERRED TAX \$1000	END OF YEAR NET PLANT IN SERVICE \$1000	ACCUMULATED DEPRECIATION \$1000	ACCUMULATED DEF TAXES \$1000	BEGINNING YEAR RATE BASE \$1000	ENDING YEAR RATE BASE \$1000	MID-YEAR RATE BASE \$1000
2006	3.75%	113	7	2,893	133	(45)	3,148	3,038	3,083
2006	7.2%	217	47	2,890	206	1	3,038	2,888	2,863
2007	6.6%	200	40	2,788	310	42	2,888	2,745	2,816
2008	6.18%	185	35	2,683	413	78	2,745	2,607	2,678
2008	5.71%	171	29	2,580	518	108	2,607	2,474	2,540
2010	5.29%	158	24	2,477	618	130	2,474	2,347	2,410
2011	4.89%	147	20	2,374	722	150	2,347	2,224	2,285
2012	4.52%	138	15	2,270	828	185	2,224	2,105	2,164
2013	4.6%	134	15	2,187	929	180	2,105	1,987	2,048
2014	4.6%	134	15	2,094	1,032	195	1,987	1,869	1,928
2015	4.6%	134	15	1,991	1,135	210	1,869	1,751	1,810
2016	4.6%	134	15	1,888	1,238	224	1,751	1,633	1,692
2017	4.6%	134	15	1,784	1,342	238	1,633	1,515	1,574
2018	4.6%	134	15	1,681	1,445	254	1,515	1,397	1,456
2019	4.6%	134	15	1,548	1,548	269	1,397	1,279	1,338
2020	4.6%	134	15	1,445	1,651	284	1,279	1,161	1,220
2021	4.6%	134	15	1,342	1,754	298	1,161	1,043	1,102
2022	4.6%	134	15	1,238	1,858	313	1,043	925	984
2023	4.6%	134	15	1,135	1,961	328	925	807	866
2024	4.6%	134	15	1,032	2,064	343	807	689	748
2025	2.2%	87	(11)	829	2,167	352	689	571	630
2026	0.0%	0	(37)	828	2,270	295	571	454	513
2027	0.0%	0	(37)	722	2,374	258	454	336	395
2028	0.0%	0	(37)	619	2,477	221	336	218	277
2029	0.0%	0	(37)	516	2,580	184	218	100	159
2030	0.0%	0	(37)	413	2,683	147	100	(18)	29
2031	0.0%	0	(37)	310	2,786	111	(18)	(133)	166
2032	0.0%	0	(37)	208	2,890	74	(133)	(266)	232
2033	0.0%	0	(37)	103	2,993	37	(266)	(398)	364
2034	0.0%	0	(37)	(5)	3,096	0	(398)	(530)	504

* Column 8B identified as workbooks

54

(1) YEAR	(2) NO YEARS BEFORE IN-SERVICE	(3) PLANT ESCALATION RATE	(4) CUMULATIVE ESCALATION FACTOR	(5) YEARLY EXPENDITURE (%)	(6) ANNUAL SPENDING (\$MM)	(7) CUMULATIVE AVERAGE SPENDING (\$MM)
1998	.7	0.00%	1.000	0.00%	0.00	0.00
1999	.6	1.75%	1.018	0.00%	0.00	0.00
2000	.5	1.57%	1.033	0.37%	1.72	0.86
2001	.4	2.64%	1.081	0.60%	3.58	3.51
2002	.3	2.62%	1.068	13.65%	78.24	44.42
2003	.2	2.20%	1.113	35.34%	204.20	185.83
2004	.1	2.27%	1.138	48.84%	284.50	434.98

100.00% 562.24

(8) NO YEARS BEFORE IN-SERVICE	(9) CUMULATIVE SPENDING WITH AFJLOC (\$MM)	(10) DEBT AFJLOC (\$MM)	(11) CUMULATIVE DEBT AFJLOC (\$MM)	(12) YEARLY TOTAL AFJLOC (\$MM)	(13) CUMULATIVE TOTAL AFJLOC (\$MM)	(14) CONSTRUCTION PERIOD INTEREST (\$MM)	(15) CUMULATIVE CONSTRUCTION INTEREST (\$MM)	(16) DEFERRED TAXES (\$MM)	(17) CUMULATIVE DEFERRED TAXES (\$MM)	(18) INCREMENTAL YEAR-END BOOK VALUE (\$MM)	(19) CUMULATIVE YEAR-END BOOK VALUE (\$MM)
1998	.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	.5	0.88	0.03	0.09	0.08	0.07	0.07	(0.01)	(0.01)	1.80	1.80
2001	.4	3.98	0.12	0.15	0.37	0.46	0.27	(0.08)	(0.07)	3.86	5.75
2002	.3	44.88	1.54	1.89	4.83	3.42	3.74	(0.72)	(0.79)	82.87	88.62
2003	.2	180.72	6.55	8.24	19.72	14.38	18.13	(3.03)	(3.82)	223.91	312.54
2004	.1	459.79	15.86	24.08	47.73	34.44	52.57	(7.17)	(10.98)	342.23	654.77

24.08

72.53

52.57

(10.98)

654.77

	BOOK BASIS	FOR DEPTAL	TAX BASIS
CONSTRUCTION CAUGH	2.753	2.753	2.753
EQUITY AFJLOC	279		
DEBT AFJLOC	114	114	
CPN			2.753
TOTAL	3,156	2,867	2,753

IN-SERVICE YEAR: 2000
PLANT COSTS: 519
AFJLOC RATE: 10.30%

* Column not specified in worksheet

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INPUT DATA - PART 2
PROGRAM METHOD SELECTED REV. REQ
PROGRAM NAME ZM4_98

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
YEAR	CUMULATIVE TOTAL PARTICIPATING CUSTOMERS	ADJUSTED PARTICIPATING CUSTOMERS	UTILITY AVERAGE SYSTEM FUEL COST (\$/KWH)	AVOIDED MARGINAL FUEL COST (\$/KWH)	INCREASED MARGINAL FUEL COST (\$/KWH)	REPLACEMENT PROGRAM FUEL COST (\$/KWH)	PROGRAM KW FACTOR	PROGRAM KW EFFECTIVENESS FACTOR
1998	0	0	2.00	2.36	2.05	0.00	1.00	1.00
1999	0	0	2.23	2.87	2.33	0.00	1.00	1.00
2000	0	0	2.45	2.87	2.57	0.00	1.00	1.00
2001	1,000	1,000	2.73	3.46	2.88	0.00	1.00	1.00
2002	2,000	2,000	2.81	3.18	2.77	0.00	1.00	1.00
2003	3,000	3,000	2.80	3.29	2.74	0.00	1.00	1.00
2004	4,000	4,000	2.78	3.55	2.84	0.00	1.00	1.00
2005	4,000	4,000	2.83	3.84	3.11	3.25	1.00	1.00
2006	4,000	4,000	3.01	3.95	3.20	3.34	1.00	1.00
2007	4,000	4,000	3.13	4.27	3.35	3.48	1.00	1.00
2008	4,000	4,000	3.07	4.12	3.27	3.45	1.00	1.00
2009	4,000	4,000	3.15	4.26	3.38	3.60	1.00	1.00
2010	4,000	4,000	3.14	4.40	3.35	3.57	1.00	1.00
2011	4,000	4,000	3.32	4.55	3.55	3.71	1.00	1.00
2012	4,000	4,000	3.38	4.69	3.62	3.77	1.00	1.00
2013	4,000	4,000	3.47	4.84	3.72	3.84	1.00	1.00
2014	4,000	4,000	3.55	4.98	3.79	3.92	1.00	1.00
2015	4,000	4,000	3.58	5.07	3.83	3.95	1.00	1.00
2016	4,000	4,000	3.62	5.18	3.88	4.00	1.00	1.00
2017	4,000	4,000	3.75	5.38	4.00	4.13	1.00	1.00
2018	4,000	4,000	3.83	5.67	4.21	4.35	1.00	1.00
2019	4,000	4,000	4.09	5.99	4.38	4.55	1.00	1.00
2020	4,000	4,000	4.23	6.21	4.55	4.79	1.00	1.00
2021	4,000	4,000	4.32	6.38	4.64	4.88	1.00	1.00
2022	4,000	4,000	4.41	6.57	4.75	4.97	1.00	1.00
2023	4,000	4,000	4.53	6.77	4.88	5.10	1.00	1.00
2024	4,000	4,000	4.64	6.99	5.00	5.23	1.00	1.00

* THIS COLUMN IS USED ONLY FOR LOAD SHIFTING PROGRAMS WHICH SHIFT CONSUMPTION TO OFF PEAK PERIODS
THE VALUES REPRESENT THE OFF PEAK SYSTEM FUEL COSTS

Page 7
AVOIDED GENERATING BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z34_04

YEAR	(1) AVOIDED CAPACITY COS GEN UNIT \$1000	(2) AVOIDED FIXED O&M GEN UNIT \$1000	(3) AVOIDED VARIABLE O&M GEN UNIT \$1000	(4) AVOIDED GEN UNIT \$1000	(5) AVOIDED FUEL COST GEN UNIT \$1000	(6) REPLACEMENT FUEL COST \$1000	(7) AVOIDED GEN UNIT BENEFITS \$1000
1999	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0
2005	823	218	30	30	818	1,224	443
2006	564	225	32	32	855	1,285	402
2007	563	234	34	34	881	1,372	340
2008	542	243	34	34	891	1,354	356
2009	523	253	35	35	882	1,368	307
2010	504	263	35	35	869	1,333	337
2011	485	274	36	36	881	1,387	269
2012	468	285	37	37	907	1,409	287
2013	450	296	37	37	935	1,421	298
2014	433	308	38	38	942	1,438	305
2015	418	320	39	39	979	1,445	310
2016	399	333	40	40	988	1,449	318
2017	381	347	41	41	1,029	1,503	292
2018	364	360	42	42	1,057	1,568	238
2019	347	373	44	44	1,084	1,678	182
2020	330	380	45	45	1,127	1,787	128
2021	312	405	47	47	1,152	1,800	117
2022	295	422	48	48	1,179	1,834	110
2023	278	439	49	49	1,331	1,879	218
2024	261	456	51	51	1,331	1,927	171

NCM	8,138	8,448	794	20,182	30,684	5,443
MPs	2,588	1,577	207	5,195	7,648	1,684

AVOIDED T&D AND PROGRAM FUEL SAVINGS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z384_06

(1) YEAR	(2) AVOIDED TRANSMISSION CAP COST \$1000	(3) AVOIDED O&M COST \$1000	(4) TOTAL AVOIDED COST \$1000	(5) AVOIDED CAP COST \$1000	(6) AVOIDED O&M COST \$1000	(7) TOTAL AVOIDED COST \$1000	(8) PROGRAM FUEL SAVINGS \$1000	(9a) PROGRAM OFF PEAK PAYBACK \$1000
1999	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0
2002	16	4	20	10	16	27	37	100
2003	31	6	36	20	34	55	174	0
2004	47	12	59	30	64	84	283	0
2005	62	17	79	40	74	114	329	0
2006	80	18	98	39	77	116	338	0
2007	57	18	75	37	80	117	368	0
2008	55	19	74	36	83	119	354	0
2009	53	20	73	34	86	121	368	0
2010	51	21	72	33	80	123	362	0
2011	49	22	71	32	83	125	362	0
2012	47	22	70	31	87	126	405	0
2013	45	23	68	29	101	130	419	0
2014	43	24	66	28	109	133	432	0
2015	41	25	67	27	114	136	441	0
2016	39	26	65	26	114	136	450	0
2017	38	27	65	24	118	143	469	0
2018	36	28	64	23	123	146	469	0
2019	34	30	63	22	126	150	524	0
2020	32	31	62	21	133	154	544	0
2021	30	32	62	19	138	156	560	0
2022	28	33	61	18	144	162	577	0
2023	26	35	61	17	150	167	565	0
2024	25	36	61	16	156	172	615	0

NOM	448	531	1,217	615	2,304	2,818	9,624	0
MPV	321	139	461	200	804	813	2,823	0

* THESE VALUES REPRESENT THE COST OF THE INCREASED FUEL CONSUMPTION DUE TO GREATER OFF PEAK ENERGY USAGE. USED FOR LOAD SHIFTING PROGRAMS ONLY.

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TOTAL RESOURCE COST TEST
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME Z3M_98

(1) YEAR	(2) INCREASED SUPPLY COSTS \$1000	(3) UTILITY PROGRAM COSTS \$1000	(4) PARTICIPANT PROGRAM COSTS \$1000	(5) OTHER COSTS \$1000	(6) TOTAL COSTS \$1000	(7) AVOIDED GEN-LMT BENEFITS \$1000	(8) AVOIDED T&D BENEFITS \$1000	(9) PROGRAM FUEL SAVINGS \$1000	(10) OTHER BENEFITS \$1000	(11) TOTAL BENEFITS \$1000	(12) NET BENEFITS \$1000	(13) CUMULATIVE DISCOUNTED NET BENEFITS \$1000
1998	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	90	0	0	5,527	0	0	37	0	37	(5,490)	(4,242)
2002	0	92	6,820	0	6,713	0	46	100	0	146	(5,344)	(8,586)
2003	0	95	7,669	0	7,964	0	94	174	0	268	(7,696)	(13,282)
2004	0	97	8,172	0	8,269	0	143	253	0	406	(8,883)	(19,165)
2005	0	0	4,511	0	4,511	443	193	326	0	964	(3,547)	(21,141)
2006	0	0	4,833	0	4,833	402	183	336	0	922	(3,701)	(23,022)
2007	0	0	4,758	0	4,758	340	183	368	0	901	(3,857)	(24,781)
2008	0	0	4,891	0	4,891	358	183	354	0	905	(3,952)	(26,469)
2009	0	0	5,028	0	5,028	307	194	366	0	857	(4,156)	(28,085)
2010	0	0	5,189	0	5,189	337	195	362	0	914	(4,251)	(29,602)
2011	0	0	5,313	0	5,313	298	196	362	0	878	(4,358)	(31,023)
2012	0	0	5,487	0	5,487	287	197	405	0	890	(4,577)	(32,427)
2013	0	0	5,628	0	5,628	298	198	419	0	916	(4,710)	(33,724)
2014	0	0	5,789	0	5,789	305	201	432	0	938	(4,851)	(34,950)
2015	0	0	5,957	0	5,957	310	203	441	0	953	(5,004)	(36,111)
2016	0	136	13,587	0	13,702	318	205	450	0	973	(5,172)	(37,226)
2017	0	138	14,365	0	14,500	292	207	469	0	968	(5,332)	(38,220)
2018	0	143	14,365	0	14,509	236	210	495	0	941	(5,567)	(39,117)
2019	0	148	14,782	0	14,930	182	213	524	0	895	(5,812)	(40,012)
2020	0	0	6,872	0	6,872	125	218	544	0	865	(6,057)	(40,907)
2021	0	0	7,072	0	7,072	117	219	580	0	868	(6,315)	(41,802)
2022	0	0	7,277	0	7,277	110	223	577	0	810	(6,562)	(42,700)
2023	0	0	7,468	0	7,468	218	228	585	0	1,040	(6,807)	(43,605)
2024	0	0	7,705	0	7,705	171	232	615	0	1,018	(7,052)	(44,517)
NOM	0	640	179,327	0	180,287	5,445	4,295	6,624	0	19,464	(180,802)	(180,802)
NPV	0	380	55,387	0	55,747	1,964	1,274	2,623	0	5,581	(50,156)	(50,156)

Discount Rate
Benefit/Cost Ratio (Col(11) / Col(6))

0.08
0.15

PARTICIPANT COSTS AND BENEFITS
PROGRAM METHOD SELECTED REV_REQ
PROGRAM NAME ZM4_R6

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
YR	SAVINGS IN PARTICIPANTS BILLS	TAX CREDITS	UTILITY REBATES	OTHER BENEFITS	TOTAL BENEFITS	CUSTOMER EQUIPMENT COSTS	CUSTOMER OAM COSTS	OTHER COSTS	TOTAL COSTS	NET BENEFITS	CUMULATIVE DISCOUNTED NET BENEFITS
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
1998	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0
2001	82	0	14,429	0	14,511	4,829	508	0	5,437	9,084	7,020
2002	274	0	14,429	0	14,703	5,057	1,563	0	6,620	8,083	12,751
2003	462	0	14,429	0	14,891	5,194	2,878	0	7,869	7,022	17,319
2004	848	0	14,429	0	15,077	5,329	3,843	0	9,172	5,905	20,845
2005	148	0	0	0	748	0	4,511	0	4,511	(3,764)	16,783
2006	744	0	0	0	744	0	4,833	0	4,833	(3,869)	16,827
2007	747	0	0	0	747	0	4,758	0	4,758	(4,010)	14,977
2008	751	0	0	0	751	0	4,891	0	4,891	(4,140)	13,225
2009	750	0	0	0	750	0	5,028	0	5,028	(4,278)	11,563
2010	764	0	0	0	764	0	5,169	0	5,169	(4,404)	9,893
2011	781	0	0	0	781	0	5,313	0	5,313	(4,552)	8,503
2012	788	0	0	0	788	0	5,467	0	5,467	(4,700)	7,063
2013	772	0	0	0	772	0	5,628	0	5,628	(4,854)	5,758
2014	781	0	0	0	781	0	5,789	0	5,789	(5,009)	4,480
2015	785	0	0	0	785	0	5,957	0	5,957	(5,172)	3,290
2016	790	0	0	0	790	0	6,130	0	6,130	(5,342)	2,162
2017	791	0	14,429	0	15,220	7,437	6,307	0	13,900	1,290	3,668
2018	795	0	14,429	0	15,225	7,875	6,490	0	14,365	880	4,043
2019	801	0	14,429	0	15,230	8,103	6,679	0	14,782	448	4,118
2020	808	0	0	0	808	0	6,872	0	6,872	(6,066)	3,200
2021	811	0	0	0	811	0	7,072	0	7,072	(6,263)	2,333
2022	818	0	0	0	818	0	7,277	0	7,277	(6,463)	1,512
2023	822	0	0	0	822	0	7,488	0	7,488	(6,666)	735
2024	828	0	0	0	828	0	7,705	0	7,705	(6,877)	(1)

MCAM	17,108	0	118,432	0	132,538	51,977	127,750	0	179,327	(48,788)	(1)
MPV	5,153	0	50,732	0	55,245	19,778	35,608	0	55,387	(8,142)	(1)

In Service of Our Unit
Discount Rate
Benefit/Cost Ratio (Cost/B) / Cost(%)

2005
8.88
1.00

RATE IMPACT TEST
PROGRAM METHOD SELECTED REV_REG
PROGRAM NAME Z3M_08

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
YEAR	INCREASED SUPPLY COSTS \$1000	UTILITY PROGRAM COSTS \$1000	INCENTIVES \$1000	REVENUE LOSSES \$1000	OTHER COSTS \$1000	TOTAL COSTS \$1000	AVOIDED GEN UNIT & FUEL BENEFITS \$1000	AVOIDED TLD BENEFITS \$1000	REVENUE GAINS \$1000	OTHER BENEFITS \$1000	TOTAL BENEFITS \$1000	NET BENEFITS \$1000	CUMULATIVE NET BENEFITS \$1000
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	80	14,429	80	0	14,589	37	0	0	0	37	(14,562)	(11,262)
2002	0	82	14,429	236	0	14,757	130	46	0	0	186	(14,611)	(21,612)
2003	0	86	14,429	387	0	14,921	174	94	0	0	268	(14,653)	(31,148)
2004	0	87	14,429	558	0	15,062	263	143	0	0	406	(14,676)	(39,908)
2005	0	0	0	638	0	638	771	183	0	0	954	325	(39,730)
2006	0	0	0	835	0	835	739	183	0	0	922	287	(39,581)
2007	0	0	0	838	0	838	708	193	0	0	907	263	(39,460)
2008	0	0	0	841	0	841	712	193	0	0	905	264	(39,348)
2009	0	0	0	840	0	840	673	194	0	0	867	229	(39,290)
2010	0	0	0	847	0	847	718	195	0	0	914	268	(39,180)
2011	0	0	0	843	0	843	662	196	0	0	878	235	(39,088)
2012	0	0	0	848	0	848	683	197	0	0	880	242	(39,015)
2013	0	0	0	850	0	850	717	199	0	0	916	266	(38,942)
2014	0	0	0	857	0	857	737	201	0	0	938	281	(38,871)
2015	0	0	0	860	0	860	750	203	0	0	953	293	(38,803)
2016	0	136	14,429	862	0	15,226	788	205	0	0	973	(14,253)	(41,837)
2017	0	139	14,429	963	0	15,231	780	207	0	0	968	(14,264)	(44,823)
2018	0	143	14,429	898	0	15,238	731	210	0	0	941	(14,287)	(47,185)
2019	0	148	14,429	870	0	15,248	708	213	0	0	919	(14,327)	(49,541)
2020	0	0	0	873	0	873	689	216	0	0	885	212	(49,509)
2021	0	0	0	878	0	878	678	219	0	0	898	220	(49,479)
2022	0	0	0	880	0	880	668	223	0	0	910	230	(49,450)
2023	0	0	0	884	0	884	664	228	0	0	1,040	357	(49,408)
2024	0	0	0	887	0	887	788	232	0	0	1,018	331	(49,375)

1998	0	840	115,832	14,428	0	130,798	15,088	4,395	0	0	19,484	(111,334)
1999	0	380	50,272	4,371	0	54,883	4,317	1,274	0	0	5,591	(48,373)

Discount Rate
Benefit/Cost Ratio Cost(12) / Cost(7)